Measuring abortion stigma in Australia and Aotearoa New Zealand: the development, adaptation, and validation of multiple individual-level instruments

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Faculty of Science

The University of Sydney

Australia

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STATEMENT OF AUTHENTICATION

This is to certify that, to the best of my knowledge, the content of this thesis is my own work. This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged in the text.

Signature:

Date: 28/02/2023

ACKNOWLEDGEMENTS

This project has been primarily conducted on the unseeded land of the Gadigal, Bidjigal, and Koori people of the Eora and Booderee Nations. I acknowledge the Traditional Owners of these lands, and the lands on which participants of this research and readers of this thesis are, and pay my respect to Elders past and present.

I recognise Sexual and Reproductive Health as a historic a tool of injustice: used to employ institutional and systemic racism, ableism, and sexism. These systemic forms of oppression continue today. I respectfully acknowledge these wrongs of the past and commit my work to actively overturning reproductive injustices and actioning autonomy and justice with evidence-based approaches and tools.

With the support of community, completing this body of work has been possible.

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“It’s all well and good to change hearts and minds with our conversations, but without structural change we will continue to be at the mercy of systems that override them.”

Grace Tame, 9th February 2022, National Press Club of Australia

ABSTRACT

Despite the well-established evidence of the right, need, and benefits of quality abortion care, there are multiple barriers to secure, quality abortion care. The stigmatisation of abortion is a pervasive influence on the prohibiting, threatening, and undermining of quality abortion care. In Australia and Aotearoa New Zealand (ANZ) abortion stigma impacts abortion care quality, including the experiences of accessing, providing, and supporting abortion. Although there are qualitative reports of how abortion stigma is experienced in ANZ, quantitative details are scant. This thesis aimed to improve understanding of abortion stigma in ANZ to assist in addressing abortion stigma to secure quality abortion care in ANZ.

To understand how to best measure abortion stigma in ANZ, we conducted a systematic review of all approaches quantifying abortion stigma globally. No instrument measuring abortion stigma in ANZ was found. The Individual Level Abortion Stigma scale (ILAS) and Abortion Providers Stigma Scale – Revised (APSS-R) were found to have the most robust psychometric properties according to rigorous guidelines for designing studies evaluating measurement properties of Patient Reported Outcome Measures (PROMs): COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN). The ILAS and APSS-R measure individual level abortion stigma. Through qualitative inquiry, the ILAS and APSS-R were reviewed for use in ANZ as well as their appropriateness for measuring stigmatisation of people (e.g., advocates), groups, and organisations supporting abortion care in ANZ. Four instruments measuring individual-level abortion stigma in ANZ were generated for: A) people who have had an abortion; B) people who provide abortion related care; C) people who publicly support abortion; and, D) groups/organisations supporting and/or providing abortion care. The four ANZ instruments were revised by representatives of the relevant end-user groups. Through an online survey, the instruments have been psychometrically tested for Australia demonstrating validity and reliability.

This body of work provides multiple validated tools for measuring individual-level abortion stigma in Australia. These instruments can improve our understanding of abortion stigma in

Australia and the evaluation of interventions addressing abortion stigma, independently and as a part of quality of care. Future co-designed research should explore the role of research in stigmatising abortion, revise the instruments for specific subgroups, and explore short form versions of the instruments by assessing abortion stigma routinely and through socio-cultural, power informed, intersectional research processes. Research addressing abortion stigma is well placed to support improved security and quality of abortion care as a routine, accessible part of comprehensive healthcare in Australia.

A summary of the thesis is outlined below:

- An introduction of abortion and stigma in the context of Australia and Aotearoa New Zealand (ANZ).

- A systematic review of how abortion stigma is measured internationally and psychometric properties of tools identified.

- A qualitative study with 32 stakeholders exploring the suitability, relevance, comprehensiveness, and comprehensibility of using US designed instruments for measuring individual-level abortion stigma in ANZ.

- Cognitive interviews with 39 instrument end-users exploring usability, relevance, comprehensiveness, and comprehensibility of four instruments designed to measure individual-level abortion stigma in ANZ.

- Psychometric validation of instruments measuring experiences of abortion stigma among people in Australia who have had an abortion, provided abortion-related care, or publicly supported abortion.

- Overview of project's outcomes aligned with project's aims and review of resulting tools according to COSMIN.

- Discussion of my overarching findings, implications, strengths, and limitations.

- Recommendations for future abortion, stigma, and abortion stigma research in ANZ and internationally.

AUTHOR CONTRIBUTIONS

Sarah Ratcliffe was the principal investigator of the work in this thesis. This thesis was supervised by Associate Professor Haryana Dhillon (BSci, MA [Psyc], PhD), Dr Rebecca Pinkus (PhD), Associate Professor Ilan Dar-Nimrod (PhD), and Professor Ilona Juraskova (BA [Psyc] Hons., MPsyc [Clinical Psyc]). Some chapters have been supported by Ms Clare Smylie (BA [Psyc, Anthropology] Hons.), Associate Professor Carolyn MacCann (BA [Psyc, English] Hons., PhD), and Dr Rachel Campbell (PhD).

Chapter One: Introduction

> All content of this chapter is my original work. I reviewed the literature and wrote the chapter. HD reviewed the chapter for clarity and consistency.

Chapter Two: What is the optimum measure for abortion stigma? A systematic review

> All content of this manuscript is my original work. I devised and registered the protocol and with volunteer research assistants retrieved papers, screened results, and extracted data. I performed data synthesis and wrote the manuscript with CS. HD reviewed and edited the manuscript. All authors contributed to manuscript revisions and approved it for publication.

Chapter Three: Instrument suitability testing and *a*daption

> All content of this manuscript is my original work. I designed the study, recruited participants, co-collected and analysed data, applied the findings to instruments, and wrote the manuscript. HD co-collected the data and reviewed the outputs. All authors reviewed the modified instruments and manuscript for publication.

Chapter Four: Cognitive Walkthroughs

> All content of this manuscript is my original work. I designed the study, recruited participants, collected, and analysed data, applied the findings, and wrote the

manuscript. All authors reviewed instrument modifications and revised the manuscript for publication.

Chapter Five and Six: Validation consumers, providers, and advocates

All content of these manuscripts is my original work. I designed the study, managed recruitment, cleaned the data, completed analysis, and wrote the manuscript. RP, CM, and RC supported the development of the analysis protocol. RC guided data analysis and completed confirmatory factor analysis. All authors reviewed and edited the manuscripts.

Chapter Seven: Discussion

All content of this chapter is my original work. HD refined ideas to be included and reviewed the chapter for clarity and consistency.

In addition to the statements above, in cases where I am not the corresponding author of a published item, permission to include the published material has been granted by the corresponding author.

Sarah Ratcliffe, _____(28/02/2023)

As supervisor for the candidature upon which this thesis is based, I can confirm that the authorship attribution statements above are correct.

A/Prof Haryana Dhillon,_____ (28/02/2023)

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PUBLICATIONS ARISING FROM THE THESIS

Manuscripts published

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- Ratcliffe, SE., Campbell, R. Pinkus, RT., Dar-Nimrod, I., Juraskova, I., and Dhillon, HM. under review. Psychometric properties of an instrument measuring abortion stigma experienced in Australia by people who have had an abortion. Perspectives on Sexual and Reproductive Health. [*262*]

Related research not included in thesis

Peer-reviewed publications

- Stutterheim, S., & **Ratcliffe, S.E**. (2021) Understanding and addressing stigma through qualitative research: Four reasons why we need qualitative studies. *Stigma and Health, 6*(1), 8-19. https://doi.org/10.1037/sah0000283.

- Shankie-Williams, K.N., **Ratcliffe, S.E.**, Dowland, S.N., & Black, K. (2022). User interest in a new non-hormonal long-acting reversible contraceptive: what impact does mechanism of action have on past and future contraceptive decision-making? *BMJ sexual & reproductive health*, bmjsrh-2022-201664. Advance online publication. https://doi.org/10.1136/bmjsrh-2022-201664.

PRESENTATIONS AT SCIENTIFIC AND COMMUNITY MEETINGS

Invited keynotes

- **Ratcliffe, S.E.** Abortion stigma, reproductive justice, and research. Invited speaker to Abortion Law Reform Association of New Zealand (ALRANZ) speaker series. TBC, 2023, Zoom.

- **Ratcliffe, S.E.** The role of abortion stigma in Australia and pathways forward. Invited lecturer to University of Wollongong Women's Health Interest Group. TBC, 2023. Wollongong University, Australia.

- **Ratcliffe, S.E.** Abortion stigma in Aotearoa New Zealand. Invited speaker, workshop facilitator, and panel member at Abortion Providers Group Aotearoa/New Zealand (APGANZ) annual meeting. 19th August, 2022, Christchurch.

- **Ratcliffe, S.E.** Using social media for research recruitment. Invited speaker at Prof. Janette Vardy's lab group meeting. 27th May, 2022, Zoom.

Conference presentations

- **Ratcliffe, S.E.,** Dhillon, H.M., & colleagues. Abortion Stigma in Australia: validation and association of tools measuring stigmatisation of people who have had, provided, or advocated for abortion in Australia. Individual presentation at the Society of Australasian Social Psychology 2022 Conference. 24-26th November 2022, Adelaide.

- **Ratcliffe, S.E.,** and Vallury, K.* Co-presented. An evidence-based agenda for addressing abortion stigma in Australia. Spark Talk at Reproductive Rights and Abortion Conference, Children by Choice. 4-5th August 2022, Brisbane, QLD, Australia.

- **Ratcliffe, S.E.,** Dhillon, H.M., & colleagues. Measuring abortion stigma in Australia. Presentation at Reproductive Rights and Abortion Conference, Children by Choice. 4-5th August 2022, Brisbane, QLD, Australia.

- **Ratcliffe, S.E.**, Dhillon, H.M., & colleagues. Measuring individual level abortion stigma in Australia and New Zealand: the adaptation and development of four instruments. Presentation at Sydney Psychology Postgraduate Conference. 3rd December 2021, Virtual.

- **Ratcliffe, S.E**., Smylie, S., Pinkus, P.T., Dar-Nimrod, I., Juraskova, I., and Dhillon, H.M. What is the optimal tool for measuring abortion stigma? A systematic review. On-demand Poster Presentation at 2021 Joint Australasian Sexual Health and HIV&AIDS Conferences: VIRTUAL, 6th – 9th September 2021, Virtual.

- **Ratcliffe, S.E.**, Pinkus, R., Juraskova, I., Dar-Nimrod, I., Dhillon, H.M., & colleagues. Measuring Abortion Stigma: A systematic review. Conference Presentation at Society of Australasia Social Psychology, postponed to 2021 due to COVID-19.

- **Ratcliffe, S.E.**, Sagmeister, V., Pinkus, R., Juraskova, I., Dar-Nimrod, I., & Dhillon, H.M. Abortion Stigma: which is the optimal measure to use in research? Conference Presentation in Themed Session at International Conference of Health, Wellness & Society, 19-20th September 2019, San Francisco, USA.

Awards

- Margaret Foddy Postgraduate Travel Award from the Society of Australasian Social Psychologists (SASP) presented to support travel costs for the 2022 SASP conference, 23rd – 25th November 2022, Adelaide, Australia. https://sasp.org.au/2018/12/margaret-foddy-postgraduate-travel-award/

- University of Sydney Completion Stipend Scholarship awarded to support Higher Degree by Research students to complete their research studies. Awarded October to December 2022. https://www.sydney.edu.au/scholarships/e/hdr-completion-scholarships.html.

- Lucy Firth Sydney University Postgraduate Scholarship from The University of Sydney, April 2020. A postgraduate research scholarship to support full-time PhD student in the School of Psychology for 12 months.

- Margaret Foddy Postgraduate Travel Award from the Society of Australasian Social Psychologists (SASP) presented to support travel costs for the 2020 SASP conference, 16th – 18th April 2020, Auckland, New Zealand. https://sasp.org.au/2018/12/margaret-foddy-postgraduate-travel-award/ [Conference cancelled due to COVID-19 – funding not received].

- Emerging Scholar Award from Common Ground Research Networks presented for the Ninth International Conference of Health, Wellness & Society, 19th - 20th

September 2019, San Francisco, USA. https://healthandsociety.com/2019-conference/emerging-scholar-awards

- AusPATH Interstate Travel Scholarship from Australian Professional Association for Trans Health presented for the AusPATH Biannual Conference, 24th - 26th October 2019, Fremantle, Australia.

Other publications

Invited blog

- Ratcliffe, S.E. (2023, in press) For menstrual health, dismantling abortion stigma is essential. The Leak. https://chalicefoundation.org/the-leak/

- Ratcliffe, S.E. (2022, July 7) The U.S. is fighting for reproductive rights – what does that mean for Australia? Invited blog. Victorian Women's Trust. https://www.vwt.org.au/the-u-s-is-fighting-for-reproductive-rights-what-does-that-mean-for-australia/

ABBREVIATIONS AND DEFINITIONS

Abortion	The induced termination of pregnancy.
ANZ	Australia and New Zealand
ATSI	Aboriginal and Torres Strait Islander
CALD	Culturally and Linguistically Diverse
CESCR	Committee on Economic, Social and Cultural Rights
CEDAW	Committee on the Elimination of Discrimination against Women
FG	Focus group
HCP	Health care professional/provider
Medical abortion	Induced termination of pregnancy within healthcare systems.
Medication abortion	Induced termination of pregnancy using medication
AoNZ	Aotearoa New Zealand
P	Participant
QOC	Quality of care as defined by WHO: effective, efficient, accessible, acceptable/person-centred, equitable, safe.
Self-managed abortion	Induced termination of pregnancy through verified medication outside of a healthcare system
SDGs	Sustainable Development Goals

SRH	Sexual and Reproductive Health
SRHR	Sexual and Reproductive Health Rights
Surgical abortion	Induced termination of pregnancy using surgery procedure(s)
RANZCOG	Royal Australian and New Zealand College for Obstetrics and Gynaecology
Unsafe abortion	Induced termination of pregnancy with unregulated approaches
WHO	The World Health Organisation
UN	United Nations

A NOTE ON LANGUAGE

The language used throughout this thesis was chosen to be inclusive, accurate, concise, and understandable. It is guided by recommendations for abortion care from WHO [1], for research on pregnancy [2], sex, and gender [3], and equitable dialogue and policy [4]. Following these guidelines ensured the language does not aid discrimination, but rather supports quality abortion research and care.

Most available abortion and pregnancy-related research does not recognise gender diversity, using “women” to refer to cisgender women. The conflation of sex and gender and the use of exclusionary “(cis) women-centric language in pregnancy-related research contributes to (1) the erasure of gender diversity; (2) inaccurate scientific communication, and (3) negative societal impacts” (p. 823, [2]). To ensure this project’s does not contribute to the continued erasure and under recognition of trans and gender diverse people, we use a gender inclusive lens to our work and language (see [3]). However, the length of gender inclusive phrasing can interrupt reading flow, thus I often revert to gender neutral language. Benefits of gender inclusive and neutral language include avoiding stigmatisation from cis women-centric language, while maintaining accuracy, understandability, and brevity.

The terminology used in this thesis includes a combination of the terms “people who have had an abortion”, “pregnant people”, “women and pregnant people”, “abortion providers”, “abortion advocates”, and “organisations supporting abortion”, as appropriate to context. For brevity, readability, and prevention of stigmatisation while maintaining accuracy, we use these phrases to recognise a range of people and experiences. The terminology “people who have had an abortion” is used inclusively of people who have considered, sought, or had one or more than one abortion. When relevant to differentiate between number of abortions, “had one” and “had more than one” is used. To reference anyone who has provided abortion-related care, the term “abortion provider” is used. Anyone who has publicly supported abortion, abortion access, or reproductive choice, is referred to as an “abortion advocate”. For groups and organisations which provide abortion-related care

and/or support abortion, access, or choice, the phrase “organisation supporting abortion” is used. For people whose gender does not align with their sex assigned at birth, we use “trans” as an umbrella term. We recognise, as we continue to learn about gender and stigma, the most suitable language to use may change.

CHAPTER 1. INTRODUCTION

1.1. Chapter overview

This chapter begins by describing how abortion is positioned by peak bodies around the world and providing an overview of related research. Drawing attention to abortion stigma as a key barrier to secure, quality abortion care in enabling ecosystems, an overview of international abortion stigma literature is provided. To contextualise this body of work, a brief description of abortion in Australia and Aotearoa New Zealand is provided, followed by summary of ANZ abortion stigma research. The chapter concludes with the rationale and aims of this project.

1.2. Quality abortion care

Abortion is well documented as an essential, safe, beneficial component of comprehensive healthcare. To meeting Human Rights and Sustainable Development Goals, quality abortion care is needed. Quality abortion care includes effective, efficient, accessible, acceptable/person-centred, equitable, and safe abortion [5]: abortion care that is evidence-based, timely, affordable, geographically accessible, skilled, culturally appropriate, individually tailored, equitable, and with minimal risks.

1.2.1. Discrimination free accessible abortion is an essential human right.

Guaranteed access to quality abortion care is a human right (see United Nation's (UN) Committee on Economic, Social and Cultural Rights (CESCR; [6]) and Committee on the Elimination of Discrimination against Women (CEDAW; [7]); [8])[5, 9]. The right to access the highest standard of health, includes the right to quality sexual and reproductive healthcare free from discrimination, stigmatisation, and negative stereotyping [5, 6]. Additionally, access to quality abortion care is fundamental to meeting health, wellbeing, and gender equality Sustainable Development Goals (SDG; see SDG3, SDG5)[5, 9].

1.2.2. Abortion is safe.

The safety of abortion comprises medical safety, quality of care, and the environment in which abortion is considered, accessed, and provided [10].

Historically abortion has been classified as “safe” or “unsafe”. Abortion is well documented to be medically safe and effective in a range of settings when delivered by a variety of people, including through medication or surgery in a healthcare setting and self-managed abortion accompanied by accurate information, quality-assured medication, and access to healthcare [1, 11]. However, holistic safety can only be considered when abortion is without risk of criminalisation and stigmatisation [10, 12, 13]. Indeed, abortion safety is influenced by underlying intertwined social determinants such as stigma, legal context, availability of care and information, and individuals’ social-economic characteristics [12, 14-21], and a risk continuum acknowledging contextual factors better operationalises abortion safety than a binary measure (see figure 1.1; [22]).

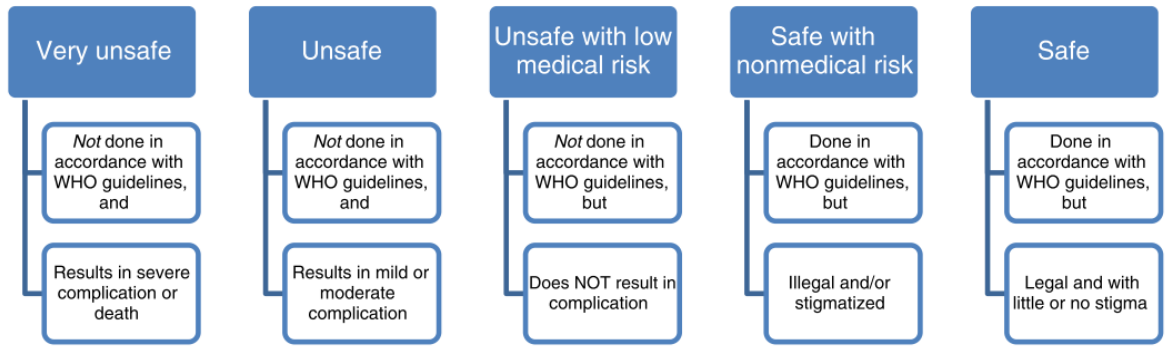


Fig. 1. Illustrative example of conceptual definitions of abortion safety classification and measurement approach.

Figure 1.1. Illustrative example of conceptual definitions of abortion safety

Conceptual definitions of abortion safety classification and measurement approach from Gemzell-Danielsson and Cleeve [22] and Sedgh et al., [12].

For comprehensively safe abortion, there must be quality care in supportive environments. Not only is quality abortion care linked with health outcomes, it is based in human rights [23]. Acknowledging the role of environment in abortion care, the most recent

WHO guidelines on abortion [5] incorporate the role of supportive, enabling environments. That is, quality abortion care is enabled and supported by well-functioning health systems, accessible information, and laws and policies respecting human rights: an enabling environment (see figure 1.2; [5]). An enabling environment centres personal values and preferences and employs frameworks respecting human rights to abortion access, ingraining abortion supportive law, policy, and systems, and securing available and accessible abortion information.

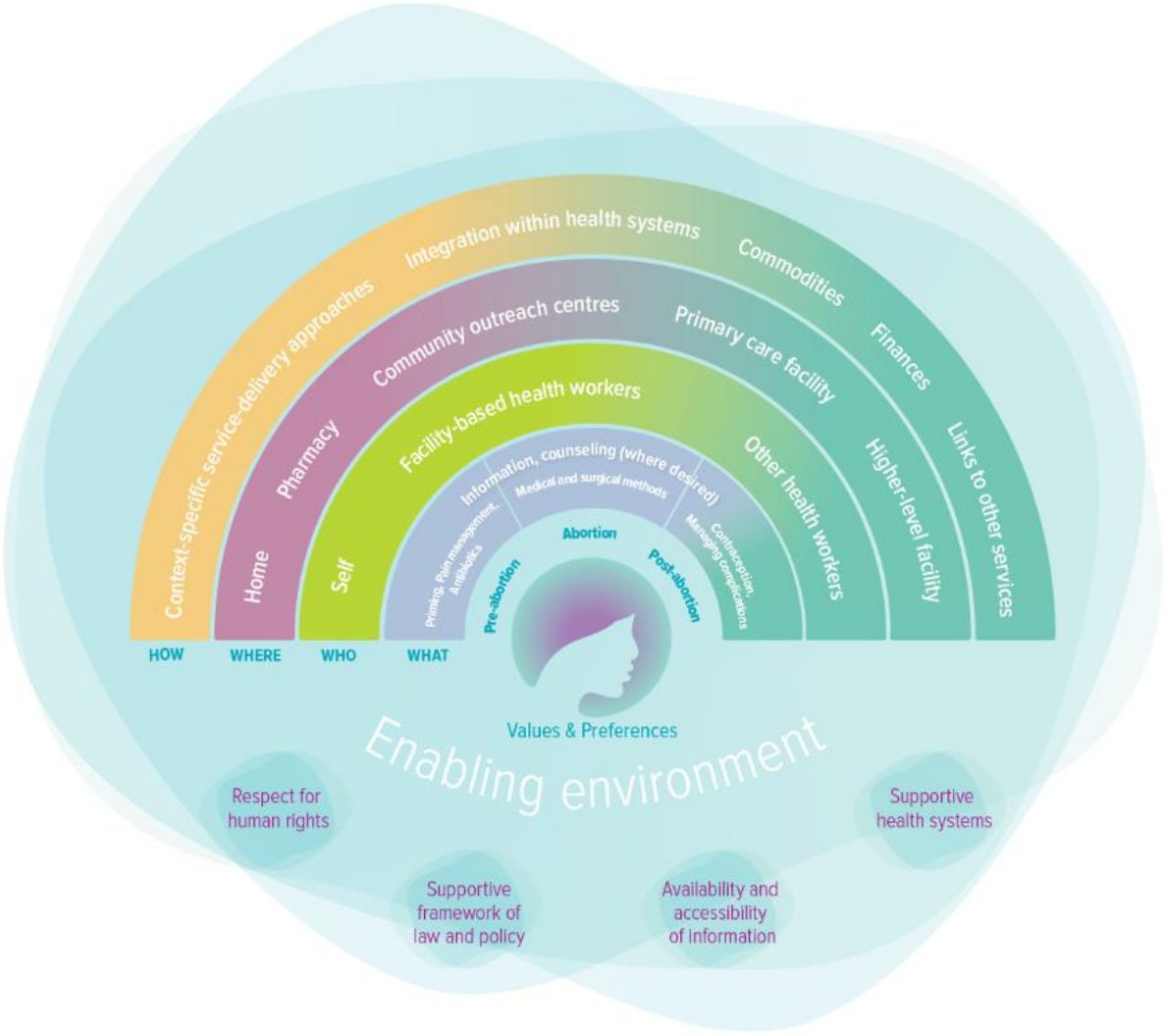


Figure 1.2. Enabling environment for abortion quality of care.

Enabling environment for abortion quality of care, as presented by WHO, 2022 [5].

An enabling environment aids quality abortion care to be part of mainstream, comprehensive healthcare. Securing abortion care in mainstream, comprehensive healthcare, requires abortion care to be sustainable. Sustainable abortion care is secure, person-centred, high-quality abortion care within the reach of anyone who seeks it [24]. Sustainable abortion care means abortion care unthreatened by erosion, resilient and withstanding of changing environments. It aligns with the UNs 2015 SDGs for universal SRH access and is a model to support governments in meeting their SDG commitment. Sustainable abortion care sits within an ecosystem of factors which dynamically support and hold governments to account ensuring access to quality abortion care (see image 1.3; [24, 25]). This includes eight interdependent interacting components (see image 1.4) within a complex system propelled, balanced, and sustained by four drivers to enable a dynamic system adapting and withstanding change [25]. By working towards a sustainable abortion ecosystem, quality abortion care can be assured, meeting SDGs, UN Human Rights, and WHO guidelines.

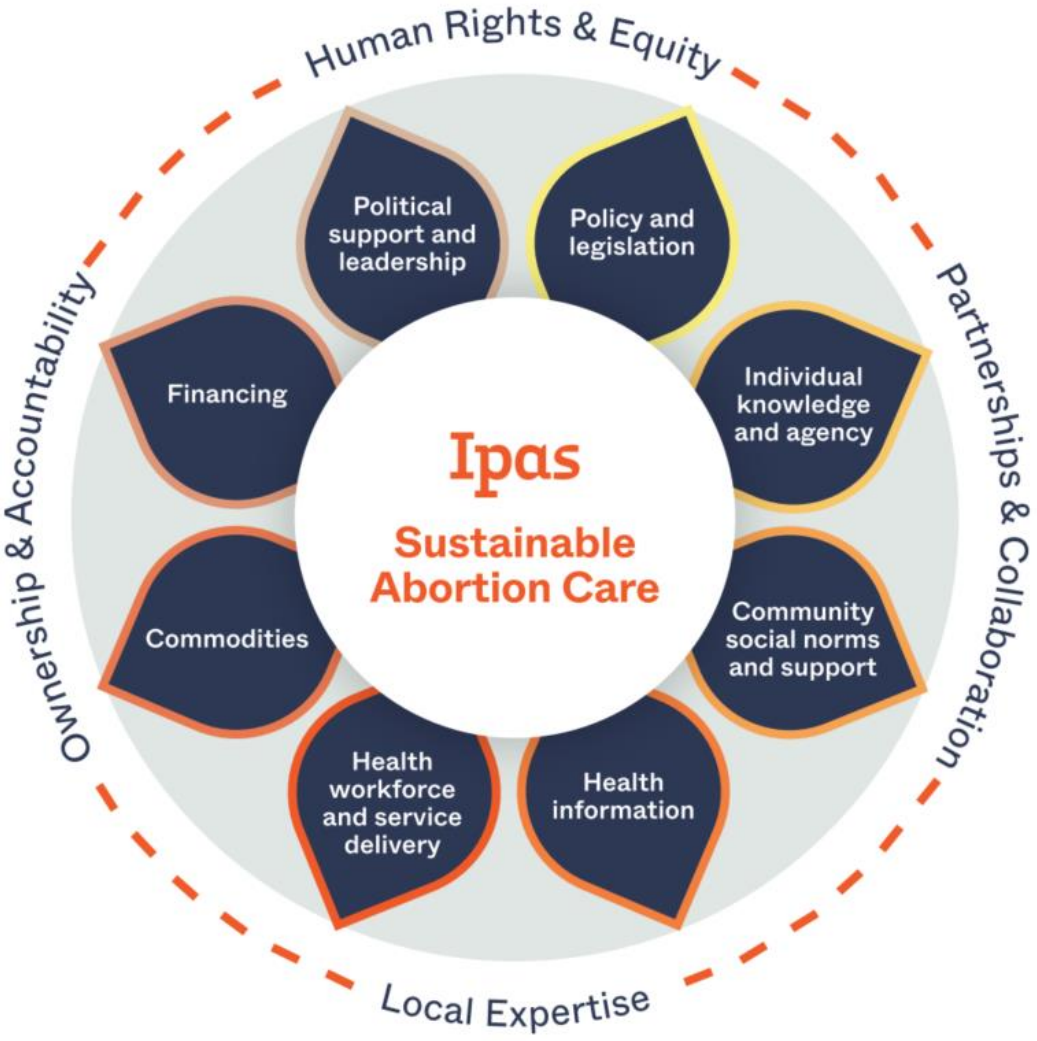


Figure 1.3. Model of Sustainable Abortion Care.

Model of Sustainable Abortion Care as presented by Ipas, Partners in Reproductive Justice [25].

Figure 1.4. Dynamic interaction of components of sustainable abortion care [25]**.**

1.3. Abortion is beneficial

Enabling environments, sustainable ecosystem, and quality abortion care benefit individuals, communities, and societies (see image 1.5; [25]). People who access an abortion have improved psychological outcomes and quality of life, including improved coping, anxiety, and depression [17, 26] with choice in abortion method potentially improving psychological outcomes further [17]. Accessing abortion is shown to be related to aspirational long-term goal setting [27, 28], and laws supporting accessible, legal abortion related to women having higher educational attainment and engagement in the workforce [29-31]. Furthermore, abortion supportive laws and environments are associated with improvements in children's human capital [29]. Less restrictive care policies result in reduced

financial cost of care to abortion seekers protecting them against debt and/or poverty [32] and financial savings for services [33]. Evidence suggests an effective way to help individuals and communities thrive, is with evidence-based interventions for abortion and post-abortion care [5, 34], hence the inclusion of accessible abortion in UN's SDG for gender equity.

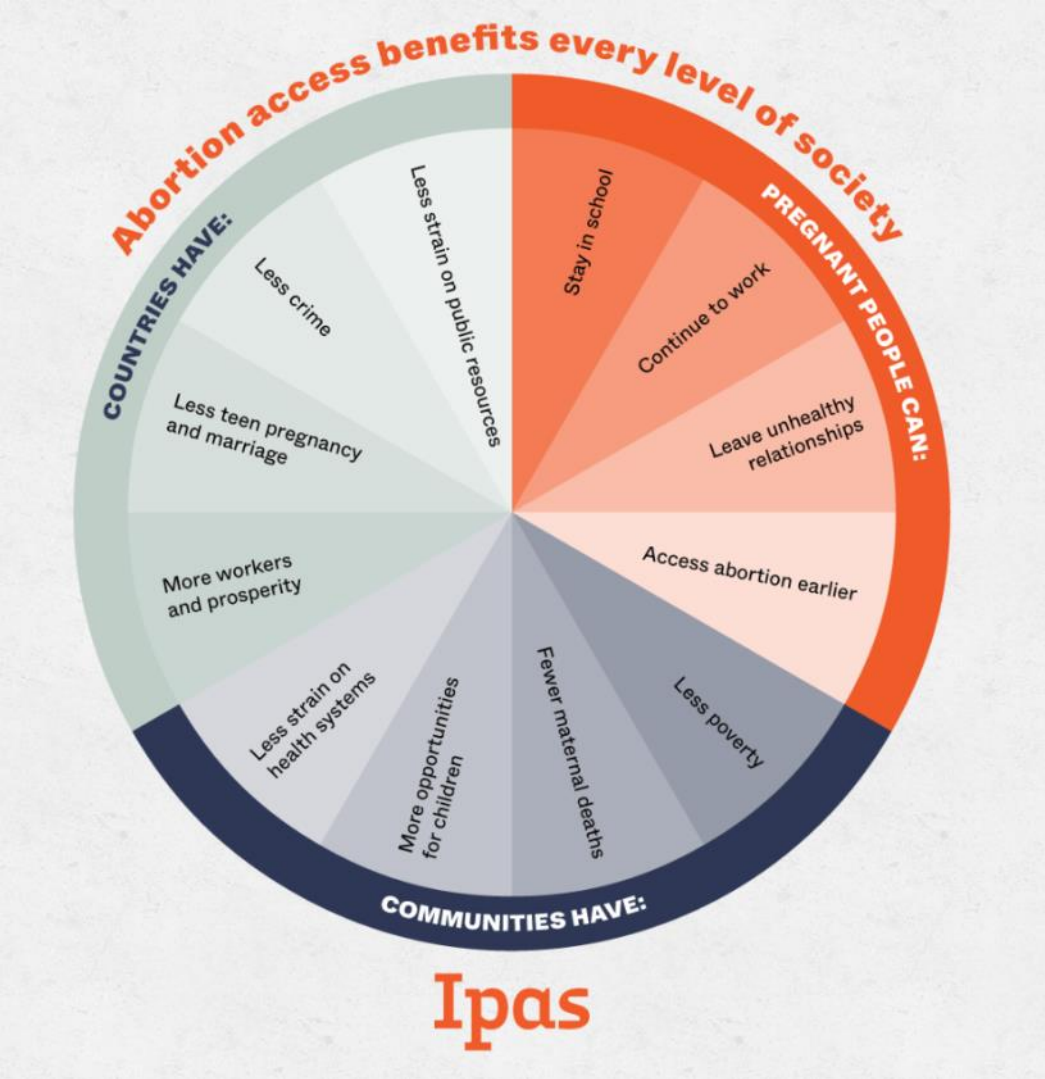


Figure 1.5. Abortion access benefits every level of society [25].

The absence of accessible, quality abortion care - and environments which threaten, restrict, and deny care - are detrimental to individuals, communities, and structures. A lack of access to quality, stigma-free abortion care is well documented to pose risks to physical and mental health of people accessing abortion care [5, 19, 35-43]. Compared with people who

had an abortion, people denied abortion who give birth are at higher risk of serious pregnancy and childbirth-related morbidity and mortality [38]. Low quality, unsafe - abortion care is estimated to account for between 4.7% and 13.2% of all maternal deaths worldwide [44], with the rate of unsafe abortions and abortion complications significantly higher in environments restricting abortion and with less developed healthcare systems compared with environments with fewer restrictions and more developed healthcare [15]. The denial of abortion increases odds of abortion seekers living in poverty and receiving public assistance, and reduces the odds of being employed full-time 6 months and 4 years after denied care [45]. More restrictive or demanding policy multiplies care costs, impacting the timing and type of care accessed and contributes to abortion seekers economic insecurity and poverty [32, 45, 46]. Furthermore, denial of abortion, and abortion restrictive laws and environments, are associated with negative impacts on existing children's developmental and socioeconomic safety [47, 48] and increases abortion seekers' exposure to abusive partners [49]. Low quality, or unsafe, abortion practices are repeatedly found to have significant financial impact on systems [29, 33], substantially higher than cost of quality abortion care [50-54]. Furthermore, the impact of inaccessible and low-quality abortion care disproportionally impacts marginalised groups [5, 55], extending social and health inequities [55, 56]. Indeed, the "Lack of access to safe, timely, affordable and respectful abortion care is a critical public health and human rights issue." (p. "Abortion"; [57]).

Abortion care quality and sustainability, and hence safety, is undermined by a combination of factors: stigma, costs, restrictive and over-regulated laws and policies, mis- and biased information, lack of accessible information and care, denied care, small or no workforce, inadequately trained care providers [14, 22, 57-63]. The limiting, restricting, or elimination of access to quality abortion care is substantially underlined by abortion stigma [10, 20, 22, 37, 42, 64-80]; stigma is possibly the most pervasive factor restricting secure, quality abortion care. Indeed, there is no secure, quality abortion care without stigma-free abortion care [1, 10, 67]. Stigma disproportionally impacts particular groups who already

have disproportionally restricted access to abortion care (e.g., people living in rural settings, facing financial hardship, adolescents, unmarried, transgender or nonbinary individuals, with less access to education, and living with HIV [1]). Addressing stigma proposes a comprehensive approach to addressing intersectional barriers to quality abortion care and achieving sustainable, secure, quality abortion care. Furthermore, states have an obligation to prevent stigmatisation of people seeking and providing abortion care [5], further highlighting the importance of addressing abortion stigma.

1.4. Abortion stigma

Abortion stigma was first defined by Kumar, Hessini [71] as “a negative attribute ascribed to women who seek to terminate a pregnancy that marks them, internally or externally, as inferior to ideals of womanhood” (p.628). It has been expanded to include care providers and supporters of abortion (e.g., family, friends, researchers, and advocates) [81, 82], with Norris and colleagues [82] defining abortion stigma as “the discrediting of individuals as a result of their association with abortion” (p. 21). Embracing these insights, abortion stigma is referenced as “a shared understanding that abortion is morally wrong and/or socially unacceptable” (p. 3; [83]). The definitions stem from Goffman’s [84] individual-centred approach to stigma (i.e., a tainted, discounted, discrediting attribute ascribed to an individual). A conceptualisation failing to capture complexity of the multiple dimensions of stigma [85, 86], while also providing “a concrete set of targets that are, in theory, amenable to forms of intervention” (p. 6; [86]). These conceptualisations incorporate Link and Phelan’s [87, 88] conceptualisation of stigmatisation as a power process exploiting, controlling, or excluding people through the co-occurrence of labelling, stereotyping, separating, and discriminating to keep people down, in, or away. They position abortion stigma at various socio-ecological levels (i.e., individual, interpersonal, organisational and institutional, community, government framing discourses and mass culture), as outlined by Heijnders and Van Der Meij’s [89] review of stigma reduction strategies and interventions.

More recently, abortion stigma conceptualisation has been positioned as a macro-level classificatory form of power which differentiates, legitimises, and regulates bodies, experiences, and inequities [86, 90]. From a Foucauldian approach, Millar [86] builds on Tylers' [91, 92] and Parker and Aggletons' [93] work, explaining abortion stigma as a phenomenon helping to produce complex, contextual classificatory systems related to power and identity. It is proposed that through the process of stigmatisation, abortion is understood (intelligible), dependant (contingent), and debated (contested) [86]. Millar argues conceptualising stigma as a classificatory form of power draws attention to the forces that drive, produce, regenerate, and endure stigma, and the deep "structural inequalities and injustices that produce and sustain stigmatising categories" (p. 6; [86]). Elucidating abortion with broader social forces, Millar [86] and Kimport and Littlejohn [90] position abortion and abortion stigma as mutually interrelated with sexual embodiment. Through a sexual embodiment lens, abortion and stigma are understood as experienced by embodied individuals in society, recognising the role of culture and experiences in classifying and regulating people living with reproductive bodies [90]. Conceptualising abortion stigma at the macro-level power is argued by Millar to be better placed than conceptualising 'stigma as an attribute' because it: 1) engages with the socio-cultural production, functioning, and variability of stigma; and 2) avoids attribution stigma as an identify which strengthens stigma.

Together, the above approaches to conceptualising abortion stigma centre it as a socio-cultural process which: 1) designates abortion and those related as different; and 2) oppresses people and groups who benefit from abortion. They root abortion stigma in patriarchal norms and systems, to 'other' and weaken abortion and related people and groups (e.g., women, girls, non-binary people, trans men, and allies [providers, researchers, supporters]). They acknowledge stigma manifests related to context and power, intersects with existing stigma and forms of power, and distributes unevenly aligned with power dynamics. That is, the process of stigmatising abortion intersects with features of sexuality,

gender, race, class, and ability to marginalise, restrict, interfere, threaten, and/or remove the social power of abortion, women, girls, trans* community, and allies.

Integrating these conceptualisations (i.e., Kumar, Norris, Harris, Cockrill, Goffman, Link and Phelan, Millar, Tyler), I define abortion stigmatisation as the socio-cultural process of using social power to label, stereotype, separate, and discriminate [87, 88] the intentional termination of pregnancy - and related people and entities - across multiple, interrelated levels [71, 82, 83] to produce and legitimise abortion stigma [86, 91, 92] (see figure 1.6). The process of stigmatisation is driven by attempts to gain, maintain, or strengthen social power [87, 94], and acts through socially exploiting, controlling, excluding, marginalising, and oppressing abortion, women, girls, trans people, and abortion allies. The dynamic process of stigmatisation produces the powerful phenomena of stigma, which I suggest is a ‘force’ in which stigmatisation exists and interacts. Stigma is presented in a taxonomy (i.e., types of stigma), across society (i.e., level of stigma) which dynamically interact [95] with and through stigmatisation along axis of culture, power, and difference [86]. The stigmatisation process acts simultaneously inward/top-down and outward/bottom-up, with interactions across levels strengthening stigma at each level. The dominance of stigma in different locations and manifestations is dependent on context. Through the process of stigmatisation and resulting from stigma, both abortion care and those related are marginalised and restricted, quality of functioning reduced, and in turn inequities related to sexuality, gender, race, class, and ability are perpetuated and legitimised.

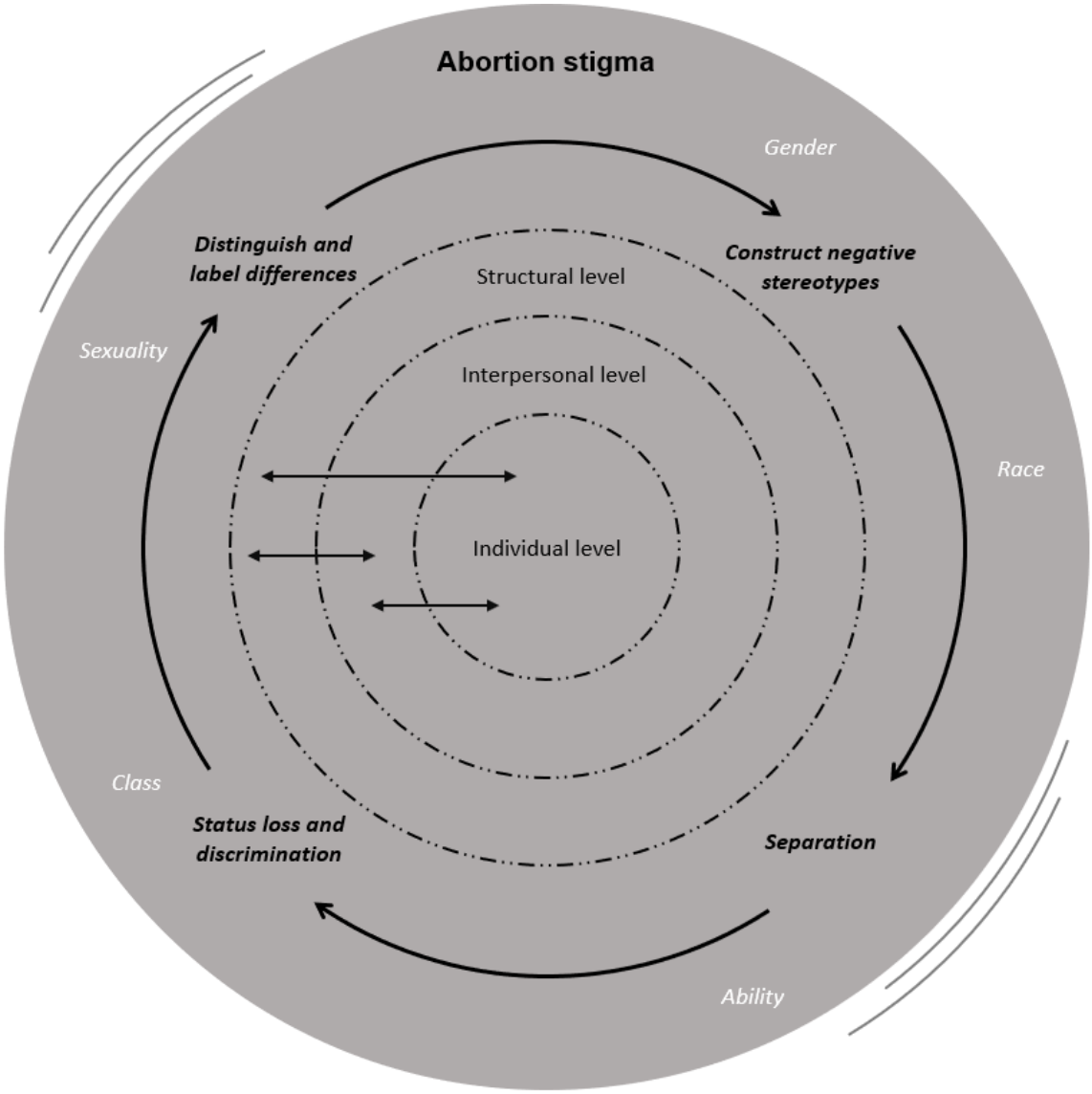


Figure 1.6. The dynamic, contextual process of stigmatisation occurs across social levels within a stigma force.

The process of stigmatising abortion results in the phenomena of abortion stigma which reinforces differentiation, exclusion, inequity, and injustice related to sexuality, gender, race, class, and ability (see figure 1.7). The ultimate outcome, a spiral of oppression (i.e., oppression perpetuating further oppression) of abortion, women, girls, trans people, and allies (individuals and entities) acting at all levels of society and legitimising and strengthening abortion stigma. Abortion stigma is a social power, with stigmatisation of

abortion the use of power (force) to hold abortion and related individuals and entities down, out, in, and away [87, 88, 94]. Abortion stigma is the force in which the oppression (stigmatisation) of abortion, women, girls, trans people, and allies is enabled and propelled.

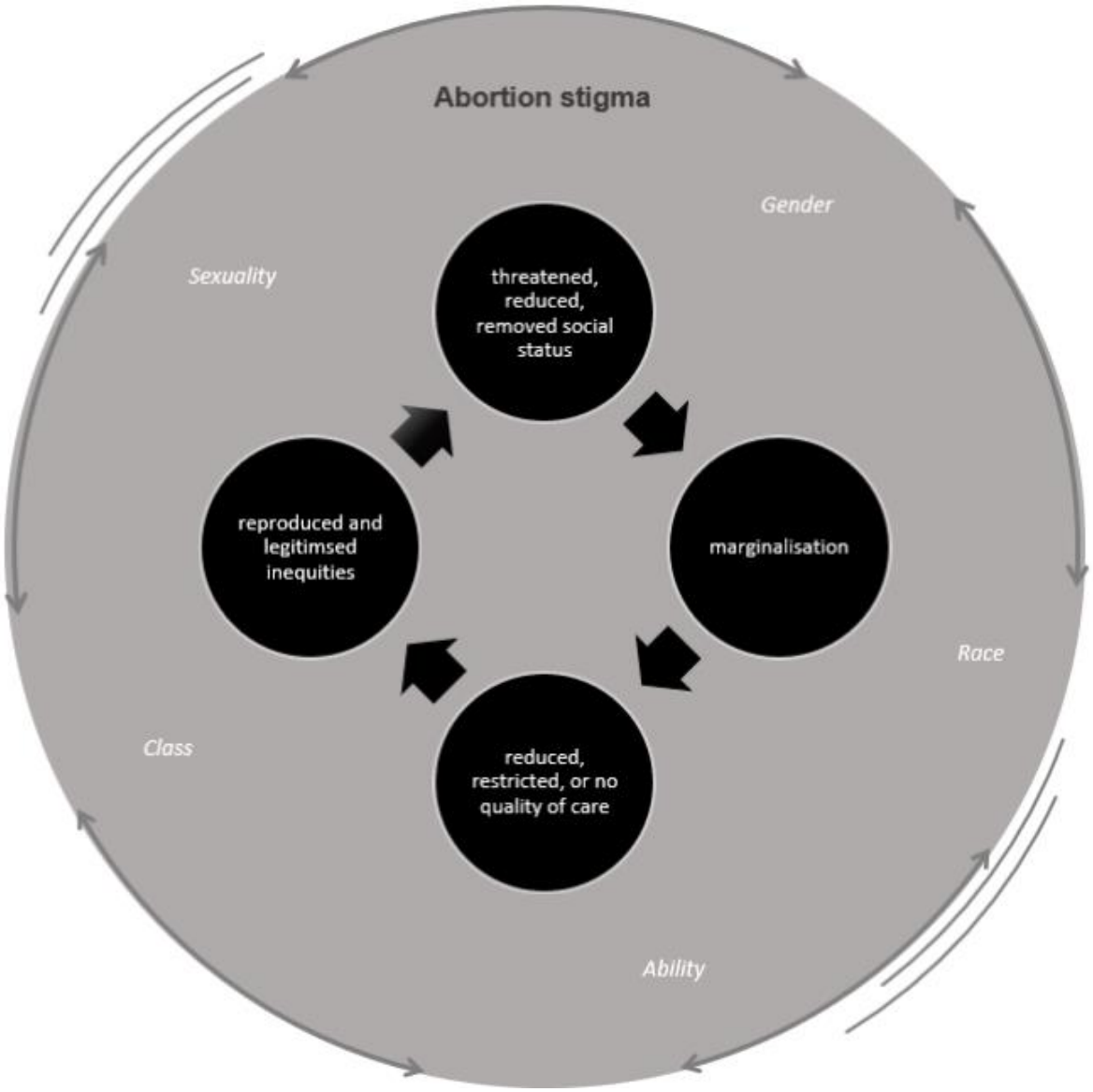


Figure 1.7. The social impact process of stigmatisation within the force of abortion stigma.

I position the stigmatisation of abortion within a ‘force’ that is abortion stigma. Abortion stigma – the phenomenon - is a social force constructed, reproduced, shaped, and legitimised through various stigmatising pathways dependant on local cultures and histories.

That is, abortion stigma/tisation is a dynamic and deeply contextual socio-cultural phenomena and process [71, 82, 96], perpetuated, strengthened, and legitimised at and by the intersection of culture, power, and difference [86]. The literature links abortion stigma/tisation with being fuelled by the violation of social, political, and cultural perceptions of feminine ideals [69, 71, 82, 96, 97], sexuality [69, 90], reproduction [86], rhetoric [82, 86], legal restrictions [82], categories of difference [86], and stigma itself [71, 82, 86]. I suggest these can all be classified as differentiating and threatening the power held and perpetuated by norms of sexuality, gender, race, class, and ability, which benefit patriarchal structures and influence inequities. Indeed stigma/tisation, and its use of power, is central to the causes and extending inequities related to health [98-101], social [102], and economic [103] outcomes. Hence, the ultimate outcome of abortion stigma is intersectional oppression seen through extending inequities and injustices (as visualised in figure 1.7).

The dynamic complexities of stigmatisation make it a powerful process for maintaining social order but limit the feasibility of its complete measurement and intervention. It is common practice to section stigma for investigation and intervention while acknowledging it is situated within an intersecting model. The socio-economic model providers a clear taxonomy to classifying where (levels) and how (types) stigma manifests [95]. Types of stigma occur at different levels, interact with each other, and influence types across levels (See figure 1.8). Mirroring the location of stigma, causes and consequences of stigma occur at all levels and interact to power stigma [19, 104-108]. At the individual level are people and groups who are stigmatised and their construction of stigma. For example, the experiences of internalised stigma, anticipated stigma, stigma-by-association, and enacted stigma [70, 97, 109-112]. At the interpersonal level are people who have not experienced abortion personally and their construction of stigma. For example, their negative labelling, stereotyping, segregation, and discrimination of abortion and related people and groups [70, 113-118]. At the structural level are factors which shape society from the top-down, such as systems, policies, and discourse, and their construction of stigma. For

example, how systems regulate abortion, law labels abortion, and culture understands abortion through a stigmatised lens [70, 105, 119-125].

The impacts of stigma are evident at each level of the socio-cultural model, however, are not exclusive to each level with influences on levels feeding into the dynamic process and power of stigmatisation (see figure 1.8, right side, for a synthesis). The overarching impact of stigma is its role in diminishing quality of abortion care through systematic processes differentiating and relegating abortion out of healthcare, discourse, and cultural norms. Indeed, a recent review of 50 qualitative publications reporting influence of abortion stigma on abortion quality of care identified abortion stigma as inhibiting quality abortion care in seven ways: poor treatment; access gatekeeping and obstruction; silencing; arduous and unnecessary requirements; poor infrastructure and lack of resources; punishment and threats; and lack of designated location for abortion services [10]. Another comprehensive review of abortion economics and stigma found stigma impacts the micro (i.e., abortion seekers and their households), meso (i.e., communities and health systems), and macroeconomics (i.e., societies and nation states) of abortion impacting quality of care [70]. Other reviews of abortion stigma literature demonstrate links between context, demographics, health, behaviours, attitudes, and knowledge [69, 126]. Furthermore, the impact of stigma extends to how abortion is understood, delivered, and received [19, 86, 102, 108, 127, 128].

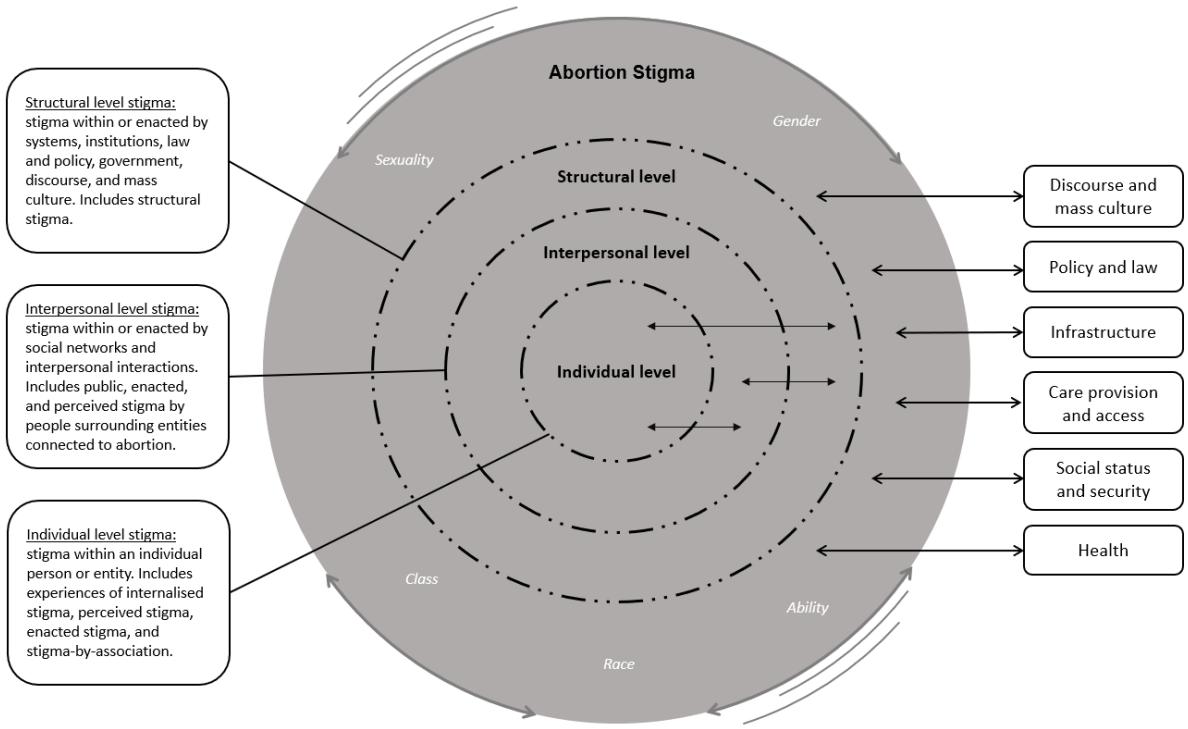


Figure 1.8. The manifestations of stigma located on the socio-ecological model, with categorised outcomes.

Based on the socio-cultural construction and manifestation of stigma/tisation, it is imperative abortion stigma research is culture and geographically specific. Culturally specific work can accommodate local norms, structures, and power dynamics that perpetuate and legitimise abortion stigma. A geographical lens to abortion provides insights into our understanding of abortion in reference to space, power, and citizenship, providing insight into how discourse (i.e., narration and representations), spatiality (i.e., differences by geography), and mobility (i.e., movement and fixity shaping abortion access) shape a stigmatised understanding of abortion [102]. To compare abortion stigma by locations and cultures, this thesis explores abortion stigma in Australia and Aotearoa New Zealand (AoNZ), providing insights into whether Australia and AoNZ are similar enough that interventions, practices, and policies can be applied similarly across locations.

1.5. Abortion, Stigma, and Australia and Aotearoa New Zealand

Abortion was provided over 88,000 times in 2017-18 in Australia [129] and 12,900 in 2019 AoNZ [130]. A global study estimated 15 in every 1,000 women between 15 to 49 years in Australia and AoNZ had an abortion in 2015-19, aligned with the average for high-income countries [131]. Despite the want and need for abortion, in Australia multiple barriers to accessing abortion care exist, including geographical [55, 72, 132] and financial barriers [55, 133, 134], deficient, delayed, or denied care from community, health professionals, and institutions [55, 134-136], and lower abortion/health literacy [134]. In AoNZ, prior to abortion being decriminalised, five of 14 regions had no local first-trimester abortion service, three with higher than average Māori populations, resulting in one-sixth (16.2%) of women having geographic difficultly accessing to first-trimester abortions [137]**.** A more recent survey of Obstetrician and Gynaecologist (ObGyn) trainees and fellows in AoNZ indicates less than half (49.2%) provided abortion related care despite 96% indicating abortion should be available within the public health system and 71% believing abortion an integral part of ObGyn practice [138]. Among the growing documentation of the barriers to secure, quality abortion care in ANZ, abortion stigma is documented as a pervasive, direct and indirect, issue which requires addressing [20, 72, 74, 77, 78, 135-137, 139-143].

1.6. The presentation of abortion stigma in ANZ

In ANZ abortion stigma is evident at all levels, interacting to contribute to the comprehensive differentiation and exclusion of abortion as a regular part of comprehensive healthcare and the oppression of women, girls, trans people, and abortion allies.

At the individual level, abortion stigma is well documented as experienced by some people seeking and having abortions [75, 77, 78, 134, 135, 144-152] and those providing abortion-related care [73-76, 143, 152, 153]. Importantly, stigma is not part of all seekers' and providers' experiences [146, 154, 155]. Prominent experiences are anticipated stigma and the fear of discrimination, such as denied care or employment, and judgement or ostracism from community. Also noted is internalised stigma, predominantly for abortion seekers presented as shame and silence. Less commonly reported, although experienced,

is enacted stigma, such as interpersonal and structural barriers to care including harassment when accessing clinics and policy requiring justification for abortion. Entwined with these experiences, are abortion seekers experiences of abortion within a culture normalising abortion as shameful, negative, and stigmatised [134].

At the interpersonal level is stigma situated within and enacted by social networks and interpersonal interactions. Interpersonal level stigma is comparable with community level stigma. Examples include poor, judgemental, stigmatising treatment of abortion seekers from people within the healthcare system [78, 135, 147], health care professionals gatekeeping, discouraging, delaying, and denying care [77, 78, 134, 146], abortion seeker and provider interactions with protestors at healthcare services [77, 152], and community trolling and threatening supporters of abortion online [152]. This stigmatisation from interpersonal interactions ranges from covert, microaggressions to overt physical and verbal harassment. Abortion stigma is also represented at the interpersonal level by community objection to abortion, which to date is mostly reported as attitudes to abortion. A survey of Obstetrician and Gynaecologist trainees and fellows found 15% in Australia [156] and 17% in AoNZ [138] object to abortion provision, and 14% and 15% refuse to provide abortion, respectively. Among young migrant and refugee people in Sydney, abortion is described as culturally and/or religiosity unaccepted although preferable to pregnancy outside of marriage [144]. A national survey of over 70,000 people in Australia found despite 89% supporting abortion access mostly or always, 25% believe most people in Australia think negatively about abortion, and 63% and 81% expect abortion seekers and providers would experience harassment, indicating high perceived abortion stigma despite low levels of stigmatising attitudes [157, 158].

At the structural level is the segregation, disregard, marginalisation, and restriction of abortion care through systems, institutions, laws, policies, discourse, and mass culture. For example, the historic and continued criminalisation, regulation, and segregation of abortion in ANZ legislation, healthcare, and medical education [142, 159-164] situates abortion care

and those related as deviant, untrustworthy, and contested. This includes legislation mandating counselling (SA and WA), requiring justification of choice (NSW, SA, and WA), positioning abortion seekers (WA) and nurses, midwives, and health workers at risk of criminalisation (all jurisdictions), and restricting when abortion can be accessed (all jurisdictions other than ACT) [165]. Stigmatisation of abortion in ANZ is evident in rhetoric, specifically political discourse [166, 167], historical status [142], institutionalised forgetting of abortion stories [168], and narratives of 'too many abortions' and suggestion of the need to reduce abortion incidence [128]. Within mass culture, abortion is understood through a stigmatised lens and layered with colonising and marginalised interfaces [56, 127, 128, 142].

The discreet and interacting manifestations of abortion stigma intersect across all levels in ANZ collectively influencing bottom-up and top-down stigmatisation of abortion. As noted by Cleetus et al., [134] experiences of abortion stigma are rooted in the interconnection of levels (e.g., culture, health care, workplace, educational settings, and the intrapersonal environment) and types of stigma (e.g., interpersonal and internalised), and require multi-pronged support to overcome multiple barriers arising from multi-directional stigma. It is this interaction of stigmatisation across socio-ecological levels, which builds the power of abortion stigma.

Abortion stigma as a multi-level, socio-cultural power is evident in its manifestations, and the impact of stigmatising abortion [56, 127, 128, 134, 142, 165, 168]. Although predominantly qualitative, the literature of abortion stigma in ANZ provides an outline of the extent and impact of abortion stigma occurs across levels. Research demonstrates abortion stigma impacts the accessibility, acceptability, equity, and safety of abortion care in ANZ [20, 55, 72-78, 134-136, 142-151, 153, 159-164, 169].

Among people in ANZ who have had an abortion, abortion stigma is documented to lead to avoidance of disclosure and social isolation [20, 76, 134, 148, 150, 151], a need for post-abortion counselling [134], impaired service accessibility and access [20, 72, 134, 148,

151]. Among people in ANZ providing abortion care, and health professionals more broadly, stigma is linked with hesitancy and refusal to provide abortion care and avoidance of publicly supporting abortion [72, 74, 76, 134, 152], low rate of abortion care provision and geographical disparities in provision and public support [72, 143], and low abortion knowledge, confidence, skills, and supportive legislation [73, 75, 143]. Beyond the impact on people, abortion stigma impacts structural features of care functioning as a barrier to implementation of nurse-led model of medication abortion provision [75], integration into primary health care [142], and people perceiving and understanding abortion as not stigmatised [56, 170-172]. Furthermore, the interconnection of abortion stigma with the contextual features of abortion care (e.g., time sensitivity, shifting legal landscapes, gender-based violence) means the current Australian health model does not accommodate quality abortion care [173] and current provision of abortion care in ANZ contributes to extending marginalisation and inequities [55, 56], especially among those with intersecting marginalised identities [56]. Indeed, reducing stigma and negative attitudes towards abortion was mentioned by all women in one Australian study as a way to improve access to appropriate care, service delivery, and community understanding of abortion [77]. Hence the stigmatisation of abortion and people related in ANZ is linked with poorer quality abortion care, specifically accessibility, acceptability, equity, and safety.

1.7. Addressing abortion stigma in ANZ

By addressing abortion stigma in ANZ, there will direct and indirect benefits to individuals, communities, and systems. Qualitative research has mapped out how abortion stigma in ANZ manifests, and its impacts, however quantitative data is lacking. Quantitative details of abortion stigma contribute to the identification of differences in prevalence and strength of stigma across contexts [12]. Furthermore, valid and reliable tools to measure abortion stigma can contribute to national representative surveys of abortion quality and social determinants of health. By improving our understanding of abortion stigma, strategies

to reduce abortion stigma can be better informed and, in turn, the health of those stigmatised and their communities, quality of care, and functioning of systems improved.

1.8. Project aims

This body of work aimed to improve understanding of abortion stigma in ANZ and provide tools to measure abortion stigma to secure quality abortion care in ANZ. To do so, this project had four aims:

1. Identify suitable approaches to measuring abortion stigma;
2. Assess suitability of approaches measuring abortion stigma for ANZ;
3. Develop and adapt measures of abortion stigma in ANZ; and
4. Psychometrically validate measures of abortion stigma in ANZ.

CHAPTER 2. What is the optimal tool for measuring abortion stigma? A systematic review

2.1. Publication details

Ratcliffe, SE., Smylie, C., Pinkus, RT., Dar-Nimrod, I., Juraskova, I., and Dhillon, HM. under review. What is the optimum measure of Abortion Stigma? A systematic review. The European Journal of Contraception & Reproductive Health Care:1-16. doi: 10.1080/13625187.2023.2177506. *[126]*

2.2. Rationale and link with previous chapters

Chapter 1 suggested to secure quality abortion care in ANZ abortion stigma needs to be addressed with evidence-based interventions, and that there is a lack of quantitative information about abortion stigma in Australia and Aotearoa New Zealand (ANZ). Chapter 2 sets out to determine how to best quantify the prevalence and change in abortion stigma by systematically identifying and assessing approaches to measuring abortion stigma internationally.

2.3. Chapter abstract

Purpose: Abortion stigma is a barrier to accessing and delivering comprehensive, secure healthcare. This study aimed to systematically identify measures of abortion stigma and assess their psychometric properties and uses.

Materials and methods: The systematic review was preregistered with PROSPERO (ID#127339) and adhered to Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Eight databases were screened for articles measuring abortion stigma. Data were extracted by four researchers and checked for accuracy by two reviewers. Psychometric properties were assessed with COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN) guidelines.

Results: Of 102 articles reviewed, 21 reported original measures of abortion stigma. Instruments assessed individual and community level stigma for people who have had an abortion (n=8), healthcare professionals (n=4), and the public (n=9), and predominantly originated from the United States (U.S.). Measures varied in structure, use, and comprehensiveness of psychometric properties. On psychometric properties, the Individual Level Abortion Stigma scale and Abortion Provider Stigma Scale - Revised performed best for individual-level stigma and the Stigmatising Attitudes, Beliefs and Actions Scale for community-level stigma.

Conclusion: Gaps in abortion stigma measurement include geography, conceptualisation, and structural-level stigma. Continued development and testing of tools and methods for measuring abortion stigma is needed.

Keywords: abortion, stigma, psychometric properties, systematic review

2.4. Introduction

Studies show abortion, the termination of pregnancy by surgical or medication intervention, is a safe, essential component of comprehensive healthcare [1]. Despite the well-established evidence of the safety, need, and benefits of abortion, there are multiple barriers to providing abortion care [65, 143]. Stigma has a critical role in preventing safe, comprehensive, sustainable abortion care [25, 64, 65, 67, 70, 71].

Stigma, as defined by Goffman [84], is the tainting of an identity resulting in social rejection or disapproval. From the Foucauldian approach, it is a classificatory form of power occurring at macro-level structures to differentiate individuals from the norm [86]. Stigma and stigmatisation represent a social construct and process, respectively, assigning socially deviant and devalued attributes and identities [82, 95, 174, 175]. The social process of stigmatisation includes the interplay between labelling, stereotyping, separation, and discrimination [88]. People use stigmatisation to demonstrate and exercise power with the aim of ‘othering’, keeping the stigmatised group separate [88]. Through this connection to

power, stigma reproduces and legitimises modes of social and structural inequality and differentiates individuals along axes such as gender, race, and class [86, 92].

Consistent with Goffman's conceptualisation of stigma, others define abortion stigma as the attribution that an individual who terminates a pregnancy is deviant and devalued from social ideals of gender and sexuality [71, 82]. Through Foucault's lens, authors present abortion stigma as a socio-cultural process differentiating abortion, producing and legitimising power relations, and framing our understanding and discussion of abortion [86]. In line with this conceptualisation, we define abortion stigma as the socio-cultural process of labelling the termination of pregnancy as deviant, along with individuals and organisations associated with abortion, devaluing them across multiple, interrelated levels to gain, maintain, or strengthen social power.

Stigmatisation of abortion occurs across an interacting, ecological framework at intrapersonal, interpersonal, organisational, structural, discourse, and cultural levels [71, 176, 177]. While acknowledging multiple levels and differing names for each, we simplified the framework to three levels: individual, community, and structural stigma; these are detailed in Figure 1. Research shows the causes and consequences of abortion stigma are evident across levels, interacting to influence wellbeing of individuals, relationships and social behaviour, service access, service delivery and quality, laws and policies, discourse, and culture [71, 82, 116, 121, 178, 179].

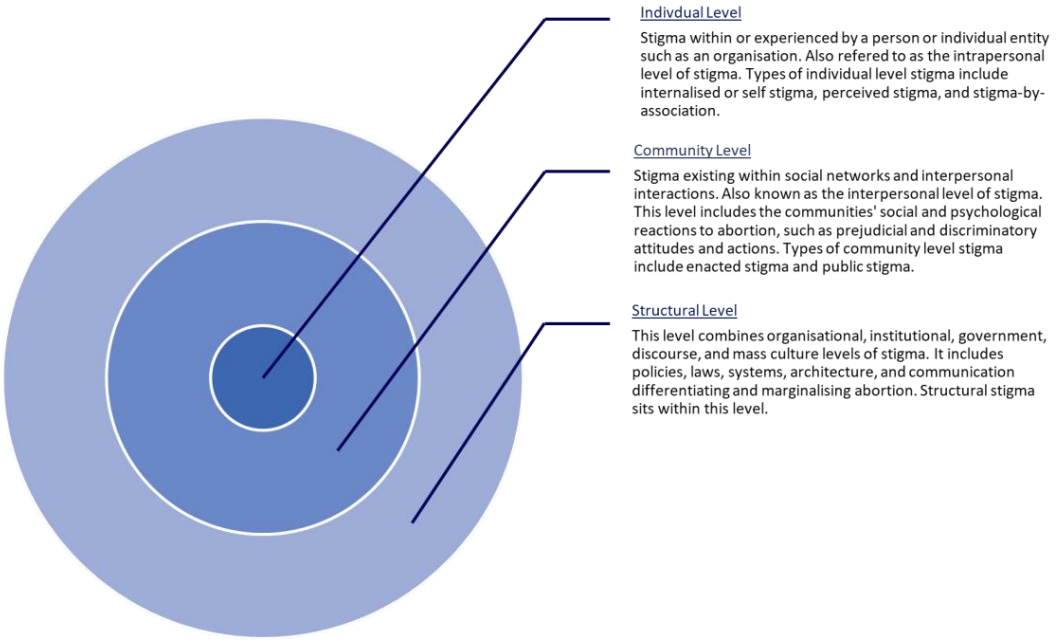


Figure 2.1. Schematic representation of the levels of abortion stigma.

*Figure 2.1 Schematic representation of the levels of abortion stigma adapted from Kumar et al., [71], Norris et al., [82], and Cockrill et al., [83] incorporating types of stigma from Pryor and Reeder [180] and their dynamic interrelatedness. *Level and types of stigma are dynamically interrelated. Types of stigma at each level are not exclusive to each level; they interact and are influenced by other levels and types of stigma.*

Hanschmidt's [69] systematic review of abortion stigma provided a comprehensive overview of abortion stigma, identifying seven qualitative and seven quantitative studies documenting experiences, enactment, management, and consequences of abortion stigma among people who have had an abortion, provide abortions, and the public. Among these studies, four measured individuals' experiences of abortion stigma and three public abortion stigma, all measured abortion stigma quantitatively. Although Hanschmidt et al. [69] list the main outcome measures and limitations of studies quantifying abortion stigma, a systematic assessment of the conceptualisation, development, psychometric properties, or quality of measures was not included. We recognised the need for assessment of articles documenting tools and methods for measuring abortion stigma covering articles potentially

missing from Hanschmidt et al.'s [69] review due to differences in review aims and time passed since their search. The comparison with and extension of Hanschmidt's [69] findings is central to the increasing quality of abortion stigma research.

To understand how abortion stigma is measured [69, 96], we systematically reviewed and assessed quantitative measures of abortion stigma. We addressed three specific questions: 1) how is abortion stigma measured; 2) what are the psychometric properties of abortion stigma measures; and, 3) how are abortion stigma measures used in research or clinical practice?

2.5. Materials and Methods

We conducted a systematic review adhering to PRISMA and PRISMA-P guidelines [181, 182] (Appendix 1.1). We preregistered the protocol with PROSPERO (number 127339).

2.5.1. Data sources and search strategy

We searched ten electronic databases in April 2019, February 2021, and March 2022 (PsycINFO, PsycTEST, PsycArticle, PubMed, Web of Science, Scopus, ScienceDirect, Medline, PROQOL, and PoD) using the following terms and variations: ‘‘(Abortion OR pregnancy termination OR Termination of pregnancy) AND stigma AND measure*”. We searched reference lists of identified studies for articles reporting abortion stigma measure development or measurement.

2.5.2. Screening

We included articles if they were a peer-reviewed publication, published in English by 1st March 2022, and documented the development and/or testing of a tool measuring abortion stigma not previously reported. Articles using qualitative measurement of abortion stigma were excluded due to different methodological approach to reporting and assessment, rendering COSMIN criteria unsuitable. We did not restrict the search based on time or geographical location. One research assistant (VS, trained by SR and HD), removed

duplicates and screened titles and abstracts excluding studies not reporting abortion stigma. VS, SR, and HD jointly reviewed a sample of extracted titles and abstracts (*n* = 40, 10%) to ensure consistency in screening.

2.5.3. Data extraction and synthesis

SR and CS reviewed full text of studies eligible for inclusion. Three trained research assistants (LD, CS, and JW) and SR extracted data into MS Excel Version 2008 16.0 [183]. SR and CS crosschecked data. We checked accuracy between reviewers, with discrepancies resolved by discussion. Inter-rater reliability across 10% of titles and abstracts and 18% of included articles was excellent (k = 0.91; k = 0.89, respectively).

Cochrane [184] and COSMIN methodology and tool for assessing outcome measurement instruments [185-187] informed data extraction and narrative synthesis. We extracted and narratively synthesised research details determined important by Cochrane (see first row of Table 2.1; i.e., author, year, location and context/setting of study, funding, aim, design, participant characteristics and number, construct definition, construct measured, comparators, outcomes, instruments, analysis, primary outcomes) and instrument design and psychometric properties determined relevant by COSMIN (see first column of Tables 2.2 and 2.3; i.e., measure, context, target and sample population, item identification method, data collectors' skills, content validity, structural validity, internal consistency, cross-cultural validity, reliability, measurement error, hypotheses testing, criterion validity, and responsiveness). As outlined by COSMIN guidelines, we assigned quality first based on five possible ratings (i.e., very good, adequate, doubtful, inadequate, N/A). We report the COSMIN checklist elements as "Y", "Partial", "N", or "Not applicable", because the assigned COSMIN ratings restricted the interpretability and differentiation of studies' and measures' quality.

2.6. Results

We identified a total of 4415 references across eight of 10 databases searched; 102 articles were retained for review following title and abstract screening. We excluded 81 articles; detailed in figure 2 PRISMA flow diagram. From reference lists and instrument searches, we identified and reviewed 143 articles, and none included. We extracted data from 21 articles.

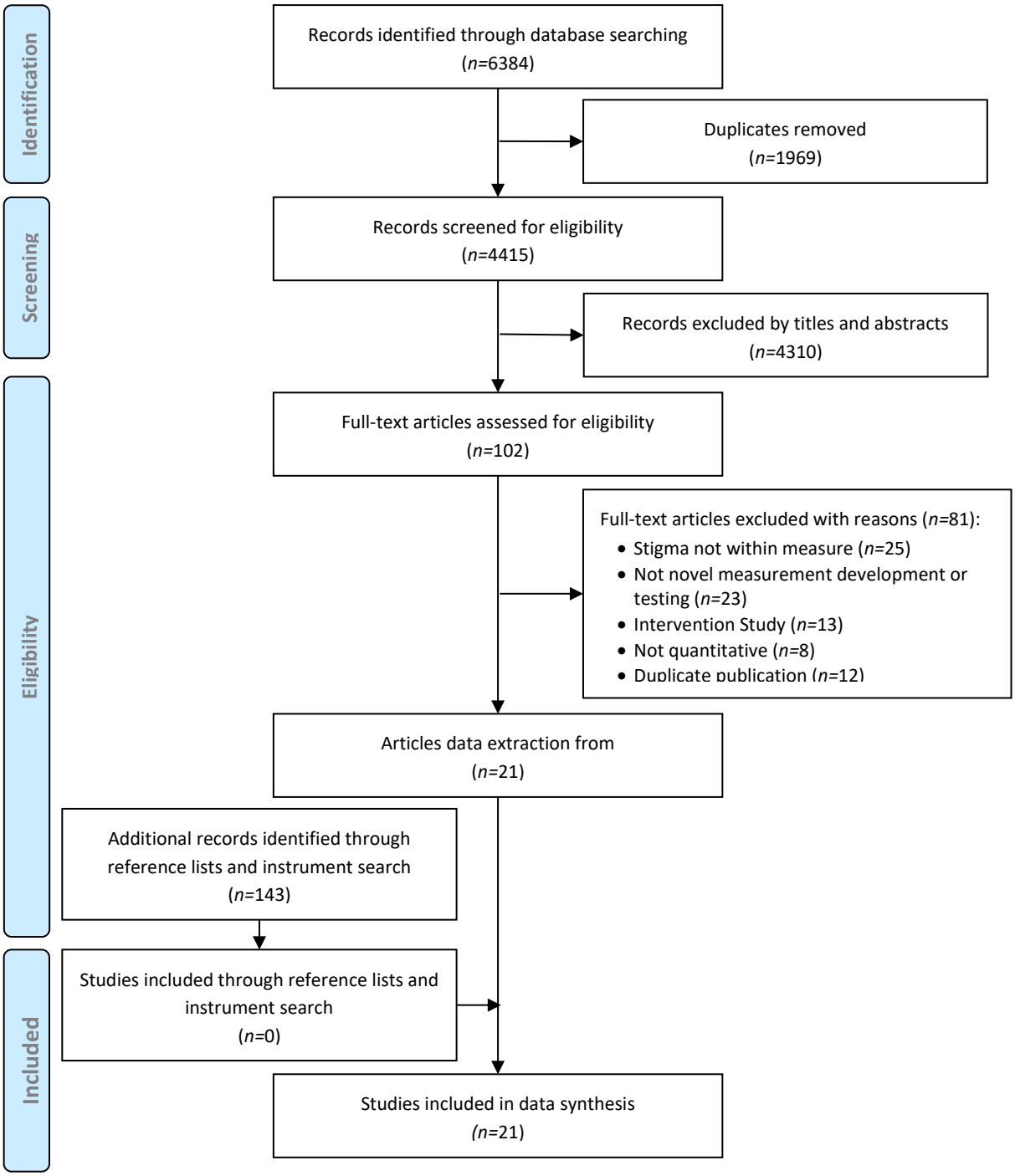


Figure 2.2. PRISMA flow diagram; overview of the screening methodology.

From the 21 articles, published between 1969 and 2021, we identified 21 quantitative tools measuring individual or community level abortion stigma (Table 2.1). We did not find any tools for measuring abortion stigma at the structural level. Abortion stigma at the community level was the construct measured most frequently. The tools measured abortion stigma from the perspective of: i) people who have had, sought, or disclosed an abortion

(n=8); ii) healthcare providers and people who provide abortions (n=2); and, iii) community (n=11). Of tools assessing stigma among the community, five sampled women only, four adults of a range of genders, three adolescents and young people, and two healthcare workers (see table 2.1). The tools were predominately developed and tested within the U.S. (n=11), Mexico (n=3), and countries in Africa (n=5) and Europe (n=2). Sample sizes ranged from 55 to 5600 participants. Study designs varied, including instrument development, validation, or adaptation (n=14), investigation of associations (n=9), cross-sectional (n=2) or longitudinal analyses (n=1); of these five studies used more than one design [188-192].

Table 2.1. Description of measures of abortion stigma.

Tool	Concept measured [context]	Scale and subscales (number of items)	Scoring and Response options	Target population**[1]	Sample**	Study design and aim
Individual Level Abortion Stigma scale (ILASs) [97]	Individual-level abortion stigma [U.S.]	20 items; 4 sub-scales: worries about judgement (7 items), isolation (6 items), self-judgement (5 items), and community condemnation (2 items)	• 'Worries' subscale: 4-point rating scale, (score range 0-21); • 'Isolation' subscale (reverse coded): 3 items measured on a 4-point rating scale, (0-9), plus 3 items measured on a 5-point rating scale (0-12); • 'Self-judgement' scale (reverse coded): 5-point rating scale (0-20); • 'Community' subscale: 5-point rating scale (0-8). • Both full-scale and sub-scale scores were averaged; higher scores indicate greater stigma	People who have had one or more abortions	641 women in the U.S.A who reported a previous abortion (cognitive interviews n=14; survey completion n=627)	Instrument development
Individual Level Abortion Stigma scale (ILASs – Turkey) [193]	Individual-level abortion stigma [Turkey]	ILASs forward and backward translated to Turkish	As per ILASs	Women having undergone an abortion in Turkey	230 women aged 22–49 years who have previously undergone abortion in Turkey	Instrument translation and validation
Individual Level Abortion Stigma scale (ILASs – Germany) [188]	Individual-level abortion stigma [Germany]	ILASs forward and backward translated to German	As per ILASs	Women who had an abortion after diagnosis of foetal anomaly	148 women in Germany who had an abortion following the diagnosis of a foetal anomaly between September 2008 and January 2015;	Instrument translation and validation; empirical analyses

[1] **Terminology used within each article repeated in this article for accuracy. In some cases, the terminology "abortion" was not used. Thorough article checks have ensured these articles are referencing abortion as we have defined.

					80 completed test-retest reliability	
Concealment of Abortion*[2][194]	Individual-level abortion stigma [U.S.]	One item ("I have felt that I would be stigmatised (looked down on) by others if they knew that I had an abortion"); no sub-scales	• 5-point rating scale; • Score range from 1 to 5; • Higher score indicates greater perceived stigma	Women who have had an abortion	442 women participating in a larger study of women's adjustment to abortion	Empirical analyses
Abortion Patient Survey – Perceived and Internalised Abortion Stigma (APS-PIAS)* [195]	Individual-level abortion stigma [U.S.]	5 items measuring perceived stigma: 3 items adapted from Major and Gramzow, (1999) [194], and 2 proxy items measuring internalised stigma	• 4-point rating scale; • Score range for total scale: 5-20; score range for perceived stigma: 3 to 12; score range for internalised stigma: 2 to 8; • Higher score assumed to represent greater stigma as adapted from Major & Gramzow (1999) [39]	Abortion patients within the U.S.A	9493 people who have had an abortion. Data collected from "The Guttmacher Institute's APS	Empirical analyses: Cross-sectional survey
Perceived abortion stigma (PAS)* [37]	Individual-level abortion stigma [U.S.]	2 items adapted from Major and Gramzow, (1999) [194] perceived abortion stigma from community and people close to you	• 4-point rating like scale; • Averaged scores across both items for overall perceived abortion stigma score, range 0-4; • Higher score indicates greater perceived stigma	People seeking abortion within the U.S.A	928 people who sought an abortion, either obtaining and or being denied one	Empirical analyses: Longitudinal
Internalized and perceived social abortion stigma (IPSAS) [196]	Individual-level abortion stigma [Mexico]	8 items; 2 subscales: internalised stigma (4 items); perceived social stigma (4 items) Scale a combination of Cockrill et al (2013) [97] and Ralph et al (2014)	• 4-point rating-type items • Score range 0 to 24; • Higher values indicated higher stigma levels	Women who had a legal interruption of pregnancy** (i.e., legal medical abortion)	114 women over 15 years presenting for follow-up to medical abortion	Empirical analyses: Cross-sectional

[2] * Article does not provide a name for the tool. We have allocated the tool a name and acronym where appropriate to simplify the reporting in this article.

		[197] abortion stigma instruments				
Abortion Provider Stigma Scale (APSS) [198]	Individual-level abortion stigma [U.S.]	13 items; 3 subscales: disclosure management (7 items), resistance and resilience (4 items), and discrimination (2 items)	• 5-point rating scale; • Scores range 15 to 75; • Higher values indicate greater perceived stigma; scores were summed	People who provide abortions	55 female abortion providers in the U.S.A; test-retest analysis of 52 participants	Instrument development
Abortion Provider Stigma Scale – Revised (APSS-R) [199]	Individual-level abortion stigma [U.S.]	35 items; 5 subscales: disclosure management (10 items), internalised stress (10 items), social judgement (7 items), social isolation (4 items), and discrimination (4 items)	• 5-point rating scale; • Score range 35 to 175; • Higher score indicates higher perceived stigma; • Scores were summed; • Reverse scoring of 10 items	People who provide abortions	315 abortion providers across the U.S.A; test-retest analysis of 90 participants	Instrument adaptation and validation
American Miscarriage and Abortion Communication Survey (AMACS) [200]	Individual-level abortion stigma (Perceived abortion stigma) [U.S.]	Analysis of interaction between 2 outcome variables and 2 independent variables; *disclosure reaction outcome* measured with 8 response options clustered into 3 groups; *individual disclosure reaction outcome* measured with 3 groups; *disclosure independent variable* measured with two options (relationship	• Scoring unclear; relationship between variables assessed. • Disclosure reaction outcome scored based on participants responses and cluster-analysis; individual disclosure reaction outcome scored based on response to disclosure reaction outcome	American adults who disclosed abortion(s)	179 American adults who disclosed abortion(s)	Empirical analyses

		[4 items], rational for disclosure [open question analysed into 6 codes]); individual independent variable measured with 5 options (gender, age, race, income, and abortion attitude [2 items, 6 responses])				
Abortion Stigma Perception Index (ASP) [190]	Community-level abortion stigma [U.S.]	8 items; no subscales	• 4-point rating scale; • Score range from 8 to 32; • Higher score represents higher agreeance with negatively framed item (i.e. greater stigma); • Scores were summed	U.S. women with reproductive experiences	306 U.S. women who experienced their first live birth in the past three days	Instrument development; Empirical analysis
Reproductive Events and Experiences Scale (REES) [189]	Community-level abortion stigma [The U.S.]	11 items; 3 subscales: abortion (5 items), desired fertility (3 items), and perceived irresponsibility (3 items)	• Feeling Thermometer; • Score range from 0 to 100; • Higher score/warmer temperature indicates more positive feelings; • No details provided of how score calculated	Women in the U.S.A	109 adult, English speaking women in the U.S.A	Instrument reliability and validity testing; Empirical analysis
Stigmatising Attitudes, Beliefs and Actions Scale (SABAs – Ghana and Zambia) [201]	Community-level abortion stigma [Ghana and Zambia]	18 items; 3 factors: negative stereotyping (8 items), exclusion and discrimination (7 items), and fear of contagion (3 items)	• 5-point rating scale; • Score range for total scale from 18 to 90; • Interpretation of scores not reported	Individuals and communities within Ghana and Zambia	531 adult men and women in Ghana and Zambia	Instrument development and validation
Stigmatising Attitudes, Beliefs and Actions Scale (SABAs - Ethiopia) [191]	Community-level abortion stigma [Ethiopia]	18-items; 3 subscales: negative stereotypes (8 items), discrimination/exclusi	• 5-point rating-scale; • Score range 18 to 90; • Scores were summed; • Higher scores represent more stigmatising attitudes	Medical professionals in Ethiopia	Ethiopian midwives (sample noted by authors to be not representative of general midwife population)	Instrument development; Empirical analyses

		on (7 items), fear of contagion (3 items)				
Stigmatising Attitudes, Beliefs and Actions Scale (SABAs - Kenya) [192]	Community-level abortion stigma [Kenya]	17 items; 3 subscales, assumed to be: negative stereotypes, discrimination/exclusion, fear of moral contagion; unclear how many items in each subscale	• 5-point rating scale; • Score range for total scale from 18 to 90 (used SABAs 18 items in descriptive analyses); • Dichotomised scores: scores 3–5 (‘agree’) considered stigmatising attitudes; scores 1–2 (‘disagree’) considered non-stigmatising attitudes • One item reverse scored	Healthcare providers providing postabortion care in Kenya	74 nurses, midwives, physicians, clinical officers, pharmacists, social workers and NGO staff working with postabortion care In Kenya	Mixed-methods descriptive analyses; Psychometric testing
Adolescent Stigmatising Attitudes, Beliefs and Actions Scale (ASABAs) [202]	Community-level abortion stigma [Kenya]	18 items; 3 subscales: stigmatising attitudes (8 items); exclusion and discrimination (7 items); fear of contagion (3 items)	• 5-point rating scale; • Scores range from 18 to 90; • Interpretation of scores not reported	Adolescents in western Kenya	Secondary school youth in Kenya	Instrument development and validation
Adolescent Sexual and Reproductive Health Stigma (Adolescent SRH Stigma Scale) [203]	Community-level abortion stigma [Ghana]	20 items; 3 subscales: internalized stigma (6 items), enacted stigma (7 items), and stigmatizing lay attitudes (7 items)	• 3-point rating scale; • Scores ranging from 0 to 20; • Additive index, whereby responses of Agree were coded as 1 and summed for a total score; • Higher scores indicating higher levels of perceived stigma	Adolescent and young women in Ghana	1,080 women ages 15 to 24 in Ghana	Scale development and validation
Attitudes to Mental Illness Questionnaire (AMIQ) modified [109]	Community-level abortion stigma [Mexico]	5 items; one scale	• 4-point rating scale; • Scores range from 0 to 20; • Scores were summed to form index score; • Index score of 13 or higher classified as not stigmatising, and score less than 13 classified as having stigmatizing attitudes	Adults in the general public	300 adult Catholics in Mexico	Empirical analyses: Descriptive

Abortion Norms and Stigma Scale* (ANSS) [204]	Community-level abortion stigma [Southern U.S.]	21 items; 4 subscales: conditional acceptability (4 items), anticipated reactions (7 items), stereotypes/misperceptions (2 items), attitudes (8 items)	• 5-level bidirectional and unidirectional rating scales; • Scores range from 21 to 105; • Higher scores indicate more stigma	Young women in the U.S. South	642 young adult women in Alabama	Instrument development
Community Level Abortion Stigma Scale (CLASS) [205]	Community-level abortion stigma [Mexico]	23 items; 4 subscales: secrecy (4 items); discrimination/stereotyping (11 items); autonomy (4 items); and religion (4 items)	• 5-point rating scale; • Scores range from 23 to 115; reverse coding required; • Scores were summed; • Higher score indicates higher degree of stigmatising attitudes	Adults living in Mexico	5600 adults living in Mexico	Instrument development
A social distance measure of abortion stigma* (Social distance scale) [206]	Community-level abortion stigma [U.S.]	4 items; one scale.	• Social distance questionnaire; • 7-point scale; score range from 4 to 28; • Unclear from description whether higher score indicates less stigma (other measurements in article: higher scores reflect positive abortion attitudes)	U.S.A public	Volunteer undergraduate students in the U.S.A	Empirical analysis

2.6.2. Assessing Abortion Stigma

We found abortion stigma was predominantly measured by self-report rating scales (n=19). The Individual Level Abortion Stigma scale (ILASs; [97, 188, 193]) uses different response options (i.e., 3-, 4-, and 5-point) across and within subscales. One study used a feeling thermometer for response options [189]. The American Miscarriage and Abortion Communication Survey (AMACS; [200]) assessed interaction between four variables determined by cluster analysis.

i. Scoring of abortion stigma instruments

Scoring of *individual and community level* abortion stigma instruments using numeric response options involved summing item responses, with higher total scores indicating greater stigma for 14 instruments (i.e., [37, 97, 109, 188, 190-196, 198, 199, 204]; see Table 2.1 for instrument citations). Subscales were scored in seven instruments (i.e., [97, 188, 191-193, 201, 202]; see Table 2.1 for instrument citations), where higher subscale scores indicated greater stigma. For the feeling thermometer [189], a higher number indicated greater stigma. The Adolescent Sexual and Reproductive Health (SRH) Stigma scale [203] and Attitudes to Mental Illness Questionnaire modified (AMIQ modified; [114]) used summative index, where higher scores indicated higher levels of perceived stigma. For the social distance measure [205], four items asking about desire to meet, work with, date, and marry a described person, it was unclear if higher score indicates greater stigma. The AMACS [200] scoring was unclear and assumed based on response to variables and cluster analyses.

ii. Use of subscales

We found subscales were common and covered a range of topics. For individual level stigma among people who have had an abortion, four of six instruments included subscales [97, 188, 193, 196]. The ILASs [97] was revised among women in Turkey [193] and Germany [188] supporting the same subscale structure. One subscale from the ILASs [97] formed the Internalized and perceived social abortion stigma (IPSAS; [196]). One article

included a single item measure [194], modified to be part of the Abortion Patient Survey – Perceived and Internalised Abortion Stigma (APS-PIAS; [195]) and Perceived abortion stigma (PAS; [37]). Topics covered by subscales and items included: worries about judgement, isolation, self-judgement, community condemnation, concealment of abortion, perceived stigma, and internalised stigma. For individual level stigma among abortion providers, three initial subscales (i.e., disclosure management, resistance and resilience, and discrimination; [198]) were revised into five: disclosure management, internalised stress, social judgement, social isolation, and discrimination [199]. For community level stigma, eight instruments included subscales. The Stigmatising Attitudes, Beliefs and Actions Scale (SABAs; [191, 192, 201]) was reported in three contexts, with the same three subscales but a different number of items in each. The Adolescent Stigmatising Attitudes, Beliefs and Actions Scale (ASABAs; [202]), developed from the SABAs [201], retaining SABAs structure. The other instruments had four subscales [109, 204] (see Table 2.1 for instrument citations), three subscales [189, 203], or none [114, 190, 205]. There were no single item measures. One instrument included no subscales but two variables [200]. Topics covered by subscales, items, and variables included enacted stigma, anticipated stigma, internalised stigma, secrecy, beliefs, and related variables.

iii. Item framing

Within instruments, we identified positively and negatively framed items. Five instruments, four measuring individual level abortion stigma and one community level, included positively and negatively framed items and reverse scoring [97, 188, 192, 193, 199, 204] (see Table 2.1 for instrument citations). The number of items included in measures ranged from 1 [194] to 35 [199].

2.6.3. Study methodologies and measurement properties

We found of the 21 articles, 14 aimed to develop, validate, or adapt an instrument measuring abortion stigma (Table 2.2 and 2.3). Not all articles reported all psychometric properties in COSMIN guidelines. The most frequently reported properties were internal

consistency (*n*=15), structural validity (*n*=15), qualitative expertise (*n*=14), qualitative item generation (*n* = 13), hypothesis testing (*n*=13), content validity (*n*=12), cross cultural validity (*n*=12), cognitive interviews (*n*=11), and reliability (*n*=10). Responsiveness (*n*=*3*), criterion validity (*n*=*3*), and measurement error (*n*=6) were reported least frequently. Our findings using COSMIN assessment of measurement properties of abortion stigma measures are recorded in Table 2.2 and 2.3 respectively and rated as present (Y) or absent (N).

Instrument and item development was informed by at least one qualitative component for 16 studies [97, 109, 114, 189-194, 198-204]. Content validity was only assessed in part, with no study reporting asking both professionals and end-users about instrument relevance, comprehensiveness, and comprehensibility. Structural validity involved exploratory, confirmatory, unspecified, and principal components analysis and determined abortion stigma to be multi-dimensional [97, 109, 188, 189, 191-193, 196, 198, 199, 201, 202, 204]. Cross-cultural testing showed the ILAS [97, 188, 193] and SABAS [191, 192, 201] to have different structures in different cultures. Criterion validity was assessed with pair-wise correlation [204], partial correlations [188], and scale scores [201]. Acceptable internal consistency, alpha above .74 (range: .74 - .94), was suggested for the 13 articles reporting Cronbach's alpha for the entire scale. Reliability was assessed with intraclass correlation coefficient [188, 194, 195, 202] as recommended by Mokkink et al. [187] as well as test-retest reliability [198, 199], associations [193, 198, 205], and linear regression [189]. Measurement error was assessed by percentages [195, 200], controlling for covariates [37, 203], Kaiser-Mayer Olkin test [97], and standard errors [204]. Responsiveness was tested through correlations [188, 199, 205]. Further elaboration of findings of psychometric properties is reported in Appendix 1.2.

Table 2.2. Study methodology and psychometric properties of individual level abortion stigma measurement.

	ILASs [97]	ILASs – Turkey [193]	ILASs – Germany [188]	Concealment of Abortion* [194]	APS-PIAS* [195]	PAS [37]	IPSAS [196]	APSS [198]	APSS-R [199]	Number (N=9)
Study aim	To design and validate instrument measuring abortion stigma experienced by women who have had an abortion.	To adapt the ILASs developed by Cockrill et al., into Turkish and to test the validity and reliability of the Turkish version of the scale	To investigate psychometric properties of the ILAS scale in a German sample of women who had had an abortion after diagnosis of foetal anomaly; to explore socioeconomic and abortion-related factors associated with abortion stigma	To examine abortion stigma, psychological implications of abortion concealment, and theoretical mode	To report incident of perceived and internalised abortion stigma and association	To assess relationship between perceived abortion stigma, abortion-seeking disclosure, abortion denial, and psychological health over time	To measure stigma in women who underwent a legal abortion in Mexico City, and association with any sociodemographic characteristic and depressive symptomatology	To develop an instrument for measuring abortion stigma experienced by abortion providers and improve understanding of abortion provider stigma	To improve the APSS	9
Definition and Conceptualisation	Y; Cockrill and Nack (2013), Norris et al (2011), Kumar et al (2009); Goffman (1963)	Y; Oginni et al (2018); Corrigan et al., (2001).	Y; Cockrill and Nack, (2013); Link and Phelan, (2001)	Partial; Crocker et al., (1998)	Partial.	Y; Kumar et al (2009), Norris et al (2011), Steinberg et al (2016), Rocca et al., (2013, 2015); Pescosolido and Martin (2015)	Y; Kumar et al (2009), and Cockrill and Hessini (2014)	Y; Hughes, (1951); Harris et al., (2011); Joffe, (1978), O'Donnell, Weitz, & Freedman, (2011), Kumar et al., (2009)	Y; Kumar et al (2009), Norris et al (2011); Goffman (1963)	7
Qualitative Item Identification	Y	N	N	Y	N	N; Adapted from Major and Gramzow [194]	N	Y	Y	4
Qualitative Expertise	Y	N	N	Y	N	N	N	Y	Y	4

Cognitive Interviews	Y	N; but pilot tested	N	N	N	N	N	Y	Y	3
Content Validity	Y; End uses asked about comprehensibility and comprehensiveness only. Experts asked about comprehensiveness only	N	N	N	N	N	N	Y; Professionals asked about relevance and comprehensiveness only. End users asked about comprehensibility only	Y; Experts asked about comprehensiveness only	3
Structural Validity	Y; PCFA	Y; EFA	Y; EFA with orthogonal rotation, Principal Axis Factor method with Varimax rotation	N	N	N	Y; FA	Y; EFA	Y; EFA and pairwise correlations	6
Internal Consistency	Y; Cronbach's alpha; total scale α = .88; Worries about judgement α= .84; Isolation α= .83; Self-judgement α= .84; Community condemnation α = .78	Y; Cronbach's alpha; total scale α = .85; Worries about judgement α= .89; Isolation α= .88; Self-judgement α= .83; Community condemnation α = .91	Y; Cronbach's alpha for subscales only; Worries about judgement α= .91; Isolation α= .90; Self-judgement α= .87; Community condemnation α = .83	N; Not applicable for single item scale	N	N	Y; Cronbach's alpha for subscales only; internalised stigma α = .77; perceived social stigma α = .76	Y; Cronbach's alpha; Total scale: α = .81. Subscales: Disclosure management α = .86; Resistance and Resilience α = .82; Discrimination α = .60	Y; Cronbach's alpha; Total scale: α = .92. Subscales: Disclosure management α = .94; Internalised states α= .84; Judgement α = .83; Social isolation α = .79; Discrimination α = .73	6
Cross-cultural validity and measurement invariance	Y; PCFA, item communalities, and multivariable regression	Y; EFA and univariate analysis; 75% variance	Y; EFA and multivariate regression analysis;	N. Not applicable for single item scale	Partial; bivariate and multinominal logistic regression	N	Y; Multiple linear regression; 60% variance	Y; Paired t-test; 89% variance	N; Variance only for subscales	5

	analysis; over half of items had communalities greater than 0.50		62.7% variance							
Criterion Validity	N	N	Y; Partial correlations using Spearman's ρ	N	N	N	N	N	N	1
Reliability	N; Reported good reliability without supporting data	Y; Test-retest reliability with Pearson's correlation Coefficients. Total Scale: r = .96; Worries about judgement by close people r= .80; Worries about judgement by distant people r= .54; Isolation r = .76; Self-judgement r = .94; Community condemnation r = .63	Y; Test-retest reliability with two-way mixed-effects ICC. Total Scale: ICC not reported. Subscales: Worries about judgement ICC (2,2) = .89; Isolation ICC(2,2) = .57; Self-judgement ICC (2,2) = .92; Community condemnation ICC (2,2) = .68	Y; ICC	Y; ICC	N	Y; ∞ = .79	Y; Test-retest reliability; Pearson's r calculated	Y; Test-rest reliability	7
Hypothesis testing	Y; Logistic regression between scales and independent measure of secrecy	N	Y; Multivariate OLS regression analyses; stigma subscales and	Y; Bivariate correlations among model variables	N	Y; Mixed effects linear regression models	Y; ANOVA, Student's T tests and multiple linear regression	N	Y; Pearson's correlation	6

			situational information							
Measurement error	Y; Kaiser-Mayer Olkin test	N	N	N	Y; Percentage calculated by race and ethnicity	Y; covariates and clusters accounted for in analyses	N	N	N	3
Responsiveness	N; comment on limitations about potential low sensitivity	N	N	N	N	N	N	N	Y; Paired t-tests	1
N (13)	10	5	7	3	3	3	6	10	11	

Table 2.3. Study methodology and psychometric properties of community level abortion stigma measurement

	AMAC *[200]*	***ASP*** *[190]*	***REES*** *[189]*	***CLASS*** *[204]*	***SABAs – Ghana and Zambia*** *[201]*	***SABAs – Ethiopia*** *[191]*	***SABAS – Kenya*** *[192]*	***ASABAs*** *[202]*	***Adolescent SRH Stigma Scale*** *[203]*	***AMIQ modified*** *[114]*	***ANSS**** *[109]*	***Social Distance scale **** *[205]*	*N (12)*
Study aim	To identify factors of enacted abortion stigma	To determine the relationship between reproductive histories, race, and perceptions of abortion and miscarriage stigma	To test reliability and validity of REES; To measure affective responses towards reproductive experiences and associated people	To develop instrument measuring community level abortion stigma in Mexico; To determine stigma prevalence and associated factors	To develop an instrument measuring individual and community level abortion stigma for stigma reduction interventions	To assess applicability of SABAs – Ghana and Zambia to medical professionals in Ethiopia; To examine relationship between stigma and willingness to provide safe abortion care	To investigate stigmatising attitudes related to abortion among healthcare providers [3]	To adapt and validate SABAs among adolescents in western Kenya	To develop, test, and validate an instrument to quantify multiple dimensions of adolescent sexual and reproductive health stigma	To measure Mexican Catholics' views about sexual and reproductive rights, abortion, and abortion stigma	To develop instruments measuring perceived norms and stigma of pregnancy decisions and identify predicting factors	To investigate social perceptions of a women who has an abortion	12

[3] Articles measuring abortion attitudes were excluded from this review. This study was included because it used and tested an abortion attitudes instrument to measure abortion stigma.

Definition and Conceptualisation	Y; Kumar et al., (2009); Norris et al., (2011), Cockrill and Nack, (2013); Goffman, (1963), Herek [87]	Y; Kumar et al., (2009); Norris et al, (2011); Goffman, (1963)	Y; Cockrill, (2013), Kumar et al., (2009)	Partial	Y; Kumar et al, (2009); Link & Phelan, (2001); Link et al., (2004); Shellenberg et al., (2011); Link and Phelan (2001), Link et al. (2004)	Partial	Partial	Partial	Y; Goffman, (1963); Hatzenbuehler et al. (2013); Link, Yang, Phelan, & Collins, (2004); Norris et al., (2011); Van Brakel, (2006).	Y; Kumar et al., (2009)	Partial	Partial; Van Brakel (2006); Katz (1979; 1981)	6
Qualitative Item Identification	Y	N	Y	Y	Y	Y	Y	Y	Y	N; modified from Luty et al (2006) [207]	Y	N	9.
Qualitative Expertise	Y	Y	Y	Y	Y	Y	Y	N; not clear	Y; assumed	Y	N	N	9
Cognitive Interviews	Y	N	Y	Y	N	Y	Y	N; workshops and focus groups conducted	Y; for comprehension only	Y	Y	N	8
Content Validity	Y; End users,	N	Y; Professionals only, relevanc	Y; End users and professio	Y; End users only,	Y Professionals only, relevanc	Y; End users and	Y; End users relevance only;	Y; professionals for face	N	Y; End users, comprehensivene	N	9

	relevance only		e and comprehensiveness	nals, Comprehensibility only	relevance comprehensiveness, and comprehensibility	e and comprehensiveness	professionals, relevance only	professionals relevance and comprehensiveness only	validity and End users for comprehension		ss and comprehensibility only		
Structural Validity	N	Y; FA	Y; EFA	Y; CFA and EFA	Y; EFA	Y; PCA	Y; EFA	Y; PCA, CFA, and EFA	Y; CFA	N	Y; EFA, PCA, and parallel analysis	N	9
Internal Consistency	N	Y; Cronbach's alpha. Total scale, α = .86	Y; Cronbach's alpha. Total scale: α = .87. Subscales: abortion α = .88; desired fertility α = .84; perceived irresponsibility α =.75	Y; Cronbach's alpha. Total Scale: α = .92. Subscales: Autonomyα = .78; Discrimination; α = .87; Guilt/Shame α = .87; Religion α = .88; Secrecy α = .80	Y; Cronbach's alpha. Total Scale: α = .90. Subscales: Negative stereotyping α = .85; Exclusion and discrimination; α = .80; Fear of contagion α = .80	Y; Cronbach's alpha. Total Scale, α = .82. Subscales: negative stereotyping α = .82; exclusion and discrimination α = .72; fear of moral contagion α not reported	Y; Cronbach's alpha. Total Scale, α = .88. Cronbach's α not provided for subscales	Y; Cronbach's alpha. Total scale, α = .74. Subscales: negative stereotyping α = .67; exclusion and discrimination α = .70; fear of contagion α = .38	Y; chi-square, root mean square error of approximation (RMSEA), CFI, and standardized root mean square residual (SRMR) goodness-of fit statistics and Cronbach's alphas; only overall scale internal	N	Y; Cronbach's alpha. Total Scale: α = .94. Subscales: Conditional Acceptability α = .94; Anticipated reactions α = .88; Misperceptions α = .81; Attitudes α = .90; Secrecy α = .80	N	9

									consistency (α = .74) and between-subscale correlations (α = .82 to .93) reported				
Cross-cultural validity and measurement invariance	Partial; Bivariate and multinomial logistic regression, but no variance reported	Partial; Multiple regression analyses but no variance reported	Partial; No evaluation of differential item functioning; 91% variance	Y; OLS regression analyses; "low variance"	Partial; No evaluation of differential item functioning; 53% variance	Partial; PCA and multivariate OLS regression; variance measured but not reported	Partial; EFA comparison; no quantitative evaluation of differential item functioning; 56% variance	Partial; Y; parallel-form reliability analysis; across instrument descriptive analysis and KMO; 49% variance	Partial; Multiple logistic regression, descriptive and bivariate tests; variance only for subscales	Partial; Multivariate logistic regression analysis but no variance reported	Y; Bivariate and multiple regression; 53% variance	Y; Multiple regression; variance accounted for 24%	3
Criterion Validity	N	N	N	Y; Pairwise correlation	Y; Association test undefined	N	N	N	N	N	N	N	2
Reliability	N	N	Y; Mixed-effects simple linear regression model	N	N	N	N	Y; ICC	N; Not reported in results although mentioned in discussio	N	N	Y; Pearson's coefficient	3

									n as strong				
Hypothesis testing	N	N	Y; Bivariate logistic regression	N	Y; Association between SABAs scores and attitude to abortion legality	Y; Multivariate logistic regression and OLS	N	N	Y; Chi-square, student's t test, multiple logistic regression		Y; Bivariate and multiple regression	Y; Multiple R	6
Measurement error	Y; Negative and positive percentage agreement	N	N	Y; Standard error calculated	N	N	N	N	Y; Controlled for sociodemographic, health, and reproductive history covariates	N	N	N	3
Responsiveness	N	N	N	N	N	N	N	N	N	N	N	Y; Multiple R	1
N (13)	6	4	**9**	**9**	8	7	6	5	9	4	7	3	

2.6.4. Abortion stigma measures in research

We found 16 of 21 articles were published between 2016-2020. The earliest appeared in 1985 [205] followed by the single item measuring concealment [194] in 1999. Most articles reporting measurement of abortion stigma were published in 2018 (*n*=6).

Abortion stigma was commonly compared with participant sociodemographics including sex, gender, age, race and ethnicity, location, education, income, relationship status, profession, work status, sexual orientation, spirituality, religious affiliation and values, or political affiliation. Some studies collected information about the participants, such as parental education and religious attitudes. Pregnancy history, outcomes, and intention, contraceptive use, pregnancy situation characteristics, and medical and psychological history were commonly collected and analysed with abortion stigma. Some studies compared abortion stigma with measures of sexual opinion, abortion attitudes, abortion law opinion and knowledge, attitudes towards women, attitude toward abortion morality, attitude toward pregnancy decision, sexual behaviour, perceived responsibility of person linked with abortion, and relatedness of person linked with abortion. Furthermore, instruments measuring abortion stigma were used to describe characteristics of people who experience abortion stigma.

Abortion stigma was associated with demographic, health, and situational factors, attitudes, and knowledge (Table 2.4). Demographic factors included religious affiliation and religiosity, race/ethnicity, age, gender, education, marital, and work status. Health factors included psychological wellbeing, psychological distress, depressive symptomology, burnout, thought suppression, intrusive thoughts, self-esteem, reproductive history, number of children, motherhood status, and contraceptive use. Situational factors included perceived partner support, perceived foetal survival after abnormal diagnosis, secrecy and disclosure, outcome of abortion seeking, and time since abortion. Attitudes and knowledge included attitudes towards abortion law, women, and responsibility, and knowledge of abortion law.

Table 2.4. Correlates with abortion stigma measurement.

	Demographics	Health factors	Situational factors	Attitudes and Knowledge
ILASs [97]	X	X		
ILASs – Turkey [193]	X		X	
ILASs – Germany [188]		X	X	
Concealment of Abortion [194]		X		
APS-PIAS [195]	X			
PAS [37]	X	X	X	
IPSAS [196]		X		
APSS [198]	X			
APSS-R [199]		X		
AMACS [200]	X		X	
ASP [190]	X			
REES [189]			X	
SABAs – Ghana and Zambia [201]	X			
SABAs – Ethiopia [191]	X			
SABAS – Kenya [192]				X
ASABAs [202]		X		
Adolescent SRH Stigma Scale [203]		X		
AMIQ modified [114]	X			X
ANSS [109]	X	X		
CLASS [204]	X			
A social distance measure of abortion stigma [205]				X

2.7. Discussion

Our systematic review contributes a novel perspective on how abortion stigma is measured and systematically analyses psychometric properties of abortion stigma measures. We identified 21 original quantitative tools for measuring abortion stigma ranging in purpose of use, location of use, development, and comprehensiveness of psychometric properties. The instruments with the most COSMIN criteria reported across all studies detailing some component of instrument development or validation for *individual level* stigma are the ILASs' [97, 188, 193] and Abortion Provider Stigma Scale – Revised (APSS-R; [199]) and for *community level stigma* are the variations of the SABAs [191, 192, 201]. No tools

were found measuring *structural level* stigma. The identified measures differ in the populations assessed, suggesting abortion stigma is hypothesised to be experienced differently across contexts, genders, and ages. With improved abortion stigma instruments, it is possible to explore relationships between abortion stigma, gender, and age, and their role as mediators and/or moderators.

Included articles present design, development, and use of abortion stigma measures from 1985 to 2020 at *individual and community* levels. This aligns with the conceptual focus of articles on individual and community stigma. We found research had been done in a limited number of regions, aligning with general abortion stigma research, which predominantly emerged from the U.S. [69]. The locations of abortion stigma measure development may relate to the existence of research infrastructure and funding. Additionally, structural barriers to abortion access may increase perceived need for measures, particularly where consequences of denied or poor-quality abortion negatively impact maternal health, prompting instrument development.

Infrequent reporting of certain psychometric properties may be explained by the relative infancy of abortion stigma measurement. For example, testing of cross-cultural validity, responsiveness, and criterion validity is limited to available valid instruments for comparison at the time of instrument development. It seems reasonable at this stage of development in the field that some psychometric properties have not yet been evaluated. Furthermore, it is not expected all components of a construct are assessed within a single study. Our findings suggest researchers are employing a hierarchy of psychometric properties to determine where to focus their study [208] and what to report. These reasons can account for the lack of representation of specific groups, such as migrant and Indigenous people. Second, some studies may not have included key psychometric properties because they aimed to measure abortion stigma rather than complete stepped instrument development. This is a common failing in health research of social phenomena [209, 210]. A third reason may be structural: accessibility barriers to completing

psychometric testing in general and specific to abortion stigma research. Altogether, a lack of reported properties cannot be assumed to represent poor study design or execution; it may reflect the environment in which the study has been conducted. Future research should further validate available abortion stigma instruments.

Our finding of no articles documenting tools for quantifying abortion stigma at the structural level, mirrors Hanschmidt and colleagues [69]. Historically, abortion has been perceived as an individual issue, with attention shifting more recently to structural factors, such as barriers to access or reconceptualisation of abortion stigma as a social process [86]. Furthermore, our search terms may not have included or identified outer levels. For example, measures of outer-level stigma may not be framed as stigma despite addressing components of stigma (e.g., law and policy change and impact); hence outer levels of abortion stigma may be investigated and documented outside literature specific to stigma. Finally, qualitative or mixed methods may be better suited assessing components of outer-level stigma, such as mass discourse, due to their ability to capture nuances of complex phenomena and inform inquiry on the aspects of stigma most relevant to those impacted [211, 212]. Consequently, our inclusion criteria may have missed studies measuring structural level abortion stigma.

Across all included studies, explanation of abortion stigma varied. Some provided specific and referenced conceptualisation of abortion stigma, while others relied on vague conceptualisations. All studies providing a conceptualisation of abortion stigma referred to Goffman's [84] tainting of social identity, either directly or through use of abortion specific definitions based on Goffman's [e.g., [71, 82, 96]]. No study reported abortion stigma from the perspective of Millar [86]; understandable considering the time frame of the research. However, some conceptualised stigma as a social process. This evolution suggests measurement will improve as conceptualisation is clarified [96]. Similarly, social contexts change and, as a social construct and process, measurement of abortion stigma and stigmatisation requires continued revision to maintain relevance and validity. The varied

conceptualisations of abortion stigma reflect the recency of this work, indicating need for continued development of abortion stigma concepts.

Our review has some limitations. While COSMIN guidelines are comprehensive, they do not prioritise psychometric properties, and strict adherence to COSMIN's quality assessment may not accurately represent an instrument's quality [213-215]. The COSMIN guideline for instrument development was first introduced in 2010, post-dating some studies we reviewed, thus was not available to guide their methodology. Second, our selection criteria excluded qualitative assessment of abortion stigma. This may have resulted in inclusion of only individual and community level stigma measures. We identified at least two studies documenting structural level abortion stigma excluded from our review due to qualitative methods [122, 166]. Despite our intent to include all relevant studies, some may have been missed due to limiting to the English language or publication after our search concluded. Finally, we did not include words such as "scale" or "tool" in our search strategy limiting our results pertaining to measurement. However, considering our librarian tested the search strategy, the volume of articles identified, and review of reference lists for additional articles, this risk was minimal.

2.8. Implications

Our results identify varying psychometric strengths of existing measures and highlight the need for further evaluation of existing abortion stigma instruments (see tables 2.2 and 2.3). Abortion stigma research would benefit from further development of instruments outside of the U.S. and Africa, and beyond the experiences of people who seek and/or have abortions. Future studies developing and validating abortion stigma instruments should use COSMIN criteria to ensure higher quality and evidence of instrument design and psychometric properties. This should include development of instruments for structural level stigma, supporters of abortion, and underrepresented countries, regions, and cultural groups. Furthermore, with the continued improvement in abortion and abortion stigma research, rigorous conceptualisation of abortion stigma will evolve, and continued review of

instruments will be necessary. Finally, there is a need for broader, non-abortion, stigma research to consider multimethod approaches to measurement. Stigma measurement should reflect stigma as a social process extending beyond the individual, including structural and contextual levels and components [212]. To ensure the entirety of the complex phenomena is captured, qualitative and mixed method approaches are needed [211, 212]. Qualitative approaches have an active role in readdressing power inequalities, ensuring stigma reduction efforts are culturally relevant and nuanced, and further scientific inquiry remains embedded within aspects most relevant to those impacted [211].

2.9. Conclusion

There are several tools for measuring abortion stigma, ranging in psychometric assessment, target group, and context. The ILASs', APSS-R, and SABAs' perform best on COSMIN assessment criteria. Gaps in the measurement of abortion stigma reflect gaps in abortion and stigma research, such as the concentration of abortion research to specific regions and limited measurement of structural-level stigma. Further research is required to validate available instruments, develop instruments with marginalized groups and structural level abortion stigma, and inform abortion stigma conceptualisations and interventions.

CHAPTER 3. Measuring Abortion Stigma: Adapting and developing four instruments for use in Australia and Aotearoa New Zealand.

3.1. Publication details

Ratcliffe, SE., Pinkus, RT., Dar-Nimrod, I., Juraskova, I., and Dhillon, HM. under review. Measuring Abortion Stigma: Adapting and developing four instruments for use in Australia and Aotearoa New Zealand. *Women's Reproductive Health. [152]*

3.2. Rationale and link with previous chapters.

Chapter 1 outlined a need for quantifying abortion stigma in ANZ. Chapter 2 identified the most psychometrically robust tools for measuring abortion stigma were at the individual level: the Individual Level Abortion Stigma scale (ILAS) and Abortion Provider Stigma Scale – Revised (APSS-R). Chapters 3 to 6 set out our work to develop and test reliable and valid tools for measuring abortion stigma in ANZ following robust guidelines for developing and selecting patient/person report health measurement instruments. Chapter 3 qualitatively explores the suitability of the ILAS and APSS-R for use in ANZ and among people, groups, and organisations supporting abortion.

3.3. Chapter abstract

Background: Qualitative research identifies individual-level abortion stigma in Australia and Aotearoa New Zealand (ANZ). However, no validated instruments quantifying individual-level abortion stigma in ANZ exist [126].

Method: This study supports culturally valid measurement of individual-level abortion stigma in ANZ by determining the suitability of: 1) the Individual level Abortion Stigma scale (ILAS) [97]; and Abortion Providers Stigma Scale – Revised (APSS-R) [199]; 2) measuring abortion stigma experienced by advocates, and 3) measuring stigmatisation of abortion-related organisations in ANZ. In focus groups (n=16) and interviews (n=16), people with experience accessing, providing, publicly supporting abortion, or representing relevant organisations, reviewed the cultural relevance of instruments and discussed issues not covered.

Results: The ILAS and APSS-R were found broadly relevant to the ANZ context. Suggestions included amended wording, additional items, and development of instruments for abortion advocates and organisations supporting abortion. Different approaches to scoring, contextual factors influencing abortion stigma, and experiences answering questions about stigmatisation were shared. The research team adapted the ILAS and APSS-R for relevance to the ANZ context and for advocates. An instrument measuring stigmatisation of organisations supporting abortion was developed.

Conclusion: These instruments provide the first tools for quantifying experiences of measurement of abortion-related stigma in ANZ. Review of their usability and psychometric properties is needed before their use to assist build the quantitative evidence-base about abortion stigma experienced in ANZ.

3.4. Introduction

Abortion is a medically safe, needed, and beneficial component of healthcare [1, 5, 8, 41, 216]. Ensuring quality abortion care is fundamental to the United Nations Sustainable Development Goals and World Health Organisation (WHO) guidelines [5]. An increasing body of literature identifies stigma as a persuasive factor impacting the quality of abortion care (i.e., effective, efficient, accessible, acceptable, equitable, safe) [10, 20, 22, 37, 42, 64-71]. To ensure abortion care meets the WHO's quality guidelines, and is secure (e.g., not consistently threatened or eroded), abortion stigma must be addressed [1, 10, 67]. To do so, culturally valid tools measuring abortion stigma are needed.

In Australia and Aotearoa New Zealand (ANZ), abortion is recognised as a core part of healthcare by government [165, 217, 218], medical bodies [138, 156, 219, 220], and the community [56, 221-223]. However, there is "…no other area of health care that has been so stigmatised, marginalised and judged by policymakers and clinicians alike" [139] p. 189]. In Australia, abortion stigma is experienced by people who may consider, access [75, 77, 78, 144-147], or provide [73-76, 153] abortion care. Such stigma is found to be related to

individual wellbeing [77, 224], relationships and social behaviour [77, 78, 153, 224], service delivery and access [72-78], and laws, policies, and discourse [141, 224, 225]. In Aotearoa New Zealand (AoNZ), abortion stigma is reported by those who access abortion [148] and is entwined with community and culture [56, 79], systems and policy [79, 172], discourse [170], and restricted abortion access [79]. Consequently, there are increasing calls to addressing abortion stigma in ANZ [77, 78, 135, 136, 139-141].

Abortion stigma is the outcome of the social-cultural process of labelling, stereotyping, separating, and discriminating abortion as negative, resulting in abortion together with people and entities linked with abortion, being labelled and treated as socially deviant and devalued *[126]*. A social construct rooted in particular ideals of gender, sexuality, and power relations [82, 86, 90, 107], abortion stigma changes with social context. Through the contextual, dynamic, process of stigmatisation, power is used to differentiate and dehumanise abortion, people, and entities keeping them oppressed [88, 91], abortion stigmatised [86], and social and structural inequalities reproduced and legitimised [92]. The causes and consequences of abortion stigma interact within, between, and across individual, interpersonal, and structural levels (Figure 3.1) [71, 116, 121, 178, 179], and are associated with wellbeing [37, 43, 64, 68, 111, 194, 226], relationships and social interactions [69, 111, 178, 179, 198, 199, 227], experiences of care [65, 228], systems/structures and discourse [65, 143, 228, 229], and safe care [65].

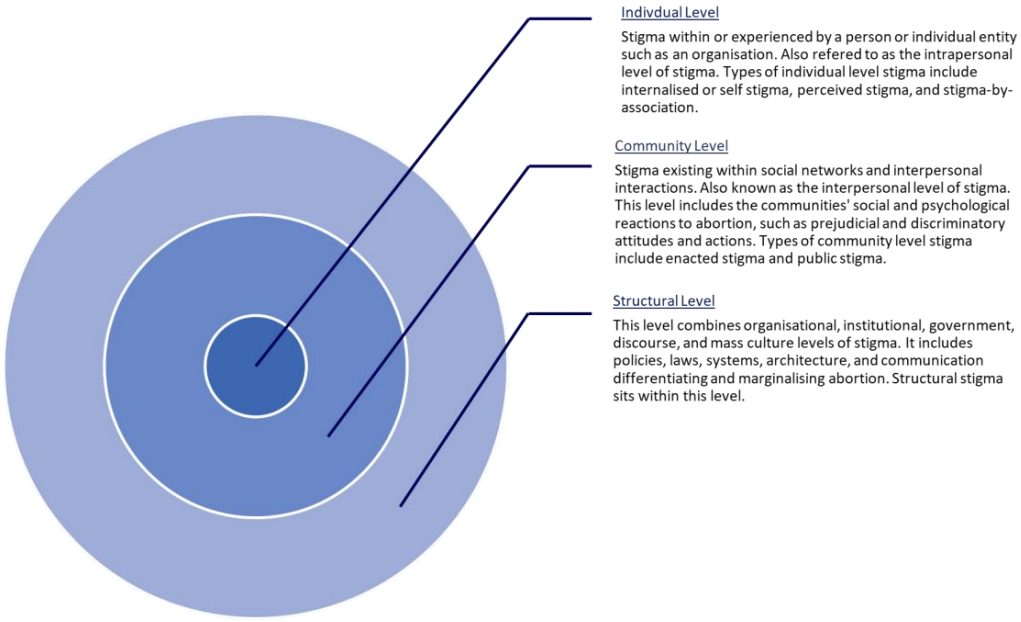


Figure 3.1. Schematic representation of the simplified levels of abortion stigma. *Used with permission from* [126]. *Schematic representation of the levels of abortion stigma adapted from Kumar et al., [71], Norris et al., [82], and Cockrill et al., [83] incorporating types of stigma from Pryor and Reeder [180] and their dynamic interrelatedness. *Level and types of stigma are dynamically interrelated. Types of stigma at each level are not exclusive to each level; they interact and are influenced by other levels and types of stigma.*

At the individual-level of stigma are those who are stigmatised and their experiences of stigma. This includes stigmatisation of people who access and provide abortion care and people who publicly support abortion [82], and the stigmatisation of groups and organisations supporting abortion through service provision or advocacy. Understanding individual-level abortion stigma helps determine who is stigmatised, how they are stigmatised, the impact of stigma on them, and how experiences of stigma vary with changes at the interpersonal and structural levels. The most psychometrically robust instruments for measuring individual-level abortion stigma are the Individual level Abortion Stigma scale (ILAS; [97]) and the Abortion Provider Stigma Scale – Revised (APSS-R; [199]), both designed and validated for the US context *[126]*.

To our knowledge, no published quantitative reports of abortion stigma in ANZ exist *[126]*. Nor are there tools validated to measure abortion stigma in ANZ *[126]*. To address gaps in understanding of abortion stigma and support culturally valid collection of

quantitative abortion stigma information in ANZ, we aimed to adapt and develop instruments to quantify individual-level abortion stigma in ANZ. Specifically, we aimed to: 1) determine the suitability of the ILAS scale and APSS-R in ANZ; 2) determine the relevance of measuring abortion stigma experienced by advocates in ANZ; and, 3) determine the relevance of measuring stigmatisation of groups and organisations providing and/or advocating for abortion in ANZ.

3.5. Methods

A qualitative approach was taken to revise, adapt, and develop individual-level abortion stigma instruments in ANZ. Cognitive enquiries, using focus groups and telephone or Zoom interviews, were conducted with people familiar with abortion stigma in ANZ and instrument end users. Focus groups were used to facilitate discussion and brainstorming between participants, with interviews offered to participants preferring 1-on-1 discussion with the research team. Focus groups and interviews covered: the suitability of ILAS and APSS-R use in ANZ; the stigmatisation of advocates, groups, and organisations in ANZ; disclosure and secrecy; and recommendations for abortion stigma research. The study was approved by The University of Sydney Human Research Ethics Committee (protocol 2020/561; appendix 2.1).

3.5.1. Recruitment

Participants were purposively recruited through professional networks, social media, and snowball sampling. In October 2020, emails were sent to individuals and groups potentially aware of abortion stigma, such as supporters of women's health, sexual and reproductive health, and bodily autonomy. People and groups contacted were provided email and social media templates for circulation as suitable. On Twitter [230], the research team shared the study details with individuals and organisations further disseminating information. Emails and advertisements used variations of the phrase, "Measuring abortion stigma in AUS and AoNZ. Seeking individuals and organisations for focus groups or interviews. Visit link."

To be eligible, participants had to be aged 18 years or older, speak English, and have experience with at least one of the following: having an abortion, providing abortion-related care, advocating for abortion, and/or representing a group or organisation providing or advocating for abortion within ANZ. Interested participants completed an online survey including informed consent, focus group/interview preferences, demographics, and religiosity (measured with the Centrality of Religiosity Scale (CRS; [231]). One researcher (blinded; A) contacted consenting participants using their preferred contact methods to organise focus group/interview and share the relevant instrument(s) for review.

3.5.2. Data collection

Interviews and focus groups explored the suitability of the ILAS and APSS-R to the ANZ context, by asking about the relevance, comprehensiveness, and comprehensibility of instruments items, sections, response options, and instructions. with emphasis on language and terminology. Participants reviewed the relevance of content about secrecy and disclosure, based on items developed from using previous abortion stigma research and instrument design generated secrecy items for participant review. Focus groups and interviews followed an interview guide which systematically progressed through each item of the ILAS and APSS-R. Participants commented on content they had personal or professional experience with, with many speaking from more than one perspective. Focus groups and interviews were audio-recorded and transcribed. Focus groups were conducted by authors [blinded; B] and [blinded; A] and interviews by A. Both researchers are experienced in qualitative methodology and research interview techniques.

3.5.3. Data analysis

Focus groups and interviews were analysed by two authors (A and B) using NVivo 12 [232] and MS Word [233]. Data analysis focused on synthesising information about the instruments, items, response options, measuring stigmatisation of advocates and groups/organisations, and approaches to abortion stigma research in ANZ. Methodological

rigor was ensured through interviewer memos, transcript review, researcher debriefing, cross-coding, and iterative revision of the interview guide.

Two authors (A and B) applied participants' insights to revisions of the ILAS and APSS-R and the development of instruments for advocates and groups/organisations. The research team (all authors) reviewed the ANZ instruments through two rounds of review and discussion meetings.

3.6. Results

A total of 32 people participated in four focus groups (n = 16) and telephone and Zoom interviews (n = 16). The focus groups averaged 73 minutes (range 58 – 81) and interviews 59 minutes (range 31 – 81). All five target groups were represented in the sample. *Of the 32 participants, 17 had experience accessing abortion, 12 providing, 26 advocating, and 17 representing an organisation.* Participants had a mean age of 50 years, were predominantly women born in Australia with no religious affiliation, and held a university degree. Participant demographics are detailed in Table 3.1.

Table 3.1. Participant demographics

Demographic	Number of participants, unless otherwise specified
Age: mean (range)	50 years (25-73 years)
Location	
Australia	28
New Zealand	4
Gender	
Woman	28
Man	2
Non-binary / gender diverse	2
Education	
Non-university	7
Undergraduate Degree	13

Postgraduate Degree	11
Prefer not to say	1
Political affiliation	
Greens	11
No political affiliation	9
Labour Party	7
Independent	3
Prefer not to say	2
Religious affiliation	
No religious affiliation	28
Christian	3
Islam	1
Religiosity	
Not religious	16
Religious	14
Highly religious	1
Prefer not to say	1
*Indigenous affiliation (*Aboriginal, Torres Strait Islands, Pacific Island, and/or Māori)	
No	31
Yes	0
Prefer not to say	1
Country of birth	
Australia	22
New Zealand	5
Other	5

Data analysis led to the development of four separate instruments for individual-level abortion stigma in ANZ: the ILAS adapted for cultural relevance; the APSS-R for people who provide abortion related care adapted for cultural relevance; the APSS-R adapted for advocates; and the development of an instrument measuring the stigmatisation of groups and/or organisations providing and/or supporting abortion care.

3.6.2. The Individual Level Abortion Stigma (ILAS) scale

The ILAS scale was judged to cover many relevant issues and was well understood by people who have had an abortion, although modifications and additions were recommended. The findings and illustrative quotes are presented in Table 3.2.

The ILAS' strengths include its comprehensibility and comprehensiveness. For the ANZ context, additional items and modifications of wording for some items were suggested to increase the sensitivity and nuance of the scale, such as stigmatisation from protestors, health professionals, family, and the workplace; reflecting secrecy and disclosure in different contexts; and hiding emotions.

Participants commonly reported feeling privileged or lucky to not have had the experiences listed in the ILAS. Some raised concerns of the potential of stigmatisation from the actual instrument and that completing the instrument raised questions, awareness, and/or negative feelings of their own experience of abortion stigma in some participants. Others had little or no concern with asking questions about stigma. Many participants reported stigmatising experiences as rare but impactful. For example, participants answered '0' to add 'except in this specific scenario' which they explained to have a large impact on their life.

Table 3.2. Qualitative findings and illustrative quotes related to using the ILAS in ANZ.

Finding	Quote
Strengths of ILAS for ANZ	
Factors are relevant	*"the categories that you had were quite relevant" (P7; consumer and advocate)*
Items' comprehensibility and relevance	*"They were all plainly written and easy to understand." (P2; consumer and advocate)*
	"I sort of thought they were all relevant" (P13; consumer and advocate)
Response options were suitable	*"to me it was like a standard format for all surveys in terms of agree or disagree or, you know, being worried or not worried. I thought that all made sense to me." (P7; consumer and advocate)*
Modifications for improved [cultural] relevance	
More sensitivity and nuance of items	*"They seem to be – some of them seem to be quite – more extreme than we might go here in New Zealand, but that said, this doesn't mean that the question shouldn't be asked." (P1; advocate)*

Improving sensitivity through modifying response options	*“I’d be really tempted to remove the middle ground and just – because sometimes the middle ground is not so much, oh, I don’t really know, so much as, I don’t want to look at that thing … they’re so personal that it seems like they would have to be – you would have to be able to agree or disagree” (P1; advocate)*
Inclusive language: gender and number of abortions	*“it says that the following surveys [are] for women who have an abortion. I would suggest a more inclusive language, maybe, “women and people [who] could have had an abortion” just to acknowledge that some people having abortions don’t identify as women.” (P16; advocate, provider, representative)*
	“when you say abortion, you’re implying there is only one. … So, I can, say like 11 would be, 'I can talk to the people I'm close to about having had an abortion', which would allow it to be more than one abortion.” (P9)
Additional items about community condemnation	*“I guess community condemnation. There could potentially be more things in that particular [factor]” (P2; consumer and advocate)*
	“the stuff about women are always going to have regrets. And I don’t know if that’s sort of covered by ashamed, and selfish, and guilty, or whatever. But yeah, and I have no regrets, and the idea that constantly gets pushed about that women will have regret” (P15)
	“I think a lot of people see it as you being irresponsible and wanting to take the easy way out, but having a termination isn't taking the easy way out. Trust me, it's not taking the easy way out.” (P8)
Additional item about isolation	*“we'll have clients say time and time again, "This is the only space that I can say that I'm really happy for it, or I'm really sad, and that you hear me on both fronts." (P12)*
Additions for improved comprehensiveness	
items about emotions	*“a pride one would be good just because so many people go about ‘proud having an abortion’ or like, like I met one person, again when you are out in public and you say you work in sexual and reproductive health, and people disclose things. I was once getting a consult on a personal loan and the person in the loan place was like, 'I've had 11 abortions!'.” (P9)*
	“A lot of clients will speak to, "Oh well, I've had to be depressed the entire time because my family will judge me if I'm not. If I'm really happy about it, it means that I never want to have a kid again," (P12)
Secrecy and selective disclosure	*“I’ve learnt over the years, I’m very picky about who I share information with, I’m very picky about my friends as well as my boyfriends” (P6)*
	“I am very comfortable, and I have always been very comfortable with the decisions that I've made. I still don't tell people. I've told a handful of friends in the 10-plus years since I had it, but my parents

	don't know. So I've only told a very small handful of people." (P3)
	"Usually I just don't mention it [to HCPs] unless it's absolutely, unless the context is there, I probably won't mention it unless it's on a form." (P6)
	"I think it's important that there's a question to do with what you do for a living; it doesn't have to be worded – like, it's I avoid telling people what I do for a living, it could be I avoid telling people I work with reasons why I'm taking time off work for an abortion or having an abortion" (P13; consumer and advocate)
Stigmatisation online	*"Less so, physical violence. Yes, but there is absolutely a possibility for the online stuff. I think that's almost more than anything else, particularly, here [in Australia]." (P3)*
Stigmatisations in media	*"When I see it on the media and stuff, and specifically this one person, because they make a big deal about it. Yeah, because I actually see them quite often and you think, I'm a murderer." (P6)*
Stigmatisations about protestors	*"I got spat on. Actually, when I was entering the clinic, not in Melbourne, but in South Australia when I went [to] an appointment at the [location]." (P6)*
	"we were harassed by anti abortionists outside [location] as we were on our way in … I mean that was verbally threatened, I didn't feel attacked, but was verbally threatening. And you know, pictures and signs and praying for me and things." (P15)
	"I got a pamphlet in my letterbox the other day, because we've all been pamphleted by the anti-abortionists in South Australia, and it was all about women who have nervous breakdowns, and kill their other children and all these things because they feel so bad about having an abortion." (P15)
	"I keep hearing again and again, whether people see the protestors or not, they're always afraid of them, they always have to steel themselves to go to get – to go to get their procedure" (P1; advocate)
Stigmatisations from health professionals	*"I noticed that you haven't asked any questions around conscientious objection ... That is a situation that definitely increases stigma here in New Zealand and it's something that, again, almost everyone – it tells me a story of really, really ridiculously large number have something to talking to me about that." (P1; advocate)*
	"I remember sitting in front of this old bloke and him saying, 'I'm Catholic, I don't believe in it', and I'm thinking, oh, God, you know, like, oh, God, I'm not going to get it, you know, and then he said, 'I'll send you to someone else', and I was like this huge – like, yes, I'm going to get it, no, I'm not going to get it," (P10)
Stigmatisations related to culture	*"There's like – there's a thing that's missing there and it has to do with – and I'm not entirely sure how I would phrase this question, but it has to do with affinity to one's culture and representing the*

	cultural differences that are part of a person – of Māori or Pasifika background that might make it a little bit harder for them under certain circumstances, and easier in others. So, yeah, there would be – yeah, I would probably add something there, but I'm not entirely sure what it would be, although it would get to that sense of letting the side down, in terms of your whole fucking culture." (P1; advocate)
	"I was raised as a Catholic but all of your Catholic - you can call it indoctrination if you want. But all of those messages come back to you. You've let people down, you're a bad person. You're not living within the 10 commandments and all of those things." (P8)
Stigmatisation related to location	*"So if you had to drive back to your rural hide away, there was a really good chance that you would start miscarrying in the car or on public transportation, and this was an experience that people have had and that people told the Select Committee about, and it was – that is – I mean, that whole situation, that whole experience, in itself is stigmatising, because it just shows you that you are not as important as the words that a bunch of arseholes in 1977 put down on a piece of paper." (P1; advocate)*
Modifications for improved comprehensibility	
Consistent response options and framing of items	*"I think one scale zero to three, one zero to four and they're different types of questions lumped together. I found it a bit confusing, again, like having to change the way you're thinking every time you're changing to the types of questions, might make it a bit difficult for people to respond. … And the reverse coding kind of makes it a bit confusing." (P16; advocate, provider, representative)*
Modifications for improved relevance	
Differentiating subject in items	*"I guess there's things like impacts on relationships, and you could probably go into that a little bit more. Not anywhere like intimate partners but also family and friends." (P2; consumer and advocate)*
	"Obviously, 'someone I love' is different to people generally." (P9)
Differentiating emotions	*"they [clients] often will talk about their guilt that they hold because they're also humans themselves and just those key words; proud, connected. There's all different nuances and they just I think will actually pick up such rich data." (P12)*
Modifications to capture contextual components of stigma/tisation	
Time of abortion	*"I believe that it's [different] for different women of – , women who are perhaps 40 years old now, and maybe had their abortion 10 years ago." (FG3)*
Time since abortion	*"when it first happened, like for three months afterwards I was in hell, but nowadays, I mean I'm talking about it now and I'm not crying, I couldn't do that last year, this was last year, there's no way." (P6)*

Abortion related legislation	*"If you don't have to fight your way through 30 protesters on any given day to receive your medical treatment, it makes accepting what you've done easier, and doing what you need to do easier." (P3)*
	"I would think that that would be quite fruitful because even though here in New Zealand it's not – it's no longer a criminal act, it used to be really, really recently and there are places in Australia where that is also true, that it was only very recent…. you could just ask the question, like, did you receive your abortion before or after de-criminalisation? And then which side of the divide that they're talking about." (P1; advocate)
Pre- post- abortion	*"The interesting things around the self-judgement ones is the differences before and after the procedure. You might want to consider that. So like people might have felt ashamed beforehand, but not afterwards. So it's often a maybe answer." (P9)*
Pregnancy characteristics	*"it's not about the abortion itself. It's about how I got there. And I think I fear probably just as much judgement about that as I do the procedure." (P3)*
	"Another one is around the good abortion, I find that narrative really interesting. So abortion following a sexual assault is okay but other abortion is not." (P9)
	"supposedly you're not meant to have sex until you're 16 in New South Wales, so if a girl is having sex before the age of 16 and wants an abortion "there's definitely more of a stigma there than if she's over 16 because there's a double whammy isn't there, well you shouldn't have been doing that, you're under 16 and now you're pregnant, look what you've done." (P13; consumer and advocate)
Abortion characteristics	*"I hear of often is more than one abortion is bad, but one's OK. So there's this perception that you learn once and it doesn't happen again" (P9)*
	"that difference between early term abortions like mine, and then the late term medical ones. I think there's some grey in the medical aspects. There is certainly – when women share their experiences of having to terminate a very, very wanted pregnancy. … I would absolutely receive condemnation [not in] the way that someone for whom abortion was traumatic in that sense." (P3)
Location of abortion	*"there's definitely a divide between the rural and remote versus the urban. It's much more difficult to get access in the rural and remote" (P1; advocate)*
	"It's also tricky when they're coming from a small community; word gets around really quickly and it's also tricky that – it's really hard to keep confidentiality even within the healthcare systems, the community clinics might be staffed by someone they know and could be a family member or an extended family member." (P16; advocate, provider, representative)
	"I've had three terminations in my life and one of them was at a private Catholic hospital, so the experience there was far more traumatic than it was going to, for example, a feminist clinic 15

	years later, so I think the context of making those decisions would make you answer those questions differently.“ (FG4)
Cultural considerations: First Nations and CALD groups	*“Within our Māori society though there was one question that’s never been answered. And there’s a word called whakapapa; and whakapapa means your history, your family history, who you are. And it’s quite a tradition for women to have tattoos, all of their children tattooed on their arm. And women often wonder where they can put this pregnancy and to be a tattoo, and how that can be on there without it being terribly obvious.” (FG3)*
	“… work with First Nations people and they've described to us sometimes that the word can be really confronting and they're happy to talk about abortion, but they don't necessarily use that word just because of the history with Australia and eugenics” (P12)
	“The ones that were always a little bit tricky were people who were maybe from the Middle East or from Northern Africa, and they were the ones that were really – they were very – sometimes traumatised, frightened women, and that took a lot of time. … trauma about the pregnancy, about the abortion, about the shame. About the – and the way they’re perceived within their societies.” (FG3)
Measuring stigma	
Relevant to measure stigma	*“There were a whole bunch of those sort of things, like, oh, what am I going to do and, what are they going to think?” (P10)*
	“I didn't want anybody to know … The judgment is just horrific. So, I think women are judged and I think by other women, as well as men.” (P8)
	“You feel like you would have to owe explanations and to defend yourself“ (P8)
Risk of stigmatisation when measuring stigma	*“Because it’s saying this is how the community feels, particularly if they don’t read or – or even if they do read the questions properly … It could make them think there’s more stigma than there is because I think – some people in Australia think those things but not very many, and so it’s sort of validating it by having it in there. “(P14; advocate, provider, representative)*
Risk of reinforcing stigma when measuring stigma	*“I felt sad when I read those questions, because I thought, ah, like some people do feel ashamed and feel like they’ve been selfish, and yeah.” (P15)*
Risk of harm when measuring stigma	*“I think they could even potentially be harmful because people might not have even considered that. “(P14; advocate, provider, representative)*
Prompts comparison	*“…what it really did was, just looking at the questions, it really made me aware of how difficult that it must be for a lot of other people. … I was a bit surprised at the extent to which it's obviously not so unproblematic for a lot of other people, judging by the questions.” (P15)*
	“… really eye-opening to see how privileged I was with my experience as the statements that are on this questionnaire are obviously – lived experience was by a lot of women, and so yeah, I feel like it

	was negative geared, but also it reminded me how important it is that these statements aren't something that women should identify with when they have to access those services." (FG4)
Prompts reflection	*"it brings out a whole lot – like asking these questions brings up a whole lot of issues. Yeah. Like when I was thinking through them, when I was reading them and thinking through them, yeah. I just thought, oh - - - Just the thing of, you know, why wouldn't I tell [person], why wouldn't I tell my mum, why wouldn't I – yeah. Just that whole sort of self-questioning stuff." (P15)*
Validating to recognise the hard parts of being associated with abortion.	*"I've thought about it sometimes but – yeah, it's quite validating actually to be asked some of these questions. Because, yeah, it does sometimes impacts on your life when you tell people things." (P14; advocate, provider, representative)*
Okay process	*"I felt okay about answering them. I didn't feel put off or negative." (P13; consumer and advocate)*
Including positive items	*"I think being asked questions of how horrible you feel or how guilty you feel can make you feel guilty and horrible and I think having questions to ask, like, do you feel empowered when you had your abortion, do you feel supported – I think it's an important aspect of stigma as well, like, I guess the more positive experiences, because you want to know, I think, whether there are any positive experiences and I think embedding it into the scale or into the survey, as I said, might counteract some of the negative emotions that they might feel from the negative questions." (P16; advocate, provider, representative)*
	"obviously it's an abortion-stigma questionnaire, but I think you need – I would feel better about it if it gave a little more oxygen to the idea that, I felt fine about it, I didn't have a problem." (P1; advocate)
Include protective factors, e.g., trigger warning and support services.	*"I'm assuming there's going to be some sort of – I guess the whole thing's a trigger warning, isn't it, really? … [include] something that, you know, if this stirs up feeling for you, these are places where you can go and get help or it's normal to have …" (P14; advocate, provider, representative)*

3.6.3. The Abortion Provider Stigma Scale – Revised (APSS-R)

For people who provide abortion care and people who advocate for abortion care in ANZ, we found the APSS-R [199] was suitable pending adaptation. There were some differences in terminology and topic relevance between providers and advocates indicating a different instrument is needed for each group. The findings and illustrative quotes about the APSS-R in ANZ are presented in Table 3.3. Many participants reflected on the APSS-R as an instrument suitable for both providers and advocates.

For providers, the APSS-R was regarded as understandable although vague, comprehensive although repetitive, and relevant although requiring cultural modifications. Similar to the ILAS, many participants identified feeling privileged or lucky to have not had the experiences listed. Despite provider participants not experiencing stigma personally, they indicated awareness of stigmatisation of providers of abortion care. While some participants reported a concern of potential stigmatisation from the instrument, others had little or no concern about the instrument itself being stigmatising.

Advocates reported the APSS-R to be relevant, understandable, and comprehensive pending modification to more suitable language and inclusion of additional items. Unlike people who have had abortions or provide abortion care, people who publicly support choice and abortion did not report the assessment of abortion stigma via the APSS-R to heighten stigmatisation.

Table 3.3. Qualitative findings and illustrative quotes related to using the APSS-R in ANZ.

Finding	Quote: HCP	Quote: Advocates/Public supporter
What works about APSS-R		
Relevant topics	*"I feel they are very relevant, the questions that are being asked, and I can look at all of these questions and think how do I actually feel about this, which I think is a good thing about the scale at the moment." (P16; advocate, provider, representative)*	*"when I read through it [APSS-R], I thought a lot of these applied very well to advocates." (P1; advocate)*
Comprehensive and perhaps too long, although not onerous.	*"I think it's very comprehensive. I looked at it and I thought 35 questions!" (FG3)*	
	"I didn't find it onerous" (P13; consumer and advocate)	
Response options understandable	*"I think the scale is reasonable. I think there's enough options for me to make a decision on how often I experience any of these feelings or things that – I think the scale works." (P16; advocate, provider, representative; provider and advocate)*	
Suggested modifications for improved [cultural] relevance		
Terminology not relevant	*"I think there's a term there that's really problematic that's, 'abortion worker'. It's used a fair bit, but no one I know defines themself as an abortion [worker]… If you're*	*"[it] was pretty quick for me to answer and it was just the questions I had around the fact that I'm not a care worker or someone who actually is a*

	talking to clinical providers, they're health workers. Or they're like clinicians or whatever. But abortion is healthcare, so they're health workers. And abortion, and people that provide abortion provide a whole range of services. No one I know provides just abortion…. And that's like a stigma word because people think we just do abortion." (P9)	*provider" (P13; consumer and advocate)*
Remove item about restrictive legislation		*"It wouldn't really relate" (P9)*
Participants lack negative experiences; add positive experiences and reduce assumption of negative experiences	*"I also haven't had a lot of experience of negative consequences of it [providing abortion]. Only positive really." (P2; consumer and advocate)*	*"I think in the case of the context of someone who's advocating, it's probably unlikely that they're going to feel ashamed." (P4)*
		"you don't go into that work unless you're fairly certain about your own position on it." (P15)
	"That implies that they've already had negative reactions. So you might want to phrase that as fear of people's reactions, because they might not have experienced that and not having experienced that might be reinforcing their silence." (P1; advocate)	
Suggested modifications for improved comprehensiveness		
Add items about stigmatisation online: anticipated and enacted	*"The Internet is a dangerous place. It's probably the one space I wouldn't ever disclose openly, and I've seen colleagues from other services who openly have where they write on their thing, like [deidentified] service for instance, and they've just been absolutely smashed out by anti-choice people on Facebook, on their personal accounts and stuff like that." (P12)*	
	"You know what a really good one would be, I've been threatened online. For those who work in abortion care, that would be really useful to know. … I've been threatened online as a result of working in abortion care." (P9)	*"There are like people who troll me on Twitter all the times" (P9)*
Add items about anticipated and enacted stigma in the workplace	*"So there's plenty of clinics in [city] where the doctors won't get the training because they're afraid that that will mean that they will lose their job. So there's definitely stigma." (P4)*	
	"Like it's more specific than just my colleagues will judge me, which is a question in that survey. But it's actually – my ability to earn money, doing my job will suffer if I do this. Which is true in a lot of places, because you'll be excluded from employment opportunities, if you are known to provide terminations. … I knew nurses that would want to go back to either general hospital or to where they came from, midwifery	

	or whatever, and had an awful time obtaining employment in their field after having done a period of time at our clinic." (FG3)	
	"Impacting on your ability to get jobs or your ability to enrol in a professional setting. I feel like that's an important one, especially if you're – so for example, in some organisations there might be a very strong prejudice against abortion providers or just abortion work, and it's an organisational prejudice, or institutional prejudice, and in those situations, like, if you're being interviewed in this particular institution at the hospital clinic, et cetera, if you tell them that you're doing abortion work you're very unlikely to get hired. And with some organisations are religious-based organisation, religious-based hospital, et cetera, where they don't provide abortions, and they will not be supportive of it, people might find difficult finding work in that particular organisation." (P16; advocate, provider, representative)	*"I think it could have potentially influenced prospects for future employees or people that are in positions of influence that might not share my view… I think my employer – my former employer was also a little bit concerned about the amount of media attention that I was getting [during decriminalisation]. … it was a conversation where they basically wanted to restrict my social media presence, because of the other media attention that I was getting." (P4)*
Add items about anticipated and enacted stigma in relationships and community	*"there's something about social standing as well, so if someone comes from a community whether it's a religious community or a cultural community, and they're quite involved in that community, again, working in abortion might impact on their standing within that community. … there is that fear of being ostracised or isolated and we might not be able to participate in cultural or religious events because of that, and it may or may not happen, that exclusion, but there is that fear that it might." (P16; advocate, provider, representative)*	*"for me, I think it's very stressful dealing with the threat of confrontation, but also the perceived loss of opportunity that you might experience as a result of advocating. So being a voice on a controversial topic, you know, what are you foregoing? Is it a relationship with your parents who have a different view from you? Is it a – is it bringing tension into the relationship with your spouse? Is it creating a situation where you feel like you might lose your job, or that people in your workplace might question your integrity or your values? I think those are really important things because it, sort of, gives an understand of what's at stake, being someone who is prepared to speak on behalf of an issue for other people." (P4)*
Add items about enacted stigma from patients, colleagues, and community	*"one would be the thing about the stigma that you get from the patients, but I think that would be quite hard to word. But yeah, that is in fact probably where I experience stigma the most is*	*"They're members of my party and that, they are more my supporters [but not of abortion], and they know that I support this. But they don't really want to have the conversation with*

	actually from the patients" (P14; advocate, provider, representative)	*me. Some the men have tried, the elderly men who run the church." (P8)*
	"a more specific question about judgement about from other people who provide abortions at different stages would be appropriate." (P5; provider, advocate)	
Add items about (selective) disclosure	*"say I was around some family members who aren't pro-choice I probably would be more reluctant to raise the issue. So, it's about being selective. Yeah, just being selective with who I can say things. " (P2; consumer and advocate)*	*"I'll openly support abortion in any situation." (P11; advocate)*
		"I'm really, really, careful about how I select opportunities to advocate. So, yeah, I tend to avoid physical situations at any cost." (P4)
		"So I think it's important that there's a question to do with what you do for a living; it doesn't have to be worded – like, it's 'I avoid telling people what I do for a living', it could be 'I avoid telling people I work with reasons why I'm taking time off work [to advocate for abortion]'." (P13; consumer and advocate)
Add item: precaution taken to reduce potential stigmatisation and consequences		*"[My colleague] was one of the people that was in the media [during law reform], so then they were making sure to pop around to grandma's house, take out that bit of the paper. So she wouldn't see it because the fear that she would be ex-communicated from this grandma and their relationship was just too important to lose." (P12)*
Implied and assumed hardship of working in sexual and reproductive health		*"I get told by people in my life a lot that I should work somewhere else cause it would be easier or, I would see less horrible things or like there's an implication that my work would be really very negative. So there's an implication that like abortion is negative or there's regret or there's trauma." (P9)*
Modifications for improved comprehensibility		
Long and repetitive → change layout	*"I guess that some of them are very similar, just reworded a bit differently … I was just looking at how you reworded some of them and I thought that was similar to the question before and I was wondering whether you were just double-checking people were reading it." (P13; consumer and advocate)*	
	"…it doesn't feel like it's a systematic way of asking the questions … but it just feels a bit all over the place… I think if it was one after another, I would feel it would be less repetitive if you made it clear which group of people you're trying to hide your abortion work from.	

	So I feel like it needs to be similarly worded but change – 'I feel like I need to hide my abortion work from my friends' and the next one would be, 'I feel like I need to hide my abortion work from people who are not my family or friends'. It makes it clearer for people why you're asking this question …" (P16; advocate, provider, representative)	
Split dual-scales to improving understandability	"*if you're introducing different, as you say, how impactful is, et cetera, et cetera, and saying low impact, minimal impact, et cetera, I think to do that as a separate section so that people can then change their way of thinking and then just focus on that particular way of thinking." (P16; advocate, provider, representative)*	
More specific wording	*"there's a few of the statements just mention work instead of specifically saying abortion work. For example, question 2 and question 13 might be more – would be better – specific and specifically say my abortion work, or feel ashamed of the abortion work I do because for a lot of people abortion work might not be their only work, and it might not even be the primary work. And so it just makes it a bit confusing… I think making it a bit more specific, even though it is abortion stigma scale, I think it's making it more specific, might make it clearer for people when they respond." (P16; advocate, provider, representative)*	*"You might need to generalise for advocacy, other workers – workers in my profession question my professional skills when they learn that I work in abortion advocacy, say. Just – because a lot of folks in abortion advocacy tend to be lawyers or public relations people, kind of thing." (P1; advocate)*
	"I guess that "I talk openly with my friends about my work in abortion care" probably needs to be carefully worded because that could be read as I tell my friends and family about my patients, which is obviously illegal and unprofessional, so maybe it needs to be more carefully worded so that it's not implying." (P14; advocate, provider, representative)	
Relevance and comfort with using "abortion advocate" or "abortion advocacy" compared with variations of "public supporter of choice/abortion access/reproductive rights" Relevance and comfort with identifying as "abortion advocate" and "pro-choice" or "reproductive rights advocate"		*"I think the members that I've spoken to and my colleagues and friends, I think they prefer a pro-choice, because it sounds like you're just simply saying it's your body, you choose, whereas sometimes when people hear abortion advocacy, they take the view that you're saying everyone should get abortions. And of course, that's not what you're doing, you're simply saying it should be available to you if that's what you need and the choice you're making…. some people feel better about*

		themselves when they do something that other people are saying is morally wrong but they can feel better within themselves just by the words that they choose to use and pro-choice is a word that sits better with some people." (P13; consumer and advocate)
Modifications for relevance		
Responses are dependent upon relationship with item subject Suggest separate items for different relationships: family, friends, colleagues, peers, public/community	*"This whole section is about other people, but it doesn't work like that in our heads. Because other people are segmented generally into different groups as to where they sit on a political spectrum and then all of us will treat people differently depending on how much risk we're willing to take around our personal relationships. … my answer in a qualitative way is again, it depends on the person... I would really separate friends and family if you can, to have more questions because they are just so different. It's like putting them in the same bucket. It just doesn't work because so many of our friends that are not like our family, particularly in this space" (P9)*	***"I:** Do you think that advocates or providers do hide their work? P: Not from their friends, I would think, or – because I would think you're with your mates, you can tell them and it would be safe, and if – if it's not safe then they're not really your friends." (P1)*
Current response options don't capture entire experience Suggest modifications to capture frequency and impact	*"So, all of these questions are quite hard because it's not a binary answer. I mean, because it will be a lot of 'sometimes' would be my feedback on this area… It's like I would just go sometimes/always down it. There's no easy answer. Like it's a great question, but you can see that' I've just answered it in like four ways [dependant on context]." (P9)* *Researcher observation: participants would start to choose 'never' but change response to 'rarely' elaborating on rare instances of stigma which had an impact on them. Only asking event frequency does not reflect the entire event. An event can have low frequency but high impact. For example, harassment may occur infrequently although the extent of harassment can have lasting negative consequences.*	
Add item about remaining silent	*"we talk about celebrating and can you celebrate you're an abortion worker because we've made so much change in the last decade around this space and how many people have fought for it and actually wanting to celebrate and how at different times, like with the election in Queensland it was like, well, let's not talk about it, let's not celebrate our victories just in case the tides turn and that means that all of our laws will be revoked and we'll go back to the dark days and it's just like, wow, we don't even feel we can celebrate depending on the political party in power, and that speaks to a lot…. You can feel proud internally but to celebrate, for me that's something that is a very outward facing emotion." (P12)*	
Experiences of stigma, and its impacts, are contextual		

		"I guess that at the time I was concerned about the fact I might be losing a lot of friendships over the positions that I was taking because people would question my morals. But I feel more, like, now, probably 50/50, if not less…. If you would have asked me this a year ago, I would say, yes." (P4)
Time		
Location	*"within [regional city] itself, in an area of [regional city], I think the size of the population it's really hard to maintain confidentiality, and that I think makes the experience of stigma, abortion stigma even more acute compared to a larger section." (P16; advocate, provider, representative)*	*"So I can feel proud, I can talk to a lot of people, but I'm not necessarily out there celebrating unless I'm in a feminist space or a women's space or a queer space because political spaces don't feel safe." (P12)*
Publicity		*"Would depend on the degree of your advocacy. If you're a member of an advocacy group and you sort of keep yourself in the background, I guess that would be different to being out there in front." (P1)*
Considerations when measuring stigma		
Suggestions for protection from negative impact of stigma and further stigmatisation	*"If I read it and I didn't know you, honestly, I [would] think that perhaps you're anti-choice because of how negative it is. I know it's a fundamental part of your research, but I don't know a lot of colleagues that would walk away from this survey feeling excited. They'd just feel so down on themselves. You know, they'd just feel, 'sigh', you know, it really brings up a lot of stuff that we all try and not think about regular. But particularly being mindful of trauma informed approaches, if you could start with some positive questions and end with some positive questions, it would just be really helpful to, like, the mental health of staff. And what could be really useful is if you put a note, around 1800RESPECT has a support line for people who work in this profession generally and then Lifeline and contact your EAP or general practitioner." (P9)*	
	"I think they [positively worded items] also add some form of buffer to any negative in my experience." (P2; consumer and advocate)	
	"…I would put in a section around pride. To be honest because it's protective." (P9)	
Validating to acknowledge the hard parts of being associated with abortion	*"I think it's really interesting because it's not something that I thought about a lot. I've thought about it sometimes but – yeah, it's quite validating actually to be asked some of these questions. Because, yeah, it does sometimes impact on your life when you tell people things. So I think the questions are good." (P14; advocate, provider, representative)*	

Stigma can take a toll on (emotional) wellbeing. Being 'public' adds layer to burden of stigma		*"I think for me this is when the time-based stuff really came up for me because when I see stuff at the moment about abortion in the news and papers I can just go, oh well, that's one comment. But during decrim[inalisation] because it was just every day and we were saturated in it, it was like, well, actually, yeah, when I'm reading all that stuff it starts to weigh heavy just because of the amount that's out there. I don't necessarily feel bad about myself but I start to feel heavy." (P12)*
Understanding nuances	*"…put, like, a little textbox into kind of say the context or because it's so I guess dependent on different relationships and different context." (P5; provider, advocate)*	

HCP = Health care professional
FG = focus group
P = participant

3.6.4. Instrument for groups/organisations which provide and/or support abortion care in ANZ

Participants reported measurement of stigmatisation of groups or organisations, which provide abortion related care and/or advocate for abortion access, to be relevant and feasible.

> *"Like every single way you can think of someone interacting with an organisation has a point of stigma. ... It's every single thing around how a human could interact with an organisation it comes up in."* [P9, advocate and representative]

> "*Yes, you can absolutely count and measure shit that's happened to organisations"* [P1, advocate and representative]

Stigmatisation of groups and organisations was evident through enacted stigma, anticipated stigma, and stigma-by-association. The impact of abortion stigma and approaches to overcoming abortion stigma were shared. Participants also shared their thoughts on how to best measure the stigmatisation of groups and organisations supporting abortion access. Table 3.4 presents an overview of these findings and supporting quotes.

Table 3.4. Overview of findings and supportive quotes regarding groups and organisations

Finding	Quote
Enacted abortion stigma towards groups and organisations supporting abortion access.	
Vandalism: property and online domain	*"we did have a brick through our window. Our power was cut, then they burnt through our power cords with a blow torch." (P12, provider and representative)*
	"At another point there was an activist on the other side stole our name for Twitter and created a Twitter account in our name … back in 2015 was when I got it back." (P1, advocate and representative)
	"It can have its assets vandalised or stolen even" (P1, advocate and representative)
Degrading commentary: in neighbourhood, online, in media, workplace	*"when we [private provider] first started performing the second trimester procedures there was a lot of snide remarks or there was a bit of – there was no open comments but we used to get remarks about what we were doing and a lot of shaking of heads and 'ah, *sigh*', 'I thought this pregnancy is however many weeks' and, 'I can't believe we're doing this', that sort of thing [from health care colleagues within the organisation]." (P16; advocate, provider, representative)*
Purposeful misrepresentation	*"they proceeded to – to mischaracterise [advocacy group] as something terrible and put up a lot of anti-abortion content…. It can be misrepresented, it can be libelled, it can be defamed." (P1; advocate and representative)*
Negative and/or false perceptions of groups and organisations	*"there's so many misconceptions about abortion provisions. It trickles through everything. Through the way they expect our staff to be, to the way they expect our building to be … [people have] been so shocked that it's just a clinic. … They kind of expect the physical setup to be, in a way, almost nonclinical…. Or just like a hospital. Like more messy and, you know, like lots of people coming and going. And in reality, it's not always like that. … The stigma around it being a negative thing can affect people's notions of what the physical spaces would be like or what the workplace would be like culturally." (P9; advocate and representative)*
Messages of dislike and threats: mail, online, email; trolling.	*"we find people will write anonymous bits of paper or send in something via the internet or on Facebook or whatever from a fake profile" (P12; provider and representative)*
Difficulty in securing funding, especially pre-decriminalisation	*"we've applied for [name] Bank grants and things like that and they'd try and sell themselves as the Community Bank and what have you. But actually, they don't want anything to do with you." (P14; provider, advocate, representative)*
	"no one funds abortion really anyway. I guess I think of it more like to classify that more as like [inaudible: financial/structural] backlash. … the key thing is we don't have government funding really for abortion care, like a Medicare Provider number, rebates are very minimal. And the cost of abortion provision can be quite high depending on needing an anaesthetist and so sorts of thing, and insurances and all that kind of stuff. So I mean insurance, well, is a whole aspect in itself of like how much insurance companies can charge people that work in abortion provision is hard to fathom, given how low risk the procedure is." (P9; advocate and representative)
Denial of, or difficulty securing, services	*"[advocacy group] experienced a denial of service attack on their website… [and an] organisation could have applied to a media organisation to, say, rent a billboard and been refused." (P1; advocate and representative)*

	"it can be hard getting a cleaning contract, that can be hard working. And it can be hard to find someone to do deliveries or do security or taxi someone to and from a clinic or anything, any sort of private, individual, service provision that surrounds our work can be difficult…. Everything from a taxi to a construction thing to a, I don't know, to a mail drop off to catering. Yeah. Like everything." (P9; advocate and representative)
Extra scrutiny	*"there's a constant need to make sure that everything's done in – I guess it felt like there was no room for error at all, whereas in other forms of healthcare if things – if there are complications then as long as we've done everything within our duty of care then we accept that complications are part of healthcare, because we can't control everything. But when you're working abortion work every complication feels like it could spell the end of the service because people can use that complication as ammo" (P16; provider, advocate, representative)*
	"everything that we did was scrutinised within a meeting. And that was nothing but good." (FG3)
Avoidance	*"they don't want anything to do with you. Q: So other organisations or companies not wanting the affiliation? P1: Yeah." (P14; advocate, provider, representative)*
Anticipated stigma among groups and organisations supporting abortion access	
A need to hide from those with power over group or organisation	*"when the real estate comes, we take down anything that looks pro-choice. They're worried about the real estate knowing or the landlord knowing. But otherwise they're really proud but it's just like the house inspection, we've got to hide." (P12)*
Extra consideration taken	*"we're always very conscious about what we do in our signage. … But as we look at potentially expanding and moving because this building is getting a little bit small for all of us, are we going to move to a location with a strategic plan in mind in terms of safety or is it just about accessibility and transport?" (P12)*
Extra cautious	*"So in the institution that I worked in we're always very cautious of everything. It has to be done in the most, in the safest, most cautious way, and we do do everything within our scope of practice, and we don't do things outside our scope of practice or our duty of care. But there's always that fear that all the t's have to be crossed and all the i's have to be dotted in case it comes back to us. And it doesn't just target the individual practitioners, but the whole service, that it will cause the service to close down. We're constantly just walking on thin ice, it feels." (P16; advocate, provider, representative)*
Concerns for patients	*"they're [organisations providing and advocating for abortion access] just concerned about their patients when that [stigmatisation] happens. And the effect that they will have on patients being able to get to their services and to feel comfortable accessing their services" (P2; consumer and advocate)*
Anticipated stigma-by-association	*"I will give someone our meeting room for a meeting, or I'll offer for them to come meet me at the office and then we can go to another place for meeting or whatever. It's the physical interaction with our office space, that people will be like, 'oh no, I'm okay'. And I'm like, 'it's okay. it's not a Clinic'. Like, you're not going to see anything, it' the office. it's the [name] clinic. And they're like, 'oh nah'." (P9)*
Stigma-by-association of groups and organisations supporting abortion access.	
The stigmatisation of group or organisation is directed at people connected. For example the groups below.	*"there's a lot of hate stuff that comes through, like discrimination against abortion providers. I mean, it's hard to separate the brand from the individuals" (P9)*

Patients	*"you don't want to be seen going into a place like that, and then having people make assumptions about the care that you were receiving, or if it's a place that is regularly protested, particularly, if you're already in a fragile state, you're less likely to attend a facility where it's only going to make the situation more stressful for you." (P3)*
Supporters/Advocates of abortion (access)	*"There are like people who troll me on Twitter all the times….in previous jobs, I've had people following me to my house, I have had people come to my door, on my car windscreen. I've had rosary beads thrown at my face. Been escorted by police to work. " (P9)*
Providers of abortion care	*"There are people who have had their, have confrontations either professionally or publicly for their work [linked with our group/organisation]" (P4)*
	"We have staff who have had all sorts of physical, verbal, emotional harassment. … everything from people having acid poured on their cars and being told it was Holy Water to … getting physically assaulted trying to get to and from that car before and after work, all sorts of things happen when we don't have safe access zones." (P9)
The impact of stigmatising groups and organisations supporting abortion access.	
Fear of stigma-by-association	*"And what you hear from these organisations is the worry of the impact that this will have on their patients rather than on their organisations and their reputation." (P2; consumer and advocate)*
"stigmatised out of existence"; closure of service.	*"the District Health Board wanted to provide women in [location] with better access and set up a clinic. But they, at a board level, and at a political level, were in the press a lot by anti-choice professionals. And that clinic has now just about closed down. Although there was an institutional desire to provide service, it was – yeah, I guess stigmatised out of existence." (FG3)*
Hiding	*"You notice that a lot of organisations that provide abortion care have very discreet names; it's just like Family Planning and Marie Stopes and you don't say that it's an abortion clinic. People who know, know, and people who don't, don't. And again, that's the protective factor, you don't want to advertise that we provide abortion, but we make sure that people who need to know are usually – for our service the GPs are the ones who refer to our clinics for further care, so we make sure that the GPs are in the know, but we don't say, "Oh yeah, this is when we have our abortion clinic, at this time of the day," because we don't want people there." (P16, advocate, provider, representative)*
Reduced capacity to provide or support	*"there's not a general structural power shift that's anti-choice, it's more just like a small number of people have anti-choice sentiments and they choose to act on that. And those small number of people are sort of peppered throughout our system and some people that take action on that are powerful and they can affect our ability to provide services." (P9)*
	"I think, however, it may result in fewer people receiving services at that location…if it's a place that is regularly protested, particularly" (P3)
	"you know, for instance, [others assuming your group/organisation association means you are] being really far left, and then you might miss an opportunity to have a conversation with someone who you might share a lot of common views with and a lot of common values. But that opportunity is lost because it's taken as a political position rather than a more nuanced opinion on a topic." (P4)
Increased determination among members and staff (resistance and defiance)	*"I think that it's [vandalisation and campaigns against] really – in terms of the morale of staff, it makes them more determined to provide the best care, mostly, as a "fuck you" to anyone that is campaigning against them." (P3)*
Approaches groups and organisations use to overcome stigmatisation and its consequences.	

Education as source of power	*"we've had to delicately navigate those territories [of staunch opinions] and use education as a source of power"*
Protective actions	*"For a while there we had staff wearing GoPros when they'd go to and from their cars when it got particularly bad, particularly around Lent." (P9)*
Risky investment	*"So it was a bit of an investment and a risk to see if and how we can do it [within restrictive legislation]. Which we successfully did six years ago now, and [non-profit pharmaceutical company] is still like the provider of that drug [medication abortion in Australia]." (P9)*
Measuring the stigmatisation of groups and organisations supporting abortion access.	
New set of questions to ILAS or APSS-R.	*"I think it needs to be a new set of questions, because these are mainly having to do with feelings and situations in a person's life, whereas an organisation does not have those experiences. An organisation can experience different things, but it's not a human experience. So things can happen to an organisation." (P1)*
Not 'experience of stigma' but 'stigma happening to' organisation or group.	
Response options	*"if you're answering on behalf of an organisation, it's probably a bit less grey, it's more black and white so it's more yes and no" (P14; advocate, provider, representative)*
Need to consider who is responding for group or organisation.	*"…you'd need the right people but the right people at the organisation to be answering the questions … I guess the CEO probably. Because presumably if it's anything serious they would be aware of it and even if it's smaller things that are happening, they should be aware of things like vandalism, all that sort of stuff." (P14; advocate, provider, representative)*
	"someone in the senior leadership role who is across of those areas." (P9)

3.7. Outcomes

Based on these findings, we modified the ILAS and APSS-R for consumers, providers, and advocates, and drafted a fourth (new) instrument to measure stigmatisation of groups and organisations. For all instruments, additional items were included to improve the instruments' cultural validity/relevance/comprehensibility in ANZ. To address the risk of stigmatisation, additional positive items were interspersed throughout as well as user relevant support resources such as mental health and abortion supportive hotlines and web sources.

For consumers, questions to collect contextual information were added prior to stigma items to better capture nuance and help identify how abortion stigma differs based on context. To help combat potential stigmatisation from the instrument completion process, debrief statements were added. The debrief statement includes information about community support, legal status, safety, and prevalence of abortion in ANZ.

For consumers and providers, the pre- and post-instrument question “Right now, how much abortion stigma do you experience?” was added to measure change in perceived stigma while completing the instrument. This additional question was for exploratory research purposes, rather than a proposed permanent item.

For providers and advocates in ANZ, the APSS-R was modified for relevance and usability. These modifications included changing language and adding items for cultural relevance. The instrument layout was modified for usability and a second response scale was added to measure stigmatisation beyond basic frequencies of events. For advocates, some self-stigma items were removed, and items about risked employment, online stigmatisation, and concealing pride were added for relevance.

The modified 52-item ILAS can be found in Appendix text 2.2. The modified APSS-R for providers in ANZ has 59-items and two 5-point scales, and can be found in Appendix text 2.3. The modified APSS-R for advocates in ANZ has 55 items with two 5-point scales, and is included in Appendix text 2.4.

To measure the stigmatisation of groups and organisations supporting abortion in ANZ through care provision and/or advocacy, the *Stigmatisation of Abortion Groups and Organisations scale – Australia and New Zealand (SAGO - ANZ*) was drafted. Items were derived from participant reports of what has and continues to happen to groups and organisations associated with supporting abortion in ANZ. The instrument structure was based on our modified APSS-R. The draft instrument is a 54-item list with two 5-point response scales. The SAGO – ANZ can be found in Appendix text 2.5.

3.8. Discussion

This study identified the ILAS and APSS-R to be broadly relevant, comprehensive, and comprehensible for people who have had an abortion, provide abortion related care, and/or advocate for abortion in ANZ. The relevance of an instrument measuring the stigmatisation of organisations providing and/or advocating for abortion in ANZ was

confirmed. Using feedback from participants, we produced three modified instruments and one novel instrument: modified ILAS, modified APSS-R, modified APSS-R for advocates; and an instrument assessing stigmatisation of groups/organisations in ANZ.

Stigma is a multi-dimensional, dynamic process requiring multi-dimensional, dynamic measurement [211, 234]. The results show measuring all facets of stigma with one tool is difficult and self-report measures are one approach stigmatised people and organisations in ANZ can use to report their experience of stigma. A complete understanding of stigma requires mixed-methods approaches [211]. To include contextual influences on responses, recognising the importance placed on context by participants, we added a series of contextual questions based on details participants shared and an open-text response field at the end of the instrument. To accommodate the finding that being stigmatised is not only about the frequency of events but also the importance of the instances to respondents, we added response options about importance of scenarios which aligned with how participants spoke about the instrument, similar to instruments measuring moral distress with frequency and intensity scales (i.e., MDS, MDS-R, MMD-HP [235-237]). Participants were involved in brainstorming these changes to produce comprehensive and valid, person-centred, individual-level instruments of abortion stigma in ANZ. Future research should consider mixed and multimethod approaches to measuring stigma when investigating the multiple facets, separately and collectively, of stigma [211, 234].

There were a variety of responses to measuring individual-level abortion stigma, similar to findings from Wollum and colleagues [234] from women in Mexico who completed the ILAS. In Mexico, people reported their experiences of completing the ILAS as therapeutic, reaffirming, prompting reflection, and potentially related to time since their abortion [234]. Participants in this study echoed these experiences and expressed support for measuring abortion stigma to help address it, alongside fears that measuring and researching stigma may contribute to the construction and perpetuation of stigma. These concerns are also reported about other health stigma research [234, 238] and individualistic

approaches to stigma [86, 91]. The concerns were predominantly about internalised abortion stigma for people who have had an abortion or were 'new' to providing abortion care. There were less concerns about the instruments stigmatising people more experienced in providing abortion care and publicly supporting abortion. That is, concerns about stigmatisation from measuring abortion stigma were based in participants' fear of stigmatisation rather than any experiences of stigmatisation from completing the instruments. Additionally, many participants identified feeling privileged or lucky to not have had the experiences listed, suggesting stigma is an assumed part of abortion care and not experiencing stigma would be the exception to the norm. The hesitancy expressed toward abortion stigma research, especially from respondents supportive of stigma-free abortion, combined with perceptions of abortion stigma as normal, demonstrate how pervasive stigma is. As Millar [86] noted "Stigma has entered into the common sense of abortion, which can give uniformity and strength to the norms that are productive of stigma and encourage scholars to look for stigma even in cases where, potentially, none can be found" (page 6, [86]), thus pointing to abortion stigma as a power process. Exploration of how stigma shapes research questions, results, and their interpretation is needed [86, 225].

It is not uncommon for research to influence participants, with positive, negative, and neutral responses reported in research exploring power-related areas [234, 239-242]. Some research approaches – e.g., Participatory Action Research (PAR) – have implemented change through the research process [243-245]. Other stigma research suggested the need to consider the performative impact of research [86, 225, 234, 246], such as how research is a mode for representing abortion and establishing norms about abortion and the people connected [86, 225], and the ethics of research which could stigmatise research participants [234, 238, 242]. Future research should expand the discussion about the impact of different approaches to stigma research, evaluate research's impact on stigmatisation, and explore and employ strategies in research to destigmatise as part of the research process [119, 225]. Examples of such strategies include integrating abortion questions with other sexual

and reproductive health (SRH) topics, providing an introduction to questions [247], having a justifiable role and impact of participation [246], and focusing on addressing stigma at a structural level while empowering people and communities [86, 91, 93, 119, 234].

Current findings highlight the need for the ILAS and APSS-R to be modified to ensure cultural relevance for use in ANZ. The data suggest differences in individual-level abortion stigma between the US (where ILAS and APSS-R were developed), Australia, and Aotearoa New Zealand. Differences in individual-level abortion stigma were also evident across differing social groups (i.e., age, access to formal healthcare, formal education level), relationship with abortion (i.e., consumers, providers, advocates), and other contextual factors (i.e., proximity to abortion). Stigma is a socio-cultural concept and process "tied to power and thus attaches to individuals differentially alongside axes such as those of gender, race and class" (page 5 [86]). Stigma operates where culture, power, and difference intersect [93], reproducing and legitimising social and structural inequalities [92]; accordingly, stigma research must adjust for social power differences.

There are some limitations to this study. The participants self-defined as privileged, white, politically left-aligned, and supporters of destigmatisation of abortion. There is a self-selection bias, with participants interested in abortion stigma research signing up for the study. Consistent with the self-selection idea, the Australian Abortion Stigma Survey (TAASS) found people with pro-choice attitudes were more concerned about abortion stigma than people with anti-choice attitudes [158]. Additionally, those who experience higher levels of stigma may be less likely to participate in this type of research because of anticipated stigma. The sample of participants in this study, and abortion stigma research more broadly, impacts the generalisability of our findings. Future research could build understanding about the suitability of measuring individual-level abortion stigma in ANZ among subgroups, such as people with diverse religious, political, ethnic, and cultural affiliations, and lower education levels. Future research should also consider processes to address (perceived) stigmatisation from research to increase the engagement with people who experience higher levels of

stigma. There is a risk our research contributes to stigma. However, it is unlikely participants were stigmatised during the research process or that the research increased concerns about stigma among participants as they were all well-informed about abortion in ANZ and held robust views about SRH rights. There is a chance that the recruitment advertisements increased perceptions of stigma in the community. This possibility is unlikely given where the study was advertised; instead, there is a possibility that the study increased awareness of abortion stigma and promoted protective strategies.

3.9. Conclusion

Abortion stigma at the individual-level appears to be experienced differently in Australia and Aotearoa New Zealand than in the US. Instruments measuring the stigmatisation of people and organisations connected to abortion in ANZ must consider context. We adapted the ILAS and APSS-R to measure individual-level abortion stigma in ANZ experienced by people who have had, provided, and advocated for abortion. A fourth instrument, measuring the stigmatisation of organisations supporting abortion through abortion provision and/or advocacy, was developed. These ANZ instruments require cognitive testing with end-users to check comprehensibility, relevance, and comprehensiveness of modifications, and psychometric validation. These instruments have the potential to identify mediators, moderators, and quantitative change in abortion stigma in ANZ.

CHAPTER 4. The relevance, comprehensiveness, and comprehensibility of four instruments to measure individual-level abortion stigma in Australia and Aotearoa New Zealand: A qualitative inquiry.

4.1. Publication details

Ratcliffe, SE., Pinkus, RT., Dar-Nimrod, I., Juraskova, I., and Dhillon, HM. under review. The relevance, comprehensiveness, and comprehensibility of four instruments to measure individual-level abortion stigma in Australia and Aotearoa New Zealand: A qualitative inquiry. *Journal of Patient-Reported Outcomes. [248]*

4.2. Rationale and link with previous chapters.

Chapter 2 systematically identified and assessed international measurement of abortion stigma. Chapter 3 found the Individual Level Abortion Stigma scale (ILAS) and Abortion Provider Stigma Scale – Revised (APSS-R) suitable for use in Australia and Aotearoa New Zealand (ANZ) among consumers, providers, and advocates pending changes for improved relevance, comprehensiveness, and usability. Four instruments for measuring individual-level abortion stigma in ANZ were developed. Chapter 4 reports the revisions to the four tools developed in Chapter 3 to improve their usability, relevance, comprehensiveness, and comprehensibility for the relevant end-users.

4.3. Chapter abstract

Background: Four instruments measuring individual-level abortion stigma in Australia and Aotearoa New Zealand (ANZ) have been developed. We aimed to check the instruments' relevance, comprehensibility, and comprehensiveness with end-user groups.

Methods: End-users were recruited through professional networks and social media. Participants completed an online survey for consent and demographics followed by cognitive walkthroughs of one of four instruments. Feedback was iteratively integrated into the

instruments. The modified instruments were reviewed by researchers experienced in stigma and instrument development.

Results: Thirty-nine people completed cognitive walkthroughs from November 2021 to January 2022. Participants were predominantly Australian-born women, university educated, with no religious or Indigenous affiliation. The instruments were well-received, with suggestions made for enhanced usability. Changes predominantly related to adding contextual questions, open-text boxes, worked examples, and modifications to instrument structure and item wording. Key differences between Australia and Aotearoa New Zealand (AoNZ) were identified, suggesting different research process needed for developing AoNZ tools.

Conclusion: The investigation produced four individual-level abortion stigma instruments relevant, understandable, and comprehensive for use in Australia. The instruments require psychometric testing. Future research should culturally validate the instruments among subgroups in Australia and AoNZ. These instruments will help assess interventions targeting quality of abortion care.

4.4. Introduction

Stigma is a pervasive factor impacting abortion care quality (i.e., effectiveness, efficiency, accessibility, acceptability, equitability, safety; see [5])[20, 37, 64-79]. Abortion stigma is the socio-cultural process of labelling, stereotyping, separating, and discriminating the induced termination of pregnancy– and any people and entities connected with it– as deviant and devalued from the social "ideal" [126, 152]. (Abortion) Stigma is a form of power [87, 88, 91, 94, 95], which reproduces and legitimises differences and social inequities along multiple axes of identity [86, 88, 92, 93]. Stigma, and the process of stigmatisation[4], interact across socio-ecological levels [71, 82, 86, 95, 116, 121, 176-180]; see figure 4.1). Reviews

[4] Stigma and stigmatisation are used interchangeably throughout this manuscript.

have identified associations between abortion stigma and quality of care [20], economics [70], demographics, social situation, secrecy, health, attitudes, and knowledge [69, 126].

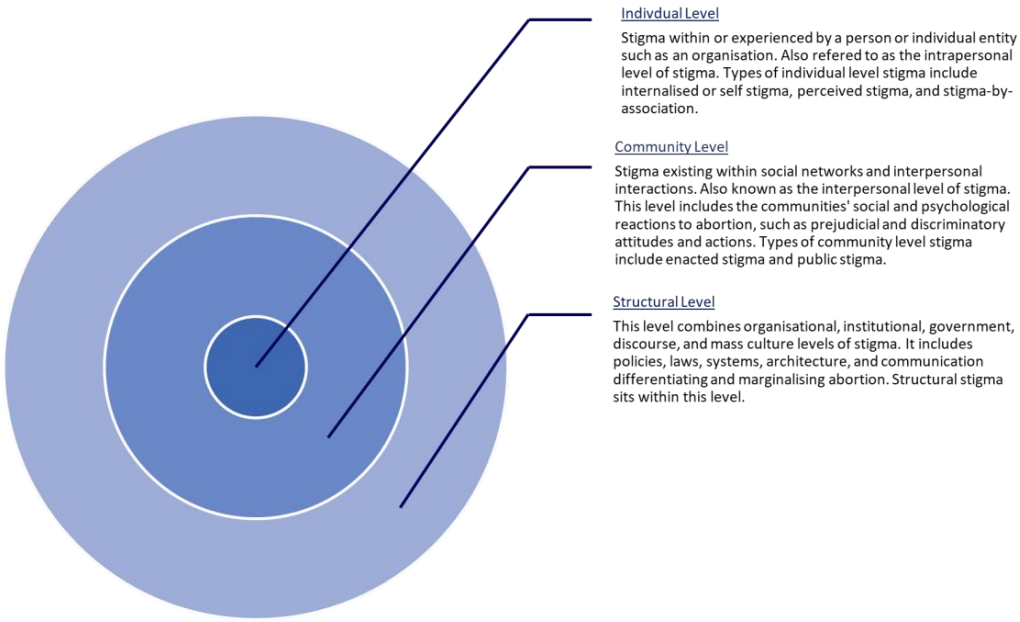


Figure 4.1. Schematic representation of the simplified levels of abortion stigma

Adapted from Kumar, Hessini [71] and Hessini [176] incorporating types of stigma from Pryor and Reeder [180]. Level and types of stigma are dynamically interrelated. Types of stigma at each level are not exclusive to each level; they interact and are influenced by other levels and types of stigma.

In Australia and Aotearoa New Zealand (ANZ), abortion stigma is experienced by people seeking and having had abortions [75, 77, 78, 134, 135, 144-148, 169] and those providing abortion-related care [73-76, 153, 169]. People, groups, and organisations supporting abortion report navigating stigma [82, 169, 249]. Qualitative research identifies experiences of abortion stigma in ANZ as including internalised stigma [75, 134, 149], anticipated stigma [75, 76, 146, 148, 150], enacted stigma [77, 78, 146, 148, 149], and structural stigma [56, 140, 146, 150, 166, 170-172, 224, 250]. In ANZ, abortion stigma intersects with care quality [20] by limiting its efficient, equitable accessibility [55, 56, 72, 74, 76, 78, 134, 137, 142, 143, 148, 151, 169, 173] and safety *[20, 76, 134, 148, 150, 151]*, and

preventing enabling, sustainable environments (see [5] and **[24]**) for quality abortion care provision [56, 72, 73, 75, 142, 143, 170-172]. Accordingly, there is a need and want for abortion stigma to be addressed in ANZ [1, 10, 67, 77, 78, 135, 136, 139-141].

To address abortion stigma, a barrier to secure, quality abortion care in ANZ, culturally valid and usable measurement tools and processes are required. However, there is a paucity of validated instruments to measure abortion stigma in ANZ [126]. Of instruments designed to measure individual-level abortion stigma, the Individual Level Abortion Stigma scale (ILAS; [97]) and Abortion Providers Stigma Scale – Revised (APSS-R; [199], designed for consumers and providers, respectively, in the US) perform best psychometrically [126]. We conducted qualitative inquiries with stakeholders in ANZ, finding the ILAS [97] and APSS-R [199] suitable for measuring abortion stigma experienced by consumers, providers, and advocates in ANZ with some modification. We also found these instruments relevant to measuring stigma experienced by public supporters of abortion and stigmatisation of groups and organisations supporting abortion [169]. However, the relevance, comprehensibility, comprehensiveness, and usability of these three modified instruments and one new instrument have not been tested. Cognitive testing (e.g., [247, 251, 252]) of measurement tools supports develop valid, usable, and suitable tools (e.g., [97, 204, 251, 252] aligned with rigorous guidelines for best-practice self-report instruments (COSMIN; see [253]), and address underreporting of abortion information [247, 254, 255]. Furthermore, a socio-cultural construct, stigma is deeply contextual [71, 82, 86, 96] and requires culturally relevant investigation, measurement, and intervention for culturally valid outcomes [256]. This study aimed to test the useability and content validity (relevance, comprehensibility, and comprehensiveness) of the four instruments designed to measure individual-level abortion stigma in ANZ.

4.5. Methods

Cognitive walkthroughs [251, 252] of modified versions of ILAS, APSS-R, and a new instrument (Stigmatisation of Abortion Groups and Organisations; SAGO) with relevant end-

users were conducted to gauge usability and suitability of the four instruments in ANZ. The study was approved by the University of Sydney Human Research Ethics Committee (Protocol: 2020/561; appendix 3.1).

4.5.1. Recruitment

To maximise the representativeness of the sample, the study invitation was shared: via professional networks, participants expressing interest in our previous study [169], and the community through email, presentations, and social media. All participants had to be 18 years or older, live in Australia or New Zealand, speak English, and identify with at least one of the following groups: i) having accessed one or more abortions; ii) provided or supported the provision of abortion access; iii) advocated for abortion access; iv) represented an organisation which provided or supported the provision of abortion access; and/or, v) represented an organisation which advocated for abortion access. Interested participants completed an online survey including Participant Information Statement (PIS), consent, demographic questions, and the Centrality of Religiosity Scale (CRS-15; [231]). Demographics questions aligned with Australian Census data points [257].

The CRS-15 is a widely validated and reliable 15-item measure of individuals' degree of religiosity [231]. Items ask about five dimensions of religiosity: intellect (e.g., "How interested are you in learning more about religious topics?"), ideology (e.g., "In your opinion, how probable is it that a higher power really exists?"), public practice (e.g., "How importance is it to take part in religious services?"), private practice (e.g., "How often do your meditate?"), and experience (e.g., "How often do you experience situations in which you have the feeling that you are touched by a divine power?"). To accommodate the multi-religious context of Australia we used interreligious items when available. Items are scored 1 to 5, with 5 answer options for frequency ("never" to "very often") or importance ("not at all" to "very much so"). To calculate the CRS score, item sum score is divided by number of scored items and scores categorised as "not religious" (1.0-2.0), "religious (2.1-3.9), or "highly religious" (4.0-5.0).

4.5.2. Iterative data collection and analysis

Cognitive walkthroughs followed an interview guide which systematically worked through each instrument section, including instructions, items, and response options, of the adapted instruments to obtain perspectives on comprehensibility, comprehensiveness, and relevance. Walkthroughs were audio recorded and conducted by the first author who is experienced in qualitative methodology and research interview techniques and trained in the cognitive walkthrough process for this study. Walkthroughs guided instrument modifications for improved of relevance, comprehensiveness, comprehensibility, and usability. Suggested changes and alternative wording were discussed with participants until a suitable solution was reached. Walkthroughs stopped once multiple participants had no suggestions for change (i.e., ILAS-ANZ, APSS-R-ANZ, APSS-R-advocates) or recruitment had reached its limit/no more end-users signed up (i.e., AoNZ, SAGO). The research team - experienced in instrument development, stigma, and abortion stigma - revised the instruments for usability and suitability.

4.6. Results

A total of 39 people participated in cognitive walkthroughs across all four instruments [ILAS-ANZ (n = 14), APSS-R-ANZ (n = 10), APSS-R-advocates (n = 5), and SAGO (n = 10)] between late November 2021 and January 2022. The cognitive walkthroughs averaged 62 minutes (range: 36 – 96 minutes). Six participants provided an Aotearoa New Zealand informed perspective, and 33 provided an Australian perspective. Most were women, born in ANZ, with a university degree, and no religious affiliation. The mean CRS was 1.98 (range: 1 – 3.79; SD: .78) with almost two-thirds of participants identifying as ‘not religious’ (n = 24, 61.54%). Participant demographics can be seen in Table 4.1.

Table 4.1. Participant demographics (n=39)

Demographic	Number of participants (%)
Age: mean (range)	48 years (26 – 71)
Location	

Australia	33 (85%)
New Zealand	6 (15%)
Gender	
Woman	37 (95%)
Man	1 (3%)
Non-binary / gender diverse	1 (3%)
Education	
Non-university	4 (10%)
Undergraduate Degree	17 (44%)
Postgraduate Degree	18 (46%)
Political affiliation	
No political	17 (44%)
Labor Party	9 (23%)
Greens	7 (18%)
Prefer not to say	4 (10%)
Independent	1 (3%)
Other	1 (3%)
Religious affiliation	
No religious affiliation	33 (85%)
Christian	6 (15%)
Religiosity	
Not religious	24 (62%)
Religious	13 (33%)
Highly religious	0 (0%)
Prefer not to say	2 (5%)
*Indigenous affiliation (*Aboriginal, Torres Strait Islands, Pacific Island, and/or Māori)	
No	39 (100%)
Yes	0 (0%)
Prefer not to say	0 (0%)
Country of birth	
Australia	26 (67%)
New Zealand	2 (5%)
Other	11 28%)

Cognitive walkthrough analysis identified the need for Te Reo Māori (‘the language of Māori’) throughout the instrument. Since these adjustments were considered not suitable for instrument use in Australia, we deemed it best to use different instruments for Australia and Aotearoa New Zealand. To avoid culture (miss)appropriation, the research team – with no Māori insight – continued with instrument adaption for Australia only.

Overall, all instruments were thought suitable. Participants made suggestions to improve comprehensiveness, comprehensibility, relevance, and usability. Findings suggest that all instruments would benefit from more comprehensive instructions, modified structure, and additional content. End-users recommended instructions include a worked example to be accessible throughout the instruments. Participants found the instrument easier to use when alternative rows were shaded, font of instructions and headings formatted to highlight key words, contextual questions included before items, and contextual questions about their connection to abortion at the beginning of the instrument. Other suggestions for all instruments included listing more tailored support services, a quick exit button (i.e., bright coloured button in a consistent, easily findable location regardless of page movement, which when clicked quickly directs users to a neutral page such as Google search home), open text field at the end, and removing coding information (e.g., asterisk indicated reverse coding).

4.6.2. Individual Level Abortion Stigma scale – Revised for Australia (ILAS-Aus)

To improve comprehensibility and relevance of the ILAS-ANZ instrument specifically, participants indicated changing the instruction wording, headings, specific items, and concluding information. Table 4.2 presents an overview of the findings about the ILAS-ANZ and related changes made to produce the ILAS-AU. The main points regarding comprehensibility related to the need to include a time reference in headings and instructions, simplification of language in instructions and closing texts, inclusion of definitions or explanations for the single-item stigma index and “your community” section,

and modifications to item wording (especially negative wording within positively phrased items). For relevance, participants identified the need to change response options for one item and wording of items related to the positives of not being pregnant versus the abortion process, perceptions of themselves versus decision to have an abortion, empowerment versus pride, perceptions of abortion versus alternatives, secrecy being situational, and stigma related to relationships.

Table 4.2. Findings and changes about the APSS-R ANZ and advocates

Findings	Initial ILAS-ANZ	Outcome ILAS-Aus
Relevance		
Heading wording.	No reference to time in instructions.	Added reference to time in instructions, e.g., “around the time of your abortion(s)” or “recently”.
Item wording.	“a person I love”	Item 2: “a person I care deeply about”.
	“I speak openly about my abortion”	Item 12: “I speak openly about my abortion when relevant”
	“I feel safe to share positive feelings about my abortion.”	Item 18: “I feel safe to share positive aspects about my abortion.”
	Item 26: “I felt confident I had made the right decision.”	Item 27: “I felt good about my decision(s).”
	Item 33: “I felt pride in my abortion(s).”	Item 36: “I felt empowered by my abortion(s).”
	Item 40: “Abortion is the easy way out of an unplanned pregnancy.”	Item 44: “Abortion is the lazy way out of an unplanned pregnancy.”
Response options.	Item 21: “never” to “many times”	Item 21: “strongly disagree” to “strongly agree”
End of survey information	Broad selection of pro-choice support services.	Additional support services included to cover every jurisdiction in Australia and complex trauma, LGBT+, and disability informed and tailored services.
Comprehensibility – changes to wording		

Introduction	Question “Right now, how much abortion stigma do you experience?” without any explanation.	Added definition of abortion stigma which was revised by participants.
	“most stigmatising”	“worst experience”.
	No explanation for who community is. Question asks, “How many people in your community held the following beliefs?”	Definition for “your community” added (i.e., the people around you, the people a few degrees away from your close relationships.) Added clarifying statement to “Make the selection that best describes your perceptions…”.
Contextual section	Questions about each component of context.	Questions simplified and based on information respondents could confidently recall. The questions capture sufficient information to calculate structural factors impacting respondents’ abortion(s), such as legal status. The changes to contextual questions accommodate use with ongoing changes in legal status.
Item	Item 43: “Abortion access should not be restricted by a person’s age.”	Item 47: “Abortion access should be restricted by a pregnant person’s age.”
End of survey information	Draft debrief statement presented.	End of survey debrief information simplified and rearranged as per respondents’ feedback.
Comprehensiveness		
Additional items to capture experiences not covered	n/a.	Add item 25: “I felt safe to ask for support about my abortion.”
	n/a.	Add item 34 “I felt judgement from myself.”
	n/a.	Add item 35 “I felt I let myself down.”
	n/a.	Add item 37 “I felt that I had done a bad thing.”
	n/a.	Add item 50 “Abortion should be punishable.”

	n/a.	Add item 58 “I was upset at having to pay out of pocket for my abortion(s).”
Item modified to ensure comprehensive meaning is conveyed.	“I felt safe accessing my abortion(s).”	Modified item 51: “I felt safe (physically and emotionally) accessing my abortion(s)”
Participants voluntarily disclosed more information than the structured survey captured. Inclusion of an open text field suggested and supported.	Open text field at the end.	Keep open text field at the end.
Usability		
Structure	Black and white throughout Consistent font theme and effects throughout.	Alternating shaded lines. Font effects to instructions and headings.

4.6.3. Abortion Provider Stigma Scale – Revised for Australia (APSS-R-Aus) and Advocates (APSS-R-Advocates)

Overall, both APSS-R modified instruments were well received. Review with end-users improved comprehensiveness, comprehensibility, relevance, and usability. Items about avoidance, worry, and fear of stigma were added, improving comprehensiveness. Other items were modified or removed to increase comprehensibility and relevance. Structural changes, such as modifying or fixing the order of items and sections, were made to align instrument structure with users’ thought processes, improving instrument usability. For example, participants always began elaborating on information about context and when contextual and ‘how you feel’ questions and items were moved to the start of the instrument, elaboration beyond the survey questions was reduced or eliminated. Table 4.3 presents the findings and related changes for both instruments.

Table 4.3. Findings and changes about the APSS-R ANZ and advocates

Findings	Initial APSS-R-ANZ	Outcome APSS-R-Aus	Initial APSS-R-Advocates	Outcome APSS-R-Advocates
Relevance				
Need to capture information explaining contextual differences in responses	No contextual questions	Added questions about: profession, setting, time providing abortion care, how much of health care provision is abortion care related	No contextual questions	Added questions about: type of advocacy, extent advocacy related to occupation, extent advocacy part of life
Responses differ based on time. Instructions need to reference time.	n/a.	Added reference to time in section headings and instructions: "Please make the selection that best describes your experience recently."	n/a.	Added reference to time in section headings and instructions: "Please make the selection that best describes your experience recently."
Items not relevant removed. Non-relevance because redundant or because not experienced by participants.	n/a.	Removed items: "I am selective to whom I tell that I provide abortion care."; "I have concerns about my provision of abortion care being disclosed outside my control."; "I feel that people who do not provide abortion care don't understand my work."	n/a.	n/a.
Item wording changes	"I feel that my abortion care work is restricted more than other types of health care work."	Item 8: "I feel that my abortion care work is politicised more than other types of health care work."	"society (the general public)"	Item 36: "the general public"
	"family" and "friends".	Items 41: "people"	"my family"	Item 55: "people I love"
Comprehensibility				
Need for more detailed, understandable instructions.	No definition of abortion stigma. Instructions as one paragraph describing response options.	Added definition of abortion stigma. Simplified writing, sectioned layout, and font edited to present in shorter section and highlight key information. Added worked example.	Instructions are one paragraph describing response options.	Simplified writing, sectioned layout, and font edit to present in shorter section and highlight key information. Added worked example.
Scale names not understood.	Scale names "Frequency of scenario" and "Importance of scenario".	Scale names changed to questions: "How often has this occurred?" and "How much is this cared about?"	Scale names "Frequency of scenario" and "Importance of scenario".	Scale names changed to questions: "How often has this occurred?" and "How much is this cared about?"
Scale response options not understood.	'Severity' response options listed as, "None", "Minor", "Some", "Moderate", and "Major".	'Severity' response options listed as, "Not at all", "Little", "Somewhat", "Much", and "A lot".	'Severity' response options listed as, "None", "Minor", "Some", "Moderate", and "Major".	'Severity' response options listed as, "Not at all", "Little", "Somewhat", "Much", and "A lot".
Positioning of items	No determined positioning outside of groupings.	Fixed positioning of items one to 12.	No determined positioning outside of groupings.	Fixed positioning of items one to 12.

		Changed location of item 13: “I am selective to whom I tell that I provide abortion care.”	First item “I am proud” and last item “I feel good”.	Switch items 1 and 7 to start with “I feel good” and end with “I am proud”.
Item wording changes	Item 17 and 33: “public” and “society”	“general public”	“I can talk to family about”	Item 10: “I avoid talking about a hard day”.
	Item 20 and 41: from “community”	“casual acquaintances”	No examples included.	Item 12: added examples, “(e.g., decriminalisation, improved abortion access, reduced abortion stigma).”
			“avoid telling people”	Item 16: “avoid telling the general public”
			“…something about abortion…”	Item 37: “…something degrading about abortion…”
			“…that when I disclose”	Item 31: “…that if I disclose”.
			“I have taken”	Item 29: “I take”
Additional support services for tailored support.	Support services were Employee Assistance Program (EAP) and 1800RESPECT.	Additional support services added to cover complex trauma, LGBT+, and disability informed and tailored services in Australia.	Support services were 1800RESPECT (Australia), Children by Choice (Australia), and ALRANZ (New Zealand).	Additional support services added to cover complex trauma, LGBT+, and disability informed and tailored services in Australia.
Comprehensiveness				
Added items to cover scenarios arising from interviews	n/a.	Added item 15: “I avoid telling people about the abortion care I provide to prevent upsetting them.”	n/a.	n/a.
	n/a.	Added item 19: ”I worry about telling organisations that I provide abortion care.”	n/a.	n/a.
	n/a.	Item 39: “I worry people will think worse of abortion if I talk about the difficult parts of abortion.”	n/a.	n/a.
	n/a.	Added items 42 and 43: “I worry patients will think I am judging them.” And “I go out of my way to ensure people seeking abortion care don’t feel I am judging them.”.	n/a.	Added item 42: “I go out of my way to ensure people aren’t upset when I talk about abortion.”
Close to all participants voluntarily disclosed more information than the structured survey allowed. Many participants suggested inclusion of an open	No open text field.	Included open text field option.	No open text field.	Included open text field option.

text field for opportunity to provide additional.				
Usability				
Headings are missed.	Headings are redundant: skipped or not understood.	Simplified terminology in introductions with text effects to improve comprehensibility and attention.	Headings are redundant: skipped or not understood.	Simplified terminology in introductions with text effects to improve comprehensibility and attention.
Positioning of sections	Respondents always start with information about context of sharing they provide abortion care.	Fix section “how you feel about providing abortion care” as the first section.	Same as providers.	Fix sections “how you feel” and “social connection” as first two sections.
Changed order of items to align with participants’ thought process.	n/a.	n/a.	Items about fear and protective measures alternating.	Items 50 and 51 switched: items about fear and items about protective measures grouped together.
Aesthetic changes	All rows white.	Shaded alternative rows.	All rows white.	Shaded alternative rows.

4.6.4. Stigmatisation of abortion supportive groups and organisations (SAGO)

The idea and content of the SAGO was regarded as relevant, however participants questioned its usability and purpose beyond documenting information about the prevalence of the stigmatisation of groups and organisations supporting abortion. Discussion with participants identified that SAGO could be answered by an individual on behalf of the organisation or by a team, and would be useful as part of risk analysis (i.e., are we at risk of being stigmatised as much as we perceive?), education and awareness building (i.e., what role does stigma play in the group/org functioning?), funding applications (i.e., financial support to combat stigmatisation), and to inform policy and system change (i.e., information to inform evidence-based policies and systems). For example, understanding of the prevalence and extent of stigmatisation of organisations supporting abortion can be used to shape policy and systems that align with groups' and organisations' needs.

The type and location of the organisation being spoken about and the role and duration of the respondent with the organisation produced differences in responses. To accommodate these differences within one instrument (i.e., not making separate instruments for subgroups), contextual questions were added to the beginning of the instrument.

The majority of items were reported as suitable, no items were identified for removal, and there were some suggestions for changes to improve item relevance, comprehensibility, and comprehensiveness. Wording of items was changed for relevance and comprehensibility, and additional items added for comprehensiveness. Some items were identified as not relevant for government organisations, but relevant for non-government services. These items were retained and require further investigation.

Participants found the most understandable response options were 'never' to 'always' for frequency and 'not at all' to 'a lot' for importance. Questions for each of the response option headings were more understandable. Participants identified need and suitability for a 'cannot answer' option to accommodate the scope of respondents' professions/positions and type of organisations.

Table 4.4 presents the SAGO findings and outlines the differences between the initial and revised instruments.

Table 4.4. Findings and changes about the SAGO

Feedback	Initial SAGO	Outcome SAGO
Relevance		
Need to capture information explaining contextual differences in responses	One contextual question ("*Please indicate all roles which best apply to your position within the group or organisation you are representing*") with 11 response options.	Added questions with multiple choice answers: *What approach will be taken to complete this questionnaire?* *Please indicate the type(s) of group or organisation you are representing.* *Where does the group or organisation service?* *How long have you been with the group or organisation?* Added response option "clinical leadership" to "*Please indicate all roles which best apply to your position…" question.*
Item wording changes	Lack of specificity	Add information about abortion: Items 21, 34, 36, 39
	"worries" or "Fears"	"Concerns": item 25, 26, 28, 31, 36, 40
	Reinforces stigma: "...organisation's negative image".	Item 27: "…organisations providing/supporting abortion."
	Not abortion stigma: "…been scrutinised"	Item 22: "…been overly scrutinised"
	Overlap of concepts: denied services, difficulty securing contracts, and medical supplies.	Combined to make two items (17 and 18): "… had difficulty securing non-medical contractors for services" and "… had difficulty securing medical professionals".
Comprehensibility		
Need for more detailed instructions.	Instructions are one paragraph describing response options.	Instructions include worked examples and texts in sections.
Scale names not understood.	Scale names "Frequency" and "Severity".	Scale names: "How often has this occurred?" and "How much is this cared about?"
Scale response options not understood.	'Severity' response options listed as, "None", "Minor", "Some", "Moderate", and "Major".	'Severity' response options listed as, "Not at all", "Little", "Somewhat", "Much", and "A lot".
Positioning of items	Item 30 between items about fears about assumptions and need to hide work.	Item 30 moved to be between items about concern of stigmatisation of consumers and associations.
Item wording changes	"The community holds the expectation the facilities…"	Item 57: "The community expects abortion facilities…".
	"The community holds the belief…"	Item 58 and 59: "The community believes…"
	"…avoid associations with."	Item 20: "… have been avoided by other…"
Comprehensiveness		
Added items to cover scenarios arising from interviews	Doesn't cover: difficulty in securing government financial support; concern about perceptions of service, data misuse, differential treatment of people connected to group/organisation; perceives the community does not support abortion provision, wants to avoid association with abortion, and organisation members are unkind or unfriendly.	Items 15, 45, 46, 51, 60, 61, 62, 63 added.

Usability		
Item relevance change based on context of respondent (i.e., type of organisation and respondent's role).	No response option if participant cannot answer an item.	Added "cannot answer" response option for each item.
Structural changes	"Not relevant" response option directly next to 5-point scale.	Added division between "not relevant" and "cannot answer" responses and main response table.
	All rows white.	Shaded alternative rows.

4.6.5. Outcomes

The revised instruments are presented in Appendix texts 3.2-3.5. They are framed for use in and about Australia. It is recommended instruments are revised for use in Aotearoa New Zealand.

To improve relevance of all instruments, contextual questions were modified and added to the start of each instrument. These questions were embedded within the instrument, presented before items, and in addition to demographic questions. At the end of each instrument, more tailored support services were included.

To improve comprehensibility and useability of all instruments, worked examples were added to the instructions, instructions were accessible throughout the instruments, coding information removed (i.e., asterisk indicating reverse coding), alternate rows shaded, font effects applied to text, instrument information text simplified, and order of topics/sections and items fixed to be aligned with how participants spoke about their experiences. To ensure comprehensiveness, all instruments include an open text field providing respondents the opportunity to share additional information.

In addition, the ILAS-Aus had a stigma definition added, contextual questions consolidated, new items included, and the debrief statement refined. The resulting instrument has 58 items divided into seven sections, 11 contextual questions, and one open-response option. Four sections have a 4-point scale (13 items) and five sections a 5-point scale (45 items). Seventeen items are reverse scored. Stigma score is computed by summing responses (range: 0 – 277). The instrument quantifies the experience of stigma in Australia of any person who has had an abortion.

For the APSS-R-Aus and APSS-R-Advocates, items and structure were modified according to end-user feedback. The APSS-R-Aus has 58 items divided into five sections, four contextual questions, and one open-response option. Fourteen items are reverse scored. The instrument quantifies the experience of stigma in Australia of any person who provides abortion-related care, including clinic receptionists, allied health professionals, pharmacists, nurses, general practitioners, and obstetricians and gynaecologists. The APSS-R-Advocates has 56 items divided into five sections, four contextual questions, and one open-response question. There are 12 reverse scored items. The instrument quantifies the experience of stigma in Australia of any person who publicly supports abortion.

For the SAGO, contextual questions and response options were added, and item wording modified. To collect further information about end-users' perceived use of the instrument, we added an open-ended question about suggested additions or changes and a binary response question (i.e., Y/N) about the perceived usefulness of the instrument. The resulting instrument has 65 items divided into four sections, five contextual questions, and one open-response option. Three items are reverse scored. Any group or organisation supporting abortion in Australia can complete this instrument as an individual or group. This may include any group or organisation providing abortion-related care, improving abortion care, and/or advocating for abortion care in Australia. Representative respondents include any member of the group/organisation experienced in making decisions and/or speaking on their behalf.

The APSS-R-Aus, APSS-R-Advocates, and SAGO are scored on two 5-point scales measuring frequency and importance. The stigma score is computed by summing the responses (i.e., range 0 – 464, 0 – 448, and 0 – 520 respectively) and dividing by the number of items responded to (i.e., range 0 – 58, 0 – 56, and 0 – 65 respectively). This value is multiplied by 100 to provide a standardised score. Responses of "not relevant" or "cannot answer" on the SAGO are calculated as 'not responded to'.

4.7. Discussion

This study assessed the usability and content validity of the ILAS-ANZ, APSS-R-ANZ, APSS-R-Advocates, and SAGO with intended end-users of each instrument. The research team adapted each instrument to improve comprehensibility, comprehensiveness, and relevance. We produced four instruments for measuring individual-level abortion stigma in Australia: ILAS-Aus, APSS-R-Aus, APSS-R-Advocates, and SAGO. These instruments are considered relevant, understandable, and comprehensive by end-users and require psychometric evaluation before use in research and clinical practice.

The need to modify these instruments illuminates the nuances of stigma (see [211]) and importance of involving end-users in codesigning any assessment tool (see [258]). Our findings extend beyond the instrument content to their use and usability. With intended end-users completing the instrument, we were able to ascertain the impact of instrument layout on understanding and readability; for example, fixing the item structure and the use of attention holding techniques (e.g., shaded rows, formatted text) were important. Collaboration with end-users throughout instrument development helps ensure the end-products are useable, relevant, valid, and align with best-practice standards [97, 204, 247, 251-255], and have benefits aligned with participatory research [259].

We have developed a new tool for measuring the stigmatisation of abortion related groups and organisations (SAGO). However, findings from our cognitive walkthroughs suggest poor usability of this tool. Further work is needed to clarify how the tool and findings can be used. Participants supported the idea of SAGO and the need for further exploration of how the content would be most relevant and best applied. Future research should engage in further co-design of this tool.

Despite previous research suggesting similarities in abortion stigma between Australia and Aotearoa New Zealand (AoNZ; [169]), we identified a need for distinct instruments for Australia and AoNZ. Any tool used in AoNZ should have Te Reo Māori embedded throughout. Similarly, any research (process and outcomes) should involve the diverse AoNZ community in

the cycle of design, implementation, and re-evaluation [259]. This would better align the research and tools with a reproductive justice framework (see [260, 261]).

We recruited a highly educated, relatively non-political, and non-religious sample, similar to populations engaged with during the design of these instruments [169]. Future research should explore the usability of these instruments in diverse subgroups in Australia, such as people with lower education levels or those not born in Australia. Although the methodology supported identification of problems and necessary changes to instruments, it precludes detailed qualitative analysis including identification of instruments' strengths or thematic information. The results are potentially biased to the negative.

4.8. Conclusion

We produced four understandable and comprehensive tools for measuring experiences of stigma in Australia among people who have had, provided, publicly supported abortion, and organisations which support abortion. Further co-development work is required to ensure suitability and usability of tools measuring abortion stigma experienced in Aotearoa New Zealand and subgroups in Australia, and to revise the usability of the SAGO. Future research should psychometrically assess the ILAS-ANZ, APSS-R-ANZ, and APSS-R-Advocates in Australia. Findings provide guidance on requirements of culturally relevant quantification of abortion stigma and abortion related information in Australia and AoNZ.

CHAPTER 5. The psychometric properties of the ILAS-Aus: An instrument for measuring abortion stigma experienced by people in Australia who have had an abortion.

5.1. Publication details

Ratcliffe, SE., Campbell, R., Pinkus, RT., Dar-Nimrod, I., Juraskova, I., and Dhillon, HM. under review. The psychometric properties of the ILAS-Aus: An instrument for measuring abortion stigma experienced by people in Australia who have had an abortion. Perspectives on Sexual and Reproductive Health. *[262]*

5.2. Rationale and link with previous chapters

Chapter 2 identified no tools for measuring abortion stigma in Australia or Aotearoa New Zealand (ANZ). Chapter 3 qualitatively explored suitability and composition of tools measuring individual level abortion stigma in ANZ. Chapter 4 revised the usability, relevance, comprehensiveness, and comprehensibility of developed tools with relevant end-users in Australia. We determined further co-design is required for instruments measuring individual-level abortion stigma in Aotearoa New Zealand and the stigmatisation of groups and organisations supporting abortion. Chapters 5 and 6 assess the psychometric properties of the instruments for measuring stigmatisation of consumers, providers, and advocates in Australia. Chapter 5 reports the psychometric assessment of the Individual Level Abortion Stigma Scale – Australia (ILAS-Aus).

5.3. Chapter abstract

Some people in Australia who have had an abortion experience stigma. The Individual Level Abortion Stigma survey has been modified for Australia: the ILAS-Aus. This study assessed the psychometric properties of the ILAS-Aus and if completing the ILAS-Aus changed self-reported stigma.

People in Australia who have had an abortion were recruited online to complete the ILAS-Aus. Analysis followed COSMIN's protocol for assessing psychometric properties of self-report

measures. Change in self-reported stigma was assessed pre- and post-instrument administration.

Of 1227 complete responses, the majority of participants were women who had one abortion before May 2019 at a metropolitan health service. Factor analysis demonstrates a seven-factor, 33 item instrument with good validity and reliability (α = .919, total explained variance = 69.42%). There was low measurement error and moderate to good test-retest reliability (ICC = .607 to .839). The ILAS-Aus demonstrates good construct validity, with stigma subscale scores correlated with reproductive autonomy, abortion attitudes, and religiosity. There was a significant reduction in self-reported stigma from pre- to post-instrument use.

The ILAS-Aus is a multi-dimensional, valid, and reliable instrument for measuring abortion stigma experienced by people in Australia who have had an abortion. Future research should explore short-form options and the relationship between experienced abortion stigma and structural-level factors of abortion.

5.4. Introduction

Abortion stigma is a socio-cultural process oppressing people and entities associated with abortion, based on a shared understanding of the intentional termination of pregnancy as socially unacceptable [126, 169, 263]. The socio-ecological model provides a simplified map depicting where different types of stigma manifest [71, 82, 86, 95, 116, 121, 176-180] (see Figure 5.1). At the individual level are people or entities stigmatised and their experience of stigmatisation [71]. This includes the experiences of anyone who has considered, sought, and/or had an abortion(s) with respect to internalised, anticipated, and enacted stigma, and stigma-by-association.

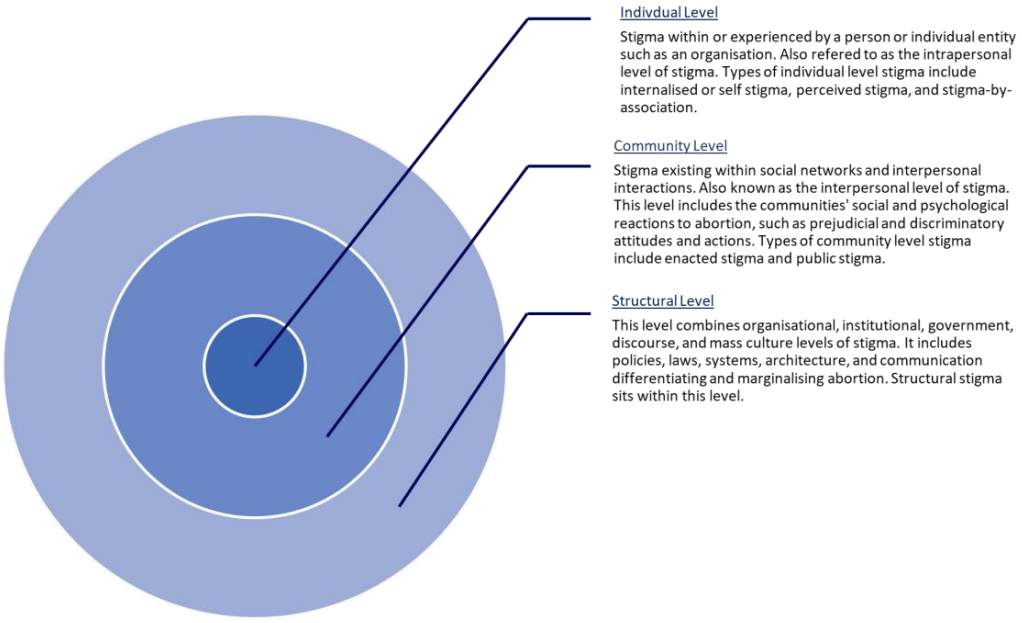


Figure 5.1. Socio-ecological model of types of stigma

In Australia, it is well documented that some people experience abortion stigma [75, 77, 78, 134, 135, 145-147, 149, 150, 169, 263]. People who have accessed abortion care in Australia report experiences of internalised [134, 149], anticipated [145, 146, 150], and enacted stigma [77, 78, 145, 148, 149], from others and institutions. These experiences of stigma have direct, indirect, and entwined impacts on secrecy and isolation [75, 134, 150], service accessibility [77, 78, 146, 150], post-abortion care seeking [134], and quality of care [20]. Abortion stigma in Australia is a key barrier to secure, quality abortion care [20, 72, 74, 78, 137, 142], and needs to be addressed [78, 134-136, 139, 141]. Measuring individual-level abortion stigma now gives voice to lived experiences and can destigmatise abortion long-term through understanding its prevalence and change in relation to interventions, policy, and socio-cultural contexts.

Of the instruments measuring individual-level abortion stigma, the Individual Level Abortion Stigma scale (ILAS; [97] performs best on COSMIN quality guidelines [126, 186, 187]. The ILAS is a multi-dimensional tool designed to measure abortion stigma experienced by women who have had an abortion [97]. Initially designed and validated in the US [97], the ILAS has been tested among women who had an abortion, after foetal abnormality diagnosis in

Germany [188] and in Turkey [193]. Psychometric testing shows the ILAS to be a multi-factor, valid, and reliable instrument [126] in the US [97], Germany [188], and Turkey [193]; cross-cultural evaluation shows the ILAS has different structures in different cultures (i.e., four-factors in the US and Germany, five in Turkey) [126]. The ILAS has been used in Mexico [264, 265], Uruguay [266], Nigeria [267], Kenya [268, 269], Ireland [270], and China [271], finding relationships between experienced abortion stigma and policies, abortion access, social support, disclosure behaviour, psychological wellbeing, personal demographics, and abortion characteristics [97, 188, 193, 267, 269-272]. However, there is no report of the ILAS scale use, or any quantification of abortion stigma, in Oceania [126]. A modified ILAS (i.e., ILAS-Aus with 58 items) shows good content validity among end-users, stakeholders, and researchers for use among people in Australia who have had an abortion, demonstrating relevance, comprehensiveness, and comprehensibility [169, 263]. Although the ILAS-Aus demonstrated low cognitive load among users [169, 263], its length may be a barrier for use, indicating the need for a shorter version.

Despite good validity and reliability of the ILAS and its increasing use around the world, there remain concerns about the ILAS and stigma research contributing to stigma. Among people who had an abortion in the previous six months in Mexico, the ILAS was found to have positive and negative effects on respondents, including potential perpetuation of abortion stigma [234]. Similarly, concerns about the ILAS stigmatising were identified when testing the suitability of the ILAS for use in Australia and Aotearoa New Zealand [169, 263]. Furthermore, the very process of researching abortion stigma has been criticised to normalise and legitimise stigma [86, 225]. To our knowledge, no quantitative research has explored if measuring abortion stigma stigmatises.

Our primary objective was to psychometrically validate the ILAS-Aus for use among people in Australia who have had an abortion. A secondary objective was to determine if completing the ILAS-Aus changed self-reported perceived stigma.

5.5. Methods

Our study design and analysis followed the COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN) guidelines for designing studies evaluating measurement properties of Patient Reported Outcome Measures (PROMs) [253]. [208]. The study was approved by the University of Sydney Human Research Ethics Committee (Protocol 2020/561; appendix 5.1).

5.5.1. Design

This cross-sectional study was conducted through an online survey hosted on REDCap [273]. The survey included participant information and consent form, demographic questions, the ILAS-Aus [263], the Reproductive Autonomy Scale (RAS) [274], abortion attitudes questions, and Centrality of Religiosity scale (CRS-15; [231]). To assess responsiveness and test-retest reliability, a subset of participants completed the ILAS-Aus at a second time point (i.e., Survey 2) two weeks after the first time point (i.e., Survey 1). To test if completing the ILAS-Aus influenced perceived stigma, the question “Right now, how much abortion stigma do you experience?” with a 5-point response option was asked at the start and end of the ILAS-Aus. The full survey is available in appendix 4.

5.5.2. Self-report Measures

Demographics. Demographic questions included age, gender, First Nations/Indigenous affiliation, ancestry, educational attainment, and religious and political affiliation. The demographic questions align with findings from other research measuring individual-level abortion stigma [126] and national data (e.g., Australian Census data, ABS 2022). Previous Australian abortion stigma studies [169, 263] found a mismatch between religious affiliation and religiosity suggesting ‘religious affiliation’ did not capture the range of affiliations that religiosity may capture. We added “spiritual” under ‘religious affiliation’ to address this.

Abortion Stigma. The ILAS-Aus [263] covers experiences of abortion stigma in Australia of anyone who has had an abortion. The 58-item instrument underwent qualitative validity checking with end-users, stakeholders, and researchers to ensure content validity (see [169] and [263]). Following recommended best-practice approaches for usability and

comprehensiveness [169, 263], the instrument has 11 contextual questions (e.g., type and location of abortion) before the items are grouped into six categories: anticipated stigma (11 items; e.g., “People would gossip about me.”), disclosure (7 items; e.g., “I avoid telling people about my abortion.”), connection (7 items; e.g., “When I had my abortion, I felt supported by the people I was close to” reverse coded), internalised stigma (12 items; e.g., “I felt selfish about my abortion(s)”), perceived stigma (13 items; e.g., “Abortion should be avoided”), and enacted stigma (8 items; e.g., “I have been harassed online because of my abortion(s)”). Responses are scored on 4-point and 5-point scales, similar to the original ILAS [97]. Stigma score is calculated by summing the response options; higher scores represent higher stigma across all domains. The stigma instruments participants completed is presented in appendix 5.2.

Support for abortion. Seven questions assessed support for abortion by reason, gestation, and provision. The questions were derived from published research documenting attitudes in Australia about abortion law and accessibility (i.e., [156, 223, 275-277]). One question covered opinion on abortion legality by reason (i.e., “Which statement best reflects your beliefs?”), with four response options (legal by choice, legal with medical need, legal for rape/incest/life threatened, never legal). Three questions addressed opinions on abortion legality by gestation (“Abortion should be lawful during … first, second, third trimester”), with four response options (“lawful”, “depends on circumstances”, “unlawful”, “can’t say/don’t know”). Three questions asked about the provision of abortion in healthcare (e.g., “Abortion should be available in the public health systems”) and had binary response options (yes/no). Abortion attitude scores were calculated by summing responses for each category (range: 1-4; 3-12; 3-9) and a total attitude score (range: 7-15). Higher scores demonstrate more restrictive abortion attitudes.

Reproductive agency. The RAS is a 14-item validated measure assessing women’s interpersonal power to control reproductive intentions with demonstrated validity and reliability [274]. It was included to support comparison of abortion stigma with reproductive autonomy, both constructs centre around power and reproductive health. In the US, RAS total and subscale scores correlated with the ILAS total stigma score, suggesting an association between

power and control in intimate relationships and perceived or experienced abortion stigma [278]. RAS scores are computed by summing responses, with higher levels of reproductive autonomy (RA) demonstrated by higher scores on the three subscales: freedom from coercion (e.g., “My partner has messed with or made it difficult to use a method to prevent pregnancy when I wanted to use one.”; strongly disagree, disagrees, agree, strongly agree), communication (e.g., “If I was worried about being pregnant or not being pregnant I could talk to my partner about it.”), and decision making (e.g., “Who has the most say about when you have a baby in your life?”; my sexual partner, both me and my sexual partner, me).

Religiosity. The CRS-15 is an interreligious, 15-item validated measure of the degree of religiosity of an individual [231]. It has the highest dimensional discriminance, reliability, and accuracy of all CRS options (i.e., CRS-5, CRS-10, and CRS-15). We used interreligious item wording where available (e.g., “How important is mediation (compared with prayer) for you?”). The CRS-15 was included to explore the link between religion and abortion stigma with greater nuance than ‘religious affiliation’ captures, especially as religious affiliation is decreasing in Australia (see ABS 2021 data). CRS scores are calculated by dividing the item sum score by the number of scored items, producing a score between 1.0 and 5.0 where “non-religious” is 1.0-2.0, “religious” 2.1-3.9, and “highly religious” 4.0-5.0.

5.5.3. Recruitment and Data Collection

Any person in Australia who previously had an abortion was eligible to participate, because that demographic represents the target population for intended future use. Survey 1 data were collected between 23rd March and 2nd June 2022, and Survey 2 data were collected between 6th April and 30th June 2022. Participants were recruited via social media, stakeholder networks, and professional networks across Australia. In events beyond our control, the study was live during heightened media attention about abortion in response to the release of draft legislation to overturn Roe vs. Wade in the US (2nd May 2022) and during the 2022 Australian federal election campaign (10th April to 21st May 2022).

5.5.4. Data Cleaning

Incomplete responses to the ILAS-Aus (*n* = 485) were removed to enable analysis of complete cases. This approach was adopted because complete case analysis was deemed more appropriate than imputing missing values for an unvalidated instrument. Patterns in participant responses were explored to identify inconsistent responses (i.e., an attention check; e.g., participants who responded inconsistently to three pairs of items deemed similar other than positive or negative framing), possibly signifying poor quality data for removal. The response rate per item, patterns of missingness (Little's MCAR Test), and possible selection bias (i.e., chi-square test examining differences in demographics between complete and partially complete ILAS-Aus cases) were examined. Participants with missing data for demographics, attitudes, RAS, and CRS-15 were included in the analysis and scored as "prefer not to answer" or "missing response".

5.5.5. Data Analysis

Following COSMIN guidelines [253], we completed analysis for structural validity, internal consistency, reliability and measurement error, and hypothesis testing for construct validity. Criterion and cross-cultural validity were not tested as no gold standard exists for self-report measures and the study was not completed across cultures [253]. Statistical analysis output is available in appendix 5.2. SPSS v28 [279] was used for all analyses, other than confirmatory factor analysis (CFA) where Mplus V8 [280] was used.

Structural validity and internal consistency. Iterative exploratory factor analysis (EFA) using principal component analysis, with varimax rotation and Kaiser normalisation was performed on a random half of responses. Following each EFA, parallel analysis was performed to determine the number of principal components to retain at each stage [281]. Items were excluded if factor loadings were less than .50 on the corresponding factors or if cross-factor loadings were greater than .40. Factor loading cut-offs were chosen to support reduction in items.

Confirmatory factor analysis (CFA) with robust maximum likelihood estimation was performed on the remaining half of responses to confirm the scale structure identified by the

EFA and to evaluate the model fit. CFA model fit was assessed using the following fit indices: the χ^2 test, comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA) [282]. An acceptable model fit was indicated by χ^2 /df <3, CFI values of 0.90 or above, and RMSEA and SRMR values of around 0.08 or below [282]([283]. Internal consistency of the identified factors was assessed using Cronbach's α.

Measurement error and test-retest reliability. Participants completed the ILAS-Aus online twice, two weeks apart. Measurement error was calculated with standard error of measurement (SEm = standard deviation multiplied by square root of 1 minus Cronbach's alpha), and test-retest reliability was calculated with intraclass correlation coefficients (ICCs) [284]. SEm scores closer to 0 (i.e., low scores) suggest increased assessment accuracy, whereas SEm scores closer to the standard deviation, the maximum SEm (i.e., high scores), suggest reduced accuracy. ICCs were calculated using a two-way random effects model, with absolute agreement and single measurement. ICC values < 0.5 indicate poor reliability, values between 0.5 and 0.75 indicate moderate reliability, and values > 0.75 indicate good test-retest reliability [285]. To ensure stability of responses in the interim period, we calculated test-retest reliability for the ILAS-Aus at two time points on data from individuals who completed both Survey 1 and Survey 2 after 2nd May 2022 when there was heightened media attention about abortion, bodily autonomy, and gender inequity. We chose to calculate ICC values on data collected at two time points after 2nd May 2022, rather than before, because no one in our sample completed both surveys before this date.

*Construct validity: Convergent validity***.** We calculated Spearman's Rho correlations between ILAS-Aus subscale scores and comparator instrument scores to assess the extent to which stigma correlated with measures of similar (convergent validity) constructs in the expected direction. We expected a negative correlation between abortion stigma and reproductive autonomy (higher stigma, lower autonomy) and a positive correlation with religiosity (higher stigma, higher religiosity) and abortion attitudes (higher stigma, higher abortion attitude scores representing more restrictive abortion attitudes). One-way ANOVA with

Tukey post-hoc analyses were conducted between stigma scale scores and CRS category (i.e., not religious, religious, very religious) to assess the relationship between stigma and category of religiosity. It was expected “very religious” and “religious” participants would have significantly higher stigma scores than “not religious” participants.

Mean change in perceived stigma. To examine whether completing the ILAS-Aus increased stigma, we examined changes in perceived stigma before and after completion of the ILAS-Aus by performing a paired *t*-test on survey 1 data to explore changes in the single-item perceived stigma question included in the survey pre and post the ILAS-Aus.

5.6. Results

5.6.1. Response rate and data cleaning

In total, 1712 cases reached the end of the ILAS-Aus; however, there was considerable intermittent missing data. Little’s MCAR Test was significant (χ^2 (7813, N = 1712) = 8209.993 (p = 0.001) suggesting missing responses were systematic. A pattern was detected in the responses, demonstrating respondent dropout as the survey progressed, with a larger number of dropouts occurring at each new survey page. Of the 1712 cases, 1227 (71.67%) completed all items of the ILAS-Aus. None of the 1227 complete ILAS-Aus responses failed the attention check. A chi-square test demonstrated no difference in abortion numbers (one/more than one; χ^2 (1, N = 1689) = 1.189, p = .275) between participants with complete and incomplete data. Differences in complete and incomplete cases were found among respondents’ last stigma experience [most recent stigma experience in last 2 years, more than 2 years ago, or never: χ^2 (2, N = 1691) = 25.729, p < .001)] indicating those experiencing stigma in the last 2 years were more likely to complete the survey than others.

The 1227 complete ILAS-Aus cases were included in the primary analysis. Of these, a subset of 384 (31.3%) participants completed the follow-up survey 2 weeks later in full. Missing survey 2 data was systematic (χ^2(2178, N = 384) = 2467.734, p < 0.001). The data response pattern suggested dropout as respondents progressed through survey. The chi-square test between complete survey 2 (n=432; 25.2%) and incomplete survey 2 (n=1280; 74.8%) ILAS-

Aus cases demonstrated no difference in abortion number (χ^2 (1, *N* = 1689) = 2.062, *p* =.151)) or time since most recent abortion stigma experience (χ^2 (2, *N* = 1691) = 1.196, *p* =.550)). See appendix 5.2 for tables of response rate patterns for ILAS-Aus time point 1 and 2.

5.6.2. Demographics

Of the 1227 included cases, the majority were women (97.5%), university educated (54.5%), born in Australia (86.3%) with mixed ancestry (51.1%), no religious affiliation (64.4%), and politically left-wing affiliated (65.1%). Time since abortion ranged from less than 3 months to more than 10 years ago, with most (74.1%) abortions three years or more before survey completion (i.e., before May 2019). The most recent experience of stigma was never (*n*=251; 20.5%), followed by more than 5 years ago (*n*=217; 17.7%), and days ago (*n*=187; 15.2%), with 46% reporting an experience of abortion stigma between May 2021 and June 2022 (the 12 months prior to survey completion). Most participants previously had one abortion (68.7%), accessed in a metropolitan location (80.2%), and in New South Wales (NSW; 41.1%). For participants who had one abortion (*n* = 843), most accessed a surgical abortion (70.7%) at <9weeks gestation (54.4%) from a service <10 km away (33.7%) for an unplanned pregnancy from consensual sex (82.8%). See Table 5.1 for participants' demographics and table 5.2 for abortion-related demographics.

Table 5.1. Participant demographics

Demographic	Percentage (*n*) participants, unless otherwise specified
Age: mean (range)	50 years (25-73)
Gender	99.8% (1224)
Woman	97.5% (1196)
Man	0.3% (4)
Non-binary or gender diverse	1.9% (24)
Education	94.7% (1162)
High school	11.8% (145)
Certificate	16.4% (202)
Diploma	12.5% (153)
Undergraduate Degree	28.1% (345)
Graduate cert or dip	8.2% (101)
Postgraduate Degree	18.2% (223)
Prefer not to say	0.7% (8)
Political affiliation[¥]	94.4% (1158)
Greens	36.8% (452)
Labor Party	24.6% (302)
No political	16.5% (216)
Independent	3.4% (42)
Liberal Party	3.3% (41)
Other	1.5% (18)
Prefer not to say	6.8% (84)
Religious affiliation	
No religious affiliation	64.4% (790)
Christian	14.2% (174)
Spiritual	8.6% (106)
Other	5.5% (67)
Prefer not to answer/missing	7.3% (90)
*Ancestry**	n/a.
Australia	31.3% (384)
United Kingdom (English, Irish, Scottish, Welsh)	86.3% (1058)
Other	23.7% (292)

Indigenous[1]	4.6% (57)
Ancestry: one or more than one	1147 (93.5%)
One ancestry	520 (42.4%)
Multiple ancestries	627 (51.1%)
Country of birth	99.9% (1226)
Australia	86.3% (1059)
England	4.6% (56)
New Zealand	2.5% (31)
Other	6.5% (80)

[1] Aboriginal, Torres Strait Islander, Māori, South Sea Islander

Table 5.2. Participant abortion-related demographics

Demographic	Percentage (*n*) of participants
Number of abortions	99.8% (1225)
One	68.7% (843)
More than one	31.1% (382)
Time since abortion(s)[2]	
0-3 months	4.3% (53)
4-6 months	2.9% (35)
7-12 months	5.0% (61)
1-3 years	13.7% (168)
3-10 years	30.2% (370)
More than 10 years	43.9% (539)
Location of abortion: jurisdiction[2]	
Queensland	13.9% (170)
New South Wales	41.1% (504)
Australian Capital Territory	5.3% (65)
Victoria	20.3% (249)
South Australia	6.5% (80)
Western Australia	9.6% (118)
Northern Territory	2.7% (33)
Tasmania	5.7% (70)
Outside Australia	4.2% (51)
Location of abortion: zone[2]	

Metropolitan	80.2% (984)
Regional	20.0% (246)
Rural	3.7% (45)
Remote	0.7% (9)
Cannot say	0.7% (8)
Location of abortion: healthcare provider[2]	
Private/public health service	35.8% (406)
Pro-choice clinic	27.0% (306)
GP service	16.5% (187)
Self-managed (i.e., accessed outside of healthcare services)	5.4% (61)
Healthcare institution with religious ethos	4.8% (54)
Telehealth service.	1.4% (16)
I don't know	15.3% (174)

[2] *multiple choice answer option, hence, may not add to 100% or n=/=1227.*

5.6.3. Structural validity and internal consistency

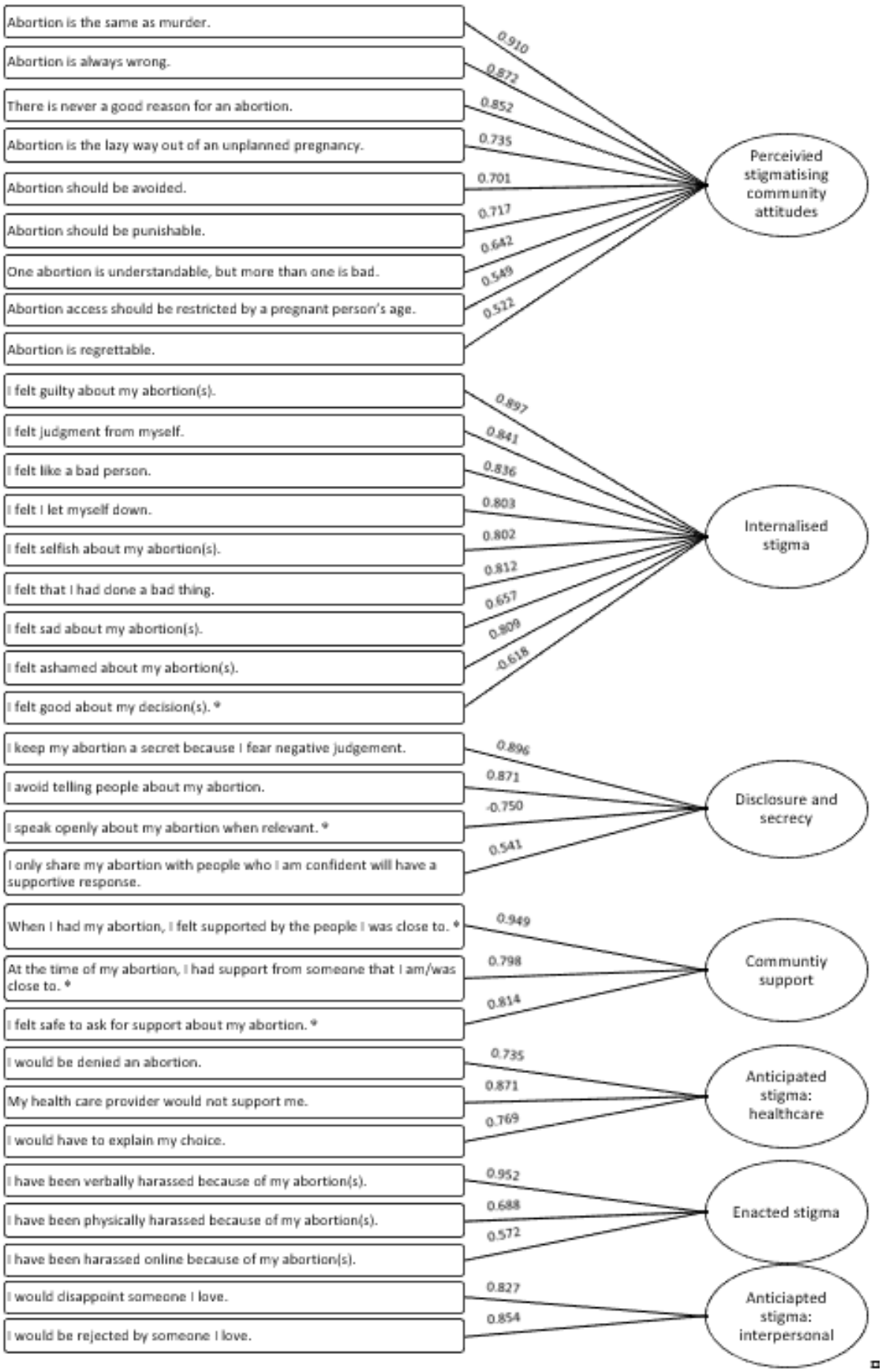
An EFA was supported by the data with KMO test = 0.93 and a significant Barlett's test (18503.393, df = 1081, $p < .001$). Iterative EFA, excluding items with poor factor loadings, followed by parallel analysis to confirm the number of factors, indicated a seven-factor solution with 33 items accounting for 69.42% of the variance. See Table 5.3 for final factor structure determined by EFA, explained variance, eigenvalues, and Cronbach's alphas. CFA further supported the identified factor structure, indicating a good model fit ($\chi^2/df = 2.68$, CFI = .939, SRMR = .047, RMSEA = .051). The factor loadings of all items on their corresponding factors were significant, ranging between .522 and .952. Small to moderate sized Pearson's correlations (range: $.063 < r < .492$) between ILAS-Aus subscales further support their independent structure. See Figure 5.2 and Table 5.4 for the final measurement model, confirmed via CFA.

Table 5.3. Individual Level Abortion Stigma scale Australia (ILAS-Aus) Exploratory Factor Analysis results

Subscales and items		Factor loading
Internalised abortion stigma (*n*=9) €		
Cronbach's α = *.939* *Eigenvalue = 9.285* *Explained variance = 28.14%*	I felt guilty about my abortion(s).	.880
	I felt judgment from myself.	.824
	I felt like a bad person.	.816
	I felt I let myself down.	.802
	I felt selfish about my abortion(s).	.791
	I felt that I had done a bad thing.	.791
	I felt sad about my abortion(s).	.743
	I felt ashamed about my abortion(s).	.741
	I felt good about my decision(s). φ	-.698
Anticipated stigma: health care (*n*=3) ‡‡		
Cronbach's α = *.834* *Eigenvalue = 1.633* *Explained variance = 4.95%*	I would be denied an abortion.	.851
	My health care provider would not support me.	.843
	I would have to explain my choice.	.792
Anticipated stigma: interpersonal (*n*=2) ‡‡		
Cronbach's α = *.849* *Eigenvalue = 1.107* *Explained variance = 3.35%*	I would be rejected by someone I love.	.817
	I would disappoint someone I love.	.811
Enacted stigma (*n*=3) ¥		
Cronbach's α = *.764* *Eigenvalue = 1.462* *Explained variance = 4.43%*	I have been verbally harassed because of my abortion(s).	.870
	I have been physically harassed because of my abortion(s).	.824
	I have been harassed online because of my abortion(s).	.702
Perceived stigmatising community abortion attitudes (*n*=9) £		
Cronbach's α = *.908* *Eigenvalue = 4.345* *Explained variance = 13.17%*	Abortion is the same as murder.	.873
	Abortion is always wrong.	.846
	There is never a good reason for an abortion.	.826
	Abortion is the lazy way out of an unplanned pregnancy.	.767
	Abortion should be avoided.	.748
	Abortion should be punishable.	.736
	One abortion is understandable, but more than one is bad.	.697
	Abortion access should be restricted by a pregnant person's age.	.633
	Abortion is regrettable.	.594
Disclosure and secrecy (*n*=4) €		
Cronbach's α = *.845* *Eigenvalue = 2.670* *Explained variance = 8.09%*	I keep my abortion a secret because I fear negative judgement.	.837
	I avoid telling people about my abortion.	.817
	I speak openly about my abortion when relevant. φ	-.764

	I only share my abortion with people who I am confident will have a supportive response.	.653
Community support (*n*=3) [€]		
Cronbach's α = *.886* *Eigenvalue = 2.406* *Explained variance = 7.29%*	When I had my abortion, I felt supported by the people I was close to. [φ]	.884
	At the time of my abortion, I had support from someone that I am/was close to. [φ]	.863
	I felt safe to ask for support about my abortion. [φ]	.811
Full scale (*n*=33) *Cronbach's* α = *.919* *Explained variance = 69.42%*		

[φ] indicates item is reverse coded
[€] 5-point response options: "strongly disagree" to "strongly agree"
[£] 5-point response options: "no one" to "most people"
[¥] 5-point response options: "not at all" to "extensively"
[‡] 4-point response options: "never" to "many times"
[‡‡] 4-point response options: "not worried" to "extremely worried"



**all factor loadings are significant at p<.001)*

Figure 5.2. The CFA model of ILAS-Aus with standardized factor loadings for items.

Table 5.4. Pearson's correlations between identified ILAS-Aus subscales

	Internalised Stigma	*Perceived stigmatising community attitudes*	*Disclosure and Secrecy*	*Community Support*	*Anticipated Stigma: healthcare*	*Enacted Stigma*	*Anticipated Stigma: interpersonal*
Internalised Stigma	-						
Perceived stigmatising community attitudes	.280	-					
Disclosure and Secrecy	-.245	-.289	-				
Community Support	.268	.128	-.233	-			
Anticipated Stigma: healthcare	.308	.451	-.378	.196	-		
Enacted Stigma	.287	.251	-.373	.293	.327	-	
Anticipated Stigma: interpersonal	.240	.464	-.319*	-.063	.492	.204	-

*All Pearson's correlations are significant $p<.005$, except Disclosure X Anticipated Stigma: interpersonal ($p=.144$)

5.6.4. Measurement error and reliability

Subscales' SEm demonstrate low to moderate measurement error, indicating accurate assessment. Of responses to survey 1 and 2 completed after 2nd May 2022, ICC values indicate good test-retest reliability for Community Support and Enacted subscale scores, moderate reliability for Internalised Stigma, Anticipated Healthcare Stigma, and Anticipated Interpersonal Stigma subscale scores, and poor reliability for Perceived Stigmatising Community Attitudes and Disclosure and Secrecy subscale scores. For exploratory analysis we also examined test-retest reliability between all available survey 1 and survey 2 subscale score data regardless of date of completion. ICC values between survey 1 and 2 stigma subscale scores indicated moderate to good test-retest reliability. Table 5.5 presents a full overview of the SEm and ICC values.

Table 5.5. ILAS-Aus SEm values and test-retest reliability evaluated in a subset of participants

Subscale	SEm (comparator SD)	Subset of cases	Intra-class correlation (ICC)	95% CI	*p* value
Internalised Stigma	.25 (1.16)	all (*n* = 427)	.839	.81; .87	< .001
		after 2/5/22 (*n* = 293)	.638	.52; .71	< .001
Perceived stigmatising community attitudes	.30 (.78)	all (*n* = 425)	.717	.67; .75	< .000
		after 2/5/22 (*n* = 396)	.300	.10; .46	< .001
Disclosure and Secrecy	.39 (1.08)	all (*n* = 444)	.805	.77; .84	< .001
		after 2/5/22 (*n* = 333)	.326	.17; .46	< .001
Community Support	.34 (1.24)	all (*n* = 436)	.817	.78; .85	< .001
		after 2/5/22 (*n* = 196)	.791	.73; .84	< .001
Anticipated healthcare stigma	.41 (.99)	all (*n* = 447)	.670	.62; .72	< .001
		after 2/5/22 (*n* = 416)	.644	.58; .70	< .001
Enacted Stigma	.49 (.65)	all (*n* = 428)	.772	.73; .81	< .001
		after 2/5/22 (*n* = 399)	.785	.74; .82	< .001
Anticipated interpersonal stigma	.39 (1.06)	all (*n* = 450)	.607	.48; .70	< .001
		after 2/5/22 *(n* = 422)	.602	.47; .70	< .001

Note. All = computed using all available data, regardless of completion date, to calculate ICCs between survey 1 and survey 1 subscale scores. After 2/5/22 = computed using survey 1 and survey 2 data completed at 2/5/22.

5.6.5. Construct validity

Table 5.6 provides an overview of correlations between reproductive autonomy and abortion stigma experienced by people in Australia who have had an abortion. As expected, abortion stigma subscale scores were significantly correlated with RAS subscale scores in the predicated direction indicating higher stigma is associated with lower reproductive autonomy. All subscales significantly correlated at the .01 level, other than Decision Making and Anticipated Stigma ($\rho = -.04$, $p = .177$). Lower decision-making autonomy and communication correlated with higher abortion stigma, and lower freedom score correlated with higher stigma. Correlations were predominantly of small magnitude, ranging from $.077 < \rho < -.344$.

Table 5.6. Spearman's Rho (ρ) correlations between reproductive autonomy subscale sand abortion stigma subscales

	Perceived Stigma	Internalised Stigma	Anticipated Stigma: healthcare	Anticipated Stigma: interpersonal	Community Support	Enacted Stigma	Disclosure and Secrecy
Decision	**-.162**	**-.254**	-.040	**-.174**	**-.085**	**-.097**	**-.159**
Making	**(< .001)**	**(< .001)**	(.177)	**(< .001)**	**(.004)**	**(< .001)**	**(< .001)**
Freedom	**-.207**	**-.136**	**-.180**	**-.133**	**-.267**	**-.286**	**-.077**
	(< .001)	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**	**(.008)**
Communicat	**-.210**	**-.185**	**-.141**	**-.160**	**-.344**	**-.237**	**-.106**
ion	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**	**(< .001)**

Table 5.7 presents correlations between religiosity and abortion stigma experienced by people in Australia who have had an abortion. As expected, abortion stigma subscale scores were positively correlated with religiosity, indicating with higher religiosity there is higher abortion stigma. Religiosity had small positive correlations with Perceived Stigma (ρ = .104, p < .001), Internalised Stigma (ρ = .136, p < .001), Anticipated Stigma: interpersonal (ρ = .123, p < .001), and Disclosure and Secrecy (ρ = .066, p = .021). Anticipated Stigma, Community Support, and Enacted Stigma were not significantly correlated with religiosity.

Table 5.7. Spearman's Rho (ρ) correlations between religiosity and abortion stigma subscales

	Perceived Stigma	Internalised Stigma	Anticipated Stigma: healthcare	Anticipated Stigma: interpersonal	Community Support	Enacted Stigma	Disclosure and Secrecy
Religiosity	**.104**	**.136**	-.001	**.123**	.056	.055	**.066**
(p-value)	**(< .001)**	**(< .001)**	(.962)	**(< .001)**	(.051)	(.055)	**(.021)**

One-way ANOVA showed Perceived Stigma (F(2, 1133) = 9.01, p <.001), Internalised Stigma (F(2, 1133) = 14.51, p <.001), Anticipated Stigma: interpersonal (F(2, 1133) = .70, p <.001), Enacted Stigma (F(2, 1133) = 5.91, p = .003), and Disclosure and Secrecy (F(2, 1133) = 3.30, p = .037), scores differed significantly by Centrality of Religiosity Scale (CRS) category (i.e., not religious, religious, very religious). Tukey post-hoc test results demonstrated significantly lower stigma mean scores for groups with less religiosity. However, post hoc

analyses indicated non-significant differences by CRS category for the Disclosure and Secrecy subscale. See table 5.8 for significant Tukey HSD scores.

Table 5.8. Tukey HSD significant results for one-way ANOVA between abortion stigma subscale and religiosity level

	Not religious *M* (*SD*)	Religious *M* (*SD*)	Highly religious *M* (*SD*)	Mean difference	Sig.
Perceived Stigma	2.35 (0.78)		3.09 (0.85)	-.74	< .001
		2.41 (0.75)	3.09 (0.85)	-.67	< .001
Internalised Stigma	2.78 (1.17)	3.15 (1.11)		-.37	< .001
Anticipated Stigma:	2.02 (1.03)	2.29 (1.08)		-.27	< .001
interpersonal	2.02 (1.03)		2.74 (1.12)	-.72	.006
Enacted stigma	1.29 (0.58)		1.76 (1.09)	-.42	.002
		1.34 (0.70)	1.76 (1.09)	-.42	.008

Only significant pairwise comparisons presented.

Table 5.9 presents correlations between abortion attitudes and abortion stigma experienced by people in Australia who have had an abortion. Abortion stigma subscales and attitudes (choice, gestation, access, total) were found to have small positive correlations (p < .01), indicating greater stigma is associated with more restrictive attitudes towards abortion. Attitudes towards abortion legality by choice were significantly positively correlated with Internalised Stigma (ρ = .153, p < .001) and Perceived Stigmatising Community Attitudes (ρ = .103, p < .001). Attitudes towards abortion legality by gestation were positively correlated with Internalised Stigma (ρ = .261, p < .001), Perceived Stigmatising Community Attitudes (ρ = .082, p = .007), Disclosure and Secrecy (ρ = .122, p < .001), Community Support (ρ = .102, p < .001), and Anticipated Stigma: interpersonal (ρ = .119, p < .001). Abortion access attitudes were positively correlated with Internalised Stigma (ρ = .145, p <.001). Anticipated stigma: healthcare and Enacted Stigma were not significantly correlated with any abortion attitudes.

Table 5.9. Spearman's Rho correlations between abortion attitudes and abortion stigma subscales.

	Internalised Stigma	Perceived Stigma	Disclosure and Secrecy	Community Support	Anticipated Stigma: healthcare	Enacted Stigma	Anticipated Stigma: interpersonal
	(ρ value)	(ρ value)	(ρ value)	(ρ value)	(ρ value)	(ρ value)	(ρ value)
Attitudes total score (n=1075)	**.278 (< .001)**	**.097 (.001)**	**.109 (< .001)**	**.094 (.002)**	-.048 (.118)	-.019 (.526)	**.114 (< .001)**
Abortion law – choice (n=1170)	**.153 (< .001)**	**.103 (< .001)**	.012 (.671)	.026 (.367)	-.019 (.511)	.000 (.987)	.052 (.074)
Abortion law – gestation (n=1084)	**.261 (< .001)**	**.082 (.007)**	**.122 (< .001)**	**.102 (< .001)**	-.058 (.057)	-.034 (.269)	**.119 (< .001)**
Abortion access (n=1165)	**.145 (< .001)**	.041 (.164)	.043 (.145)	.043 (.142)	-.007 (.808)	.023 (.430)	.051 (.080)

*Significant values are in **bold**.*

5.6.6. Mean change in perceived stigma

A paired samples *t*-test found a significant mean reduction in self-reported experienced stigma scores from pre- to post-instrument completion (M_{diff} = -.24, SD = .90, $t(1183) = 9.014$, $p < .001$). Effect size (Cohen's d) was .23 (95% CI .15;.31) indicating a small effect. SPSS output is available in appendix 5.2.

5.7. Discussion

We have adapted the ILAS to form a valid, reliable seven factor, 33 item instrument for measuring abortion stigma experienced by people in Australia who have had an abortion: the ILAS-Aus. See recommended ILAS-Aus items and format in appendix 5.3. The ILAS-Aus can be used as subscales or as a complete instrument, confirming stigma – and individual-level abortion stigma - is a multi-dimensional construct as found with previous ILAS's (e.g., [97, 188, 193]). Note, subscale use of the ILAS should be done understanding that only a component of stigma is being measured.

Contrary to the idea, and concern, that measuring experienced stigma may be stigmatising [169, 234, 263], we found completing the ILAS-Aus reduced self-reported perceived stigma, suggesting using a self-report scale to measure stigma does not stigmatise.

This reduction in self-reported perceived stigma from pre- to post-instrument administration could be due to the instrument drawing participants' attention to how infrequent and low impact (e.g., subtle rather than overt harassment) their experience of stigma was as part of their entire abortion experience. Indeed, research into abortion experiences in Australia has not always found stigma to be experienced *[146],* or a component of abortion experiences [134], indicated stigma forms only part of some abortion experiences [225]. Working through the ILAS-Aus may help respondents position their experience of stigma within their whole abortion experience, identifying their experience of stigma as less than anticipated. Furthermore, as qualitative work suggests [169, 234], completing the ILAS-Aus can validate experiences previously kept silent, in turn reducing a sense of isolation and stigma.

Although a reduction in self-reported perceived stigma from using the ILAS-Aus was found, this finding is limited by measuring a complex phenomenon with a single-item and social-desirability bias. As identified during instrument modification, stigma is not well understood in its entirety by the community [263]. We hope the community-test definition accompanying the single-item stigma measure improved accuracy of self-report, as was observed during cognitive walkthroughs of the ILAS-Aus [263]. It is also possible the large number of respondents inflated the effect, enabling a significant difference when no meaningful change was apparent, particularly as the effect size was small. It may be that using the ILAS-Aus has no influence on stigmatisation and the proposed stigmatisation from instruments is reflective of fear of stigmatisation, demonstrating the strength of stigma. Additionally, those who experience stigma during instrument completion may drop out, meaning they are absent from this measurement. Future abortion stigma research should look to other research within the domains of health stigma, inequities, and oppression to guide if stigma can be accurately measured without stigmatising, and if so to define best practice.

We found experiences of abortion stigma in Australia to be related to reproductive autonomy, religiosity, and abortion attitudes, providing guidance on related constructs for intervention consideration. These findings add to growing evidence that stigmatising abortion is related to: reducing and removing bodily autonomy (e.g., [278]); practice of religion (e.g., [97,

286]), and belief abortion should be restricted (e.g., [286]). However, some of the findings are limited by small correlation sizes (e.g., perceived stigmatising community attitudes and abortion attitudes) which may be due to our large sample size. Understanding these relationships and the dynamics of individual-level abortion stigma can provide insight into comprehensive approaches to addressing abortion stigma. For example, by centring bodily autonomy in culture and beliefs, can we destigmatise abortion? Or does abortion stigma need to be addressed concurrently with efforts to improve autonomy? Future research should explore whether: 1) reproductive autonomy is a potential inverse of abortion stigma (i.e., a positively framed experience), 2) the two constructs can be interchangeably measured, and 3) reproductive autonomy experienced or researched addresses stigma.

Interestingly, anticipated healthcare stigma did not relate to decision-making autonomy, abortion attitudes, or religiosity. This finding suggests that anticipation of stigma from healthcare (e.g., denial of care, need to justify care) is independent of decision-making autonomy, abortion attitudes, and religiosity. This may be because confidence in abortion decisions is independent of anticipated denial of care. Confidence in abortion decision is repeatedly high around the world [287] with (dis)enabling, unsupportive environments expected to be “the hard part” of abortion [1, 288]. Additionally, the drivers of decisions to abort appear independent of a person’s abortion attitudes and religiosity [97, 289]. Regardless of anticipated healthcare stigma, people with varied abortion attitudes and religiosity need and seek abortion. Anticipation of judgment from healthcare professionals does not seem to significantly impact decision-making autonomy but being denied care does stigmatise [78]. Future research should explore how to reduce denial of abortion care to reduce experiences of anticipated stigma.

Reflecting on the data collection process, experiences of abortion stigma appear entwined with cross-cultural, international events and are also unique to local context. The ILAS-Aus has a different structure to the original ILAS with more factors and items, while retaining the core themes of the ILAS: anticipated stigma/worries about judgement; disclosure and secrecy + community support/isolation; internalised stigma/self-judgment; perceived community stigma/community condemnation. Many of the original ILAS items were retained,

with additions made for cultural relevance, suggesting there are similar key elements to experiences of abortion stigma in the US, Germany, Turkey, and Australia. However, cultural and contextual differences influence the nuances of these experiences. For measuring abortion stigma experienced by people in Australia who have had an abortion, we recommend the ILAS-Aus for its stronger cultural fit and structural validity.

The influence of stigma across cultures/internationally could explain the lower reliability of our subscales when tested post 2nd May 2022 - when, in response to draft documents suggesting the overturn of Roe v. Wade in the US, there was heightened media attention about abortion around the world sparking fear about the erosion of bodily autonomy, misinformation and stigmatising messages, and energising anti-abortion movements. Responses to our retest/survey time 2 may have been influenced by this media attention. The variability in retest/survey time 2 responses suggests stigma is influenced by the salience of local and international media and events, and stigma could potentially be imported (see: [290]).

We intended to examine longitudinal validity by conducting paired *t*-tests to compare mean scores of individuals who completed survey 1 pre-2nd May 2022 and survey 2 post-2nd May 2022. We expected stigma scores to increase from survey 1 (pre-2nd May 2022) to survey 2 (post-2nd May 2022) given heightened media attention on abortion from 2nd May 2022.Of the 384 participants completing survey 2, 41 participated in survey 1 before2nd May 2022 and survey 2 after2nd May 2022. Of these 41 participants, three participants completed both survey 1 and 2. Consequently, a paired *t*-test to assess longitudinal validity could not be completed. To test longitudinal validity, future research could compare responses to the ILAS-Aus pre, during, and post a time with heightened stigmatisation of abortion, such as Catholic Lent.

Future research should consider the limitations of our work. Firstly, the ILAS-Aus (and ILAS) has limited inclusion of structural factors influencing individual-level stigma, such as stigmatisation from discourse (e.g., “messages tell me abortion is an undesirable outcome”; “I only understand abortion as a negative”), policy (e.g., “I had to prove myself to access abortion legally”; “laws and policies restricted me from accessing abortion as I would have chosen”),

infrastructure (e.g., “I had to access abortion differently to how I regularly access healthcare”), and systems (e.g., “I had to jump through hoops to get my abortion”; “the system put up barriers to me accessing abortion”) towards people who are considering, accessing/seeking, and/or have had abortions. There is a need to explore ways the ILAS-Aus and ILAS can incorporate how experiences of stigma are situated within individuals’ society and are influenced by structural factors. Second, divergent, criterion, longitudinal, and cross-cultural validity are yet to be tested for the ILAS-Aus and ILAS and should be conducted. Third, despite employing strategies to reduce the impact of stigma on engagement and reporting (e.g., [247]) this research is subject to selective underreporting and opt-in biases. Future research should explore how abortion stigma research can be embedded within general sexual and reproductive health research and community surveys. Fourth, despite cognitive walkthroughs showing low cognitive load and community approval of instrument length [263], the ILAS-Aus is long when used with other instruments and the accumulative survey length may contribute to participant dropout or disengagement. Future research concerned with length should consider using subscales and co-designing short forms.

5.8. Conclusion

The ILAS-Aus is a valid, reliable multi-dimensional self-report tool for measuring abortion stigma experienced by people in Australia who have had an abortion which reduces self-reported stigma. It demonstrates abortion stigma is associated with reproductive autonomy, religiosity, and abortion attitudes. The tool is suitable for use as subscales or in full. The ILAS-Aus is suited to documenting experiences of abortion stigma in relation to community-level and structural-level abortion stigma interventions. Future research should explore short-form options of the ILAS-Aus and further psychometrics of the measure.

CHAPTER 6. Measuring abortion stigma experienced by people in Australia providing or publicly supporting abortion: the psychometric properties of multiple instruments.

6.1. Rationale and link with previous chapters.

Chapter 2 identified and assessed the measurement of abortion stigma internationally. Chapter 3 and 4 qualitatively explored suitability, usability, relevance, comprehensiveness, and comprehensibility of four tools measuring individual level abortion stigma in ANZ. Instruments measuring the stigmatisation of consumers, providers, and advocates were found suitable for use, in Australia but require further development for use in Aotearoa New Zealand (AoNZ) as do the measures of stigmatisation of groups and organisations supporting abortion. Chapters 5 assessed the psychometric properties of the instrument measuring experiences of stigma of people in Australia who have had an abortion. Chapter 6 reports the psychometric evaluation of the Abortion Providers Stigma Scale - Revised modified for health professionals providing abortion care in Australia (APSS-R-Aus) and people publicly support abortion in Australia (APSS-R-Advocates).

6.2. Chapter abstract

Abortion stigma is a barrier to safe, quality, accessible abortion care. In Australia, abortion stigma is experienced by people supporting abortion, specifically those providing abortion-related care and engaging in public advocacy. Experiences of abortion stigma are shown to impact delivery of care and information. No quantitative data exists reporting providers' and advocates' experiences of abortion stigma in Australia. The Abortion Provider Stigma Scale – Revised (APSS-R) has been modified for use in Australia among providers and advocates. This study aimed to psychometrically assess the two instruments.

People in Australia who provide and/or publicly support abortion were recruited through social media, stakeholder groups, and professional networks to participate in a cross-sectional online survey. We tested structural validity, internal consistency, measurement error, test-retest reliability, and construct validity following COSMIN's protocol for assessing self-report

measures. Change in self-reported perceived abortion stigma pre- and post-instrument administration was assessed among providers.

We found the APSS-R-Aus comprised two, multidimensional instruments measuring stigma frequency (4 factors, 45 items; α = .941) and stigma importance (5 factors, 34 items; α = .946) of stigma experienced among health professionals providing abortion care. Similarly, the APSS-R-Advocates was found to measure experienced stigma frequency (3 factors, 20 items; α = .911) and stigma importance (3 factors, 13 items; α = .814) with multidimensional instruments. Good construct validity was demonstrated with higher stigma subscale scores associated with greater religiosity, more restrictive abortion attitudes, and poorer psychological wellbeing. For providers, there was no significant difference in self-reported stigma from pre- to post-instrument use.

There are four validated instruments available for measuring abortion stigma experienced by people in Australia supporting abortion through abortion care provision or advocacy. These instruments can be used as subscales and separately or combined. Future research should explore short-form versions of the instruments and their use in a range of groups in Australia. The HAS and AAS can help determine the impact of structural changes on abortion stigma experienced by people supporting abortion.

6.3. Introduction

Abortion is a safe, essential, beneficial component of healthcare [1]. Access to and provision of abortion benefits individuals [27, 28, 32], families [47, 48], communities and healthcare systems [33], and macroeconomics [29]. Restricted or denied access to abortion is linked with unsafe and poor quality abortion care [12, 15, 19, 20], increased mortality, morbidity, and life-threatening pregnancy complications [38, 44, 57], increased healthcare costs [29, 33], economic insecurity and poverty [45, 46], exposure to abusive partners [49], children living in poverty [47, 48], poorer physical health [19, 38, 39], and short-term elevated anxiety, stress, and lower self-esteem [35, 40, 41]. Despite the importance and benefits of accessible abortion care, people supporting abortion access continue to be stigmatised. This stigmatisation impacts

the wellbeing of professionals providing abortion care [111, 198, 199, 291, 292], how people publicly support abortion [112], and abortion safety [12, 19, 20],

Abortion stigma is a socio-cultural process classifying the intentional termination of pregnancy as socially unacceptable, oppressing people and entities associated with abortion [126, 169, 263]. Different types of abortion stigma interact across individual, community, and societal levels (see Figure 6.1) [71, 82, 86, 95, 116, 121, 176-180]. At the individual level are people who are stigmatised and their experience of being stigmatised [71], including those providing abortion-related care [82, 111, 179] and/or publicly supporting abortion [82, 112, 169, 263].

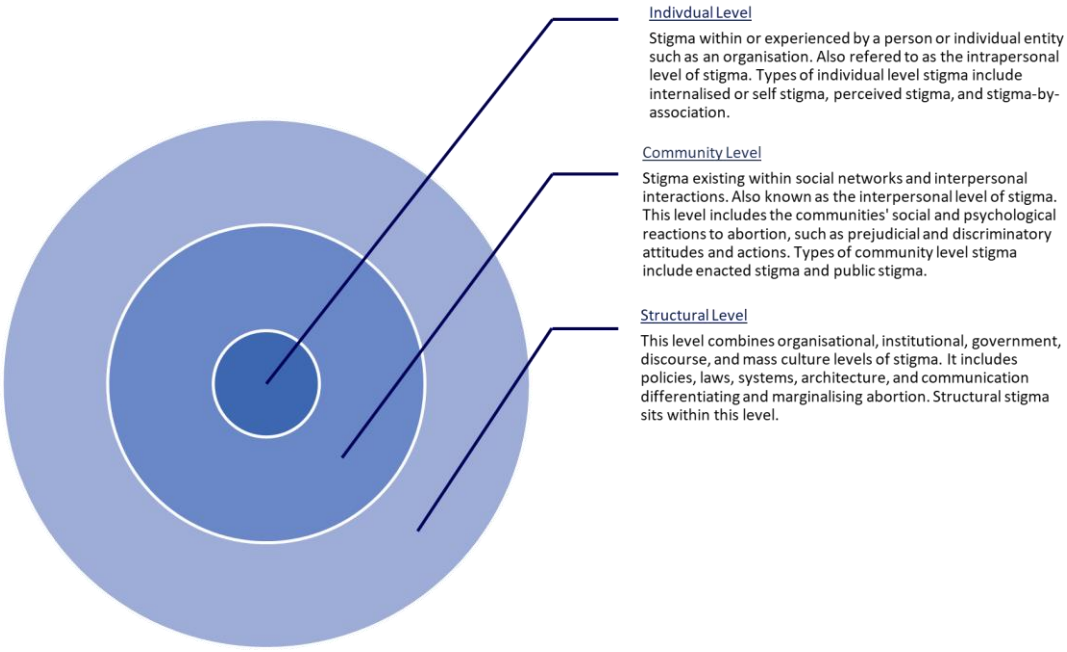


Figure 6.1. ***Socio-ecological model of types of stigma***

In Australia, people who provide abortion related care report anticipated stigma [74, 75, 153], perceived stigma [74], and enacted stigma [143, 169, 263]. For example: fear of job loss and community backlash; perception of being negatively stereotyped by employees, employers, colleagues, and the community; being targets of negative judgement and behaviours; and limited or restricted access to training about and provision of abortion services. In Australia these experiences of abortion stigma are linked with hesitancy to provide and publicly support

abortion [74, 76, 169], low abortion care provision and geographical disparities in both provision and public support [72, 143], and low abortion knowledge, confidence, skills, and supportive legislation [73, 75, 143]. Internationally, abortion stigma is related to healthcare providers' (HCPs) wellbeing, burnout, job strain, self/professional-worth, isolation, provision location, and conscientious objection [111, 198, 199, 291-293]. Notably, there is little data available reporting the experiences of people who publicly support abortion, either internationally or in Australia. For this study, we encompass supporting abortion publicly to involve engaging in abortion supportive public gatherings and activities, government engagement, media engagement, online information dissemination, community outreach, and conversations with community. This includes people acting independently and as part of groups and/or organisations, and in paid or unpaid work. We use "*abortion advocate*" to describe these groups of people. There is no quantitative work yet published on the experience or impact of stigma on people in Australia supporting abortion, for either HCPs providing abortion care or abortion advocates in Australia. Understanding and addressing abortion stigma experienced by HCPs and advocates is one approach to supporting the documented need for abortion stigma to be addressed in Australia (e.g., [77, 78, 135, 136, 139]).

Abortion stigma is a complex cultural phenomenon [71, 82, 86, 96] requiring culturally validated tools to support valid understanding of prevalence, mediators, moderators, impact, and effect of interventions. The Abortion Providers Stigma Scale – Revised (APSS-R; [199]) is the best available patient reported outcome measure (PROM) for assessing self-reported stigmatisation of abortion providers according to COnsensus-based Standards for the selection of health Measurement Instruments (COSMIN) quality guidelines [186, 187]. The multi-dimensional, 35-item tool was initially designed and psychometrically assessed in the US, demonstrating good validity and reliability [199]. The APSS-R's full instrument and subscales correlate with psychological distress and burnout among health professionals providing abortion care [199].

Qualitative inquiry with HCPs providing abortion-related care and public supporters of abortion in Australia found, with modifications, the APSS-R is suitable for measuring their

experiences of stigma [169, 263]. Modified versions of the APSS-R – the APSS-R-Aus for HCPs and the APSS-R-Advocates for public supporters – demonstrate good content validity and require psychometric validation [169, 263]. This study aimed to psychometrically validate the APSS-R-Aus and the APSS-R-Advocates among relevant end-users in Australia.

6.4. Methods

This cross-sectional survey study followed the COSMIN guidelines for evaluating measurement properties of self-report outcome measures [253]. The COSMIN guidelines are based on a rigorous, four-round Delphi study developing standards for best-practice evaluation of self-report instruments [208]. The University of Sydney Human Research Ethics Committee approved the study (Protocol: 2020/561; appendix 6.1).

6.4.1. Design

Through an online survey, participants completed consent, demographic questions, the APSS-R-Aus or APSS-R-Advocates [169, 263], abortion attitude questions, K6 psychological wellbeing scale [294], and Centrality of Religiosity scale (CRS; [231]. Participants completed the APSS-R-Aus or APSS-R-Advocates at a second time point (i.e., Survey 2) two-weeks after the first time point (i.e., Survey 1). The survey was hosted in REDCap [273] and is available in full in appendix 4.

6.4.2. Self-report measures

Demographics. Demographic questions were included if they had been identified as influential in previous research and were designed to align with Australian 2021 Census data points. They included age, gender, ancestry, education, and religious and political affiliation.

Provider stigma. The APSS-R-Aus is a 58-item instrument with good content validity for measuring stigmatisation of people in Australia providing abortion care [263]. Items are divided into five sections: emotions (12 items; e.g., “I feel good about providing abortion care”), reluctance to disclosure (19 items; e.g., “I worry about telling family I provide abortion care”), perceptions about community (13 items; e.g., “I feel other health care providers question my decision to provide abortion care”), comfort in disclosure (4 items; e.g., “I can freely celebrate

milestones in abortion care provision"), and discrimination and harassment (10 items; e.g., "I have lost employment opportunities because I provide abortion care"). Four questions assessing the context of respondents' abortion provision appeared prior to the items. These included, profession, setting, time providing abortion care, and scope of job that is abortion related.

Advocate stigma. The APSS-R-Advocates [263] measures self-reported experience of abortion stigma among people in Australia who (have) publicly support(ed) abortion. The instrument has good content validity and consists of 56 items presented in five sections: emotions (7 items; e.g., "I question whether or not advocating for abortion is the right thing to do"), connection (5 items; "When I disclose that I advocate for abortion, I feel those close to me are supportive"), sharing (17 items; e.g., "I am selective of whom I tell that I advocate for abortion"), perceptions (16 items; e.g., "I feel colleagues question my professionalism when they learn that I advocate for abortion"), and discrimination and harassment (11 items, e.g., "I have experienced online harassment because of my abortion advocacy work"). The instrument begins with four questions about context of advocacy: type (tasks and pay) and extent advocacy are related to primary occupation and part of respondent's life.

Both the APSS-R-Aus and APSS-R-Advocates have two 5-point scales for assessing frequency and importance of experienced stigma. Scoring involves summing item responses (range: 0-58; 0-56) with each response scale scored independently, providing a frequency and importance score. Positive items are reverse scored. Higher scores indicated greater stigma. Scores were treated as continuous variables in analysis. They are presented in appendixes 6.2 and 7.2, respectively.

Abortion attitudes. Attitude towards abortion was assessed using seven questions about support for abortion derived from previous research (e.g., [156, 223, 275-277, 295]). The questions asked about attitudes towards: reason (1 item: "Which statement best reflects your beliefs"; 4 response options: legal by choice, legal with medical need, legal for rape/incest/life threatened, never legal); gestation (3 items: 'Abortion should be lawful during first/second/third

trimester'; 4-point response scale: lawful, depends on circumstances, unlawful, can't say/don't know); and provision (3 items: e.g., 'Abortion should be available in the public health system'; binary response option: yes/no). Responses to abortion attitude questions were summed to give a score for each category (range: 1-4; 3-12; 3-9; respectively) and a total attitude score (range: 7-15). Higher scores indicate more restrictive abortion attitudes. To aid interpretation, we report higher abortion attitude scores as 'restrictive abortion attitudes' and low abortion attitude scores as 'supportive abortion attitudes'.

Psychological wellbeing. Psychological wellbeing was measured using the K6, a shorter version of the K10, previously used with the APSS-R, demonstrating reliability and validity, and favoured for its brevity and consistency [294]. The 6-item instrument assesses mood and anxiety on a 5-point scale from 1 (*a little of the time*) to 5 (*all of the time*). A total K6 score is calculated by summing responses (range: 6-30), with higher scores indicating more psychological distress. To aid interpretation, we report higher scores (i.e., poorer psychological wellbeing) as psychological distress. Scores between 6 and 18 are classified as "no probable serious mental illness", and between 19 and 30 as "probable serious mental illness".

Religiosity. The CRS-15 measured degree of religiosity in an individual [231]. The validated CRS-15 demonstrates the highest reliability and accuracy of all CRS options. The interreligious option was used to accommodate the multi-religious context in Australia. Item sum scores were divided by the number of scored items to calculate a CRS-15 score between 1.0 and 5.0. Scores are classified as "non-religious" (1.0-2.0), "religious" (2.1-3.9), and "highly religious" (4.0-5.0).

6.4.3. Recruitment and data collection

Any person in Australia who has provided abortion-related care or publicly supported abortion was eligible to participate, completing APSS-R-Aus or APSS-R-Advocates, respectively. Eligibility for this study aligns with those who participated in assessing the content validity of the instruments [169, 263], and the anticipated future end-users of these instruments. The survey was distributed through social media, stakeholders' networks, and professional

groups in Australia from 23rd March to 2nd June 2022. Survey 1 was completed between 23rd March and 2nd June 2022, and Survey 2 between 6th April and 30th June 2022. Beyond our control, there was a history effect, with heightened media about abortion during recruitment due to the release of draft legislation to overturn Roe vs. Wade in the US and heightened attention to gender inequality and bodily autonomy as part of the 2022 Australian federal election campaign.

6.4.4. Data analysis

We assessed structural validity, internal consistency, reliability and measurement error, and construct validity as per COMSIN guidelines for evaluating measurement properties of self-report measures [253]. No gold standard exists for self-report measures that are not a short version of a measure [253] and the study was not completed across cultures, hence criterion validity and cross-cultural validity were not tested. SPSS v28 [279] was used for all analyses, other than confirmatory factor analysis (CFA) where Mplus v8 [280] was used.

Only data from participants who completed the entire APSS-R-Aus or APSS-R-Advocates were included in analyses. Missing data were explored by examining response rates per item and with Little's MCAR test. Possible selection bias was investigated by examining differences in demographic characteristics between participants who provided incomplete and complete data. Inconsistent survey responses were examined via item cross-tabulation to explore whether responses to similarly worded items, framed positively and negatively, were congruent. Participants failing 2 of 3 of these attention checks were removed from the dataset. Any incomplete responses to APSS-R-Aus or APSS-R-Advocates were removed; as there is no precedent for imputing data missing data for these scales. Incomplete responses to demographic, attitude, K6, and CRS-15 items were included in the analysis and scored as "prefer not to answer" or "missing response".

Structural validity and internal consistency. We took an exploratory approach to assessing structural validity to understand how this novel instrument structure (i.e., with dual-scale response options for frequency and importance) is psychometrically structured. Each

instrument – providers and advocates – was examined through exploratory factor analysis (EFA) treating the dual-scales as one instrument (i.e., 116 items and 112 items). EFA output suggested the factor structure of the instruments aligned with the corresponding response options (i.e., either frequency or importance). Put differently, the items with a frequency response scale and items with an importance response scale formed separate, distinct factors. Based on consult with psychometric experts and team discussion, it was decided optimal measurement of advocates' experiences of stigma was using a dual-instrument structure. Following this, scales were treated as independent instruments and processed separately through EFA using principal component analysis with varimax rotation. Parallel analysis was then performed to identify the number of factors to retain [281]. Items were excluded if factor loadings were =<.50 or cross-loadings >/= .40. CFA model fit was assessed using data from the same sample. Model fit was evaluated using the following fit indices χ^2 test, the comparative fit index (CFI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA) [282]. An acceptable model fit was indicated by χ^2 /df <3, CFI values of 0.90 or above, and RMSEA and SRMR values of around 0.08 or below [282, 283]. Cronbach's α was calculated to examine the internal consistency of identified factors.

Reliability and measurement error. Both the APSS-R-Aus (providers) and APSS-R-Advocates were completed online twice, two weeks apart. Intraclass correlations coefficient (ICCs) were calculated using a two-way random effects model, with absolute agreement and single measurements to report test-retest reliability. Good test-retest reliability is indicated by values above 0.75, moderate values between 0.5-0.75, and poor reliability indicated by values < 0.5 [285]. Standard error of measurement (SEm = standard deviation multiplied by square root of 1 minus Cronbach's alpha) was calculated to report measurement error. Low SEm (scores closer to 0) suggest more assessments accurate, whereas higher SEm (scores closer to standard deviation, the maximum SEm) suggest less assessment accuracy.

Construct validity: convergent validity. Subscale stigma scores were compared with psychological wellbeing (K6; [294]), religiosity (CRS-15; [231]), and abortion attitudes to determine the extent APSS-R-Aus (providers) and APSS-R-Advocates subscale scores

correlate with similar (convergent validity) constructs. Spearman's Rho correlations were computed to examine associations between stigma subscale scores and continuous variables (i.e., psychological wellbeing, religiosity, attitudes), independent samples *t*-tests were conducted to compare stigma mean differences across psychological wellbeing categories (i.e., no probable or probable serious mental illness), and one-way ANOVAs were used to compare stigma differences by religiosity categories (i.e., not religious, religious, highly religious). It was expected there would be a positive correlation between stigma and psychological wellbeing (higher stigma, higher psychological distress), religiosity (higher stigma, more religious), and restrictive attitudes (higher stigma, more restrictive abortion attitudes), and significantly lower stigma for 'no probable' versus 'probable' serious mental illness and "not religious" versus "highly religious" groups.

Mean change in perceived stigma. Previous research has raised concerns that measuring stigma stigmatises [86, 225, 234]. End-users of the APSS-R-Aus (providers) expressed concern about stigmatisation from the measure, however this was not the case for advocates [169, 263]. To explore this, we compared perceived abortion stigma pre- and post-APSS-R-Aus (providers) by asking "Right now, how much abortion stigma do you experience" on a 5-point response scale from "Little or none at all" to "An extreme amount". An end-user revised definition of abortion stigma accompanied the question. Paired samples *t*-tests explored any significant mean change in perceived abortion stigma pre- and post-APSS-R-Aus (providers).

6.5. Results

The results are divided by participant group, under the headings "Providers of abortion care" and "Advocates of abortion". Analysis output is presented in appendix 6.3 and 7.3, respectively.

6.6. Results: Providers of abortion care

Of 472 responses to the providers survey, 276 (58.47%) reached the end of the APSS-R-Aus (providers) instrument. Of the 472 cases, missing responses were at random according

to the Little's MCAR (χ^2 (4290, N = 380) = 4244.37 (4290, p = .687)). Response rates per item demonstrated increasing dropout as the APSS-R-Aus progressed, with larger dropout at new survey pages (i.e., a new subscale). A total of 116 (19.3%) participants were missing responses to every APSS-R-Aus item and 251 (53.2%) participants completed all items. None of the 251 participants with complete data scored 3/3 on the inattention checks, therefore all were included in the primary analysis. There was no significant difference between participants who completed versus partially completed the APSS-R-Aus in the duration they had been providing abortion care (χ^2 (4, N = 443) = 6.085, p = .193) or the amount of their healthcare provision that is abortion-related (χ^2 (4, N = 443) = 6.415, p = .170).

Of the 251 complete APSS-R-Aus cases, a subset of 77 (30.7%) participants completed the follow-up survey 2 weeks later. Missing time 2 data was random (χ^2 (1666, N = 97) = 1344.99 (1666, p > .999) with response pattern suggesting no to low dropout. The chi-square test between participants with complete time 2 (n=77; 30.7%) versus incomplete time 2 (n=174; 69.3%) APSS-R-Aus data demonstrated no difference by duration providing abortion care (χ^2 (4, N = 251) = .896, p = .925) but a difference by amount of abortion-related healthcare provision (χ^2 (4, N = 251) = 12.434, p = .014).

Of the 251 participating providers of abortion care in Australia, the majority were women (95.2%), with mixed ancestry (57.0%), politically left affiliated (66.9%), and no religious affiliation (65.3%). See table 6.1 for further demographic details. Most HCP participants were nurses or midwives (63.7%), working in public hospital settings (57.4%), providing abortion for 1 to 3 years (36.3%), with abortion "a little (0-20%)" part of their practice (68.5%). Table 6.2 presents further details about participants' abortion provision details.

Table 6.1. Participant demographics

Demographic	Percentage (*n*) providers, unless otherwise specified
Age: mean (range)	39 years (22-70; *n* = 234)
Gender	100% (251)
Woman	95.2% (239)

Man	3.6% (9)
Non-binary or gender diverse	1.2% (3)
Education	98.4% (247)
High school, Certificate, or Diploma	3.2% (8)
Undergraduate Degree	33.1% (83)
Graduate cert or dip	23.5% (59)
Postgraduate Degree	38.6% (97)
Political affiliation	98.4% (247)
No political	19.1% (48)
Greens	37.8% (95)
Labor Party	29.1% (73)
Liberal/National	3.6% (9)
Independent	4.0% (10)
Other	2.0% (5)
Prefer not to say	2.8% (7)
Religious affiliation	100% (251)
No religious affiliation	65.3% (164)
Christian	18.7% (47)
Spiritual	5.6% (14)
Other	6.4% (16)
Prefer not to answer/missing	4.0% (10)
Ancestry[1]	
Australia	28.7% (72)
British (English, Irish, Scottish, Welsh)	93.2% (234)
Other	30.3% (76)
Indigenous[†]	2.8% (7)
Ancestry: one or more than one	98.0% (246)
One ancestry	41.0% (103)
Multiple ancestries	57.0% (143)

multiple choice answer option, hence, may not add to 100% or n=/=251.

[†] Aboriginal, Torres Strait Islander, Māori, South Sea Islander

Table 6.2. Participants' abortion care provision related demographics

Demographic	Percentage (n) of participants
Profession[1]	

General practice	14.3% (36)
Obstetrics and Gynaecology	10.0% (25)
Nursing and Midwifery	63.7% (160)
Pharmacy	2.8% (7)
Allied Health	2.4% (6)
Psychology	2.4% (6)
Admin and reception	2.4% (6)
Other	6.8% (17)
Setting providing abortion care[1]	
Primary care	21.2% (53)
Hospital: public	57.4% (144)
Hospital: private	6% (15)
Clinic: public	6% (15)
Clinic: private	16.3% (41)
SRH	11.6% (29)
Women's Advocacy/Health	5.6% (14)
Mental Health	2.4% (6)
Other	2.4% (6)
Time providing abortion care	100.0% (251)
Months	8.0% (20)
1-3 years	36.3% (91)
3-5 years	17.1% (43)
5-10 years	17.5% (44)
10+ years	21.1% (53)
Amount of abortion care as part of profession	100% (251)
Little (0-20%)	68.5% (172)
Some (20-40%)	14.7% (37)
Moderate (40-60%)	6.0% (15)
A lot (60-80%)	2.8% (7)
Almost all or all (80—100%)	8.0% (20)

multiple choice answer option, hence, may not add to 100% or n=/=251.

6.6.2. Structural validity and internal consistency.

For providers, EFA examining 116 items (each item responded to twice because of the dual response scales) found a 7-factor solution with 60 items explaining 63.03% of variance

(KMO = .890; Bartlett's text < .001). The factor structure indicated the items separated into different factors depending on their response scale (i.e., frequency or importance). For this reason, we treated the frequency and importance items separately in follow-up analyses.

EFA including only the frequency items identified a four-factor solution, consisting of 45 items explaining 62.69% of the total variance (KMO = .920; Bartlett's test: $\chi^2/df = 9.86$, $p < .001$). EFA with only the importance items identified a five-factor solution, consisting of 34 items explaining 59.56% of the total variance (KMO = .905; Bartlett's test: $\chi^2/df = 8.68$, $p < .001$). Factor structures supported use of the APSS-R-Aus as a multi-dimensional measure, splitting into two instruments assessing frequency and importance, with similar factor structure and retained items. We named the two instruments the *Healthcare Providers' experienced abortion stigma scale - Frequency (HAS-F)* and the *Healthcare Providers' experienced abortion stigma scale - Value (HAS-V).* Tables 6.3 and 6.4 present the final instruments structures with internal consistency, explained variance, and eigenvalues. Appendix 6.3 present the HAS-F and HAS-V in full, respectively.

Table 6.3. Healthcare Providers' experienced abortion stigma scale - Frequency (HAS-F) instrument structure.

Factor		Factor loadings
Disclosure (n = 18)		
Cronbach's α = .952 Eigenvalues = 14.364 Explained variance = 31.930%	I am afraid of how people will react if they find out about my work providing abortion care.	.832
	I worry about telling the general public I provide abortion care.	.803
	I keep my provision of abortion care to myself for fear of people's reactions.	.797
	I feel the need to hide my abortion related work from my friends.	.790
	I find it hard to tell people I provide abortion care.	.768
	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	.767
	I feel the need to hide my abortion related work from my family.	.765
	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	.759
	I worry about telling family I provide abortion care.	.749
	I avoid telling people about the abortion care I provide, to prevent upsetting them.	.737
	I avoid sharing that I provide abortion care with some people.	.733
	I try to keep that I provide abortion care to myself.	.704
	I am selective to whom I tell that I provide abortion care.	.674
	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	.664

	It bothers me if people in my casual acquaintances know that I provide abortion care.	.648
	I feel the need to hide my abortion related work from my colleagues.	.628
	I worry about telling colleagues that I provide abortion care.	.611
	I worry about telling organisations that I provide abortion care.	.580
Enacted Stigma (n = 9)		
Cronbach's α = .961 Eigenvalues = 8.198 Explained variance = 18.218%	My family has been harassed or discriminated against by others who find out I provide abortion care.	.910
	I have been physically threatened or attacked because I provide abortion care.	.905
	People treat my family members differently if they know about me providing abortion care.	.876
	I have been verbally threatened or attacked because I provide abortion care.	.836
	I have lost employment opportunities because I provide abortion care.	.830
	I have experienced online hate because I provide abortion care.	.787
	I fear my career may be endangered because I provide abortion care.	.781
	I fear online retaliation because I provide abortion care.	.740
	People I have provided abortion care to have passed negative judgment on me.	.702
Anticipated Stigma (n = 11)		
Cronbach's α = .923 Eigenvalues = 3.279 Explained variance = 7.287%	I feel other health care providers question my decision to provide abortion care.	.809
	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	.792
	I feel other health care providers question my professional skills when they learn that I provide abortion care.	.762
	I feel that people question my morals when they learn I provide abortion related care.	.753
	I fear my casual acquaintances will see me as less if they know I provide abortion care.	.725
	I feel that other health care providers look down on me because of my decision to provide abortion care.	.669
	When I see or read something degrading abortion in the media, it makes me feel bad about myself.	.660
	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	.646
	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	.618
	I feel that the general public does not value me providing abortion care.	.598
	I feel that I let my culture down by providing abortion care.	.553
Internalised Stigma (n = 7)		
Cronbach's α = .129 Eigenvalues = 2.370 Explained variance = 5.266%	I feel good about providing abortion care. ‡	-.837
	I am proud that I provide abortion care. ‡	-.804
	By providing abortion care, I am making a positive contribution to society. ‡	-.794
	I feel guilty about the abortion care I provide.	.749
	I find it important to share with people that I work in abortion care. ‡	-.597
	I question whether or not providing abortion care is a good thing to do.	.621
	I feel ashamed of the abortion care I provide.	.604

Cronbach's α = .941
Total Explained variance = 62.693%
‡ Reverse scored

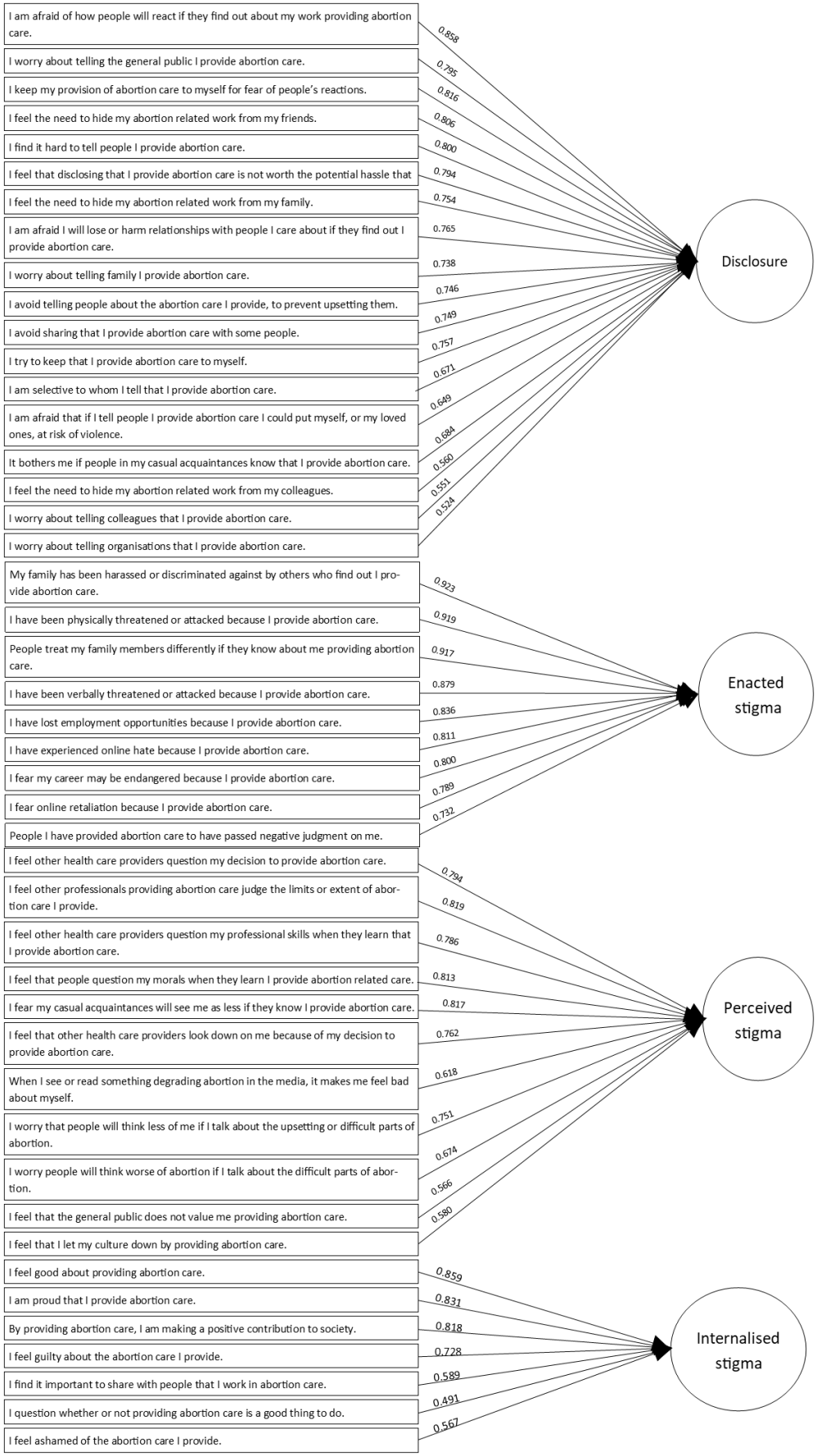
Table 6.4. Healthcare Providers' experienced abortion stigma scale - Value (HAS-V) instrument structure.

Factor		*Factor loadings*
Disclosure (n = 17)		
Cronbach's α = .967 Eigenvalues = 12.914 Explained variance = 37.982%	I try to keep that I provide abortion care to myself.	.862
	I am afraid of how people will react if they find out about my work providing abortion care.	.856
	I find it hard to tell people I provide abortion care.	.846
	I feel the need to hide my abortion related work from my friends.	.846
	I feel the need to hide my abortion related work from my family.	.833
	I feel the need to hide my abortion related work from my colleagues.	.819
	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	.795
	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	.790
	It bothers me if people in my casual acquaintances know that I provide abortion care.	.780
	I worry about telling family I provide abortion care.	.779
	I worry about telling colleagues that I provide abortion care.	.759
	I worry about telling the general public I provide abortion care.	.758
	I avoid sharing that I provide abortion care with some people.	.756
	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	.737
	I keep my provision of abortion care to myself for fear of people's reactions.	.725
	I worry about telling organisations that I provide abortion care.	.706
	I avoid telling people about the abortion care I provide, to prevent upsetting them.	.697
(Anticipated) Enacted stigma (n = 6)		
Cronbach's α = .836 Eigenvalues = 3.870 Explained variance = 11.383%	My family has been harassed or discriminated against by others who find out I provide abortion care.	.860
	I have been physically threatened or attacked because I provide abortion care.	.817
	I have lost employment opportunities because I provide abortion care.	.778
	People treat my family members differently if they know about me providing abortion care.	.688
	I have been verbally threatened or attacked because I provide abortion care.	.649
	I fear my career may be endangered because I provide abortion care.	.570
Perceived stigma (healthcare) (n = 4)		
Cronbach's α = .815 Eigenvalues = 2.393	I feel other health care providers question my professional skills when they learn that I provide abortion care.	.838

Explained variance = 7.038%	I feel other health care providers question my decision to provide abortion care.	.826
	I feel that other health care providers look down on me because of my decision to provide abortion care.	.800
	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	.544
Anticipated stigma (community) (n = 4)		
Cronbach's α = .780 Eigenvalues = 1.825 Explained variance = 5.366%	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	.767
	I fear my casual acquaintances will see me as less if they know I provide abortion care.	.702
	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	.701
	I avoid talking to someone close to me about a hard day providing abortion care.	.602
Support (n = 3)		
Cronbach's α = .840 Eigenvalues = 1.62 Explained variance = 4.764%	I feel that when I disclose my abortion related work to family they are supportive of me. ‡	.886
	I feel that when I disclose my abortion related work to friends they are supportive of me. ‡	.882
	I feel that when I disclose providing abortion care to strangers, they are supportive of me. ‡	.735

Cronbach's α = .946
Explained variance = 66.53%
‡ Reverse scored

The structure of the two provider instruments was confirmed and evaluated separately with CFA. CFA indicated good model fit for the four factor, 45-item structure of the HAS-F ($\chi 2/df = 2.01$, CFI = .902, SRMR = .074, RMSEA = .063) and five factor, 34-item structure of the HAS-V ($\chi 2/df = 2.16$, CFI = .909, SRMR = .066, RMSEA = .068). The final models are shown in Figures 6.2 and 6.3. All item factor loadings across all subscales were significant ($p<.001$) ranging between .524 and .923. Correlations between factors are shown in Tables 6.5 and 6.6.



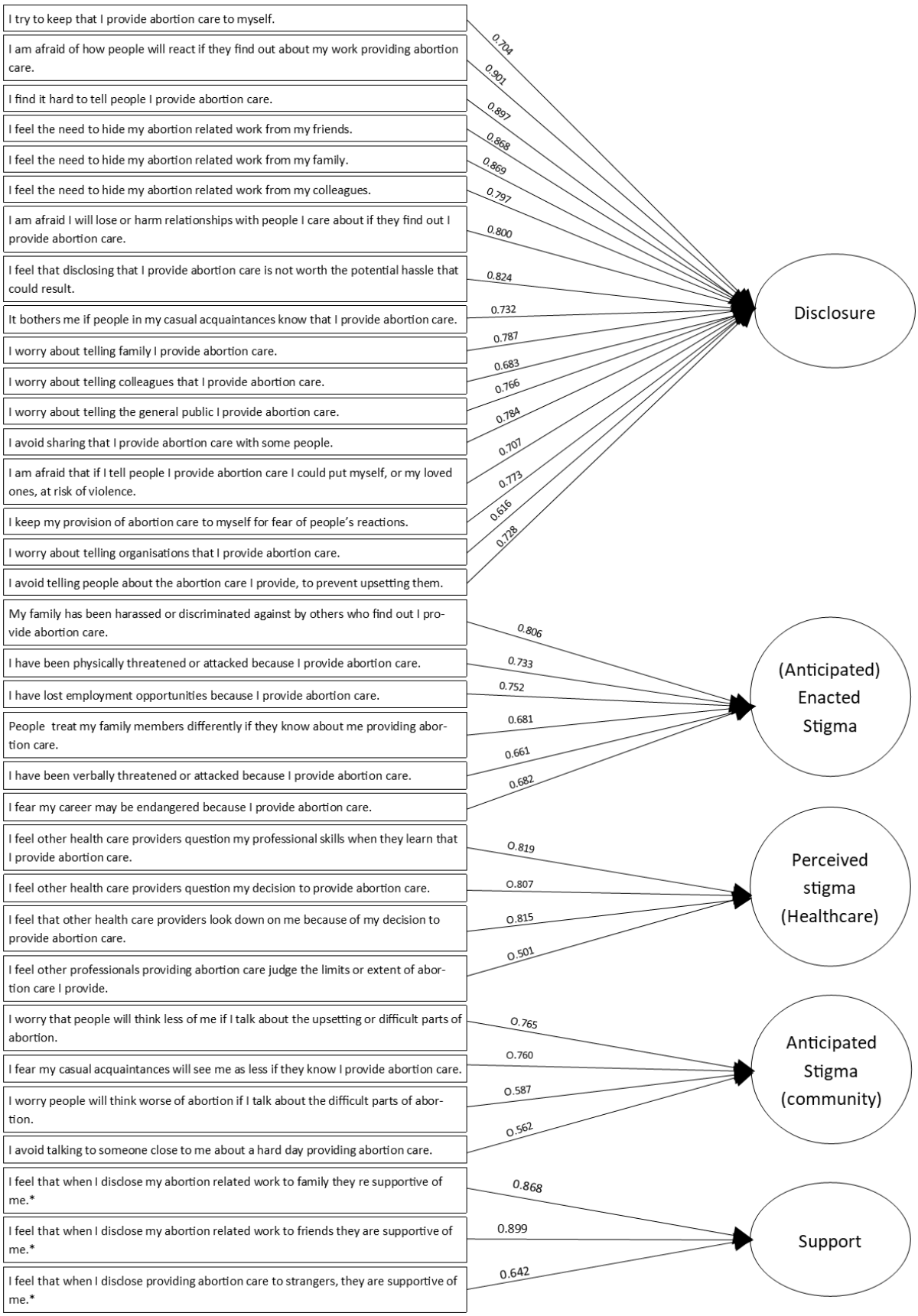
All item factor loadings are significant with p < .001.

Figure 6.2. Healthcare Providers' experienced abortion stigma scale - Frequency (HAS-F) CFA model with standardized factor loadings for the items

Table 6.5. The CFA model of HAS-F - Aus with standardized correlations between subscales.

	Disclosure	*Enacted Stigma*	*Anticipated Stigma*	*Internalised Stigma*
Disclosure	-			
Enacted Stigma	0.227*	-		
Anticipated stigma	0.413*	0.817*	-	
Internalised Stigma	0.396*	0.164**	0.103	-

**p* < .001
***p* = .014



All item factor loadings are significant with p < .001.

Figure 6.3. Healthcare Providers' experienced abortion stigma scale - Value (HAS-V)

CFA model with standardized factor loadings for the items

Table 6.6. The CFA model of HAS-V with standardised correlations between subscales.

	Disclosure	*(Anticipated) Enacted Stigma*	*Perceived Stigma (Healthcare)*	*Anticipated Stigma (community)*	*Support*
Disclosure	-				
(Anticipated) Enacted Stigma	.214*	-			
Perceived Stigma (Healthcare)	.313*	.111	-		
Anticipated Stigma (community)	.562*	.341*	.048	-	
Support	.324	.412*	.024	.458*	-

**p* <.01

6.6.3. Reliability and measurement error.

The HAS-F subscales Disclosure, Enacted Stigma, and Anticipated Stigma demonstrate low measurement error (SEm: 1.44, 1.76, 2.48) indicating accurate assessment, whereas Internalised Stigma demonstrates higher measurement error (SEm: 2.35) indicating low assessment accuracy. HAS-F subscale ICC scores demonstrate moderate to good test-retest reliability (ICC: .67 to .83). The HAS-V subscales demonstrate low measurement error (SEm = 2.34, 1.30, 1.19, 0.92, 1.23) indicating accurate assessment. Moderate to good reliability (ICC = .60 to .77) is demonstrated by HAS-V subscales. The SEm and ICC scores for the provider's stigma subscales are presented in table 6.7 and 6.8.

Table 6.7. HAS-F test-retest reliability evaluated in a subset of participants

	SEm (comparator SD)	Intra-class correlation (ICC)	95% CI	P value
Disclosure (*n* = 92)	1.44 (6.59)	.83	.75; .89	<.001
Enacted Stigma (*n* = 90)	1.76 (8.92)	.77	.67; .84	<.001
Anticipated stigma (*n* = 92)	2.48 (9.48)	.67	.54; .77	<.001
Internalised Stigma (*n* = 95)	2.35 (2.52)	.81	.72; .87	<.001

Table 6.8. HAS-V test-retest reliability evaluated in a subset of participants

	SEm (comparator SD)	Intra-class correlation (ICC)	95% CI	P value
Disclosure (*n* = 90)	2.34 (12.86)	.77	.67; .84	<.001
Anticipated enacted stigma (*n* = 92)	1.30 (3.20)	.68	.55; .77	<.001
Anticipated stigma: community (*n* = 92)	1.19 (2.54)	.62	.48; .73	<.001
Perceived Stigma: healthcare (*n* = 92)	0.92 (2.13)	.72	.61; .81	<.001
Support (*n* = 96)	1.23 (3.08)	.60	.46; .72	<.001

6.6.4. Construct validity**.**

As hypothesised, abortion stigma experienced by providers was related to psychological wellbeing, abortion related attitudes, and religiosity in the expected directions.

Provider's abortion stigma frequency and importance correlations with psychological wellbeing, abortion attitudes, and religiosity. Table 6.9 presents comparison of correlations between providers' experienced stigma, psychological wellbeing, attitudes, and religiosity. Providers' experienced stigma frequency was positively correlated with psychological distress (ρ = .186, *p* = .003), indicating with more stigmatising events experienced there is poorer psychological wellbeing. Internalised stigma frequency and disclosure frequency are positively correlated with psychological distress (ρ = .211, *p* < .001; ρ = .265, *p* < .001), abortion attitudes (ρ = .574, *p* < .001; ρ = .161, *p* = .012), and religiosity (ρ = .433, *p* < .001; ρ = .164, *p* = .009), suggesting with increasing frequency of Internalised Stigma and Disclosure there is more psychological distress, more restrictive beliefs about abortion, and stronger religiosity. Frequency of providers' experienced Enacted Stigma was negatively correlated with their abortion attitudes (ρ = -.169, *p* = .009), suggesting with more support of less restricted abortion there is more frequent enacted stigma perceived.

Significant positive correlations were found between some stigma importance subscales and psychological wellbeing, attitudes, and religiosity. Spearman's Rho analysis found higher importance of anticipated stigma to be correlated with higher psychological distress (ρ = .293, *p* < .001) and higher religiosity (more religious; ρ = .133, *p* = .035). Higher importance of support

was found to be significantly correlated with higher restrictive abortion attitudes score (ρ =.157, *p* = .015) and higher religiosity (ρ = .130, *p* = .04).

Table 6.9. Spearman's Rho (ρ) correlations between providers' abortion stigma subscales and psychological wellbeing, abortion attitudes, and religiosity

	Psychological wellbeing	Abortion attitudes	Religiosity
HAS-F: *Disclosure*	**.265** (*p* < .001)	**.161** (*p* = .012)	**.164** (*p* = .009)
HAS-F: *Enacted Stigma*	.024 (*p* = .711)	**-.169** (*p* = .009)	-.069 (*p* = .275)
HAS-F: *Anticipated Stigma*	.070 (*p* = .271)	-.021 (*p* = .742)	.032 (*p* = .610)
HAS-F: *Internalised Stigma*	**.211** (*p* < .001)	**.574** (*p* < .001)	**.433** (*p* < .001)
HAS-V: Disclosure	.054 (*p* = .398)	.012 (*p* = .851)	.010 (*p* = .879)
HAS-V: Anticipated Enacted Stigma	.113 (*p* = .076)	-.103 (*p* = .111)	.042 (*p* = .509)
HAS-V: Anticipated Stigma: Community	**.293** (*p* < .001)	.061 (*p* = .347)	**.133** (*p* = .035)
HAS-V: Perceived Stigma: Healthcare	.075 (*p* = .242)	.033 (*p* = .613)	.212 (*p* = .056)
HAS-V: Support	-.117 (*p* = .067)	**.157** (*p* = .015)	**.130** (*p* = .040)

*Significant R values are in **bold**. P values are presented in brackets.*

Differences in providers' experiences of abortion stigma frequency and importance by psychological wellbeing and religiosity categories. One-way ANOVA indicated significant differences in providers' frequency of internalized stigma by religiosity (F(2, 240) = 42.127, p < .001). Providers classified as "not religious" (M = 3.63, SD = 3.08) had significantly lower frequency of internalized stigma scores than providers classified as "religious" (M = 5.87, SD = 4.29) and "highly religious" (M = 16.14, SD = 9.48). "Religious" providers had significantly lower mean frequency of internalized stigma scores than "Highly religious" providers. There was no significant difference in providers' experiences of stigma importance by religiosity grouping. Table 6.10 presents the significant pairwise comparisons comparing abortion stigma scores with religiosity categories.

Table 6.10. Tukey HSD significant pairwise comparisons for one-way ANOVA between abortion stigma scales and religiosity category for providers

	Not religious *M* (*SD*)	Religious *M* (*SD*)	Highly religious *M* (*SD*)	Mean difference	*p*-value
HAS-F: *Internalised Stigma*	3.63 (3.08)	5.87 (4.29)		-2.243	<.001
	3.63 (3.08)		16.14 (9.48)	-12.518	<.001
		5.87 (4.29)	16.14 (9.48)	-10.274	<.001

Only significant pairwise comparisons presented.

Independent *t*-tests found providers with "no probable serious mental illness" scored significantly lower on Disclosure frequency ($t(246)=-2.81$, $p = .005$, $d = -.59$), Internalised Stigma frequency ($t(246)= -3.12$, $p = .002$, $d = -.62$), and Anticipated Community Stigma importance ($t(246)=-3.90$, $p < .001$, $d = -.85$) than providers with "probable serious mental illness". Cohen's d suggests medium to large effect size for significant results. See Table 6.11 for further details about relationships between advocates' experience of stigma and category of psychological wellbeing.

Table 6.11. Significant independent *t*-test results for providers' abortion stigma scales scores compared by psychological wellbeing category

	No probable serious mental illness (n = 230) *M* (*SD*)	Probable serious mental illness (n = 18) *M* (*SD*)	Mean difference	*p*-value	Cohen's *d* (95% CI)
HAS-F: *Disclosure*	16.30 (12.68)	25.28 (17.31)	-8.98	.005	-.59 (-1.17; -.20)
HAS-F: *Internalised Stigma*	4.50 (4.19)	7.83 (6.32)	-3.34	.002	-.62 (-1.25; -.28)
HAS-V: Anticipated stigma: community	4.38 (3.20)	7.50 (4.09)	-3.12	<.001	-.85 (-1.44; -.47)

6.7. Mean change in perceived stigma

Among providers of abortion care in Australia, there was no significant difference in perceived stigma scores pre- (M = 1.76, SD = .964) and post- (M = 1.69, SD = .930) completing the APSS-R-Aus (providers) ($t(247) = 1.39$, $p = .165$, $d = .07$).

6.8. Results: Advocates of abortion

Of 812 (consenting) responses to the advocates survey, 669 (82.4%) partially completed the APSS-R-Advocates instrument. Little's MCAR of the 812 responses demonstrated responses were missing at random (χ^2 (9791, N = 667) = 9619.59 (9791, p = .89). Analysis of item response rates demonstrated an increasing dropout as the instrument progressed with noticeable drops in responses at each consecutive subscale. A total of 283 (34.9%) cases responded to all APSS-R-Advocate items, were attentive based on inattention checks, and were included in analysis. There was no significant difference between participants who completed (n=283) and partially completed (n=529) the APSS-R-Advocates instrument between those who advocated online versus offline. (χ^2 (1, N = 812) = 1.65, p = .199).

A subset of 81 (28.6%) participants completed the APSS-R-Advocate a second time, two-weeks later. Missing data was random (χ^2 (1262, N = 1009) = 1107.35 (1262, p = .999). There was no difference between participants with complete and incomplete time 2 data by advocacy online or offline (χ^2 (1, N = 283) = .106, p = .745).

Of the 283 participating advocates of abortion in Australia, the majority were women (86.2%), with mixed ancestry (64.0%), politically left affiliated (70.1%), and no religious affiliation (67.5%). See table 6.12 for further demographic details. The majority of advocates were involved in online information dissemination (85.2%%), unpaid (92.2%) advocacy, related "a little 0-20%"to primary occupation (86.6%%). For 67.1%, abortion advocacy was "some" part of their lives. See table 6.13 for further details about advocate participants demographics.

Table 6.12. Participant demographics

Demographic	Percentage (*n*) advocates, unless otherwise specified
Age: mean (range)	41 years (18-79; *n* = 258)
Gender	100% (282)
Woman	86.2% (244)
Man	6.4% (18)
Non-binary or gender diverse	7.0% (20)
Education	98.2% (278)
High school, Certificate, or Diploma	30.3% (86)
Undergraduate Degree	32.5% (92)
Graduate cert or dip	11.0% (31)
Postgraduate Degree	24.4% (69)
Political affiliation	98.6% (279)
No political	16.3% (46)
Greens	45.9% (130)
Labor Party	24.4% (69)
Liberal/National	2.5% (7)
Independent	2.8% (8)
Other	3.5% (10)
Prefer not to say	3.2% (9)
Religious affiliation	100% (283)
No religious affiliation	67.5% (191)
Christian	12.5% (35)
Spiritual	9.5% (27)
Other	8.5% (24)
Prefer not to answer/missing	2.2% (6)
Ancestry[1]	
Australia	27.9% (79)
British (English, Irish, Scottish, Welsh)	127.6% (361)
Other	28.9% (76)
Indigenous[†]	2.5% (7)
Ancestry: one or more than one	97.5% (276)
One ancestry	33.6% (95)

Multiple ancestries	64% (181)

multiple choice answer option, hence, may not add to 100% or n=/=282.

† Aboriginal, Torres Strait Islander, Māori, South Sea Islander

Table 6.13. Participants' abortion advocacy-related demographics

Demographic	Percentage (n) of participants
Type of advocacy: tasks[1]	
Marches and public gatherings	43.5% (123)
Government engagement or advice	7.1% (20)
Media engagement	9.5% (27)
Online information dissemination	85.2% (241)
Community outreach	5.3% (15)
Personal conversations	79.5% (225)
Other	6.4% (18)
Type of advocacy: funding	100% (283)
Paid	0.4% (1)
Unpaid	92.2% (261)
Both, paid and unpaid	7.4% (21)
Extent abortion advocacy related to primary occupation	99.3% (281)
Little (0-20%)	86.6% (245)
Some (20-40%)	7.8% (22)
Moderate (40-60%)	2.5% (7)
A lot (60-80%)	1.4% (4)
Almost all or all (80—100%)	1.1% (3)
Extent abortion advocacy part of life	100% (283)
Little or none of my life	23.3% (66)
Some	67.1% (190)
About half	3.5% (10)
A lot	4.6% (13)
Almost all or all of my life	1.4% (4)

[1] multiple choice answer option, hence may not add to 100% or n=/=282.

6.8.2. Structural validity and internal consistency**.**

For advocates, EFA including all 112 items indicated a five-factor solution with 53 items explaining 63.190% of total variance (KMO = .942; Bartlett's text: $\chi^2/df = 9.83$, $p < .001$). Factor

structure indicated items with importance and frequency scales loaded onto separate, distinct factors. As per for providers, these items were treated separately in follow-up analyses.

EFA treating items with different response scales (frequency and importance) separately demonstrated three factor structure solutions with 20 and 13 items explaining 60.51% and 73.12% total variance for frequency and importance items (KMO = .909, Bartlett's text: χ^2/df = 16.80, $p < .001$; KMO = .865, Bartlett's text: χ^2/df = 32.27, $p < .001$), respectively. See table 6.14 and 6.15 for instrument structure, internal consistency, and explained variance.

Table 6.14. Factor structure for Advocates' experienced abortion stigma scale - frequency (AAS-F)

Factor and Item		Factor loadings
Disclosure (n=9)		
Cronbach's α = .914. Eigenvalues = 8.050. Explained variance = 40.248%.	I am selective of whom I tell that I advocate for abortion.	.832
	I am selective of when and where I advocate for abortion.	.776
	I avoid telling people I work with about my abortion advocacy work.	.772
	I avoid telling the general public that I support abortion.	.756
	I feel that disclosing I advocate for abortion is not worth the potential hassle that could result.	.732
	I am afraid of how people will react if they find out about my abortion advocacy work.	.723
	I find it hard to tell people I advocate for abortion.	.719
	I take extra precautions to control who knows that I advocate for abortion.	.668
	When advocating for abortion, I scan the environment for risks of harassment.	.558
Anticipated stigma (n = 6)		
Cronbach's α = .837. Eigenvalues = 2.406. Explained variance = 12.032%.	I worry about telling family I advocate for abortion.	.797
	I feel that when I disclose my abortion advocacy work to family, they are supportive of me. ‡	-.759
	I feel the need to hide my abortion advocacy work from my family.	.759
	I feel like, if I tell family I advocate for abortion, they will ONLY see me as an abortion advocate.	.693
	I talk openly with my family about advocating for abortion. ‡	-.622
	I feel guilty about advocating for abortion.	.515
Enacted stigma (n = 5)		
Cronbach's α = .776. Eigenvalues = 1.647. Explained variance = 8.234%.	I have been physically threatened or attacked for advocating for abortion.	.767
	I have been verbally threatened or attacked for publicly expressing support for abortion.	.764
	I have experienced online harassment because of my abortion advocacy work.	.762
	People close to me have expressed concerns for my safety because of my work advocating for abortion.	.703
	People treat those I love differently if they know I advocate for abortion.	.592

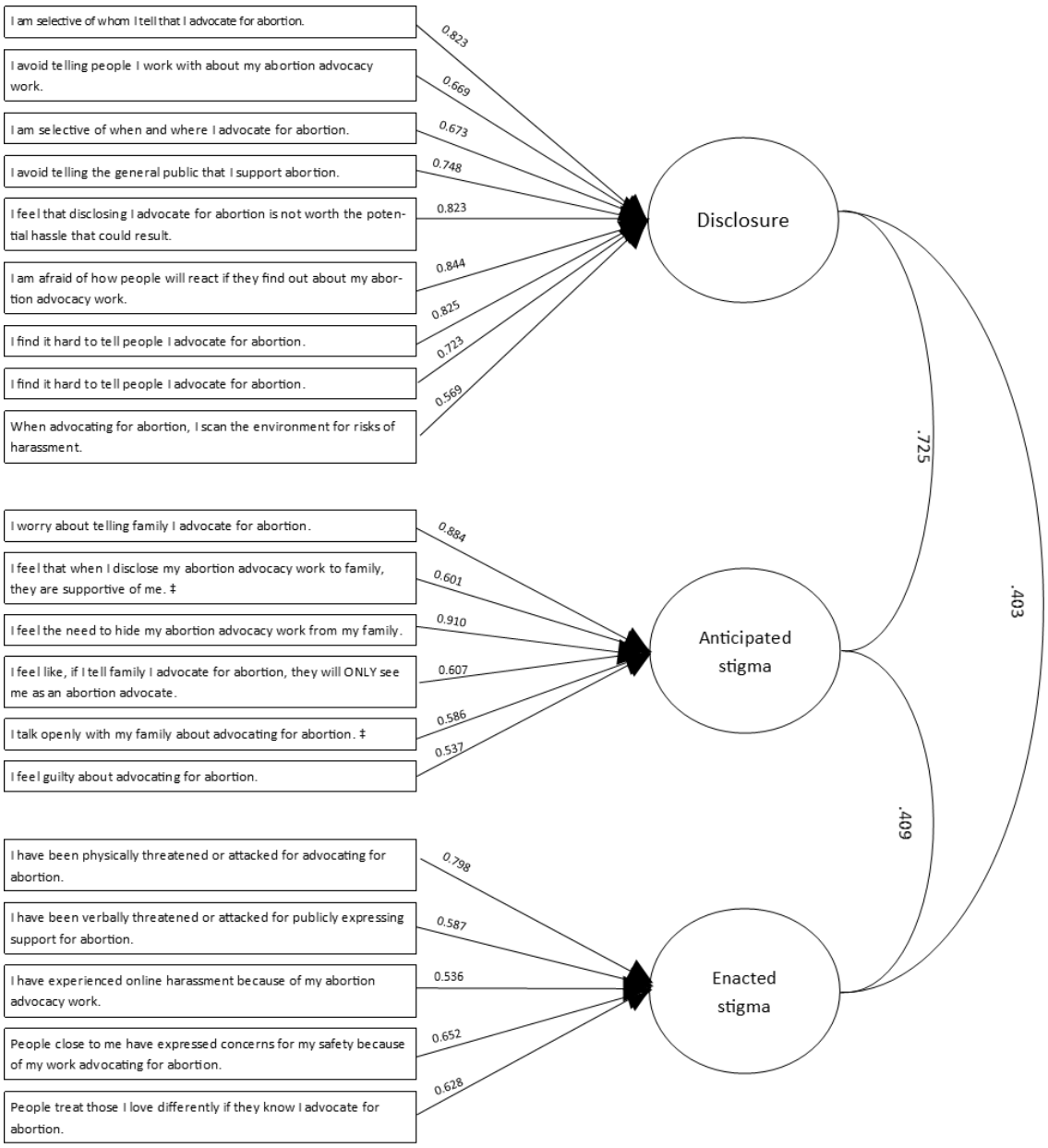
Cronbach's α = .911.
Explained variance = 60.514%.
‡ Reverse scored.

Table 6.15. Factor structure for Advocates' experienced abortion stigma scale - Value (AAS-V)

Factor and Item		Factor loadings
(Anticipated) Enacted stigma (n=7)		
Cronbach's α = .939. Eigenvalues = 5.821. Explained variance = 44.778%.	I fear online retaliation to my advocacy for abortion.	.883
	I fear harassment because I publicly support abortion.	.879
	When advocating for abortion, I scan the environment for risks of harassment.	.872
	I have been verbally threatened or attacked for publicly expressing support for abortion.	.869
	I have experienced online harassment because of my abortion advocacy work.	.840
	I have been physically threatened or attacked for advocating for abortion.	.823
	I actively take actions to reduce risk of discrimination from advocating for abortion.	.725
Internalised stigma (n=3)		
Cronbach's α = .880. Eigenvalues = 2.064. Explained variance = 15.879.	I feel guilty about advocating for abortion.	.907
	I question whether or not advocating for abortion is the right thing to do.	.877
	I feel ashamed of the abortion advocacy work I do.	.856
Empowerment (n=3)		
Cronbach's α = .684. Eigenvalues = 1.620. Explained variance = 12.463.	I talk openly with my family about advocating for abortion. ‡	.853
	I talk openly with people with different views to myself about my work advocating for abortion. ‡	.777
	When I disclose that I advocate for abortion, I feel those close to me are supportive. ‡	.692

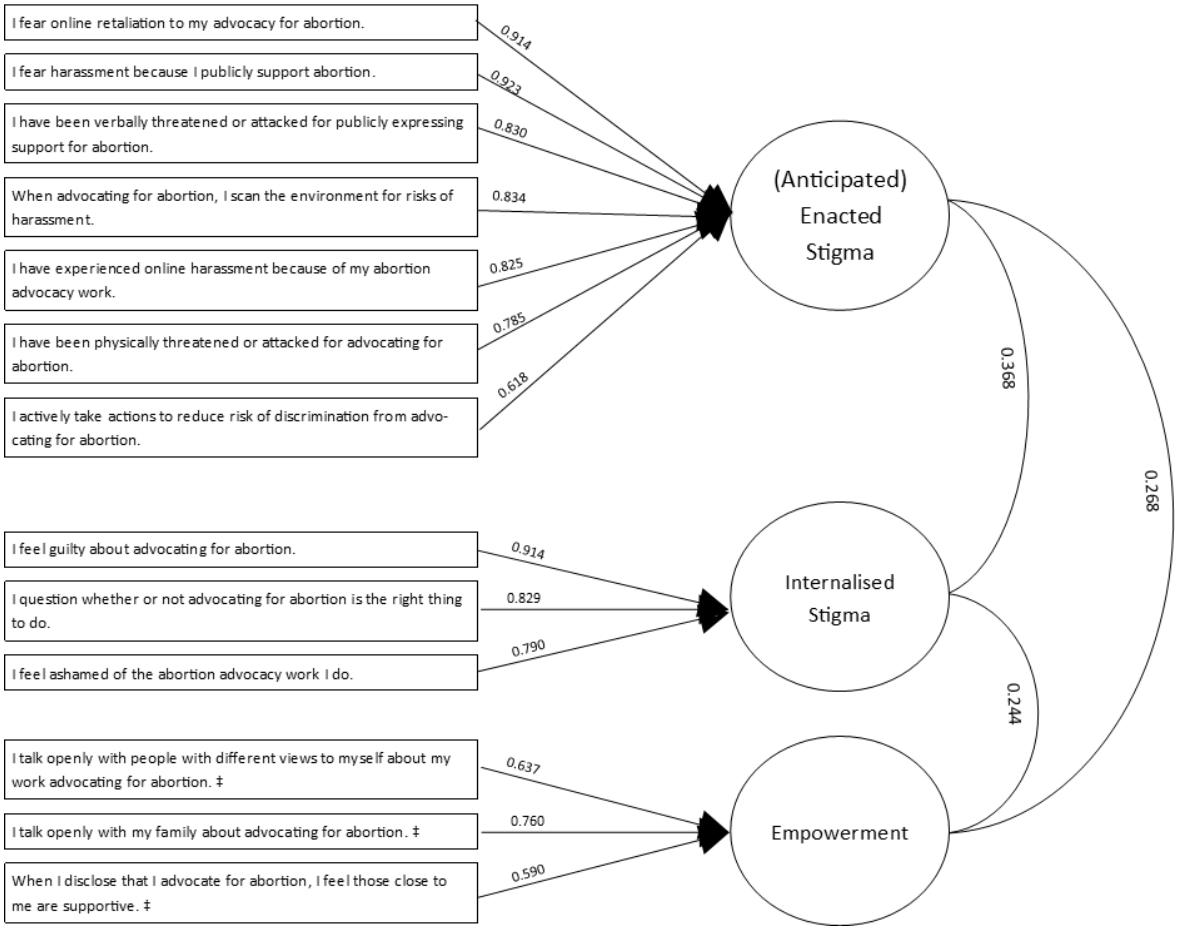
Cronbach's α = .814.
Total Explained variance = 73.12%.
‡ Reverse scored.

CFA indicated a good model fit for the three factor, 20 item frequency instrument (χ^2/df = 2.33, CFI = .929, SRMR = .059, RMSEA = .069). We named the instrument the ***Advocates' experienced abortion stigma scale - Frequency*** (AAS-F). Similarly, CFA evaluating the fit of the 13-factor solution for the importance items also indicated a good model fit (χ^2/df = 1.93, CFI = 0.978, SRMR = 0.049, RMSEA = 0.057). The importance instrument was named the ***Advocates' experienced abortion stigma scale - Value*** (AAS-V). Figure 6.4 and 6.5 present the final models. Appendix 7.3 presents the final AAS-F and AAS-V.



‡ Reverse scored.

Figure 6.4. Advocates' experienced abortion stigma scale - Frequency (AAS-F) CFA model with standardized factor loadings for items and factors.



‡ Reverse scored.

Figure 6.5. Advocates' experienced abortion stigma scale - Value (AAS-V) CFA model with standardized factor loadings for items and factors.

6.8.3. Reliability and measurement error.

For the AAS-F, measurement error for Anticipate Stigma (public) (SEm = .434), Anticipated Stigma (close relationships (SEm = .229), and Enacted Stigma (SEm = .184) were low suggesting accurate assessment. All three subscales demonstrated good test-retest validity (ICC > .783). ICC values are presented in Table 6.16.

The AAS-V subscales demonstrated small to moderate measurement error, with SEm scores of 1.68, .272, and .513 for Empowerment, Internalised Stigma and Enacted Stigma respectively. The ICC values range from .317 to .553 indicating poor to moderate test-retest reliability for all subscales. See table 6.17 for overview of values.

Table 6.16. AAS-F test-retest reliability evaluated in a subset of participants

	Intra-class correlation (ICC)	95% CI	*p*-value
Anticipated stigma (public) (n = 92)	.783	.67; .86	<.001
Anticipated stigma (close relationships) (n = 93)	.862	.80; .91	<.001
Enacted stigma (n = 92)	.790	.70; .86	<.001

Table 6.17. AAS-V test-retest reliability evaluated in a subset of participants

	Intra-class correlation (ICC)	95% CI	*p*-value
Enacted stigma (n = 90)	.517	.35; .65	<.001
Internalised stigma (n = 107)	.349	.17; .51	<.001
Empowerment (n = 98)	.317	.13; .48	<.001

6.8.4. Construct validity.

Abortion stigma experienced by advocates was related to psychological wellbeing, abortion related attitudes, and religiosity in the expected directions

Advocates' experienced abortion stigma relationship with psychological wellbeing, abortion attitudes, and religiosity. Significant positive correlations were found between psychological distress (high stigma, worse psychological wellbeing), restrictive abortion attitudes (higher stigma, more restrictive abortion attitudes), and religiosity (higher stigma, more religious) with frequency of Anticipated Stigma, public and close relationships, consistent with our hypotheses. No significant associations were observed with value of Internalised Stigma or Empowerment. Frequency of Enacted Stigma correlated positively with psychological wellbeing and value of Enacted Stigma correlated positively with psychological wellbeing and religiosity. Advocates' experiences of Enacted Stigma, frequency and importance, were not associated with their abortion attitudes. See table 6.18 for all correlational results.

Table 6.18. Spearman's Rho correlations between advocates abortion stigma scales and psychological wellbeing, abortion attitudes, and religiosity

	Psychological wellbeing	Abortion attitudes	Religiosity
AAS-F: Anticipated stigma (public)	**.238** (p<.001)	**.308** (p<.001)	**.248** (p<.001)

AAS-F: Anticipated stigma (close relationships)	**.246** (p<.001)	**.330** (p<.001)	**.269** (p<.001)
AAS-F: Enacted stigma	**.248** (p<.001)	.076 (p = .214)	.112 (p = .061)
AAS-V: Enacted stigma	**.184** (p =.002)	.118 (p = .054)	**.142** (p = .017)
AAS-V: Internalised stigma	.082 (p = .173)	.044 (p = .475)	.007 (p = .913)
AAS-V: Empowerment	-.017 (p = .773)	.034 (p = .576)	-.004 (p = .941)

*Significant results are in **bold**.*

One-way ANOVA demonstrated significant differences in Anticipated Public Stigma frequency (F(2, 272) = 8.41, p <.001), Anticipated Close Relationship Stigma frequency (F(2, 272) = 6.44, p =.002), Enacted Stigma frequency (F(2, 272) = 3.23, p = .041), and Enacted Stigma importance (F(2, 272) = 3.75, p =.025) by religiosity categories. Tukey post-hoc test indicated stigma was significantly lower for “not religious” versus “highly religious” groups across all stigma scales. See Table 6.19 for all significant post-hoc results demonstrating how stigma subscales and religiosity categories related.

Table 6.19. Tukey HSD significant results for one-way ANOVA between abortion stigma scales and religiosity category for advocates

	Not religious M (SD)	Religious M (SD)	Highly religious M (SD)	Mean difference	*p*-value
AAS-F: *Anticipated Stigma (public)*	8.48 (7.07)	10.85 (6.96)		-2.37	.029
	8.48 (7.07)		18.00 (10.50)	-9.52	.002
		10.85 (6.96)	18.00 (10.50)	-7.14	.030
AAS-F: *Anticipated Stigma (close relationships)*	3.14 (3.40)	4.48 (4.01)		-1.33	.020
	3.14 (3.40)		7.00 (8.38)	-3.86	.024
AAS-F: *Enacted stigma*	2.78 (2.78)		5.71 (5.44)	-2.93	.034
AAS-V: *Enacted stigma*	9.92 (8.67)		18.43 (9.53)	-8.51	.029

Only significant results presented.

Independent *t*-tests indicated significant differences between psychological wellbeing categories and Anticipated Public Stigma frequency ($t(276) = -2.57$, $p = .011$, $d = -.40$), Anticipated Close Relationship Stigma frequency ($t(276) = -3.34$, $p < .001$, $d = -.49$), and Enacted Stigma frequency ($t(276) = -3.06$, $p = .002$, $d = -.43$). Results demonstrated significantly lower frequency of experienced stigma for all subscales for advocates with "no probable serious mental illness" versus advocates with "probable serious mental illness". Cohen's d suggests medium effect size for all significant results. See Table 6.20 for how advocates' experienced stigma differs significantly by psychological wellbeing category.

Table 6.20. Significant independent *t*-test results for advocates' abortion stigma scales scores compared by psychological wellbeing category

	No probable serious mental illness (n = 232)	Probable serious mental illness (n = 46)	Mean difference	Sig.	Cohen's d (95% CI)
	M (SD)	M (SD)			
AAS-F: *Anticipated Stigma (public)*	9.08 (7.18)	12.09 (7.69)	-3.00937	.011	-.40 (-.73; -.10)
AAS-F: *Anticipated Stigma (close relationships)*	3.34 (3.60)	5.39 (4.70)	-2.05079	<.001	-.49 (-.86; -.22)
AAS-F: *Enacted stigma*	2.75 (2.83)	4.26 (4.11)	-1.51518	.002	-.43 (-.81; -.17)

Only significant results presented.

6.9. Discussion

We have validated two instruments for measuring abortion stigma experienced by healthcare professionals providing abortion care and two instruments for measuring abortion stigma experienced by people publicly supporting abortion. The HAS-F subscales demonstrate good internal consistency, test-retest reliability, and construct validity other than the Internalised Stigma subscale. The HAS-V subscales demonstrate good internal consistency and test-retest reliability, but validity requires further investigation. The AAS-F subscales demonstrate good internal consistency, reliability, and validity. The ASS-V subscales demonstrate good internal

consistency, although poor reliability and validity. We recommend the instruments for use as parts - subscales and individual measures (frequency or importance) – until further psychometric exploration is completed to assess reliability and validity of use as combined instruments.

There was no difference in self-reported stigma among HCPs from pre- to post-instrument administration, suggesting completing the HASs do not increase perceived stigma among HCPs. This finding stands in contrast to what qualitative and conceptual work has suggested. This discrepancy could be because providers are comfortable in abortion provision, participants understood the purpose of the study and therefore were not stigmatised by completing the instrument, a floor effect, and/or social desirability bias. The instruments may also have a validating, and therefore relieving, effect on respondents, alongside seeing research into abortion stigma promoting hope stigma is being addressed, as found in qualitative work about experiences completing abortion stigma instruments [169, 234, 263], balancing out stigmatisation. Regardless of whether completing abortion stigma instruments stigmatises individuals or not, the use of the instruments may contribute to the normalisation of stigma, and hence legitimise abortion stigma [86, 225]. Researchers should consider when and how they use abortion stigma instruments, and conduct abortion stigma research, to prevent (further) normalisation of abortion stigma. Future research should explore how to best research abortion stigma without stigmatising; research on sexism and racism may shed light into how abortion stigma research can be best conducted.

The outcome instruments are substantially different to APSS-R which they were designed from, hence alternative names have been suggested. The differences could be due to the additional scale found relevant for inclusion during qualitative development work [169, 263] and/or the cultural difference in stigma between Australia and the U.S. Indeed, abortion stigma is a complex phenomenon and process bound to contextual construction and experience [71, 82, 83, 86], despite its consistent structure and features of functioning across cultures. Our finding supports the need for and value of cultural adaptation work, including end-user

involvement at all stages, to produce culturally valid research outcomes (e.g., instruments and interventions), and impacts (e.g., destigmatisation, increased accessible quality care).

Comparing the providers' and advocates' instruments, differences in these groups' experiences of stigma are demonstrated by substantial differences in instrument structures, confirming findings from our qualitative work (i.e., [169, 263] that different instruments are required for providers and advocates. The instruments also provide insight into similarities between providers' and advocates' experiences of abortion stigma: all four instruments place emphasis on anticipated and enacted stigma, and community support or empowerment. This may be due to the opt-in nature of abortion provision and advocacy in Australia, leading to only people with low or no internalised stigma supporting abortion care. This may explain the poor reliability of the Internalised Stigma frequency subscale for health professionals. Responses by health professionals not yet providing abortion care may add insight into different abortion stigma experiences, specifically higher internalised and anticipated stigma. Indeed, anticipated stigma is cited as a barrier to health professionals providing abortion care in Australia (see, [72, 74, 76, 169]. Future research could use these instruments to identify what changes this anticipated stigma, and remove barriers to abortion provision In Australia.

Furthermore, future research should focus on mitigating the anticipation and fear of stigmatisation related to supporting abortion, through care provision and public support. As reported by the Australian Abortion Stigma Survey (TAASS; [157, 158]) there is high perceived abortion stigma in Australia, with 81% of respondents expecting abortion providers to experience harassment, despite low levels of stigmatising attitudes and large support for abortion access. Further use of our instruments can help determine the frequency of enacted stigma, and if it aligns with anticipated and perceived stigma, helping to mitigate stigma as a barrier to abortion provision and public support for abortion. Addressing anticipated stigma could improve confidence and experience in supporting abortion, increasing the number of providers and visible community support. Understanding how advocates resist, defy, and combat anticipated stigma (e.g., [112]), could provide insight into strategies for reducing anticipated stigma. This would be valuable because with more visible support for abortion

comes social pressure for structural change and the normalisation of abortion; key features of abortion destigmatisation. That is, individual-level changes have a bottom-up effect on addressing abortion stigma at interpersonal and structural levels.

We acknowledge limitations of this study, which should be addressed in future research. The study participants are a politically left aligned and women centric sample. This sample was suitable for initial testing of our instruments, however mean results are not generalisable to health professionals and broader community supporting abortion. Future research should investigate the use of these instruments among men, people with no university education, not speaking English at home, and not politically left aligned. This study does not test discriminant validity or cross-cultural validity, providing avenues for analysis for future research. Future research should also explore other uses of these subscales, including combination as one instrument, weighted scoring, and short form options.

6.10. Conclusion

We have psychometrically tested four instruments measuring abortion stigma experienced by people in Australia supporting abortion: frequency and value of abortion stigma experienced by health care professionals providing abortion care and frequency and value of abortion stigma experienced by people in Australia publicly supporting abortion. The instruments demonstrate a range of qualities for reliability and validity. Completing the healthcare provider instrument demonstrates no change in self-reported stigma. Future research should further revise the instruments for use, and their associated psychometric properties. The use of these instruments can assess the prevalence, extent, predictors, and consequences of healthcare professionals and advocates in Australia experiences of abortion stigma.

CHAPTER 7. Discussion

7.1. Rationale and link with previous chapters.

In previous chapters I report the identification, adaptation, development, and validation of multiple tools measuring individual-level abortion stigma in Australia and Aotearoa New Zealand (AoNZ). The series of studies presented follow rigorous guidelines for developing and reporting person/patient reported outcome measures (PROMs). This final chapter presents an overview of the outcomes, overarching findings, implications of this body of work, and recommendations for future research.

7.2. Chapter summary

This body of work aimed to identify suitable approaches to measuring abortion stigma, assess the suitability of these approaches for measuring abortion stigma in Australia and Aotearoa New Zealand (ANZ), adapt and develop measures of abortion stigma in ANZ, and psychometrically validate measures of abortion stigma in ANZ. We developed four instruments for use in ANZ, with three psychometrically validated in Australia. Findings demonstrate contextual differences between the US, Australia, and Aotearoa New Zealand, value of end-user engagement in research, and the prominence of anticipation and fear of abortion stigma in ANZ. I discuss implications of this work for people, research, and abortion care, as well as its strengths and limitations. Finally, I present rationale for future research investigating the use of these instruments among different groups, the development of short form versions, and exploring best practice (abortion) stigma research.

7.3. Review of overall objectives and summary of principle findings

Stigma is a pervasive barrier to secure, quality abortion care in an enabling environment [1, 10, 20, 22, 37, 42, 64-80]. In Australia and Aotearoa New Zealand (ANZ), qualitative research finds abortion stigma is linked with poorer quality abortion care - specifically accessibility, acceptability, equity, and safety - directly and indirectly impacting individuals, communities, systems, and culture [20, 55, 56, 72-78, 134-137, 139-143, 148, 150, 151, 170-173]. To quantitatively investigate abortion stigma in ANZ, culturally valid and reliable tools

measuring abortion stigma are needed. Valid and reliable tools for measuring abortion stigma in ANZ can support evidence-based policy and healthcare by supplementing qualitative information with quantification of the prevalence, impacts, mediators, moderators, and change of abortion stigma. A more comprehensive picture of abortion stigma in ANZ, achieved by gathering data with reliable and valid mixed-methods, will support evidence-informed approaches to dismantling abortion stigma and securing quality abortion care in ANZ. This thesis developed and validated multiple instruments for measuring individual-level abortion stigma in ANZ. An overview of the psychometric properties tested and confirmed for each instrument developed presented in table 7.1.

7.3.1. Aim 1: Identify suitable approaches to measuring abortion stigma

By systematically reviewing ten databases for research measuring abortion stigma (see Chapter 2), I identified 21 original measures of individual level and interpersonal level abortion stigma [126]. Analysis with expert developed best-practice, rigorous guidelines for assessing research details (i.e., Cochrane [184]) and instrument design and psychometric properties (i.e., COSMIN; [185-187]) identified the measures to range in purpose, location of use, populations assessed, and development and psychometric comprehensiveness. All instruments missed psychometric details, and none were designed for or used in ANZ. Instruments with the most robust reporting of their development and psychometric properties were the Individual Level Abortion Stigma scale (ILAS; [97, 188, 193]) and Abortion Provider Stigma Scale – Revised (APSS-R; [198, 199]), measuring individual-level abortion stigma among women who have had an abortion and abortion providers, respectively, in the .U.S.

7.3.2. Aim 2: Assess suitability of approaches measuring abortion stigma for ANZ

To test the suitability of the ILAS [97] and APSS-R [199] for use in ANZ, I asked stakeholders and instrument end-users about the relevance, comprehensiveness, and understandability of both instruments for ANZ (see Chapter 3; [152]). Simultaneously, the suitability of using instruments similar to the ILAS or APSS-R for measuring stigmatisation of people, groups, and organisations supporting abortion care in ANZ was explored. Findings indicated it is relevant to measure the stigmatisation of people who have, provide, and publicly

support abortion, and groups and organisations supporting abortion in ANZ, and the ILAS and APSS-R provide a suitable starting point to develop instruments measuring individual-level abortion stigma in ANZ. Findings about the ANZ context (e.g., terminology, legislation), importance of contextual nuance in stigma, and the role of value alongside frequency of stigmatising events guided the adaptation of the ILAS and APSS-R to develop four instruments for measuring individual-level abortion stigma in ANZ: ILAS-ANZ, APSS-R-ANZ, APSS-R-Adv-ANZ, and SAGO-ANZ.

7.3.3. Aim 3: Develop and adapt measures of abortion stigma in ANZ

Through cognitive interviews with instrument end-users, I tested and revised the usability and content validity (i.e., relevance, comprehensiveness, and understandability) of the ILAS-ANZ, APSS-R-ANZ, APSS-R-Adv-ANZ, and SAGO-ANZ (see Chapter 4; [248]). Cultural differences identified between Australia and Aotearoa New Zealand (AoNZ) determined separate instruments for each location are required. Australian instrument end-users guided improvements to collecting contextual information (e.g., modifying contextual questions, adding open-text boxes), instrument usability (e.g., adding worked examples, improving understandability of instructions), and instrument structure and wording (e.g., changing order and grouping of items). The resulting ILAS-Aus, APSS-R-Aus, and APSS-R-Adv-Aus were deemed useable, relevant, comprehensive, and understandable by end-users. The SAGO was found to require further consultation with end-users to clarify its aims and use and support its operationalisation.

7.3.4. Aim 4: Psychometrically validate measures of abortion stigma in ANZ

The ILAS-Aus, APSS-R-Aus, and APSS-R-Adv-Aus were compiled with comparator construct measures and demographics in an online survey to assess each instruments psychometric properties. The ILAS-Aus is a 33 item, seven-factor instrument ($\alpha = .919$) with good reliability and validity (see Chapter 5; [262]). For abortion stigma experienced by healthcare professionals providing abortion care, two instruments were confirmed (see Chapter 6; [296]): the health professionals abortion stigma frequency scale (HAS-F: 4 factors, 45 items; $\alpha = .941$); and the health professionals abortion stigma value scale (HAS-V: 5 factor, 34 items; α

= .946). The HAS-F demonstrated reliability and validity, and the HAS-V reliability. Similarly, for abortion stigma experienced by people publicly supporting abortion in Australia, two instruments were confirmed (see Chapter 6; [297]): the abortion advocates stigma frequency scale (AAS-F: 3 factors, 20 items; α = .911); and the abortion advocates stigma value scale (AAS-V: 3 factors, 13 items; α = .814). The AAS-F demonstrated reliability and validity, whereas the AAS-V requires further co-development before further assessment of its reliability and validity.

Table 7.1. Properties of person report measures measuring abortion stigma in Australia and Aotearoa New Zealand

Instrument details			COSMIN criteria									
			Content validity									
Instrument acronym	Concept measured	Participant group	Relevant	Comprehensive	Comprehendible	Structural validity	Internal consistency	Cross-cultural validity/ measurement	Measurement error and reliability	Criterion validity	Construct validity	Responsiveness
ILAS-Aus	Individual level abortion stigma	People who have had an abortion in Australia	Y	Y	Y	Y	Y	n/a	Y	n/a	Y	N
ILAS-ANZ		People who have had an abortion in Australia and AoNZ	Y	N	Y	n/a	n/a	n/a	n/a	n/a	n/a	n/a
HAS-F		Health care professionals providing abortion care in Australia	Y	Y	Y	Y	Y	n/a	Y	n/a	Y	n/a
HAS-V			Y	Y	Y	Y	Y	n/a	Y	n/a	N	n/a
APSS-R-ANZ		People providing abortion care in Australia and AoNZ	Y	N	Y	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AAS-F		People publicly supporting abortion in Australia	Y	Y	Y	Y	Y	n/a	Y	n/a	Y	n/a
AAS-V			Y	Y	Y	Y	Y	n/a	N	n/a	N	n/a
APSS-R-Adv-ANZ		People supporting abortion in Australia and AoNZ	Y	N	Y	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SAGO		Groups and organisations in Australia supporting abortion	Y	N	N	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SAGO-ANZ		Groups and organisations in Australia and AoNZ supporting abortion	Y	N	N	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Y: checked and confirmed. N: checked and not confirmed. n/a: not checked.

7.4. Interpretation of findings

Consolidated findings from the studies within this project demonstrate the contextual and nuanced nature of abortion stigma, confirm abortion stigma is related to power, and support the value of end-user engagement in research.

7.4.1. Stigma is contextual and nuanced

This project has identified differences in abortion stigma based on relationship to abortion and location and related culture. Content validity testing (chapters 3 and 4; [152, 248]) and factor analysis (chapters 5 and 6; [262, 296, 297]) of the Australian individual-level abortion stigma instruments identified different content and factor structure to the U.S. designed instruments. Tables 7.2 and 7.3 depict differences and similarities between individual-level abortion stigma instruments' structural validity and internal consistency by relationship to abortion and country. Notably, instruments assessed in four separate countries all reflect multiple, independent factors supporting the conceptualisation of abortion stigma as multi-dimensional.

For people who have had an abortion, the ILAS-Aus [262] contains more items in each factor, fewer positive items throughout, higher internal consistency, and one factor (i.e., enacted stigma) not presented in the U.S. [97], Turkish [193], or German [188] instruments. For people who provide abortion-related care, the Australian measure [296] is a dual purpose instrument measuring frequency (i.e., HAS-F) and value (i.e., HAS-V) compared with the U.S. instrument (i.e, APSS-R; [199]) measuring frequency only. Both the U.S. and Australian instruments have factors measuring disclosure, discrimination/enacted stigma, internalised stigma, perceived stigma/judgement, and support/isolation. The Australian provider instruments have fewer positive items and an additional factor (i.e., anticipated stigma) than the U.S. provider instrument. For people who publicly support abortion, our instrument is the first developed and was derived from the APSS-R (as deemed relevant by end-users; see chapter 3; [152]). It is a dual-purpose instrument (AAS-F; AAS-V) with fewer items and subfactors than the Australian and U.S. provider instruments. Comparison of instruments' content and structure across groups with different relationships to abortion and locations

suggests there is cultural variability in types of stigma prominent at the individual-level and confirms abortion stigma to be multi-dimensional. Further investigation into abortion through a geographical lens would help illuminate relationships between state, society, power, citizenship, and our understanding of abortion [102].

Table 7.2. Comparison of the structural validity and internal consistency of instruments measuring stigma experienced by people who have had an abortion in different locations

Respondents	*Location/Culture instrument's structural validity and internal consistency tested in*			
	Australia	*U.S.*	*Turkey*	*Germany*
People who have had an abortion	ILAS-Aus [262] (33 items, 7 factors, α = .919):	ILAS [97] (20 items, 4 factors, α = .88):	ILASS [193] (20 items, 5 factors, α = .85):	ILAS [188] (20 items, 4 factors, α = .unknown):
	Internalised abortion stigma (9 items) Cronbach's α = .939 Eigenvalue = 9.285 Explained variance = 28.14%	Self-judgment (5 items) Cronbach's a =0.84 Eigenvalue = 3.19 Explained variance = 11%	Self-judgment (5 items) Cronbach's a =0.83 Eigenvalue = unknown Explained variance = 13%	Self-judgment (5 items) Cronbach's a =0.87 Eigenvalue = unknown Explained variance = 16.6%
	Anticipated stigma: health care (3 items) Cronbach's α = .834 Eigenvalue = 1.633 Explained variance = 4.95%	Worries about judgement (7 items) Cronbach's a = 0.94 Eigenvalue = 9.25 Explained variance = 33%	Worries about judgement by distant people (3 items) Cronbach's a = 0.91 Eigenvalue = unknown Explained variance = 20%	Worries about judgement (7 items) Cronbach's a = 0.91 Eigenvalue = unknown Explained variance = 19.0%
	Anticipates stigma: interpersonal (2 items) Cronbach's α = .849 Eigenvalue = 1.107 Explained variance = 3.35%		Worries about judgement by close people (4 items) Cronbach's a = 0.94 Eigenvalue = unknown Explained variance = 7%	
	Perceived stigmatising community abortion attitudes (9 items) Cronbach's α = .908 Eigenvalue = 4.345 Explained variance = 13.17%	Community condemnation (2 items) Cronbach's a =0.78 Eigenvalue = 2.33 Explained variance = 8%	Community condemnation (2 items) Cronbach's a = 0.84 Eigenvalue = unknown Explained variance = 6%	Community condemnation (2 items) Cronbach's a =0.83 Eigenvalue = unknown Explained variance = 8.6%
	Disclosure and secrecy (4 items) Cronbach's α = .845 Eigenvalue = 2.670 Explained variance = 8.09%	Isolation (6 items) Cronbach's a =0.83 Eigenvalue = 3.84 Explained variance = 14%	Isolation (6 items) Cronbach's a = 0.88 Eigenvalue = unknown Explained variance = 29%	Isolation (6 items) Cronbach's a =0.90 Eigenvalue = unknown Explained variance = 18.5%
	Community support (3 items) Cronbach's α = .886 Eigenvalue = 2.406 Explained variance = 7.29%			

Enacted stigma (3 items) Cronbach's α = .764 Eigenvalue = 1.462 Explained variance = 4.43%				
Positive items: n = 5	n = 7	n = 7	n = 7	

Table 7.3. Comparison of individual-level abortion stigma instruments' structural validity and internal consistency by relationship to abortion and location

Respondents	*Location instrument's structural validity and internal consistency tested in* Australia		U.S.
People who provide abortion-related care	HAS-F (45 items, 4 factors, α = .941):	HAS-V (34 items, 5 factors, α = .946):	APSS-R (35 items, 5 factors, α = .924):
	Disclosure (18 items) Cronbach's α = .952 Eigenvalues = 14.364 Explained variance = 31.930%	Disclosure (17 items) Cronbach's α = .967 Eigenvalues = 12.914 Explained variance = 37.982%	Worries about disclosure (10 items) Cronbach's a =0.94 Eigenvalue = 10.8 Explained variance = 34%
	Enacted stigma (9 items) Cronbach's α = .961 Eigenvalues = 8.198 Explained variance = 18.218%	Enacted stigma (6 items) Cronbach's α = .836 Eigenvalues = 3.870 Explained variance = 11.383%	Discrimination (4 items) Cronbach's a =0.73 Eigenvalue = 1.1 Explained variance = 9%
	Internalised stigma (7 items) Cronbach's α = .129 Eigenvalues = 2.370 Explained variance = 5.266%		Internalised states (10 items) Cronbach's a =0.834 Eigenvalue = 4.1 Explained variance = 20%
		Perceived stigma: healthcare (4 items) Cronbach's α = .815 Eigenvalues = 2.393 Explained variance = 7.038%	Judgement (7 items) Cronbach's a =0.83 Eigenvalue = 1.6 Explained variance = 15%
		Support (3 items) Cronbach's α = .840 Eigenvalues = 1.62 Explained variance = 4.764%	Social isolation (4 items) Cronbach's a =0.79 Eigenvalue = 1.4 Explained variance = 12%
	Anticipated stigma (11 items) Cronbach's α = .923 Eigenvalues = 3.279 Explained variance = 7.287%	Anticipated stigma: community (4 items) Cronbach's α = .780 Eigenvalues = 1.825 Explained variance = 5.366%	
	Positive items: n = 4	Positive items: n = 3	Positive items: n = 10
People who publicly support abortion	AAS-F (20 items, 3 factors, α = .911):	AAS-V (13 items, 3 factors, α = .814)	n/a
	Disclosure (9 items) Cronbach's α = .914. Eigenvalues = 8.050.	Disclosure (3 items) Cronbach's α = .684. Eigenvalues = 1.620.	

Explained variance = 40.248%.	Explained variance = 12.463.	
Anticipated stigma (6 items) Cronbach's α = .837. Eigenvalues = 2.406. Explained variance = 12.032%.	Anticipated enacted stigma (7 items) Cronbach's α = .939. Eigenvalues = 5.821. Explained variance = 44.778%.	
Enacted stigma (5 items) Cronbach's α = .776. Eigenvalues = 1.647. Explained variance = 8.234%		
	Internalised stigma (3 items) Cronbach's α = .880. Eigenvalues = 2.064. Explained variance = 15.879.	
Positive items: n =2	Positive items: n = 3	

7.4.2. Stigma is related to power

Conceptualisations orientate stigma as a tool for gaining, maintaining, or removing power [71, 82, 83, 86-88, 91, 94, 98, 99]. However, there is little empirical evidence directly investigating links between abortion stigma and power. We found abortion stigma experienced by people who have had an abortion in Australia to be significantly higher for people with lower reproductive autonomy ($.077 < \rho < -.344$, $p = .01$; [262]). Similar results have been demonstrated in the U.S., with lower reproductive autonomy associated with greater abortion stigma [278] and agency protective against anticipated stigma [298] and differences in experiences of stigma between African American and white women [97, 109, 195, 299].

The power and impact of normalised silenced voices around abortion can be seen in responses to this work. People who had experienced stigma demonstrated the importance of having their experiences heard and documented in research based on the number of responses ($n > 3500$) and open-text entries ($n > 900$) collected in our online survey (chapters 5 and 6) [296, 297]. Analysis of these responses was beyond the scope of this thesis but will be explored in subsequent work to honour our commitment to those who shared their stories.

I have produced the first evidence demonstrating an empirical connection between abortion stigma and bodily autonomy in Australia. These results build on a growing international body of evidence linking anti-abortion sentiment with sexism and racism [300-304], and the disproportionate impact of anti-abortion sentiment on people with intersecting marginalised and stigmatised identities [305-310]. Inability to access abortion care amplifies inequities [55]. Future research needs to further explore the empirical links between power and abortion stigma, especially the interplay between structural, interpersonal, and individual levels of power and stigma. The tools depicted in this project facilitate the quantification of relationships between *structural power* such as sexism, racism, ablism, abortion discourse, policy, legislation, and infrastructure, and individuals' experiences of abortion stigma in Australia.

7.4.3. End-user engagement essential to instrument development

The benefit of engaging end-users throughout the research process is evident from this project as we were able to ensure relevant and important aspects of social constructs remained the focus to produce usable and valid outcomes. End-user engagement also presented opportunities to increase agency and empowerment, while readdressing power imbalances through the research process.

During each step of instrument development, the people who will complete the instruments, those who will distribute and analyse the instruments, and those who will be impacted by the instrument's findings were involved. These people were involved as participants, as stakeholders (during study recruitment) or as ongoing consultants (during presentations to professional and academic groups). Engagement with professionals familiar with abortion stigma and people who experience abortion stigma in ANZ [152] maintained our focus on relevant, important, and current aspects of abortion stigma measurement (e.g., strategies to reduce fear of stigma from the instrument such as: inclusion of a debrief statement and avoiding anti-abortion terminology; providing opportunities for participants to share their nuanced experiences in an open text box). Notably, these strategies have not previously formed part of research processes or abortion stigma instruments.

Engagement with end-users enabled the research team to build a network to support the research and longer-term collaborations on stigma reduction. This was particularly valuable for providing connections in the ANZ reproductive health sector when the research team had none. These connections supported the work with stakeholders (individuals and organisations) vouching for the research and sharing participation opportunities. It also provided a support network for me as a PhD candidate when I was stigmatised for conducting this research. Almost all participants in the first participatory study [152] voluntarily opted-in to being contacted about future studies, going on to support recruitment in sequential studies [248]. End-user engagement provided critical support for efficient and meaningful recruitment. The participatory nature of chapter 4's methodology (cognitive

walkthroughs) in testing the usability of instruments [248] proved beneficial in optimising the instruments for use (e.g., modifying instrument structure to optimise its understandability and logical flow) and ensuring their cultural validity (e.g., need for AoNZ specific instruments).

7.5. Implications of this project

The outputs of this research project support:

- reliable and valid quantification of abortion stigma experienced in Australia by people who have had an abortion(s), provide(d) abortion-related care, and publicly support(ed) abortion (see 7.5.1).
- the relevance of measuring abortion stigma experienced in Aotearoa New Zealand and development of instruments measuring this stigma (see 7.5.1).
- the relevance of measuring stigmatisation of groups and organisations supporting abortion through provision and/or advocacy in ANZ, and development of a corresponding instrument (see 7.5.1).
- the expansion of the body of evidence about barriers to accessible reproductive health care in Australia, priority areas of Australian National Women's Health Strategy 2020-2030 (see 7.5.1).
- the use rigorous scientific methods to develop and validation person report outcome measures (PROMs) (see 7.5.2).
- the evidence-base for measuring stigmatisation (see 7.5.3).

7.5.1. Evidence-based avenues for understanding and addressing abortion stigma and building an environment enabling quality reproductive healthcare

This body of work enables the culturally reliable and valid measurement of individual-level abortion stigma in Australia. It provides a direction for development of abortion stigma measures relevant to people in AoNZ and organisations supporting

abortion in ANZ. As documented in the literature, stigma is a key, pervasive barrier to sustained, quality abortion care [1, 10, 20, 22, 37, 42, 64-80]. Ensuring accessible, stigma free, reproductive health care is a priority initiative of the Australian National Women's Health Strategy 2020-2030 [311], human right [5-8], fundamental to meeting SDG [5, 9], and at the core of WHO guidelines on abortion [5]. There is a growing body of qualitative literature identifying the presence and impacts of abortion stigma in ANZ, however limited to no quantitative data are available (see chapter 1). This lack of data may be due to the absence of tools for measuring abortion stigma in ANZ, as identified in my systematic review ([126]; see chapter 2).

To address this gap, and build the evidence to overcome barriers to quality reproductive healthcare, I rigorously developed multiple to measure individual-level abortion stigma in Australia and AoNZ. The tools support culturally valid and reliable measurement of individual-level abortion stigma in Australia, and the further development of tools in AoNZ, to facilitate documentation of the prevalence, mediators, moderators, and consequences of abortion stigma in ANZ to add to the global understanding of abortion stigma. I recommend using these tools in future research to triangulate quantitative and qualitative data to:

- build a robust understanding of abortion stigma in Australia;
- map empirical data to conceptual models, extending conceptualisations and linking them to evidence;
- quantify impact of structural- and interpersonal-level stigma on individual-level stigma;
- identify mediators and moderators of abortion stigma to inform intervention design;
- measure change in abortion stigma, from interventions, at times of cultural shifts, and longitudinally; and,
- build an evidence-base for addressing stigma as a barrier to quality abortion care in Australia.

One novel aspect of this work is the development of the first PROM for abortion advocates. This is a critical step in understanding advocates' experiences and intervening to reduce the stigma they experience and/or perceive. With perception of stigmatisation prevalent [157, 158] despite a large majority of Australia and AoNZ supporting abortion (see [133, 138, 156-158, 223, 276, 312], advocates may provide insight into how to empower community to resist stigma to demonstrate their support for abortion.

7.5.2. Improved rigour in PROM development

Findings from my systematic review of abortion stigma measurement [126] highlight the inconsistent evaluation and reporting of abortion stigma PROM psychometric properties, and gaps in their development. The lack of rigour in abortion stigma PROM development, testing, and reporting may be accounted for by: a) the time all identified measures were developed, predating the availability of COSMIN guidelines for PROMs; b) systemic barriers to conducting and reporting abortion stigma and psychometric related research [126]; and, c) study aims and the hierarchy of psychometric properties [126, 208]. These issues are not unique to abortion or stigma research. A systematic review of measures of mental illness stigma reported of over 400 measures, two thirds had no systematic psychometric evaluation. [313] The lack of rigorous, valid instrument development, testing, and reporting is a known limitation in social phenomena research in health [208]. This project addressed these limitations by following rigorous, expert guidelines for PROM development, testing, and reporting [186, 208, 253]. In doing so, I have:

- demonstrated how COSMIN guidelines can be followed to rigorously develop, test, and report stigma-related PROMs;
- optimised culturally reliable and valid measurement of individual-level abortion stigma for three population groups in Australia; and
- addressed limitations in abortion stigma measurement and barriers to abortion stigma research.

7.5.3. Evidence-base for researching and quantifying abortion stigma

Qualitative approaches in stigma research support exploration of complex phenomenon, effective stigma reduction, relevant scientific inquiry, and agency, empowerment, and shifting power imbalances [211]. Quantifying stigma is important for efficiently reporting prevalence and change on a larger sample size and driving system level change but is critiqued for low ecological validity. Using PROMs could bridge the gap between qualitative and quantitative stigma evidence by capturing a large number of people's experiences. However, PRO measurement of stigma, and stigma research at all, are suggested to stigmatise people who have had an abortion or provide abortion related care [152, 234, 248]. I explored this claim by asking people who have had an abortion or provide abortion related care 'how much stigma are they currently experiencing' pre- and post-PROM completion. Contrary to concerns about stigmatisation, there was a significant reduction in self-reported stigma among people who have had an abortion [262]; and no significant difference among people providing abortion related care [296]. We suggest completing the PROMs highlighted to participants their experiences of stigma were less extreme or prevalent than anticipated, validating their (often) silenced and hidden experiences [262, 296]. This represents a novel insight quantifying the impact of stigma-related research. Future research should explore if this finding holds true among abortion-related groups more marginalised than our participants, and for other stigmatised topics and groups.

Not to be forgotten, is the need to understand the role of stigma as a significant, pervasive barrier to quality abortion care. It is increasingly evident, that addressing abortion stigma is key in securing quality abortion care and equitable societies. In order to achieve these goals, embedding abortion stigma assessment in routine health care and quality care frameworks for reproductive and sexual health. Doing so normalises abortion services by clearly aligning it with assessment of other core health services, [23]. Thus, the instruments I developed are key tools for advancing the evidence-base in understanding and addressing stigma as a barrier to sustainable, quality abortion care in an enabling environment.

7.6. Researcher reflection statement

I came into this PhD interested in stigma and to be better informed when discussing abortion. I leave this PhD dedicated to reproductive justice through research design, process, and outcomes. I have carved my way through anticipated and enacted stigma because of my PhD; from within, family, friends, colleagues, and systems. I have carried others experiences of stigma in parallel to world events reducing bodily autonomy and trust in science. Pro-abortion and early career research communities and belonging to privileged social groups have protected me from stigma and built me up to resist and begin dismantling experienced abortion stigma, while supporting efforts to secure quality abortion care. A key outcome of this PhD is me: a resilient researcher tenaciously working for social justice.

7.7. Strengths and Limitations

Within each chapter of this thesis, the strengths and limitations of individual studies have been discussed. Noteworthy strengths and limitations of this project as a whole are detailed below.

7.7.1. Strengths

First, this project has taken a rigorous approach to all aspects of the work from literature review, instrument development, to research reporting. My systematic review [126] systematically searched published literature for measurement of abortion stigma globally and appraised their content based on expert developed guidelines for data synthesis and analysis (i.e., COCHRANE) [184] and developing and assessing PROMs (i.e., COSMIN) [185, 208, 314]. Instrument development [152, 248] and psychometric testing [262, 296, 297] followed the rigorous COSMIN guidelines. Each stage of instrument development and testing has been independently reported and is under peer-review. Following expert-development guidelines for PROM development and rigorous reporting of each study, ensured this project contributed high-quality research and outputs to build knowledge of abortion stigma. Furthermore, my approach bridges common gaps in the

science of developing instruments and reporting these development processes [186, 208, 210].

Second, this project is novel in its context, outputs, and findings. Before this project, there were no instruments designed for measuring abortion stigma in ANZ [126], and no quantification of abortion stigma in ANZ to my knowledge. The project bridges gaps in literature and tools restricting progress towards quality abortion care in ANZ. The development of valid and reliable tools for measuring abortion stigma experienced in Australia, provides possibilities of cross-cultural comparisons of abortion stigma (e.g., compare ILAS scale results in Australia, the U.S., Turkey, Germany, and Mexico). Additionally, this project is unique in exploring stigmatisation of people and organisations supporting abortion and to design related instruments. Some research has been conducted on experiences of stigma among abortion advocates in Italy (e.g., [112]), however none on the stigmatisation of abortion supportive groups and organisations. The instruments designed for measuring stigmatisation of people and organisations supporting abortion, provide starting points for expanding abortion stigma research to other relationships with abortion and insights for intervention. Finally, this project provides novel insights into the measurement of stigma, including how the completion of an individual-level stigma instrument reduces self-reported stigmatisation. An important finding contributing to the broader ethics and value of stigma research.

Third, this project provides rigorously designed tools to facilitate abortion stigma research in the future. For example, but not limited to, quantifying relationships between levels of abortion stigma, abortion stigma and other forms of power, abortion stigma and quality of care, mediators and moderators of abortion stigma, and testing impact of interventions. Having quantitative data on abortion stigma can supplement the qualitative data, and together provide be more powerful evidence-base to inform policy and practice.

7.7.2. Limitations

First, to quantify abortion stigma the research process and resulting tools simplify stigma. Although a common approach to enabling stigma measurement and intervention, it reduces the ecological validity of findings. Any research quantifying stigma should employ research design and methods which boost ecological validity, such as triangulating findings with qualitative data and placing “greater attention on the socio-cultural production and function of stigma” (p.4) [86].

Second, this project sits within colonised, patriarchal, and capitalist cultures and systems enabling scientific processes which perpetuate racism, sexist, ablism, and classism. Hence the methodologies used in this project are part of extenuating systemic oppression of various social groups, especially those with intersecting marginalised group identities. For example, recruitment through social media, professional networks, and with stakeholders disproportionally included privileged social groups through structural processes and frameworks. This may explain the prominence of white, cisgender, university educated participants throughout this project. Future stigma research should consider how the research processes can empower underrepresented groups within and outside a research industry founded in the predominant philosophies. For example, shifting power from the research industries to stigmatised communities by enabling research led and owned by the community with academics as consultants rather than owners and gatekeepers of knowledge. Following the reproductive justice framework provides insight into how abortion stigma research can empower marginalised groups [167, 260, 261, 315, 316].

7.8. Recommendations for research, practice, and policy arising from this thesis

The findings and tools presented in this thesis are well-placed to build the evidence-base for policy and practice related interventions addressing abortion stigma by addressing knowledge gaps in abortion stigma, related constructs and experiences, and stigma research. To guide evidence-based practice and policy, future abortion stigma research and the use of the tools presented in this thesis should: 1) be broadly used; 2) applied with a socio-cultural, power informed lens; and, 3) consider how the research interacts with abortion stigma.

First, abortion stigma should be assessed routinely in reproductive health and structural inequalities and injustices related research conducted in partnership with a variety of communities and groups. Broad, collaborative use of tools will support build a robust, representative evidence-base to guide practice and policy and the continued validation and improvement of measurement tools and approaches. Policy and practice embedding abortion stigma measurement into routine quality-of-care assessment is critical for a comprehensive understanding of the barriers and outcomes of quality abortion care. Additionally, routine measurement of stigma experienced by people accessing, providing, and advocating for abortion will support build an evidence-base of changes in individual-level stigma related to time, events, and patriarchal, colonial, and capitalist trends. Routine measurement of individual-level abortion stigma across different locations, cultures, and groups will enable comparison of how abortion stigma is experienced according to structural and interpersonal factors.

Second, as a socio-cultural, power-related construct, any abortion stigma related work should apply a socio-cultural, power informed lens to project design, implementation, outcomes, and dissemination. Research working with an appreciation for how culture, power, and identity intersect to shape research processes and data, will produce more valid insights into action towards securing quality abortion care and reproductive justice. Mixed-methods research and triangulation methods are well-suited to recognising the multi-dimensional, socio-cultural, and intersectional process of stigmatisation, strengthening the construct and ecological validity of the emerging evidence-base. Additionally involving end-users at all stages of research and using qualitative and mixed-methods approaches to abortion stigma research will help research be relevant, understand complexities, and redress power imbalances [211]. Another approach to consider is applying a geographical lens to abortion, to understand abortion through space, power, and citizenship [102]. I recommend future abortion stigma research follow the reproductive justice framework to support valid socio-cultural, intersectional, power redistributing research process and outputs.

Third, when incorporating stigma measurement in abortion-related research, caution must be exercised to avoid normalising abortion stigma through research processes and rhetoric [86, 127] and overstating stigma [200]. That is, research in abortion stigma may reinforce the understanding of abortion as stigmatised and perpetuate its stigmatisation. However, following the intersectional approach of reproductive justice and scholarship concerned with social change, positioning abortion stigma investigation alongside exploration of other reproductive health services and stigmas, bodily autonomy, and human rights, and with mixed-methods, would ensure a holistic understanding of abortion is gathered and generated [85, 86, 225, 247, 260, 261, 315, 317, 318].

7.9. Conclusion

This body of research reports rigorous scientific processes applied to develop culturally reliable and valid tools for measuring abortion stigma. I systematically identified and assessed tools measuring abortion stigma using robust expert-developed guidelines. With stakeholders in quality abortion care in ANZ I assessed the suitability of two US designed instruments measuring abortion stigma for use among four groups in ANZ. Findings guided the development of four tools measuring individual-level abortion stigma in ANZ. Through cognitive walkthroughs with instrument end-users, I revised the instruments for usability, relevance, comprehensibility, and comprehensiveness. Instruments measuring the stigmatisation of people who have had an abortion, provide(d) abortion related care, and publicly support(ed) abortion in Australia have been psychometrically tested. The results highlight the multi-dimensional and socio-cultural nature of (abortion) stigma, novel findings about stigma measurement, and the value of end-user and stakeholder engagement in research. The resulting tools are available for use to build the evidence-base about abortion stigma as a persuasive barrier to securing an enabling environment for quality abortion care, Australia's 2030 women's health goals, SDGs, ensuring UN human rights, and providing abortion care align with WHO guidelines. Future research should, assess abortion stigma routinely and through socio-cultural, power informed, intersectional research processes to explore the role of research in stigmatising abortion, revise

instruments, build evidence-based about abortion stigma, and design and evaluate interventions addressing abortion stigma.

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APPENDIX 1. Supplementary texts for Chapter 2, *What is the optimum measure of abortion stigma? A systematic review*.

Appendix 1.1. PRISMA guidelines

The PRISMA-P 2015 checklist guided this systematic review's protocol. The protocol included: title, registration, authors, amendments, support, rational, objectives, eligibility, information sources, search strategy, study records, data items, outcomes and prioritisation, and data synthesis.

Appendix 1.2. Descriptive details of psychometric properties

Internal consistency

The interrelatedness among items was explored with Cronbach's alpha coefficient for all 15 instruments reporting internal consistency. The ILASs - German [188] and IPSAS [196] reported alpha only for subscales. Of the 15 studies, eight [97, 109, 188, 191, 193, 198, 201, 204] provided the alpha for each subscale (range: .38 - .94).

Reliability

A total of 11 studies [37, 97, 109, 114, 190-192, 200, 201, 203, 204] did not clearly report the method used to test instrument reliability and/or reliability results.

Measurement error

Measurement error assessed by percentage agreement (positive and negative) [187], was reported in only one study [200]. Most studies did not report measurement error (*n*=15). Two studies controlled for covariates [37, 203], one calculated standard errors and reported their estimates and interpretations to be "unbiased and applicable to the population as a whole", but failed to state the method used [204], p. 428), one study "conducted a Kaiser-Mayer Olkin test to measure sampling adequacy" and presented

details suggesting participants and conditions were similar [97], and one study calculated percentage by race and ethnicity [195].

Hypothesis testing and responsiveness

To assess expected differences between groups or expected correlations between instrument scores and other variables, such as the scores of other instruments [23], hypothesis testing was completed in 12 studies (Tables 2a/2b). Comparisons were made between abortion stigma and abortion history disclosure ([189]; REES), secrecy behaviour [97, 194]; concealment of abortion, ILASs – U.S.A), depressive symptomology ([196]; IPSAS), psychological distress ([37]; PAS), modern contraceptive use [203]; Adolescent SRH Stigma scale), pregnancy decision making [109]; ANSS), perceived foetal survival after diagnosis of anomaly ([188]; ILASs - German), attitudes towards abortion legality ([201] SABAs – Ghana and Zambia), and willingness to provide safe abortion care ([191]; SABAs - Ethiopia). 11 of the 15 studies [97, 114, 189, 191, 195, 196, 198, 199, 201, 203, 204], tested associations between subscales, full scale, and participant demographics.

Three studies [188, 199, 205], identified comparator instruments for responsiveness testing [187]. Martin et al [199] investigated correlations between the APSS-R full scale and subscales with two independent measures: the Maslach Burnout Inventory [319]; MBI) and Kessler Psychological Distress Scale [320]; K -10). ILASs – German [188] tested for correlations between scale and the German versions of the Revised Beck Depression Inventory (BDI-II; [321, 322] and Rosenberg Self Esteem scale (RSE;[323-325]). Weider and Griffitt's scale [205] used multiple correlation coefficient (multiple R) and multiple R squared (R-squared) to compare their social distance instrument with a sexual opinion survey [326], attitudes towards women scale [327], and the Bentler Heterosexual Behaviour Inventory [328, 329].

Content validity

The included measures vary in the degree to which their content adequately reflects abortion stigma. Professionals were consulted in seven studies [97, 190-192, 198, 199, 204], and end users in seven [97, 109, 192, 198, 200, 201, 204]. Relevance was investigated in eight studies [97, 190-192, 198-201], comprehensiveness in seven [97, 109, 190, 191, 198, 199, 201], and comprehensibility in five [97, 109, 198, 201, 204]. For the ILASs – Turkey [193] a Content Validity Index (CVI) was calculated from professionals' ratings of language, expression, and content appropriateness of the final scale. The CVI was .86, which is above the recommended .80 suggesting consensus.

Constructs and Conceptualisation

All studies provided a description of abortion stigma as a criterion for inclusion, however, the presence of definitions and details of conceptualisations varied. The majority of studies defined abortion stigma (*n*=14) [37, 97, 114, 188-190, 193, 196, 198-201, 203, 205] and/or stigma (*n*=12) [37, 109, 188, 190, 191, 193, 194, 199-201, 203, 205]. Definitions were derived from ten works conceptualising stigma [84, 88, 174, 330-336], eleven works conceptualising abortion stigma [71, 82, 96, 176, 178, 227, 267, 287, 337-339], one work conceptualising sexual stigma [340], and four works from sociological perspectives [178, 179, 341, 342]. Definitions included identifying abortion as morally wrong, dubious, and immoral, socially unacceptable, abnormal, deviant, disgraceful, disrespectful, disobedient, disgusting, shameful, isolating, and dirty work. Few studies [37, 188, 199, 201, 203] defined abortion stigma as a social process.

Most studies (*n*=16) [37, 109, 114, 188, 189, 191, 193, 195, 196, 198-204] both defined and conceptualised abortion stigma. Conceptualisations included identifying types of stigma, such as internalised, anticipated, perceived, experienced, enacted, discrimination, interpersonal, social, and structural [37, 109, 114, 188, 193, 195, 196, 198, 200, 202], and explaining different levels of stigma, including individual, community, interpersonal, structural, institutional/organisational, governmental, law, policy, public discourse, and mass culture levels [37, 188, 189, 191, 196, 198-200, 202-204]. Overall,

included studies presented a consistent conceptualisation of abortion stigma from the perspective of Goffman, although the details varied.

Structural validity

Exploratory factor analysis (EFA) was present in eight articles [109, 188, 189, 192, 193, 198, 199, 201], two [202, 204] used both EFA and confirmatory factor analysis (CFA), two used unspecified factor analysis (FA) [190, 196], and three used principal components analyses [97, 191, 202] to assess structural validity. The remaining seven articles reported no FA [37, 114, 194, 195, 200, 203, 205]. Factor analysis determined two – (IPSAS; [196]), three- (APSS; REES; SABAs – Ethiopia; SABAs – Ghana and Zambia; SABAs – Kenya; ASABAs; [189, 191, 192, 198, 201, 202]), four- (ANSS; CLASS; ILASs; [97, 109, 188, 193, 204]), and five-factor models (APSS-R; [199]). One instrument was unidimensional (ASP; [190]).

Cross-cultural validity and measurement invariance

Two instruments were validated across cultures: the SABAs and ILASs. The SABAs was designed for community members in Ghana and Zambia [201] and was found to be a 3-factor, 18-item instrument. It was subsequently assessed in Ethiopia [191] among midwives, in Kenya [192] among post-abortion care providers, and adapted and validated for adolescents in western Kenya [202]. Holcombe et al. [191] found a 3-factor solution for 16 items of the SABAs [201]. Higher SABAs – Ethiopia scores were associated with having had a child, religious observance, and respondent's age. Håkansson et al. [192] found a different 3-factor structure to the SABAs [201] with 17 items. The small sample size restricted quantitative comparison of SABAs – Kenya scores and participant subgroups, however triangulation with qualitative data suggested societal norms were associated with human rights. Makenzius et al. [202] found the original SABAs [201] structure and items fit the ASABAs, SABAs and ASABAs mean scores to be similar, and the variation of SABA subscale scores to be larger than ASABAs complete scale score. Parallel-form reliability analysis between ASABAs [202] and SABAs – Ghana and Zambia [201] was completed

although comparison analyses were not reported due to potential differences in interpretability of factors from research teams.

The ILASs was developed and validated in the U.S.A [97] and translated and validated in Turkey [193] and Germany [188]. The ILASs – U.S.A. [97] is a 4-factor, 20-item instrument with communalities greater than 0.50. The ILASs - Turkey [193] had a 5-factor structure; it was consistent with the factor structure of the ILASs – U.S.A. [97] with the only departure being two factors within one subscale. The ILASs – Germany [188] 4-factor structure was found consistent with the ILASs – U.S.A [97]. Regression analyses showed the ILASs – U.S.A [97] full scale correlated with respondents' age, religion, and religiosity, and subscales correlated with race/ethnicity, education, and previous birth. Univariate analysis of the ILASs - Turkey [193] full scale scores varied with participants' age, education, working status, and time since abortion. Regression analysis of the ILASs - Germany [188] found subscales to correlate with perceived foetal survival rate, gestational age, and perceived partner support.

The remaining 16 studies [37, 109, 114, 188-191, 194, 196, 198-201, 203-205] did not include instruments compared across cultural locations. However, nine instruments [109, 114, 190, 195, 196, 198, 200, 204, 205] were tested for performance in different cultural groups. This primarily included bivariate and multivariate regression analyses between the abortion stigma instrument and race/ethnicity, gender, age, education, sexual orientation, marital status, parenting status, religious affiliation, religiosity, political affiliation, financial status (poverty level, income), employment information (type of job, time working in abortion), location (living, recruitment), reproductive health factors, depressive symptomology, disclosure, situational factors, and attitudes.

Criterion validity

Criterion validity testing was reported in three articles. Pair-wise correlation was calculated for comparison of the CLASS [204] with a National Abortion Survey (AMIQ modified) [114]. Partial correlations using Spearman's rho determined the relationship

between the ILASs – German [188], subscales, and the adapted secrecy scale [343]. The SABAs – Ghana and Zambia [201] mean scale and subscale scores were compared with a single item on attitude towards abortion legality.

Instrument development

Qualitative methodology to generate relevant items was reported in 13 studies [97, 109, 189, 191, 192, 194, 198-204]. Use of people skilled in group moderation and interviews for qualitative data collection was reported in 14 studies [97, 114, 189-192, 194, 198-204]. Twelve studies reported cognitive interviews or pilot testing in a representative sample of the target population [97, 109, 114, 189, 191-193, 198-200, 203, 204]. The ILASs – Turkey study [193] did not complete cognitive interviews, however experts were asked about the expression and content appropriateness of the instrument and no negative feedback was received regarding the clarity of items from a pilot test of the translated instrument with women. The validation of the ILASs – U.S.A in Germany [188] did not include any qualitative components. They did not aim to develop an instrument measuring abortion stigma, rather they aimed to report instances or assess associations of abortion stigma.

APPENDIX 2. Supplementary texts for Chapter 3, *Measuring Abortion Stigma: adapting and developing four instruments for use in Australia and Aotearoa New Zealand.'*

Appendix 2.1. University of Sydney Human Research Ethics Committee approval letter

THE UNIVERSITY OF SYDNEY

Research Integrity & Ethics Administration
HUMAN RESEARCH ETHICS COMMITTEE

Friday, 2 October 2020

Dr Haryana Dhillon
Psychology; Faculty of Science
Email: haryana.dhillon@sydney.edu.au

Dear Haryana,

The University of Sydney Human Research Ethics Committee (HREC) has considered your application.

I am pleased to inform you that after consideration of your response, your project has been approved.

Details of the approval are as follows:

Project No.:	**2020/561**
Project Title:	**Australian Instrument Validation for measuring Abortion Stigma among people and organisations who access, provide, and advocate for abortions in Australia**
Authorised Personnel:	**Dhillon Haryana; Dar-Nimrod Ilan; Juraskova Ilona; Pinkus Rebecca; Ratcliffe Sarah;**
Approval Period:	**02 October 2020 to 02 October 2024**
First Annual Report Due:	**02 October 2021**

Documents Approved:

Date Uploaded	Version Number	Document Name
23/09/2020	Version 3	Appendix 2_Protocol V3_20200917
23/09/2020	Version 2	Appendix 4_..._PIS_Cogntive or Interview_20200917_clean
23/09/2020	Version 2	Appendix 8_..._Focus Group and Interviews Survey_20200917_
23/09/2020	Version 1	Appendix 15_APSS-R
23/09/2020	Version 1	Appendix 14_ILAS
23/09/2020	Version 2	Appendix 3_..._PIS_Focus group or Interview_20200917_clean
23/09/2020	Version 2	Appendix 5_..._PIS_Validation Survey_20200907_clean
23/09/2020	Version 2	Appendix 9_..._Cognitive Interviews Survey_20200917_annota
23/09/2020	Version 2	Appendix 10_..._Organisation Email_20200907_clean
23/09/2020	Version 2	Appendix 11_..._Organisation Email Reminder_20200907_clean
23/09/2020	Version 2	Appendix 13_..._Participant Email Correspondence_20200907_
09/07/2020	Version 1	Appendix 6: Focus Group Guide
09/07/2020	Version 1	Appendix 7: Cognitive Interview Guide
09/07/2020	Version 1	Appendix 12: Recruitment - Social Media

Condition/s of Approval

- Research must be conducted according to the approved proposal.
- An annual progress report must be submitted to the Ethics Office on or before the anniversary of approval and on completion of the project.
- You must report as soon as practicable anything that might warrant review of ethical approval of the project including:
  - Serious or unexpected adverse events (which should be reported within 72 hours).
  - Unforeseen events that might affect continued ethical acceptability of the project.

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CRICOS 00026A

- Any changes to the proposal must be approved prior to their implementation (except where an amendment is undertaken to eliminate *immediate* risk to participants).
- Personnel working on this project must be sufficiently qualified by education, training and experience for their role, or adequately supervised. Changes to personnel must be reported and approved.
- Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, as relevant to this project.
- Data and primary materials must be retained and stored in accordance with the relevant legislation and University guidelines.
- Ethics approval is dependent upon ongoing compliance of the research with the *National Statement on Ethical Conduct in Human Research*, the *Australian Code for the Responsible Conduct of Research*, applicable legal requirements, and with University policies, procedures and governance requirements.
- The Ethics Office may conduct audits on approved projects.
- The Chief Investigator has ultimate responsibility for the conduct of the research and is responsible for ensuring all others involved will conduct the research in accordance with the above.

This letter constitutes ethical approval only.

Please contact the Ethics Office should you require further information or clarification.

Sincerely

[redacted]

Associate Professor Helen Mitchell
Chair
Human Research Ethics Committee (HREC 1)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2018) and the NHMRC's Australian Code for the Responsible Conduct of Research (2018)

Appendix 2.2. *Outcome instrument for people who have had an abortion (ILAS – ANZ)*

The following survey is for people who have had an abortion in Australia or New Zealand. It aims to gather information about the stigmatising feelings and experiences around your abortion(s).

Right now, how much abortion stigma do you experience?

None at all	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

How long has it been since your abortion(s)?

- ☐ 0-3months
- ☐ 4-6months
- ☐ 7-12months
- ☐ 1-3years
- ☐ 3-10 years
- ☐ 10+years

My most recent experience of abortion stigma was …

- ☐ Days ago
- ☐ Weeks ago
- ☐ 1-6months ago
- ☐ 6-12months ago
- ☐ 1-2years ago
- ☐ 3years+ ago

The following statements are to clarify your experience of **abortion stigma**.
When answering, please think about your *most stigmatising* abortion experience and *tick all options* that apply to you and your experience.

At the time of my most stigmatising abortion experience…

… the legal status of abortion was___.

- ☐ Illegal.
- ☐ Legal pending approval from doctor/s.
- ☐ Legal without need for doctor's permission.
- ☐ Under reform.
- ☐ Other. Please specify.
- ☐ I don't know.

… there were safe access zones____.
(i.e., legislated areas not allowing interference with any person accessing of leaving place providing abortions)

- ☐ Yes.
- ☐ No.
- ☐ No, but law reform was in progress.
- ☐ I don't know.

…I had had a total of ____. *Including miscarriages, abortions, and births.*

- ☐ 1-2 known pregnancies.
- ☐ 3-5 known pregnancies.
- ☐ 6 or more known pregnancies.

My most stigmatising abortion was…

… provided by a____.

- ☐ Private/public health service.
- ☐ Pro-choice clinic (e.g., Family Planning; Marie Stopes).
- ☐ Healthcare institution with religious ethos.
- ☐ Telehealth service.
- ☐ GP service.
- ☐ Self-managed (i.e., accessed outside of healthcare services).

… ___km away.

- ☐ <10km
- ☐ 11-25km
- ☐ 26-50km
- ☐ 50-100km
- ☐ >101km

.. for a ___.

- ☐ Planned pregnancy.
- ☐ Unplanned pregnancy; consensual sex.
- ☐ Unplanned pregnancy; Non-consensual sex.
- ☐ Other.

… a ___.

- ☐ Medication abortion. (two-step medication)
- ☐ Surgical abortion. (procedure under anaesthetic)
- ☐ Tele-abortion. (medication abortion provided by phone)
- ☐ Other type of abortion. (e.g., self-managed)

… at ___.

- ☐ <9weeks pregnant.
- ☐ 9-15weeks pregnant.
- ☐ 15-20weeks pregnant.
- ☐ 20weeks+ pregnant.

… my ___.

- ☐ First abortion.
- ☐ Second abortion.
- ☐ Third abortion.
- ☐ Fourth or sequential abortion.

Worries about judgment:

The following statements are worries of some people who have had an abortion. Make the selection that best describes **what you worried about** around the time of your *most stigmatising* abortion experience.

Items	**Answer Options**			
	Not worried	A little worried	Quite worried	Extremely worried
1. Other people might find out about my abortion.	0	1	2	3
2. My abortion would hurt a relationship with a person I love.	0	1	2	3
3. I would disappoint someone I love.	0	1	2	3
4. I would be humiliated.	0	1	2	3
5. People would gossip about me.	0	1	2	3
6. I would be rejected by someone I love.	0	1	2	3
7. People would judge me negatively.	0	1	2	3
8. There would be protestors when accessing my abortion.	0	1	2	3
9. I would be denied an abortion.	0	1	2	3
10. I would have to explain my choice.	0	1	2	3
11. My health care provider would not support me.	0	1	2	3

Secrecy and Selective Disclosure:

The following statements are about **sharing information** about your abortion(s). Make the selection that best describes your *most stigmatising* experience.

Items	**Answer Options**

** Item is reverse-coded*	Never	Once	Sometimes	Often
12. I speak openly about my abortion.*	0	1	2	3
13. I keep my abortion a secret because I fear negative judgement.	0	1	2	3
14. I avoid telling people about my abortion.	0	1	2	3
15. I only share my abortion with people who I am confident will have a supportive response.	0	1	2	3
16. I share my real emotions about my abortion.*	0	1	2	3
17. I avoid sharing positive emotions about my abortion.	0	1	2	3
18. I feel safe to share positive feelings about my abortion.*	0	1	2	3

Isolation:

The following statements are about **connecting with people** about your most stigmatising abortion experience. Make the selection that best describes your *most stigmatising* experience.

Items ** Item is reverse-coded*	**Answer Options**			
	Never	Once	More than once	Many times
19. I have had a conversation about my abortion with someone I am close with.*	0	1	2	3
20. I was open about my feelings about my abortion with someone that I am close with.*	0	1	2	3
21. At the time of my abortion, I had support from someone that I am/was close to.*	0	1	2	3

Items ** Item is reverse-coded*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
22. I can talk to the people I am close to about my abortion.*	0	1	2	3	4
23. I can trust the people I am close to with information about my abortion.*	0	1	2	3	4
24. When I had my abortion, I felt supported by the people I was close to.*	0	1	2	3	4

Self-judgment:

The following questions are about **how you felt** around the time of your *most stigmatising abortion experience*. Please make the selection that best describes your feelings.

Items	**Answer Options**

** Item is reverse-coded*	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
25. I felt like a bad person.	0	1	2	3	4
26. I felt confident I had made the right decision.*	0	1	2	3	4
27. I felt ashamed about my abortion.	0	1	2	3	4
28. I felt selfish about my abortion.	0	1	2	3	4
29. I felt guilty about my abortion.	0	1	2	3	4
30. I felt sad about my abortion(s).	0	1	2	3	4
31. I felt I let my culture down.	0	1	2	3	4
32. I felt judged by people around me.	0	1	2	3	4
33. I felt pride in my abortion(s).*	0	1	2	3	4

Community condemnation:

The following questions are about **your community** at the time of your *most stigmatising abortion experience*. How many people in your community held the following beliefs?

Items ** Item is reverse-coded*	**Answer Options**				
	No one	A few people	About half the people	Many people	Most people
34. Abortion is always wrong.	0	1	2	3	4
35. Abortion is the same as murder.	0	1	2	3	4
36. Abortion should be avoided.	0	1	2	3	4
37. There is never a good reason for an abortion.	0	1	2	3	4
38. One abortion is understandable, but more than one is bad.	0	1	2	3	4
39. Abortion can be a good for people.*	0	1	2	3	4
40. Abortion is the easy way out of an unplanned pregnancy.	0	1	2	3	4
41. Abortion should be legal and available.*	0	1	2	3	4
42. Abortion access is a right.*	0	1	2	3	4
43. Abortion access should not be restricted by a person's age.*	0	1	2	3	4
44. It is okay to have positive feelings about abortion.*	0	1	2	3	4
45. Abortion is regrettable.	0	1	2	3	4

Enacted stigma:

The following questions are about **your experience** around the time of your *most stigmatising abortion experience*. Please make the selection that best describes your experience.

Items		Answer Options				
		Not at all	A bit	To some extent	Quite a bit	Extensively
46.	I felt safe accessing my abortion(s).*	0	1	2	3	4
47.	Messages in the media made me feel bad about my abortion(s).	0	1	2	3	4
48.	I have been harassed online because of my abortion(s).	0	1	2	3	4
49.	I have been verbally harassed because of my abortion(s).	0	1	2	3	4
50.	I have been physically harassed because of my abortion(s).	0	1	2	3	4
51.	I have been denied opportunities because of my abortion(s).	0	1	2	3	4
52.	I have lost relationships because of my abortion(s)	0	1	2	3	4

Stigma question:

Right now, how much abortion stigma do you feel?

None at all	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

End of survey information

The above questions have been asked to document how common and severe abortion stigma is in Australia and New Zealand (ANZ). This information will help address abortion stigma and support people who seek and/or have had abortions.

Among the Australian and New Zealand community, the majority of people (87-89.3%) believe abortion should be legal (1, 2). In New Zealand, more than two thirds of people (65.6%) believe in a person's right to choose if and when pregnant (2). In Australia, more than half of people (53.6%) believe abortion should be allowed for any reason in the first 3 months (3). Despite support for legal abortion and choice, some people who have had an abortion/s experience stigma. This is what is known about abortion in Australia and New Zealand:

- Abortion is decriminalised across all Australian states and territories and New Zealand. Each jurisdiction has different rules as to when an abortion is available "on request" and when doctors permission is needed.
- In all jurisdictions in Australia, safe access zones are legislated. In New Zealand, legislation for safe areas around abortion facilities is undergoing government review.
- When legal, abortion is a medically safe procedure with lower risk than birth.

- Abortion is common when a pregnancy is unintended. One-third of unintended pregnancies in Australia between 2008 and 2018 ended in induced abortion (4).
- During 2017-18 it is estimated there were 88,287 induced abortions in Australia (5). This is estimated to be one abortion per every three to four known pregnancies, or 25-33% of known pregnancies.
- During 2019, there were 12,857 induced abortions in New Zealand. This is estimated to be 18% of known pregnancies, or one abortion for every five to six known pregnancies. (Stats NZ)

Note regarding Australian statistics: Collection of abortion related information is not standardised across Australia, with states and territories reporting abortion differently, no routine abortion data collection, and no national data published. The above statistics are the best available and may underrepresent the true number of induced abortions.

If you wish to talk about your abortion(s) experience further from a pro-choice perspective, these services are available:

- 1800 MyOptions (VIC), 1800696784
- Children by Choice (QLD), 1800177725
- NSW Pregnancy Choices Helpline, 1800 008 463
- Marie Stopes Australia, 1300863546
- Family Planning Talkline, 1300658886
- 1800RESPECT (Australia)
- NZ Ministry of Health's Abortion Line, 0800 499 500
- NZ Healthline, 0800 611 116
- NZ Pregnancy Counselling Services, 0800773462

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Appendix 2.3. Outcome instrument for people who provide abortion care (APSS-R – ANZ)

The following questions are for health care professional providing abortion care. They will provide insight into the frequency and severity of abortion stigma you may experience.

Please apply the phrase ‘health care professional providing abortion care’ to yourself. Please apply the term ‘abortion care’ to your role(s) in abortion care provision.

First, right now, how much stigma do you feel because you provide abortion care?

None at all	Some	A moderate amount	A lot	An extreme amount
1	2	3	4	5

*Please circle the response that best reflects your experience of the frequency and importance of the below scenarios. First indicate **how frequently you have experienced each scenario**. If you have never experienced a particular situation, select “0” (never) for frequency. Second, please rank **how important these situations are for you**. Even if you have not experienced a situation, please indicate how severe it would be if it occurred.*

Disclosure Management:
The following statements are about **sharing information** that you provide abortion related care. Please make the selection that best describes your experience.

		Frequency of scenario					Importance of scenario.				
	Item ** Reverse coded*	Never	Rarely	Sometime	Often	Always	None	Minor	Some	Moderate	Major
1.	I keep my provision of abortion care to myself for fear of people’s reactions.	0	1	2	3	4	0	1	2	3	4
2.	I feel like, if I tell friends and family I provide abortion care they will ONLY see me as an abortion provider.	0	1	2	3	4	0	1	2	3	4
3.	I feel like, if I tell colleagues I provide abortion care they will ONLY see me as an abortion provider.	0	1	2	3	4	0	1	2	3	4
4.	I worry about telling family I provide abortion care.	0	1	2	3	4	0	1	2	3	4
5.	I worry about telling the public I provide abortion care.	0	1	2	3	4	0	1	2	3	4
6.	I worry about telling colleagues I provide abortion care.	0	1	2	3	4	0	1	2	3	4
7.	It bothers me if people in my community know that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
8.	I avoid sharing that I provide abortion care with some people.	0	1	2	3	4	0	1	2	3	4
9.	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk for violence.	0	1	2	3	4	0	1	2	3	4

10.	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
11.	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
12.	I am afraid of how people will react if they find out about my work providing abortion care.	0	1	2	3	4	0	1	2	3	4
13.	I feel the need to hide my abortion related work from my friends.	0	1	2	3	4	0	1	2	3	4
14.	I feel the need to hide my abortion related work from my family.	0	1	2	3	4	0	1	2	3	4
15.	I feel the need to hide my abortion related work from colleagues.	0	1	2	3	4	0	1	2	3	4
16.	I find it hard to tell people I provide abortion care.	0	1	2	3	4	0	1	2	3	4
17.	I am selective to whom I tell that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
18.	I speak without hesitancy about the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4
19.	I have concerns about my provision of abortion care being disclosed outside my control.	0	1	2	3	4	0	1	2	3	4
20.	I try to keep that I provide abortion care to myself.	0	1	2	3	4	0	1	2	3	4

Internalised States:

The following statements are about **how you feel** about providing abortion care. Please make the selection that *best describes your experience*.

		Frequency of scenario.					Importance of scenario.				
	Item * *Reverse coded*	Never	Rarely	Sometime	Often	Always	None	Minor	Some	Moderate	Major
21.	I am proud that I provide abortion care.*	0	1	2	3	4	0	1	2	3	4
22.	I feel connected to others who provide abortion care.*	0	1	2	3	4	0	1	2	3	4
23.	I feel ashamed of the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
24.	By providing abortion care, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
25.	I question whether or not providing abortion care is a good thing to do.	0	1	2	3	4	0	1	2	3	4
26.	I find it important to share with people that I work in abortion care.*	0	1	2	3	4	0	1	2	3	4
27.	I feel guilty about the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
28.	I feel that my abortion care work is restricted more than other types of health care work.	0	1	2	3	4	0	1	2	3	4
29.	I feel that when I disclose providing abortion care to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
30.	I feel that when I disclose my abortion related work to family they are supportive of me.*	0	1	2	3	4	0	1	2	3	4

31.	I feel that when I disclose my abortion related work to friends they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
32.	I feel good about providing abortion care.*	0	1	2	3	4	0	1	2	3	4

Judgement:

The following statements are about **other's perceptions** of you providing abortion care. Please make the selection that *best describes your experience*.

		Frequency of scenario.					Importance of scenario.				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	None	Minor	Some	Moderate	Major
33.	I feel that other health care providers look down on me because of my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
34.	I feel that society (the general public) does not value me providing abortion care.	0	1	2	3	4	0	1	2	3	4
35.	When I see or read something about abortion in the media, it makes me feel bad about myself.	0	1	2	3	4	0	1	2	3	4
36.	I feel other health care providers question my professional skills when they learn that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
37.	I feel other health care providers question my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
38.	I feel that people question my morals when they learn I provide abortion related care.	0	1	2	3	4	0	1	2	3	4
39.	I feel other professionals providing abortion care, judge the limits or extent of abortion care I provide.	0	1	2	3	4	0	1	2	3	4
40.	I feel that people who do not provide abortion care don't understand my work.	0	1	2	3	4	0	1	2	3	4
41.	I worry that my family will think less of me if I talk about the upsetting or difficult parts of providing abortion care.	0	1	2	3	4	0	1	2	3	4
42.	I worry that my friends will think less of me if I talk about the upsetting or difficult parts of providing abortion care.	0	1	2	3	4	0	1	2	3	4
43.	I fear my community with see me as less if they know I provide abortion care.	0	1	2	3	4	0	1	2	3	4

Sharing and not:

The following statements are about your experience **sharing** your provision of abortion related care with others. All statements assume sharing is within scope of confidentiality. Please make the selection that *best describes your experience*.

	Frequency of scenario.					Importance of scenario.				
Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	None	Minor	Some	Moderate	Major

44.	I talk openly, within confines of confidentiality, with my family about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
45.	I talk openly, within confines of confidentiality, with my friends about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
46.	I can talk broadly about a hard day providing abortion care to someone close to me.*	0	1	2	3	4	0	1	2	3	4
47.	I talk openly with people with different political views to myself about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
48.	I can not freely celebrate milestones in abortion care provision.	0	1	2	3	4	0	1	2	3	4

Discrimination:

The following statements are about **degrading actions** you may have experienced because of your provision of abortion care. Please make the selection that *best describes your experience*.

		Frequency of scenario.					Importance of scenario.				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	None	Minor	Some	Moderate	Major
49.	I fear my career may be endangered because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
50.	I have lost employment opportunities because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
51.	I have experienced online hate because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
52.	I fear online retaliation because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
53.	I have received messages of support for the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4
54.	People I've provided abortion care to have passed negative judgment on me.	0	1	2	3	4	0	1	2	3	4
55.	I have been verbally threatened or attacked because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
56.	I have been physically threatened or attacked a because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
57.	My family has been harassed or discriminated against by others who find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
58.	People treat my family members differently if they know about me providing abortion care.	0	1	2	3	4	0	1	2	3	4
59.	People show support and care to my family and/or friends if they know I provided abortion care.*	0	1	2	3	4	0	1	2	3	4

Finally, right now, how much stigma do you feel because you provide abortion care?

None at all	Some	A moderate amount	A lot	An extreme amount
1	2	3	4	5

<u>End of questions information.</u>

These questions are asked to help inform how common and severe abortion stigma is among people who provide abortion related care in Australia and New Zealand. This information will help inform efforts to address abortion stigma and support people who provide abortion care and people who seek abortions.

If you wish to talk about your experience providing abortion care, the following services are available:

- Employee Assistance Program
- 1800RESPECT (Australia)

Appendix 2.4. Outcome instrument for people who publicly support abortion

(APSS-R – advocates ANZ)

The following questions are for people who publicly support choice and abortion access. This could include openly engaging in conversations and/or actions which are pro-choice, advocate for improved abortion access, or support abortion. The questions provide insight into the frequency and importance of abortion stigmatisation of public supporters and advocates of abortion and abortion access may experience.

Please apply the phrase 'abortion advocate to yourself and the roles you take in publicly supporting choice, improved access, and/or abortion.

Please circle the response that best reflects your experience of the *frequency* and *importance* of the below scenarios. First, indicate **how frequently** you have experienced each item. If you have never experienced a particular situation, select "0" (never) for frequency. Second, rank **how important** these situations are for you. If you have not experienced a situation, please indicate how important it would be if it occurred.

Disclosure Management:

The following questions are about **sharing** that you are an *abortion advocate*. Please make the selection that *best describes your experience*.

		Frequency of stigma.					Importance of stigma.				
	Item ** Reverse coded*	Never	Rarely	Sometime	Often	Always	None	Minor	Some	Moderate	Major
60.	I keep my abortion advocacy to myself for fear of people's reactions.	0	1	2	3	4	0	1	2	3	4
61.	I feel like, if I tell family I advocate for abortion access, they will ONLY see me as an abortion advocate.	0	1	2	3	4	0	1	2	3	4
62.	I worry about telling family I advocate for abortion access.	0	1	2	3	4	0	1	2	3	4
63.	I avoid telling people that I support abortion access.	0	1	2	3	4	0	1	2	3	4
64.	I avoid telling people I work with about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4

65.	I am afraid that if I tell people I advocate for abortion I could put myself, or my loved ones, at risk for violence.	0	1	2	3	4	0	1	2	3	4
66.	I am afraid I will lose or harm relationships with people I care about if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
67.	I am afraid my employment will suffer if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
68.	I feel that disclosing I am pro-choice is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
69.	I am afraid of how people will react if they find out about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
70.	I feel the need to hide my abortion advocacy work from my family.	0	1	2	3	4	0	1	2	3	4
71.	I feel the need to hide my abortion advocacy work from my colleagues.	0	1	2	3	4	0	1	2	3	4
72.	I find it hard to tell people I advocate for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
73.	I am selective of whom I tell that I advocate for abortion access.	0	1	2	3	4	0	1	2	3	4
74.	I am selective of when and where I advocate for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
75.	I speak without hesitancy about my work advocating for choice and abortion access.*	0	1	2	3	4	0	1	2	3	4
76.	I have taken extra precautions to control who knows that I advocate for abortion access.	0	1	2	3	4	0	1	2	3	4

Internalised States:

The following statements are about **how you feel** about advocating for choice and abortion access. Please make the selection that *best describes your experience.*

		Frequency of stigma					Importance of stigma				
	Item * *Reverse coded*	Never	Rarely	Sometime	Often	Always	None	Minor	Some	Moderate	Major
77.	I am proud that I advocate for abortion.*	0	1	2	3	4	0	1	2	3	4
78.	I feel connected to others who advocate for abortion.*	0	1	2	3	4	0	1	2	3	4
79.	I feel ashamed of the abortion advocacy work I do.	0	1	2	3	4	0	1	2	3	4
80.	By advocating for abortion access, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
81.	I question whether or not advocating for abortion access is the right thing to do.	0	1	2	3	4	0	1	2	3	4
82.	I feel guilty about advocating for abortion access.	0	1	2	3	4	0	1	2	3	4
83.	I feel good about my pro-choice advocacy work.*	0	1	2	3	4	0	1	2	3	4

Judgement:

The following questions are about **other's perceptions** of you advocating for choice and abortion access. Please make the selection that *best describes your experience*.

	Item * *Reverse coded*	Frequency of stigma. Never	Rarely	Sometimes	Often	Always	Importance of stigma. None	Minor	Some	Moderate	Major
84.	I feel that my abortion advocacy work is looked down upon more than other advocacy work.	0	1	2	3	4	0	1	2	3	4
85.	I feel that when I disclose my pro-choice advocacy work to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
86.	I feel that when I disclose my pro-choice advocacy work to family, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
87.	I feel that when I disclose my pro-choice advocacy work to colleagues, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
88.	I feel that when my community learns of my abortion advocacy work, they see me as less.	0	1	2	3	4	0	1	2	3	4
89.	I feel that colleagues or employers look down on me because I advocate for abortion access.	0	1	2	3	4	0	1	2	3	4
90.	I feel that society (the general public) does not value my pro-choice position.	0	1	2	3	4	0	1	2	3	4
91.	When I see or read something about abortion in the media, it makes me feel negative.	0	1	2	3	4	0	1	2	3	4
92.	I feel colleagues question my professionalism when they learn that I advocate for abortion access.	0	1	2	3	4	0	1	2	3	4
93.	I feel that people question my morals when they learn I advocate for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
94.	I feel others who are pro-choice, judge the extent to which I support abortion.	0	1	2	3	4	0	1	2	3	4
95.	I worry that others will think less of me if I talk about the upsetting or difficult parts of advocating for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
96.	I fear my community will think less of me if they see my advocating for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
97.	People close to me have expressed concerns for my safety because of my work advocating for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
98.	My employer has expressed concerns about my work advocating for choice and abortion access.	0	1	2	3	4	0	1	2	3	4

Isolation:

The following questions are about your **social connection** in choice and abortion access advocacy. Please make the selection that *best describes your experience*.

Item	Frequency of stigma.	Importance of stigma.

** Reverse coded*		Never	Rarely	Sometimes	Often	Always	None	Minor	Some	Moderate	Major
99.	When I disclose that I advocate for choice and abortion access, I feel those close to me are supportive.*	0	1	2	3	4	0	1	2	3	4
100	I talk openly with my family about being pro-choice and my work advocating for abortion access.*	0	1	2	3	4	0	1	2	3	4
101	I can talk to family about a hard day advocating for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
102	I talk openly with people with different political views to myself about my work advocating for choice and abortion access.*	0	1	2	3	4	0	1	2	3	4
103	I cannot freely celebrate milestones from my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4

Discrimination:

The following questions are about **degrading actions** you may have experienced because of your abortion advocacy. Please make the selection that *best describes your experienc*e.

		Frequency of stigma.					Importance of stigma.				
		Never	Rarely	Sometimes	Often	Always	None	Minor	Some	Moderate	Major
104	I fear my career may be jeopardised because I publicly advocate for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
105	I have lost career opportunities because I advocate for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
106	I have experienced online harassment because of my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
107	I fear online retaliation to my advocacy work for choice and abortion access.	0	1	2	3	4	0	1	2	3	4
108	When advocating for abortion, I scan the environment for risks of harassment.	0	1	2	3	4	0	1	2	3	4
109	I actively take actions to reduce risk of discrimination from advocating for abortion.	0	1	2	3	4	0	1	2	3	4
110	I fear harassment because I am publicly pro-choice and support abortion access.	0	1	2	3	4	0	1	2	3	4
111	I have been verbally threatened or attacked for publicly expressing pro-choice views.	0	1	2	3	4	0	1	2	3	4
112	I have been physically threatened or attacked for advocating for choice or abortion access.	0	1	2	3	4	0	1	2	3	4
113	My family has been harassed or discriminated against because I am publicly prochoice	0	1	2	3	4	0	1	2	3	4
114	People treat my family members differently if they know I advocate for choice or abortion access.	0	1	2	3	4	0	1	2	3	4

End of questions information.

These questions are asked to help us understand how common and important abortion stigma is in Australia and New Zealand among people who advocate for choice and abortion access. This information will help inform efforts to address abortion stigma and support people who advocate for abortion, provide abortion care, and people who seek abortions.

If you wish to talk about your experience advocating for abortion, we recommend the following services:

- 1800RESPECT (Australia)
- Children by Choice (Australia)
- ALRANZ (New Zealand)

Appendix 2.5. Outcome instrument for groups and organisations that support abortion (SAGO-ANZ)

The following questions are for groups and organisations providing abortion care access and/or supporting access to abortion. They provide insight into the frequency and severity of stigmatisation of these groups and organisations resulting from their involvement in abortion care/advocacy.

This instrument can be completed by a person who represents a group or organisation which provides abortion care and/or supports abortion access. If you represent more than one group or organisation, please choose one and answer with that group or organisation in mind. You may complete the instrument multiple times with another group or organisation in mind.

Please indicate all roles which best apply to your position within the group or organisation you are representing.

- ☐ Senior management, executive, and operations
- ☐ Program and Project Director, Manager, and Coordinator
- ☐ Administration
- ☐ Human resources
- ☐ Finance
- ☐ Development, Advancement, and Fundraising
- ☐ Advocacy, Campaign, and Legal
- ☐ Communications, Marketing, and Public Relations
- ☐ Service Delivery
- ☐ Research
- ☐ Other, please specify

*Please answer the questions below from the position of the group or organisation you are representing. First indicate **how frequently the event below has occurred**. If the situation has never occurred, select "0" (never) for frequency.*

*Second, **rank how severe these situations are/were** for the group or organisation. Even if the situation has not occurred, please indicate how severe it would be if it occurred. If you are not in a position to answer a question, please select "Not relevant".*

Items		Answer Options										
		Frequency					Severity					
The group or organisation has …		*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	*None*	*Minor*	*Some*	*Moderate*	*Major*	*Not relevant*
1.	… had property vandalised and/or assets stolen.	0	1	2	3	4	0	1	2	3	4	n/a
2.	… had its online domain restricted, hacked, and/or stolen.	0	1	2	3	4	0	1	2	3	4	n/a
3.	… been subjected to verbal harassment or threats.	0	1	2	3	4	0	1	2	3	4	n/a
4.	… been subjected to written harassment or threats.	0	1	2	3	4	0	1	2	3	4	n/a
5.	… been the subject of degrading online commentary.	0	1	2	3	4	0	1	2	3	4	n/a
6.	… been subjected to online trolling or threats.	0	1	2	3	4	0	1	2	3	4	n/a
7.	… been purposively misrepresented and devalued in the media.	0	1	2	3	4	0	1	2	3	4	n/a
8.	… had difficulty acquiring media representation.	0	1	2	3	4	0	1	2	3	4	n/a
9.	… been portrayed inaccurately in/by the media.	0	1	2	3	4	0	1	2	3	4	n/a
10.	… been portrayed positively in/by the media.*	0	1	2	3	4	0	1	2	3	4	n/a
11.	… been labelled as terrible, immoral, and/or unacceptable.	0	1	2	3	4	0	1	2	3	4	n/a
12.	… had funding restricted due to its support of abortion access.	0	1	2	3	4	0	1	2	3	4	n/a
13.	… been raided due to its support of abortion access.	0	1	2	3	4	0	1	2	3	4	n/a
14.	… struggled to secure financial support.	0	1	2	3	4	0	1	2	3	4	n/a
15.	… had difficulty finding a suitable work place.	0	1	2	3	4	0	1	2	3	4	n/a
16.	… been denied service(s) (e.g. cleaning, catering).	0	1	2	3	4	0	1	2	3	4	n/a
17.	… had difficulty securing contractors for services.	0	1	2	3	4	0	1	2	3	4	n/a
18.	… had difficulty securing medical supplies.	0	1	2	3	4	0	1	2	3	4	n/a
19.	… had other organisations, companies, or groups avoid association with.	0	1	2	3	4	0	1	2	3	4	n/a

20.	… had difficulty working within legislation.	0	1	2	3	4	0	1	2	3	4	n/a
21.	… been scrutinised more than other health care service providers.	0	1	2	3	4	0	1	2	3	4	n/a
22.	… been scrutinised more than other groups advocating for health care change.	0	1	2	3	4	0	1	2	3	4	n/a
23.	… had pressure for 'no room for error' in service provision.	0	1	2	3	4	0	1	2	3	4	n/a

Items		**Answer Options**										
		Frequency					Severity					
The group or organisation…		*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	*None*	*Minor*	*Some*	*Moderate*	*Major*	*Not relevant*
24.	… worries about its reputation.	0	1	2	3	4	0	1	2	3	4	n/a
25.	… worries about its public image.	0	1	2	3	4	0	1	2	3	4	n/a
26.	… is concerned members or employees will leave due to the group or organisation's negative image.	0	1	2	3	4	0	1	2	3	4	n/a
27.	… worries people seeking abortions will be stigmatised when interacting with group or organisation.	0	1	2	3	4	0	1	2	3	4	n/a
28.	… is concerned any stigmatisation it faces is applied to people who seek an abortion.	0	1	2	3	4	0	1	2	3	4	n/a
29.	… fears incorrect, harmful assumptions are made of people connected to it.	0	1	2	3	4	0	1	2	3	4	n/a
30.	… is concerned that members or employees will be stigmatised.	0	1	2	3	4	0	1	2	3	4	n/a
31.	… perceives a need to hide its abortion related work when interacting with external operating services.	0	1	2	3	4	0	1	2	3	4	n/a
32.	… is conscious of signage.	0	1	2	3	4	0	1	2	3	4	n/a
33.	…is conscious of online image.	0	1	2	3	4	0	1	2	3	4	n/a
34.	… has a stigma safety plan for individuals linked with it.	0	1	2	3	4	0	1	2	3	4	n/a
35.	… is extra cautious of its practice.	0	1	2	3	4	0	1	2	3	4	n/a
36.	… fears prosecution.	0	1	2	3	4	0	1	2	3	4	n/a
37.	… is constantly in a tenuous position.	0	1	2	3	4	0	1	2	3	4	n/a
38.	… is constantly concerned about being shut down.	0	1	2	3	4	0	1	2	3	4	n/a
39.	… fears negative perceptions will reduce capacity to provide and/or support services.	0	1	2	3	4	0	1	2	3	4	n/a
40.	…avoids advertising the provision of abortion care.	0	1	2	3	4	0	1	2	3	4	n/a
41.	… doesn't want the 'wrong people' to know it supports abortion access.	0	1	2	3	4	0	1	2	3	4	n/a

42.	…has taken substantial risks to ensure working towards improved abortion access.	0	1	2	3	4	0	1	2	3	4	n/a
43.	…approaches conversations with caution and delicacy.	0	1	2	3	4	0	1	2	3	4	n/a

Items		**Answer Options**										
Those linked with the group or organisation …		Frequency					Severity					
		Never	*Rarely*	*Sometimes*	*Often*	*Always*	*None*	*Minor*	*Some*	*Moderate*	*Major*	*Not relevant*
44.	… have been shamed, hated on, and/or cast out.	0	1	2	3	4	0	1	2	3	4	n/a
45.	… have been encouraged, supported, and/or included.*	0	1	2	3	4	0	1	2	3	4	n/a
46.	… have been subjected to online trolling.	0	1	2	3	4	0	1	2	3	4	n/a
47.	… have been harassed, followed, and/or threatened.	0	1	2	3	4	0	1	2	3	4	n/a
48.	… have been encouraged to stay quiet.	0	1	2	3	4	0	1	2	3	4	n/a
49.	… have been encouraged to speak out.*	0	1	2	3	4	0	1	2	3	4	n/a
50.	… have missed out on financial opportunities.	0	1	2	3	4	0	1	2	3	4	n/a
51.	… have missed social opportunities.	0	1	2	3	4	0	1	2	3	4	n/a

The following questions are about the community in which the group or organisation operates.

*First indicate **how common** the following statements are in the community. Second, **rank how severe these beliefs are/were** for the group or organisation. Even if the statement is not held by the community, please indicate how severe it would be if it was. If you are not in a position to answer a question, please select "n/a".*

Items		**Answer Options**										
The community holds…		Frequency					Severity					
		Never	*Rarely*	*Sometimes*	*Often*	*Always*	*None*	*Minor*	*Some*	*Moderate*	*Major*	*Not relevant*
52.	… misconceptions about the group or organisation.	0	1	2	3	4	0	1	2	3	4	n/a
53.	… the expectation the facilities are cold, impersonal, and/or hostile.	0	1	2	3	4	0	1	2	3	4	n/a
54.	… the belief that members or employees are immoral.	0	1	2	3	4	0	1	2	3	4	n/a
55.	… the belief that members or employees are quarrelsome.	0	1	2	3	4	0	1	2	3	4	n/a
56.	… the power to disrupt the group or organisation's work.	0	1	2	3	4	0	1	2	3	4	n/a
57.	… the power to prevent or end the group or organisation's work.	0	1	2	3	4	0	1	2	3	4	n/a

APPENDIX 3. Supplementary texts for Chapter 4, *The relevance, comprehensiveness, and comprehensibility of four instruments to measure individual-level abortion stigma in Australia and Aotearoa New Zealand: A qualitative inquiry*

Appendix 3.1. The University of Sydney Human Research Ethics Committee approval for cognitive interviews

THE UNIVERSITY OF SYDNEY

Research Integrity & Ethics Administration
HUMAN RESEARCH ETHICS COMMITTEE

Thursday, 11 November 2021

Assoc Prof Haryana Dhillon
Psychology; Faculty of Science
Email: haryana.dhillon@sydney.edu.au

Dear Haryana,

Your request to modify this project, which was submitted on 18 October 2021, has been considered.

This project has been approved to proceed with the proposed amendments.

Protocol Number: 2020/561

Protocol Title: Australian Instrument Validation for measuring Abortion Stigma among people and organisations who access, provide, and advocate for abortions in Australia

Annual Report Due: 2 October 2022

Documents Approved:

Date Uploaded	Version Number	Document Name
18/10/2021	Version 1	A Stigmatisation of abortion seekers_results outline
18/10/2021	Version 1	A Stigmatisation of Abortion Seekers scale ANZ_participants
18/10/2021	Version 1	B Providing Abortion Care Stigma scale ANZ_results outline
18/10/2021	Version 1	B Providing Abortion Care Stigma scale ANZ_participants
18/10/2021	Version 1	[D] Groups and orgnisations_results outline
18/10/2021	Version 1	[D] Abortion stigmatisation of groups and organisations_ppt
18/10/2021	Version 1	[C] Abortion advocates stigmatisation_results outline
18/10/2021	Version 1	[C] Abortion Advocate Stigma Scale - ANZ_participants

Please contact the ethics office should you require further information.

Sincerely,

[redacted]

Dr Kathryn Bartimote-Aufflick
Chair
Modification Review Committee (MRC 2)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2018) and the NHMRC's Australian Code for the Responsible Conduct of Research (2018)

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Appendix 3.2. Individual Level Abortion Stigma scale – Australia (ILAS-Aus)

The following survey is for people who have had an abortion in Australia. It aims to gather information about the stigmatising feelings and experiences around your abortion(s).

<u>Right now</u>, how much abortion stigma do you experience?
Abortion stigma involves negative judgement because you have had an abortion. This can occur from others, systems, and yourself. It includes worries about negative judgement.

None to a little amount	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

How long has it been since your abortion(s)? *select all that apply*

- ☐ 0-3months
- ☐ 4-6months
- ☐ 7-12months
- ☐ 1-3years
- ☐ 3-10years
- ☐ 10+years

Have you had one or more abortions?

☐ I have had one abortion. ☐ I have had more than one abortion.

Where did you access your abortion(s)? *select all that apply*

☐ Outside Australia

State or Territory in Australia

☐ ACT ☐ SA
☐ NSW ☐ TAS
☐ NT ☐ VIC
☐ QLD ☐ WA

Area

☐ Metropolitan
☐ Regional
☐ Rural
☐ Remote
☐ Cannot say

My most recent experience of abortion stigma was …

- ☐ Days ago
- ☐ Weeks ago
- ☐ 1-6months ago
- ☐ 6-12months ago
- ☐ 1-2years ago
- ☐ 2-5years ago
- ☐ 5+years ago
- ☐ I have not experienced abortion stigma.

The following statements are to clarify your experience of abortion stigma.

If you have had more than one abortion, please think about your *most stigmatising, or worst,* abortion experience.

Please *tick all options* that apply to you and your experience.

My (worst) abortion experience …

… was provided by a____.

- ☐ Private/public health service.
- ☐ Pro-choice clinic (e.g., Family Planning; Marie Stopes).
- ☐ Healthcare institution with religious ethos.
- ☐ Telehealth service.
- ☐ GP service.
- ☐ Self-managed (i.e., accessed outside of healthcare services).
- ☐ I don't know.

… involved ___km of travel.

- ☐ <10km
- ☐ 11-25km
- ☐ 26-50km
- ☐ 50-100km
- ☐ >101km
- ☐ Not applicable; telehealth

... was for a ___.

- ☐ Planned pregnancy.
- ☐ Unplanned pregnancy; consensual sex.
- ☐ Unplanned pregnancy; Non-consensual sex.
- ☐ Other.

… was a ___.

- ☐ Medication abortion. (two-step medication)
- ☐ Surgical abortion. (procedure under anaesthetic/sedation)
- ☐ Tele-abortion. (medication abortion managed by phone)
- ☐ Other type of abortion. (e.g., self-managed)

… was at ___.

- ☐ <9weeks pregnant.
- ☐ 9-15weeks pregnant.
- ☐ 15-20weeks pregnant.
- ☐ 20weeks+ pregnant.

… was my ___.

- ☐ Only/first abortion.
- ☐ Second abortion.
- ☐ Third abortion.
- ☐ Fourth or sequential abortion.

At the time of my (worst) abortion experience…

…I had had a total of ____. *Including miscarriages, abortions, and births.*

- ☐ 1-2 known pregnancies.
- ☐ 3-5 known pregnancies.
- ☐ 6 or more known pregnancies.

The following statements are worries some people have about their abortion(s).

Make the selection that best describes **what you worried about** recently. Please answer in reference to your *worst experience*.

Items	Answer Options			
	Not worried	A little worried	Quite worried	Extremely worried
53. Other people might find out about my abortion.	0	1	2	3
54. My abortion would hurt a relationship with a person I care deeply about.	0	1	2	3
55. I would disappoint someone I love.	0	1	2	3
56. I would be humiliated.	0	1	2	3
57. People would gossip about me.	0	1	2	3
58. I would be rejected by someone I love.	0	1	2	3
59. People would judge me negatively.	0	1	2	3

Make the selection that best describes **what you worried about** around the time of your abortion(s). Please answer in reference to your *worst experience*.

Items	Answer Options			
	Not worried	A little worried	Quite worried	Extremely worried
60. There would be protestors when accessing my abortion.	0	1	2	3
61. I would be denied an abortion.	0	1	2	3
62. I would have to explain my choice.	0	1	2	3
63. My health care provider would not support me.	0	1	2	3

The following statements are about **sharing information** about your abortion(s).

Make the selection that best describes how you talked about your abortion(s) recently. Please answer in reference to your *worst experience*.

Items ** Item is reverse-coded*	Answer Options				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
64. I speak openly about my abortion when relevant.*	0	1	2	3	4
65. I keep my abortion a secret because I fear negative judgement.	0	1	2	3	4
66. I avoid telling people about my abortion.	0	1	2	3	4
67. I only share my abortion with people who I am confident will have a supportive response.	0	1	2	3	4
68. I share my real emotions about my abortion.*	0	1	2	3	4

69. I avoid sharing positive emotions about my abortion.	0	1	2	3	4
70. I feel safe to share positive aspects about my abortion.*	0	1	2	3	4

The following statements are about **connecting with people** about your abortion experience.

Make the selection that best describes connecting about your abortion with other people recently. Please answer in reference to your *worst experience*.

Items ** Item is reverse-coded*	**Answer Options**			
	Never	Once	A few times	Many times
71. I have had a conversation about my abortion with someone I am close with.*	0	1	2	3
72. I was open about my feelings about my abortion with someone that I am close with.*	0	1	2	3

Items ** Item is reverse-coded*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
73. At the time of my abortion, I had support from someone that I am/was close to.*	0	1	2	3	4
74. I can talk to the people I am close to about my abortion.*	0	1	2	3	4
75. I can trust the people I am close to with information about my abortion.*	0	1	2	3	4
76. When I had my abortion, I felt supported by the people I was close to.*	0	1	2	3	4
77. I felt safe to ask for support about my abortion.*	0	1	2	3	4

The following statements are about **how you have *recently* felt** about your abortion. Make the selection that best describes your *worst experience*.

Items ** Item is reverse-coded*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
78. I felt like a bad person.	0	1	2	3	4
79. I felt good about my decision(s).*	0	1	2	3	4
80. I felt ashamed about my abortion(s).	0	1	2	3	4
81. I felt selfish about my abortion(s).	0	1	2	3	4
82. I felt guilty about my abortion(s).	0	1	2	3	4

83. I felt sad about my abortion(s).	0	1	2	3	4
84. I felt I let my culture down.	0	1	2	3	4
85. I felt judged by people around me.	0	1	2	3	4
86. I felt judgement from myself.	0	1	2	3	4
87. I felt I let myself down.	0	1	2	3	4
88. I felt empowered by my abortion(s).*	0	1	2	3	4
89. I felt that I had done a bad thing.	0	1	2	3	4

The following questions are about **your community** and how <u>you think</u> **the people around you** view abortion. Consider the people a few degrees away from your close relationships.

Make the selection that best describes <u>your perceptions</u> of **how many people** in your <u>current</u> community hold the following opinions about abortion.

Items ** Item is reverse-coded*	**Answer Options**				
	No one	A few people	About half the people	Many people	Most people
90. Abortion is always wrong.	0	1	2	3	4
91. Abortion is the same as murder.	0	1	2	3	4
92. Abortion should be avoided.	0	1	2	3	4
93. There is never a good reason for an abortion.	0	1	2	3	4
94. One abortion is understandable, but more than one is bad.	0	1	2	3	4
95. Abortion can be good for people.*	0	1	2	3	4
96. Abortion is the lazy way out of an unplanned pregnancy.	0	1	2	3	4
97. Abortion should be legal and available.*	0	1	2	3	4
98. Abortion access is a right.*	0	1	2	3	4
99. Abortion access should be restricted by a pregnant person's age.	0	1	2	3	4
100 It is okay to have positive feelings about abortion.*	0	1	2	3	4
101 Abortion is regrettable.	0	1	2	3	4
102 Abortion should be punishable.	0	1	2	3	4

The following questions are about **your abortion experience**. Make the selection that best describes your experience.

Items	**Answer Options**				
	Not at all	A bit	To some extent	Quite a bit	Extensively

103	I felt safe (physically and emotionally) accessing my abortion(s).*	0	1	2	3	4
104	Messages in the media made me feel bad about my abortion(s).	0	1	2	3	4
105	I have been harassed online because of my abortion(s).	0	1	2	3	4
106	I have been verbally harassed because of my abortion(s).	0	1	2	3	4
107	I have been physically harassed because of my abortion(s).	0	1	2	3	4
108	I have been denied opportunities because of my abortion(s).	0	1	2	3	4
109	I have lost relationships because of my abortion(s)	0	1	2	3	4
110	I was upset at having to pay out of pocket for my abortion(s).	0	1	2	3	4

Right now, how much abortion stigma do you feel?

None to a little amount	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

If you have any comments you would like to make, please do so below.

End of survey information

The above questions explore how common and severe abortion stigma is in Australia. This information will help address abortion stigma and support people who seek and/or have had abortions.

The following information is the best available at time of publication. The numbers may be under representative. In Australia, collection of abortion related information is not standardised; states and territories report abortion differently, there is no routine abortion data collection, and there is no national data published.

The majority of the Australian community (87%) believe abortion should be legal [(1)]. More than half of people in Australia (53.6%) believe abortion should be allowed for any reason in the first 3 months [(2)]. Despite support for legal abortion and choice, some people who have had an abortion(s) experience stigmatisation. This is what is known about abortion in Australia:

- Abortion is decriminalised across all Australian states and territories. Each jurisdiction has different rules as to when an abortion is available "on request" and when permission from a doctor is needed.
- When legal, abortion is a medically safe procedure with lower risk than birth.

- Abortion is common when a pregnancy is unintended. One-third of unintended pregnancies in Australia between 2008 and 2018 ended in medication or surgical abortion [3].
- During 2017-18 it is estimated there were 88,287 medication or surgical abortions in Australia [4]. This is estimated to be one abortion per every three to four known pregnancies, or 25-33% of known pregnancies.

If you wish to talk about your abortion(s) experience further from a pro-choice perspective, these services are available:

- National:
  - Marie Stopes Australia, 1300 863 546
  - Family Planning Talkline, 1300 658 886
  - 1800RESPECT, confidential information, counselling, and support services, call 1800 737 732 or visit https://www.1800respect.org.au/
- Queensland:
  - Children by Choice, counselling, information and referral for sexual and reproductive health choices, call 1800177725 or visit https://www.childrenbychoice.org.au/
- NSW:
  - NSW Pregnancy Choices Helpline, support for free, unbiased and confidential information on pregnancy options, call 1800 008 463 or visit https://www.pregnancychoices.org.au/
- ACT:
  - Sexual Health and Family Planning ACT (SHFPACT), free, confidential, respectful, non-judgemental, and non-directive counselling, call 02 6247 3077 or visit https://www.shfpact.org.au/unplanned-pregnancy-services
- Victoria:
  - 1800MyOptions, free, confidential, and pro-choice information about contraception, pregnancy options, and sexual health in Victoria, call 1800 696 784 or visit https://www.1800myoptions.org.au/
- Tasmania:
  - Women's Health Tasmania, compassionate and confidential information and support on pregnancy choices, call 1800 675 028 or visit https://www.womenshealthtas.org.au/pregnancy-choices-information
- South Australia:
  - Pregnancy Advisory Centre, government health service, call 1800 672 966 or visit https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/services/health+services+for/womens+health+services/unplanned+pregnancy+services/unplanned+pregnancy+services
  - SHINE SA, call 8300 5300 or visit https://shinesa.org.au/health-information/pregnancy/information-on-abortion-in-south-australia/
- Western Australia:
  - Sexual health Quarters helpline, confidential information and referrals, call 9227 6178 (metro), 1800 198 205 (country), or visit https://shq.org.au/helpline/
- Northern Territory:
  - Family Planning Welfare Association of NT, call (08) 8948 0144 or visit http://www.fpwnt.com.au/.

These services are also available:

- Blue Knot, a service empowering recovery from complex trauma, call 1300 657 380, 1800 421 468 (disability specific), or visit https://blueknot.org.au/

- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/

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Appendix 3.3. Abortion Providers Stigma Sale – Revised – Australia (APSS-R-Aus)

The following questions are for health care professionals providing abortion care. They will provide insight into the frequency and severity of abortion stigma you may experience.

Please apply the phrase 'health care professional providing abortion care' to yourself. Please apply the term 'abortion care' to your role(s) in abortion care provision.

What best describes your profession and setting? *Please select all that apply.*

- ☐ General Practice
- ☐ Obstetrics and Gynaecology
- ☐ Nursing and Midwifery
- ☐ Pharmacy
- ☐ Allied Health
- ☐ Psychology
- ☐ Admin and reception
- ☐ Other:

- ☐ Primary Care
- ☐ Hospital: public
- ☐ Hospital: private
- ☐ Clinic: private
- ☐ Clinic: public
- ☐ Sexual and Reproductive Health
- ☐ Women's Advocacy/Health
- ☐ Mental Health
- ☐ Other:

How long have you been providing abortion care?

- ☐ Months
- ☐ 1-3 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ 10+ years

How much of your health care provision is abortion related care?

Little	Some	About half	A lot	Almost all
0-20%	20-40%	40-60%	60-80%	80-100%

<u>Right now</u>, how much stigma do you feel because you provide abortion care?

Abortion stigma involves negative judgement because you provide abortion care. This can occur from others, systems, and yourself. It includes worries about negative judgement.

Little or none at all	Some	A moderate amount	A lot	An extreme amount
1	2	3	4	5

Please circle the response that best reflects your experience of the frequency and importance of the below statements.
Below is an example for the statements *"I am proud that I completed my health provider training"* and *"I feel bad about providing health care".*

First, indicate **how often** you have experienced the feeling or scenario. *For example, "I am <u>often</u> proud that I completed my health provider training", select "3" (often) under the first column group.*
Second, indicate **how much you care** about the feeling or statement. *For example, "I care a <u>moderate</u> amount that I am proud that I completed my health provider training" under the second column group.*

If you "never" experienced the feeling or scenario, select "0" (never) under the first column group. Under the second column group, **indicate how much you care** about this feeling or scenario. *For example, "Feeling bad about providing health care, is of <u>major</u> importance to me" or "If I felt bad about providing health care, I would care a <u>major</u> amount."*

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Moderate	A lot
115.	I am proud that I provide health care.*	0	1	2	3	4	0	1	2	3	4
116.	I feel bad about providing health care.	0	1	2	3	4	0	1	2	3	4

The following statements are about **how you feel** about providing abortion care. Please make the selection that *best describes your experience <u>recently</u>*.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
1.	I feel good about providing abortion care.*	0	1	2	3	4	0	1	2	3	4
2.	I feel connected to others who provide abortion care.*	0	1	2	3	4	0	1	2	3	4
3.	I feel ashamed of the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
4.	By providing abortion care, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
5.	I question whether or not providing abortion care is a good thing to do.	0	1	2	3	4	0	1	2	3	4
6.	I find it important to share with people that I work in abortion care.*	0	1	2	3	4	0	1	2	3	4
7.	I feel guilty about the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
8.	I feel that my abortion care work is politicised more than other types of health care work.	0	1	2	3	4	0	1	2	3	4
9.	I feel that when I disclose providing abortion care to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4

10.	I feel that when I disclose my abortion related work to family they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
11.	I feel that when I disclose my abortion related work to friends they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
12.	I am proud that I provide abortion care.*	0	1	2	3	4	0	1	2	3	4

The following statements are about **sharing information** that you provide abortion related care. *Please make the selection that best describes your experience <u>recently</u>.*

[Click here for help answering] When clicked, participants see a pop-up with the instruments' instructions.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
13.	I am selective to whom I tell that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
14.	I keep my provision of abortion care to myself for fear of people's reactions.	0	1	2	3	4	0	1	2	3	4
15.	I avoid telling people about the abortion care I provide, to prevent upsetting them.	0	1	2	3	4	0	1	2	3	4
16.	I worry about telling family I provide abortion care.	0	1	2	3	4	0	1	2	3	4
17.	I worry about telling the general public I provide abortion care.	0	1	2	3	4	0	1	2	3	4
18.	I worry about telling colleagues that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
19.	I worry about telling organisations that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
20.	It bothers me if people in my casual acquaintances know that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
21.	I avoid sharing that I provide abortion care with some people.	0	1	2	3	4	0	1	2	3	4
22.	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	0	1	2	3	4	0	1	2	3	4
23.	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
24.	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
25.	I am afraid of how people will react if they find out about my work providing abortion care.	0	1	2	3	4	0	1	2	3	4
26.	I feel the need to hide my abortion related work from my friends.	0	1	2	3	4	0	1	2	3	4
27.	I feel the need to hide my abortion related work from my family.	0	1	2	3	4	0	1	2	3	4
28.	I feel the need to hide my abortion related work from my colleagues.	0	1	2	3	4	0	1	2	3	4
29.	I find it hard to tell people I provide abortion care.	0	1	2	3	4	0	1	2	3	4
30.	I speak without hesitancy about the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4

31.	I try to keep that I provide abortion care to myself.	0	1	2	3	4	0	1	2	3	4

The following statements are about **others' perceptions** of you providing abortion care. Please make the selection that *best describes your experience <u>recently</u>*.

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
32.	I feel that other health care providers look down on me because of my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
33.	I feel that the general public does not value me providing abortion care.	0	1	2	3	4	0	1	2	3	4
34.	When I see or read something degrading abortion in the media, it makes me feel bad about myself.	0	1	2	3	4	0	1	2	3	4
35.	I feel other health care providers question my professional skills when they learn that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
36.	I feel other health care providers question my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
37.	I feel that people question my morals when they learn I provide abortion related care.	0	1	2	3	4	0	1	2	3	4
38.	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	0	1	2	3	4	0	1	2	3	4
39.	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	0	1	2	3	4	0	1	2	3	4
40.	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	0	1	2	3	4	0	1	2	3	4
41.	I fear my casual acquaintances will see me as less if they know I provide abortion care.	0	1	2	3	4	0	1	2	3	4
42.	I worry patients will think I am judging them.	0	1	2	3	4	0	1	2	3	4
43.	I go out of my way to ensure people seeking abortion care don't feel I am judging them.*	0	1	2	3	4	0	1	2	3	4
44.	I feel that I let my culture down by providing abortion care.	0	1	2	3	4	0	1	2	3	4

The following statements are about your experience **sharing** your provision of abortion related care with others. All statements assume sharing is within scope of confidentiality. Please make the selection that *best describes your experience <u>recently</u>*.

[Click here for help answering]

	How often has this occurred?					How much do you care about this?				
Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot

45.	I talk openly, within confines of confidentiality, with people close to me about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
46.	I avoid talking to someone close to me about a hard day providing abortion care.	0	1	2	3	4	0	1	2	3	4
47.	I talk openly with people with different views to myself about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
48.	I can freely celebrate milestones in abortion care provision. (e.g., decriminalisation, improved accessibility, reduced stigma)*	0	1	2	3	4	0	1	2	3	4

The following statements are about **degrading outcomes** you may have experienced because of your provision of abortion care. Please make the selection that *best describes your experience <u>recently</u>*.

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
49.	I fear my career may be endangered because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
50.	I have lost employment opportunities because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
51.	I fear online retaliation because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
52.	I have experienced online hate because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
53.	I have received messages of support for the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4
54.	People I have provided abortion care to have passed negative judgment on me.	0	1	2	3	4	0	1	2	3	4
55.	I have been verbally threatened or attacked because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
56.	I have been physically threatened or attacked because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
57.	My family has been harassed or discriminated against by others who find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
58.	People treat my family members differently if they know about me providing abortion care.	0	1	2	3	4	0	1	2	3	4

Finally, <u>right now</u>, how much stigma do you feel because you provide abortion care?

Little or none at all	Some	A moderate amount	A lot	An extreme amount
1	2	3	4	5

If you have any comments you would like to make, please do so below.

These questions are asked to help inform how common and severe abortion stigma is among people who provide abortion related care in Australia. This information will help inform efforts to address abortion stigma and support people who provide abortion care and people who seek abortions.

If you wish to talk about your experience providing abortion care, the following services are available:

- Australia
    - Doctors Health Advisory Service http://www.dhas.org.au/
    - RANZCOG Employee Assistance Program: 1300 687 327 or https://ranzcog.edu.au/members/member-support-and-wellbeing
    - Nurses and Midwife Support, 1800 667 877 or visit https://www.nmsupport.org.au/
    - 1800RESPECT, 1800 737 732 or visit https://www.1800respect.org.au/
    - Australian Psychological Society, https://psychology.org.au/
    - Beyond Blue, 1300 224 636 or chat online https://www.beyondblue.org.au/about-us/contact-us
    - Lifeline, call 131114 or visit https://www.lifeline.org.au/

Appendix 3.4. Abortion Providers Stigma Scale – Revised - Advocates

The following questions are for abortion advocates. This could include anyone who publicly engages in conversations or actions in support of bodily autonomy, reproductive choice, abortion access, or abortion. The questions provide insight into the frequency and importance of stigmatisation of people who advocate for choice, access, or abortion.

Please apply the phrase 'abortion advocate' to yourself and the roles you take in publicly supporting choice, abortion access, and/or abortion.

What does your abortion advocacy work involve?

- ☐ Marches and other public gatherings
- ☐ Government engagement or advice
- ☐ Media engagement (e.g., speaking with traditional media)
- ☐ Online information dissemination (e.g., supporting abortion on social media)
- ☐ Community outreach (e.g., public speaking)
- ☐ Personal conversations, including peer support and counselling
- ☐ Other:

How do you classify your abortion advocacy work?

- ☐ Paid
- ☐ Unpaid
- ☐ Both, paid and unpaid

To what extent does your primary occupation relate to abortion advocacy?

Little or none	Some	Moderate	A lot	Almost all or all
0-20%	20-40%	40-60%	60-80%	80-100%

How much is abortion advocacy part of your life?

Little or none of my life	Some	About half	A lot	Almost all or all of my life
1	2	3	4	5

Please circle the response that best reflects your experience of the frequency and importance of the below statements.

Below is an example for the statements *"I believe people should have reproductive choice"* and *"I feel bad about abortion advocacy".*

1. Indicate **how often** you have experienced the feeling or scenario. *For example, "I <u>always</u> believe people should have reproductive choice", select "4" (always) under the first column group.*
2. Indicate **how much you care** about the feeling or statement. *For example, "I care <u>a lot</u> amount that people should have reproductive choice" under the second column group.*

If you "never" experienced the feeling or scenario, select "0" (never) under the first column group. Under the second column group, **indicate how much you care** about this feeling or scenario. *For example, "Feeling bad about my abortion advocacy work, is <u>a lot</u> important to me" or "If I felt bad about my abortion advocacy work, I would care <u>a lot</u>."*

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
117.	I believe people should have reproductive choice.*	0	1	2	3	4	0	1	2	3	4
118.	I feel bad about abortion advocacy.	0	1	2	3	4	0	1	2	3	4

The following statements are about **how you feel** about your abortion advocacy.

Please make the selection that *best describes your experience* recently.

	Item ** Reverse coded*	How often has this occurred?					How much do you care about this?				
		Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
1.	I feel good about my abortion advocacy work.*	0	1	2	3	4	0	1	2	3	4
2.	I feel connected to others who advocate for abortion.*	0	1	2	3	4	0	1	2	3	4
3.	I feel ashamed of the abortion advocacy work I do.	0	1	2	3	4	0	1	2	3	4
4.	By advocating for abortion, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
5.	I question whether or not advocating for abortion is the right thing to do.	0	1	2	3	4	0	1	2	3	4
6.	I feel guilty about advocating for abortion.	0	1	2	3	4	0	1	2	3	4
7.	I am proud that I advocate for abortion.*	0	1	2	3	4	0	1	2	3	4

The following questions are about your **social connection** related to your abortion advocacy work.

Please make the selection that *best describes your experience* recently.

[Click here for help answering]

	Item ** Reverse coded*	How often has this occurred?					How much do you care about this?				
		Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
8.	When I disclose that I advocate for abortion, I feel those close to me are supportive.*	0	1	2	3	4	0	1	2	3	4
9.	I talk openly with my family about advocating for abortion.*	0	1	2	3	4	0	1	2	3	4
10.	I avoid talking about a hard day advocating for abortion to someone close to me.	0	1	2	3	4	0	1	2	3	4
11.	I talk openly with people with different views to myself about my work advocating for abortion.*	0	1	2	3	4	0	1	2	3	4
12.	I cannot freely celebrate milestones from my abortion advocacy work (e.g., decriminalisation, improved abortion access, reduced abortion stigma).	0	1	2	3	4	0	1	2	3	4

The following questions are about **sharing** that you advocate for abortion.

Please make the selection that *best describes your experience* recently.

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
13.	I keep my abortion advocacy work to myself for fear of people's reactions.	0	1	2	3	4	0	1	2	3	4
14.	I feel like, if I tell family I advocate for abortion, they will ONLY see me as an abortion advocate.	0	1	2	3	4	0	1	2	3	4
15.	I worry about telling family I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
16.	I avoid telling the general public that I support abortion.	0	1	2	3	4	0	1	2	3	4
17.	I avoid telling people I work with about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
18.	I am afraid that if I tell people I advocate for abortion I could put myself, or my loved ones, at risk for violence.	0	1	2	3	4	0	1	2	3	4
19.	I am afraid I will lose or harm relationships with people I care about if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
20.	I am afraid my employment will suffer if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
21.	I feel that disclosing I advocate for abortion is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
22.	I am afraid of how people will react if they find out about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
23.	I feel the need to hide my abortion advocacy work from my family.	0	1	2	3	4	0	1	2	3	4
24.	I feel the need to hide my abortion advocacy work from my colleagues.	0	1	2	3	4	0	1	2	3	4
25.	I find it hard to tell people I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
26.	I am selective of whom I tell that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
27.	I am selective of when and where I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
28.	I speak without hesitancy about my work advocating for abortion. *	0	1	2	3	4	0	1	2	3	4
29.	I take extra precautions to control who knows that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4

The following questions are about **others' perceptions** of you advocating for abortion.

Please make the selection that *best describes your experience* recently. *[Click here for help answering]*

		How often has this occurred?					How much do you care about this?				
	Item * *Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
30.	I feel that my abortion advocacy work is looked down upon more than other advocacy work.	0	1	2	3	4	0	1	2	3	4
31.	I feel that if I disclose my abortion advocacy work to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
32.	I feel that when I disclose my abortion advocacy work to family, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
33.	I feel that when I disclose my abortion advocacy work to colleagues, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
34.	I feel that when my community learns of my abortion advocacy work, they see me as less.	0	1	2	3	4	0	1	2	3	4
35.	I feel that colleagues or employers look down on me because I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
36.	I feel that the general public does not value my abortion advocacy.	0	1	2	3	4	0	1	2	3	4
37.	When I see or read something degrading abortion in the media, it makes me feel negative.	0	1	2	3	4	0	1	2	3	4
38.	I feel colleagues question my professionalism when they learn that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
39.	I feel that people question my morals when they learn I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
40.	I feel others who are pro-choice judge the extent to which I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
41.	I worry that others will think less of me if I talk about the upsetting or difficult parts of advocating for abortion.	0	1	2	3	4	0	1	2	3	4
42.	I go out of my way to ensure people aren't upset when I talk about abortion.*	0	1	2	3	4	0	1	2	3	4
43.	I fear my community will think less of me if they see me advocating for abortion.	0	1	2	3	4	0	1	2	3	4
44.	People close to me have expressed concerns for my safety because of my work advocating for abortion.	0	1	2	3	4	0	1	2	3	4
45.	My employer has expressed concerns about my work advocating for abortion.	0	1	2	3	4	0	1	2	3	4

The following questions are about **degrading outcomes** you may have experienced because of your abortion advocacy.

Please make the selection that *best describes your experienc*e recently.

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
		Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
46.	I fear my career may be jeopardised because I publicly advocate for abortion.	0	1	2	3	4	0	1	2	3	4
47.	I have lost career opportunities because I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
48.	I have experienced online harassment because of my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
49.	I fear online retaliation to my advocacy for abortion.	0	1	2	3	4	0	1	2	3	4
50.	I fear harassment because I publicly support abortion.	0	1	2	3	4	0	1	2	3	4
51.	When advocating for abortion, I scan the environment for risks of harassment.	0	1	2	3	4	0	1	2	3	4
52.	I actively take actions to reduce risk of discrimination from advocating for abortion.	0	1	2	3	4	0	1	2	3	4
53.	I have been verbally threatened or attacked for publicly expressing support for abortion.	0	1	2	3	4	0	1	2	3	4
54.	I have been physically threatened or attacked for advocating for abortion.	0	1	2	3	4	0	1	2	3	4
55.	The people I love have been harassed or discriminated against because I publicly support abortion	0	1	2	3	4	0	1	2	3	4
56.	People treat those I love differently if they know I advocate for abortion.	0	1	2	3	4	0	1	2	3	4

If you have any comments you would like to make, please do so below.

End of questions information.

These questions are asked to help us understand how common and important abortion stigma is in Australia among people who advocate for choice, abortion access, and abortion. This information will help inform efforts to address abortion stigma and support people who advocate for abortion, provide abortion care, and people who seek abortions.

If you wish to talk about your experience advocating for abortion, we recommend the following services:

- 1800RESPECT Professional line, call 1800 737 732 or visit https://www.1800respect.org.au/professionals
- Blue Knot professionals or supporters, a service empowering recovery from complex trauma, visit https://professionals.blueknot.org.au/contact-us/ or https://blueknot.org.au/supporters/ or call 1300 657 380
- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/

Appendix 3.5. Stigmatisation of Abortion Groups and Organisations (SAGO)

The following questions are for groups and organisations providing abortion care and/or publicly supporting abortion (i.e., abortion advocacy). They provide insight into the frequency and extent of stigmatisation of these groups and organisations due to their involvement with abortion.

This instrument can be completed by people who represent a group or organisation which provides and/or advocates for abortion. It is recommended multiple people from one group or organisation complete the questions to collect all perspectives.

What approach will be taken to complete this questionnaire?

- ☐ Individually on behalf of organisation
- ☐ Collective response for organisation
- ☐ Other

If you can represent more than one group or organisation, please choose one and answer with that group or organisation in mind. You may complete the instrument multiple times with another group or organisation in mind.

Please indicate the type(s) of group or organisation you are representing.

☐ Government Organisation	☐ Abortion advocacy
☐ Non-Government Organisation	☐ Abortion provision
☐ Private Organisation	☐ Both abortion advocacy and provision

If you would like to clarify further, please do so here: _____.

Where does the group or organisation service?

☐ Australia, nationally		☐ Metropolitan
☐ QLD	☐ TAS	☐ Regional
☐ NSW	☐ SA	☐ Rural
☐ ACT	☐ WA	☐ Remote
☐ VIC	☐ NT	☐ Not relevant

Please indicate all roles which best apply to your position within the group or organisation you are representing or the roles of everyone contributing to the response.

- ☐ Senior management, executive, and operations
- ☐ Clinical leadership
- ☐ Program and Project Director, Manager, and Coordinator
- ☐ Administration
- ☐ Human resources
- ☐ Finance
- ☐ Development, Advancement, and Fundraising
- ☐ Advocacy, Campaign, and Legal
- ☐ Communications, Marketing, and Public Relations
- ☐ Service Delivery

☐ Research

☐ Other, please specify _____

How long have you been with the group or organisation?

☐ < 1year ☐ 1-3 years ☐ 3-5 years ☐ 5-10 years ☐ > 10 years

Instructions:

The following questions are about stigmatisation of the group or organisation you are representing in the past year. Please answer the questions from the position of the group or organisation you are representing to the best of your ability.

Circle the response that best reflects your knowledge of the frequency and importance of the below statements. If the role(s) you hold, does not allow you to answer a statement, please select "Cannot answer" in the last column. If the statement is not applicable to your group or organisation, for example about funding for a government funded organisation, please select "not relevant" or "n/r" in the second last column.

Below is an example for the statements *"The group or organisation supports abortion access"* and *"The group or organisation stops supporting abortion"*.

1. indicate how often the scenario has occurred to the group/organisation. For example, "The group/organisation always supports abortion access".
2. indicate **how much the group/organisation cares** about the statement. *For example, "The group/organisation cares a major amount about supporting abortion access"* under the second column group.

If a scenario has never occurred to the group/organisation, select "0" (never) under the first column group. Under the second column group, **indicate how much the group/organisation cares** about this scenario. *For example, "The group or organisation stops supporting abortion, is a lot important to the group/organisation" or "If the group/organisation stopped supporting abortion, the group/organisation would care a lot."*

		How often has this occurred?					How much is this cared about?						
		Never	Rarely	Sometimes	Often	Always	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*	*Not relevant*	*Cannot answer*
1.	The group or organisation supports abortion access.*	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
2.	The group or organisation stops supporting abortion.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

*The following questions are about **what has happened** to the group or organisation you are representing in the past year.*

Please answer the questions below from the position of the group or organisation you are representing.

[Click here for help answering]

Items ** Reverse coded*	**Answer Options**											
	How often has this occurred?					*How much is this cared about?*						
The group or organisation has …	*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*	*Not relevant*	*Cannot answer*
58. … had property vandalised and/or assets stolen.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
59. … had its online domain restricted, hacked, and/or stolen.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
60. … been subjected to verbal harassment or threats.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
61. … been subjected to written harassment or threats.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
62. … been the subject of degrading online commentary.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
63. … been subjected to online trolling or threats.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
64. … been purposefully misrepresented and/or devalued in the media.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
65. … had difficulty acquiring media representation.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
66. … been portrayed inaccurately in/by the media.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
67. … been portrayed positively in/by the media.*	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
68. … been labelled as terrible, immoral, and/or unacceptable.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
69. **… had funding restricted due to its support of abortion access.**	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
70. **… been raided due to its support of abortion access.**	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
71. **… struggled to secure financial support.**	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

72.	**… struggled to secure financial support from the government.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
73.	**… had difficulty securing a suitable workplace.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
74.	**… had difficulty securing non-medical contractors for services.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
75.	**… had difficulty securing medical professionals.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
76.	**… had difficulty securing medical supplies.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
77.	**… have been avoided by other organisations, companies, or groups.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
78.	**… had difficulty working within national or state legislation.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
79.	… been overly scrutinised, more so than other health care service providers.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
80.	… been scrutinised more than other groups advocating for health care change.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
81.	… had pressure for no mistakes in abortion provision more than other healthcare provision.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer

*The following questions are about **concerns held** by the group or organisation you are representing in the past year. Please answer the questions below from the position of the group or organisation you are representing.*

[Click here for help answering]

Items ** Reverse coded*		**Answer Options**											
		How often has this occurred?					*How much is this cared about?*					*Not relevant*	*Cannot answer*
The group or organisation…		*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*		
82.	… is concerned about its reputation about abortion.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
83.	… is concerned about its public image about abortion.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
84.	… is concerned members or employees will leave due to the group or organisation's ~~p~~providing/supporting abortion	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
85.	… is concerned people seeking abortions will be stigmatised when interacting with group or organisation.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
86.	… is concerned any stigmatisation it faces is applied to people who seek an abortion.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
87.	… is concerned that members or employees will be stigmatised.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
88.	… is concerned incorrect, harmful assumptions are made of people connected to it.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
89.	… perceives a need to hide its abortion related work when interacting with external operating services.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

90.	**… is conscious of signage about abortion.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
91.	**…is conscious of online image about abortion.**	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
92.	…takes actions to protect anyone linked with it from stigmatisation.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
93.	… is more cautious of its abortion services than other services.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
94.	… has concerns about prosecution.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer
95.	… is constantly in a tenuous position.	0	1	2	3	4	0	1	2	3	4		n/r	Can't answer

Continued below…

…continued from above.

Items ** Reverse coded*		**Answer Options**											
		How often has this occurred?					*How much is this cared about?*					*Not relevant*	*Cannot answer*
The group or organisation…		*Never*	*Rarely*	*Sometimes*	*Often*	*Always*	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*		
96.	**… is constantly concerned about being shut down on the basis of abortion.**	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
97.	**… has concerns about impaired capacity to provide and/or support services.**	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
98.	… avoids advertising the provision of abortion care.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
99.	… doesn't want the 'wrong people' to know it supports abortion access.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
100.	… has taken substantial risks to ensure working towards improved abortion access.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
101.	… approaches conversations to improve abortion care with caution and delicacy.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
102.	… is concerned about the public's perception of the parameters of its services.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
103.	… is concerned its reported data could be misused.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

*The following questions are about **the treatment of people and groups associated** with the group or organisation you are representing in the past year. They refer to treatment due to a person or groups being associated with your group or organisation. Please answer the questions below from the position of the group or organisation you are representing.*

[Click here for help answering]

Items ** Reverse coded*		**Answer Options**											
		How many people has this occurred to?					*How much is this cared about?*					*Not relevant*	*Cannot answer*
The group/organisation has concerns that those linked with it have …		*No one*	*A few people*	*About half the people*	*Many people*	*Most people*	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*		
104.	… been shamed, hated on, and/or cast out.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
105.	… been encouraged, supported, and/or included.*	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
106.	… been subjected to online trolling.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
107.	… been harassed, followed, and/or threatened.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
108.	… have been treated differently.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
109.	… been encouraged to stay quiet.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
110.	… been encouraged to speak out.*	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
111.	… missed out on employment opportunities.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
112.	… missed social opportunities.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

*The following questions are about **the community** in which the group or organisation has operated among in the past year.*

[Click here for help answering]

Items ** Reverse coded*	**Answer Options**											
	How many hold this belief?					*How important is this belief?*					*Not relevant*	*Cannot answer*
The community …	*No one*	*A few people*	*About half the people*	*Many people*	*Most people*	*Not at all*	*Little*	*Somewhat*	*Much*	*A lot*		
113. … has misconceptions about the group or organisation.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
114. … expects abortion facilities are cold, impersonal, and/or hostile.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
115. … believes that the group/organisations members or employees are immoral.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
116. … believes that the group/organisations members or employees are confrontational.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
117. … believes that the group/organisation's members or employees are unkind or unfriendly.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
118. ... believes abortion care is necessary.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
119. ... want to avoid association with abortion.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
120. … do not want abortion provided.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
121. … has the power to disrupt the group or organisation's work.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer
122. … has the power to prevent or end the group or organisation's work.	0	1	2	3	4	0	1	2	3	4	n/r	Can't answer

Are there any additions or changes you would recommend to the above questions? If so, please share below.

Do you perceive these questions, and the measurement of abortion stigmatisation of groups and/or organisations, to be useful?

- ☐ Yes
- ☐ No

If you have any further comments you would like to make, please do so below.

APPENDIX 4. Validation study ethics and survey content (chapters 5 and 6)

Appendix 4.1. The University of Sydney Human Research Ethics Committee study approval letter

THE UNIVERSITY OF SYDNEY

Research Integrity & Ethics Administration
HUMAN RESEARCH ETHICS COMMITTEE

Monday, 21 March 2022

Assoc Prof Haryana Dhillon
Psychology; Faculty of Science
Email: haryana.dhillon@sydney.edu.au

Dear Haryana,

Your request to modify this project, which was submitted on 28/02/2022, has been considered.

This project has been approved to proceed with the proposed amendments.

Protocol Number: 2020/561

Protocol Title: **Australian Instrument Validation for measuring Abortion Stigma among people and organisations who access, provide, and advocate for abortions in Australia**

Annual Report Due: 02/10/2022

Documents Approved:

Date Uploaded	Version Number	Document Name
28/02/2022	Version 1	Appendix 16_..._instrument explanation_20220228.docx
28/02/2022	Version 1	Appendix 17_..._Instrument A_downloadable debrief_20220228.
28/02/2022	Version 1	Appendix 18_..._Recruitment Plan_20220228.docx
28/02/2022	Version 2	Appendix 5_..._PIS_Validation Survey_20220227_clean
28/02/2022	Version 1	Appendix 8_..._Validation Survey_20220228.pdf

Special Condition/s of Approval

The Committee approved this modification in the absence of ethical objections and on the basis of satisfactory scientific merit. The special conditions of approval are as follows:

- The Committee suggest including the mental health information (LifeLine etc) in the downloadable debrief document. Alternatively, this could be shown again after completion of the emotional wellness instrument as this instrument asks questions about depression in the last month etc which may raise general mental health issues. Please amend and submit a revised copy to the Ethics Office (human.ethics@sydney.edu.au) to upload to IRMA.
- Page 5 of the Validation survey mentions New Zealand, but the researchers are no longer recruiting from New Zealand. Should the reference to New Zealand be removed?
- It was noted on page 55 of the validation survey regarding ancestry, that the term 'British' could be used instead of 'English' and 'Scottish' which then covers England, Scotland, and Wales. Please amend if deemed appropriate.

Administrative Concerns

- Please amend the typographical error on page 4 of the recruitment plan which should read 'share your experience'. Please amend and submit a revised copy to the Ethics Office (human.ethics@sydney.edu.au) to upload to IRMA.

Please contact the ethics office should you require further information.

Sincerely,

Research Integrity & Ethics Administration
Research Portfolio
Level 3, F23 Administration Building
The University of Sydney
NSW 2006 Australia

T +61 2 9036 9161
E human.ethics@sydney.edu.au
W sydney.edu.au/ethics

ABN 15 211 513 464
CRICOS 00026A

[redacted]

Associate Professor Laura Ginters
Chair
Modification Review Committee (MRC 3)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2018) and the NHMRC's Australian Code for the Responsible Conduct of Research (2018)

Appendix 4.2. Participant Information Statement

School of Psychology
Faculty of Science

HARYANA DHILLON

Associate Professor – School of Psychology

Director – Centre for Medical Psychology & Evidence-based Decision-making

C39Z Level 6 – North

Chris O'Brien Lifehouse

The University of Sydney

NSW 2006 AUSTRALIA

Telephone: +61 2 9036 5392

Facsimile: +61 2 9036 5292

Email: abortionstudiesn@sydney.edu.au

Web: http://www.sydney.edu.au/

Validation of Abortion Stigma Instruments within Australia

PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in a research study about measuring abortion stigma in Australia.

People and organisations linked to induced abortion may experience stigma. Abortion stigma is the attribution that the termination of pregnancy and associated individuals and organisations are deviant and devalued. Tools have been developed in other countries to measure abortion stigma among people who have had and/or provide abortion. There are currently no tools for use in Australia. This study will determine the questions related to abortion stigma that may be suitable for use in Australia. The main focus of this study is the validation of available tools on abortion stigma to people and organisations in Australia.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary.

By giving your consent to take part in this study you are telling us that you:

- ✓ Understand what you have read.
- ✓ Agree to take part in the research study as outlined below.
- ✓ Agree to the use of your personal information as described.

You can download a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the following researchers:

- Haryana Dhillon – Associate Professor, Centre for Medical Psychology & Evidence-based Decision-making, School of Psychology, University of Sydney
- Sarah Ratcliffe – PhD candidate, Centre for Medical Psychology & Evidence-based Decision-making, School of Psychology, University of Sydney
- Rebecca Pinkus – Senior Lecturer, School of Psychology, University of Sydney
- Ilona Juraskova –Professor, Centre for Medical Psychology & Evidence-based Decision-making, School of Psychology, University of Sydney
- Ilan Dar-Nimrod – Associate Professor, School of Psychology, University of Sydney

Ms Sarah Ratcliffe is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of A/Prof. Haryana Dhillon.

The researchers do not have any conflicts of interest to report that could seem to impact their conduct of the study.

(3) What will the study involve for me?

If you decide to take part in this research, you will be asked some general questions about yourself and your experience of abortion stigma. This will involve an online survey with set options for responding.

- The questions can be done online at a time you choose.
- The survey should take less than 20 minutes to do.
- Questions in the survey will ask about your experiences of abortion stigma and related ideas. There are no right or wrong answers, we are interested in your experience.
- To allow us to broadly describe the people who took part in this study, you will be asked some questions about yourself including your age, education, link to abortion, and affiliations.

You may decide to complete the survey a second time after you complete the first survey. The second survey will be shorter than the first and a similar format. A link will be sent to you via email two weeks after completing the first survey.

(4) How much of my time will the study take?

Taking part in the study should take less than 20 minutes of your time. If you choose to complete the survey a second time, the study should take less than 35 minutes in total.

(5) Who can take part in the study?

People who identify with at least one of the following groups can take part in this study:

- Have accessed one or more abortions
- Provide abortion care
- Publicly support choice and/or abortion
- Represent a group or organisation which provides abortion care
- Represent a group or organisation publicly supporting abortion

You must be at least 18 years of age, have abortion experience linked with Australia, and comfortable reading English. If you identify with more than one group, you will be asked to specify which group perspective you are answering from.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney.

If you decide to take part in one survey and then change your mind later, you are free to withdraw at any time until you submit your response to the questions. Once you submit your response the data is anonymous, meaning we cannot tell which response is yours, as a result you cannot withdraw your data once you have submitted the survey response. If you decide to take part in two surveys you are free to withdraw any time until your responses are linked together. This is estimated to be within three weeks of you completing the second survey. Once your responses are linked the data is anonymised, meaning we cannot tell which response is yours, as a result you cannot withdraw your data once your two surveys are linked.

If you stop the survey before you submit your response, the information you have provided will be stored but not used in the analysis. We will delete the incomplete data at the end of data collection and before the analysis is done. There are no consequences for you when you withdraw from the study.

(7) Are there any risks or costs associated with being in the study?

The main risk is that the questions asked may raise concerns due to revisiting past experiences or concerns you have not thought of before. This may cause you to feel some distress. If you do feel any concern or distress, we recommend you contact one of these support services.

- Lifeline (http://lifeline.org.au/) 13 11 14; (online chat or video also available 7pm – midnight)
- Mental Health Line (NSW) 1800 011 511
- Headspace (https://headspace.org.au/)
- Reach out (https://au.reachout.com/)
- Beyond Blue (https://www.beyondblue.org.au/)
- Head to Health (https://headtohealth.gov.au/).

There are no costs associated with participating in this research project, nor will you be paid or reimbursed for any expenses associated with the research project. Information you provide will be confidential and there is no legal requirement to report any historically illegal practices related to abortion.

(8) Are there any benefits associated with being in the study?

The main purpose of this study is to improve our ability to measure abortion stigma in Australia. We cannot guarantee that you will receive any direct benefits from being in the study.

(9) What will happen to information about me that is collected during the study?

The records from this study will be kept confidential. No personally identifying information will be used in any reports or publications resulting from the study. If you decide to take part in one survey, all information will be de-identified on submission, meaning no one can tell who you are by looking at the data. If you decide to take part in two surveys, all information will be de-identified once your survey responses are linked together. The study will be stored using only participant codes (we will not record your name) securely on password protected servers managed by the University of Sydney for perpetuity. Only approved research personnel will have access to the files.

If you request a copy of the results of the study your email or postal address will be stored separate to your survey responses. We will not have your name. Identifying information will be kept securely. Identifying information will never be included in a publication of the research.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Anonymised data may be included in a data repository according to an open Science framework. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

(10) Can I tell other people about the study?

Yes, you are welcome to tell other people about the study.

(11) What if I would like further information about the study?

When you have read this information, Ms Sarah Ratcliffe *(abortion.studies@sydney.edu.au)* will be available to discuss it with you further and

answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact A/Prof Haryana Dhillon (Australia, on +61 2 9036 5392 or Haryana.dhillon@sydney.edu.au).

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback on this study below, when providing consent. You can choose for feedback sent to you by email or post. This feedback will be in the form of a one page lay summary. You will receive this feedback after the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney **2020-561**. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007).* This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** human.ethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep.

Appendix 4.3. Initial survey questions

Page 5

Setting things up for you

Answering the information below will help us present only the questions relevant to you.

1/5 sections

What experience do you have with abortion? If you can select more than one, please select the experience you would like to answer questions on behalf of.	◯ I have had an abortion ◯ I provide, or have provided, abortion related care ◯ I publicly support/ed abortion ◯ I can speak on behalf of a group or organisation providing abortion related care ◯ I can speak on behalf of a group or organisation advocating for abortion ◯ I have not had any of the experiences above.
Are you willing to complete a follow up survey in 2 weeks time?	◯ Yes; please indicate the email you would like to be contacted with _____ ◯ No
How did you learn about this survey?	◯ Email from group or organisation I am part of ◯ Email from research team ◯ Social media advertisement ◯ Social media group (not paid advertisement) ◯ Shared from professional group ◯ Shared from friend or family ◯ Other _____

Please continue to the next page to complete questions to help us understand you.

If you have opted to complete the follow up survey, please look out for an email from the research team in 2 weeks time.

Page 6

Some questions about you

Please complete the following questions about yourself.

These questions help us to broadly describe the people who took part in this study.

2/5 sections

Please enter your age in years.	_____ (Please give number of years to the nearest year.)
Please select your gender.	☐ Woman ☐ Man ☐ Non-binary / gender diverse ☐ My gender is not listed. ☐ Prefer not to say
In which country were you born?	◯ Australia ◯ England ◯ New Zealand ◯ India ◯ Philippines ◯ Vietnam ◯ Italy ◯ South Africa ◯ Malaysia ◯ Scotland ◯ Other _____ ◯ Prefer not to answer
Are you of Aboriginal or Torres Strait Islander origin?	☐ No ☐ Yes, Aboriginal ☐ Yes, Torres Strait Islander ☐ Both Aboriginal and Torres Strait Islander ☐ Prefer not to say

Appendix 4.4. Abortion attitude questions

Your thoughts on abortion

4/5 sections

The following questions are about your beliefs.

There are no right or wrong answers. Please answer honestly.

Which statement best reflects your beliefs?

- ◯ By law, abortion should always be available as a matter of choice.
- ◯ By law, abortion should be permitted for 'other reasons' only after need has been established.
- ◯ By law, abortion should only be permitted in case of rape, incest, or when the woman's or pregnant person's life is in danger.
- ◯ By law, abortion should never be permitted.

Please indicate your perspective on the following statements.

	Agree	Disagree	Depends on circumstances	Can't say
Abortion should be lawful during first trimester.	◯	◯	◯	◯
Abortion should be lawful during second trimester.	◯	◯	◯	◯
Abortion should be lawful during third trimester.	◯	◯	◯	◯
Providing abortion should be part of the general obstetric and gynaecological practice.	◯	◯	◯	◯
Abortion should be available (within the limits of state law) in the public health systems of all Australian states and territories.	◯	◯	◯	◯

The availability of mifepristone nationally has altered my practice of induced abortion.

- ◯ Agree ◯ Disagree
- ◯ Depends on circumstances
- ◯ Can't say

Appendix 4.5. Reproductive Autonomy Scale

Power over your health decisions

The next questions are about you and your main partner or a recent sexual partner.

The questions ask about who has the most say in different types of decisions.

4/5 sections

Instructions:

"Most say" means if there was a disagreement, the person who would have final say. If you have more than one partner, think about your main partner. If you don't have a partner, think about a previous partner. If you have not had to make any of the following decisions, please think about who would have the most say in the decision.

113) Who has the most say about whether you use a method to prevent pregnancy?	◯ My sexual partner (or someone else such as a parent or mother in-law/father in-law) ◯ Both me and my sexual partner (or someone else such as a parent or mother in-law /father in-law) equally ◯ Me
114) Who has the most say about which method you would use to prevent pregnancy?	◯ My sexual partner (or someone else such as a parent or mother in-law/father in-law) ◯ Both me and my sexual partner (or someone else such as a parent or mother in-law /father in-law) equally ◯ Me
115) Who has the most say about when you have a baby in your life?	◯ My sexual partner (or someone else such as a parent or mother in-law/father in-law) ◯ Both me and my sexual partner (or someone else such as a parent or mother in-law /father in-law) equally ◯ Me
116) If you became pregnant but it was unplanned, who would have the most say about whether you would raise the child, seek adoptive parents, or have an abortion?	◯ My sexual partner (or someone else such as a parent or mother in-law/father in-law) ◯ Both me and my sexual partner (or someone else such as a parent or mother in-law /father in-law) equally ◯ Me

117) My partner has stopped me from using a method to prevent pregnancy when I wanted to use one.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
118) My partner has messed with or made it difficult to use a method to prevent pregnancy when I wanted to use one.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
119) My partner has made me use a method to prevent pregnancy when I did not want to use one.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
120) If I wanted to use a method to prevent pregnancy my partner would stop me.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
121) My partner has pressured me to become pregnant.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
122) My partner would support me if I wanted to use a method to prevent pregnancy.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
123) It is easy to talk about sex with my partner.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
124) If I didn't want to have sex I could tell my partner.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
125) If I was worried about being pregnant or not being pregnant I could talk to my partner about it.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree
126) If I really did not want to become pregnant I could get my partner to agree with me.	◯ strongly disagree ◯ disagree ◯ agree ◯ strongly agree

Appendix 4.6. K-6 (psychological wellbeing)

Emotional wellbeing

These questions concern how you have been feeling over the past 30 days.

Select to option below each question that best represents how you have been.

4/5 sections

127) During the last 30 days, about how often did you feel nervous?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.
128) During the last 30 days, about how often did you feel hopeless?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.
129) During the last 30 days, about how often did you feel restless or fidgety?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.
130) During the last 30 days, about how often did you feel so depressed that nothing could cheer you up?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.
131) During the last 30 days, about how often did you feel that everything was an effort?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.
132) During the last 30 days, about how often did you feel worthless?	◯ none of the time ◯ a little of the time ◯ some of the time ◯ most of the time ◯ all of the time.

If you would like to discuss any of the above, we recommend you contact one of these services:

Lifeline (http://lifeline.org.au/) 13 11 14; (online chat or video also available 7pm - midnight) Headspace (https://headspace.org.au/) Reach out (https://au.reachout.com/) Beyond Blue (https://www.beyondblue.org.au/) Head to Health (https://headtohealth.gov.au/) Mental Health Line (NSW) 1800 011 511.

Appendix 4.7. Demographics

Some final questions about you

Below are the final set of questions.

These questions will help us broadly describe who participated in this study.

5/5 sections

Please specify the highest level of education you have obtained:	◯ Secondary education up to year 9 and below. ◯ Certificate, level I or II. ◯ Secondary education, up to year 10 and above. ◯ Certificate, level III or IV. ◯ Advanced diploma and diploma level ◯ Bachelor degree. ◯ Graduate diploma and graduate certificate level. ◯ Postgraduate degree. ◯ Prefer not to answer.
What best describes your ancestry? Provide up to two ancestries only. Examples of other ancestries include, Croatian, Serbian, Filipino, Tamil, Sinhalese, Hmong, Maori, Pitcairn, Australian South Sea Islander.	☐ English ☐ Irish ☐ Scottish ☐ Chinese ☐ Italian ☐ German ☐ Aboriginal ☐ Torres Strait Islander ☐ Australia ☐ Other ancestry 1 (please specify): _____ ☐ Other ancestry 2 (please specify): _____
What is the main language you speak at home?	◯ English ◯ Language other than english: _____ ◯ Prefer not to answer
What is your political affiliation?	◯ Liberal Party ◯ National Party ◯ Labour Party ◯ Greens ◯ Independent ◯ Other: _____ ◯ No political affiliation ◯ Prefer not to answer (Please select your political affiliation.)
What is your religious affiliation?	◯ No religion ◯ Catholic ◯ Anglican (Church of England) ◯ Uniting Church ◯ Islam ◯ Buddhism ◯ Presbyterian ◯ Hinduism ◯ Greek Orthodox ◯ Baptist ◯ Other: _____ ◯ Spiritual ◯ Prefer not to answer (Please select your religious affiliation.)

Appendix 4.8. Centrality of Religiosity Scale (CRS)

For the following questions please take your personal imagination of "God" or "something divine".

	Not at all	Not very much	Moderately	Quite a bit	Very much so	Prefer not to answer
To what extent do you believe that God or something divine exists?	○	○	○	○	○	○
How interested are you in learning more about religious topics?	○	○	○	○	○	○
To what extent do you believe in an afterlife? e.g., immortality of the soul, resurrection of the dead or reincarnation?	○	○	○	○	○	○
How important is it to take part in community activities [e.g., nineteen day feasts, holiday celebration, devotional meetings]?	○	○	○	○	○	○
How important is personal prayer for you?	○	○	○	○	○	○
How important is meditation for you?	○	○	○	○	○	○
In your opinion, how probable is it that a higher power really exists?	○	○	○	○	○	○
How important is it for you to be connected to a religious community?	○	○	○	○	○	○

How often do you pray?

- ○ Never
- ○ Less than a few times a year
- ○ A few times a year
- ○ One or three times a month
- ○ Once a week
- ○ More than once a week
- ○ Once a day
- ○ Several times a day
- ○ Prefer not to answer

How often do you meditate?

- ○ Never
- ○ Less than a few times a year
- ○ A few times a year
- ○ One or three times a month
- ○ Once a week
- ○ More than once a week
- ○ Once a day
- ○ Several times a day
- ○ Prefer not to answer

How often do you take part in community activities (e.g., nineteen day feasts, holiday celebrations, devotional meetings)?	◯ More than once a week ◯ Once a week ◯ One of three times a month ◯ A few times a year ◯ Less often ◯ Never ◯ Prefer not to answer

How often do you experience the following situations or events?

	Never	Rarely	Occasionally	Often	Very often	Prefer not to answer
How often do you think about religious issues?	◯	◯	◯	◯	◯	◯
How often do you experience situations in which you have the feeling that God or something divine allows for an intervention in your life?	◯	◯	◯	◯	◯	◯
How often do you experience situations in which you have the feeling that you are in one with all?	◯	◯	◯	◯	◯	◯
How often do you experience situations in which you have the feeling that God or something divine lets something be communicated or revealed to you?	◯	◯	◯	◯	◯	◯
How often do you experience situations in which you have the feeling that you are touched by a divine power?	◯	◯	◯	◯	◯	◯
How often do you keep yourself informed about religious questions through radio, television, internet, newspapers, or books?	◯	◯	◯	◯	◯	◯
How often do you pray spontaneously when inspired by daily situations?	◯	◯	◯	◯	◯	◯
How often do you try to connect to the divine spontaneously when inspired by daily situations?	◯	◯	◯	◯	◯	◯
How often do you experience situations in which you have the feeling that God or something divine is present?	◯	◯	◯	◯	◯	◯

APPENDIX 5. Supplementary texts for Chapter 5, *The psychometric properties of the ILAS-Aus: An instrument for measuring abortion stigma experienced by people in Australia who have had an abortion.*

Appendix 5.1. Stigma instrument participants completed (i.e., ILAS-Aus pre-psychometric testing)

The following survey is for people who have had an abortion in Australia. It aims to gather information about the stigmatising feelings and experiences around your abortion(s).

Right now, how much abortion stigma do you experience?
Abortion stigma involves negative judgement because you have had an abortion. This can occur from others, systems, and yourself. It includes worries about negative judgement.

None to a little amount	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

How long has it been since your abortion(s)? *select all that apply*

- ☐ 0-3months
- ☐ 4-6months
- ☐ 7-12months
- ☐ 1-3years
- ☐ 3-10years
- ☐ 10+years

Have you had one or more abortions?

☐ I have had one abortion. ☐ I have had more than one abortion.

Where did you access your abortion(s)? *select all that apply*

☐ Outside Australia

State or Territory in Australia

☐ ACT ☐ SA
☐ NSW ☐ TAS
☐ NT ☐ VIC
☐ QLD ☐ WA

Area

☐ Metropolitan
☐ Regional
☐ Rural
☐ Remote
☐ Cannot say

My most recent experience of abortion stigma was …

- ☐ Days ago
- ☐ Weeks ago
- ☐ 1-6months ago
- ☐ 6-12months ago
- ☐ 1-2years ago
- ☐ 2-5years ago
- ☐ 5+years ago
- ☐ I have not experienced abortion stigma.

The following statements are to clarify your experience of abortion stigma.

If you have had more than one abortion, please think about your *most stigmatising, or worst,* abortion experience.

Please *tick all options* that apply to you and your experience.

My (worst) abortion experience …

… was provided by a____.

- ☐ Private/public health service.
- ☐ Pro-choice clinic (e.g., Family Planning; Marie Stopes).
- ☐ Healthcare institution with religious ethos.
- ☐ Telehealth service.
- ☐ GP service.
- ☐ Self-managed (i.e., accessed outside of healthcare services).
- ☐ I don't know.

… involved ___km of travel.

- ☐ <10km
- ☐ 11-25km
- ☐ 26-50km
- ☐ 50-100km
- ☐ >101km
- ☐ Not applicable; telehealth

... was for a ___.

- ☐ Planned pregnancy.
- ☐ Unplanned pregnancy; consensual sex.
- ☐ Unplanned pregnancy; Non-consensual sex.
- ☐ Other.

… was a ___.

- ☐ Medication abortion. (two-step medication)
- ☐ Surgical abortion. (procedure under anaesthetic/sedation)
- ☐ Tele-abortion. (medication abortion managed by phone)
- ☐ Other type of abortion. (e.g., self-managed)

… was at ___.

- ☐ <9weeks pregnant.
- ☐ 9-15weeks pregnant.
- ☐ 15-20weeks pregnant.
- ☐ 20weeks+ pregnant.

… was my ___.

- ☐ Only/first abortion.
- ☐ Second abortion.
- ☐ Third abortion.
- ☐ Fourth or sequential abortion.

At the time of my (worst) abortion experience…

…I had had a total of ____. *Including miscarriages, abortions, and births.*

- ☐ 1-2 known pregnancies.
- ☐ 3-5 known pregnancies.
- ☐ 6 or more known pregnancies.

The following statements are worries some people have about their abortion(s).

Make the selection that best describes **what you worried about** recently. Please answer in reference to your *worst experience*.

Items	Answer Options			
	Not worried	A little worried	Quite worried	Extremely worried
111 Other people might find out about my abortion.	0	1	2	3
112 My abortion would hurt a relationship with a person I care deeply about.	0	1	2	3
113 I would disappoint someone I love.	0	1	2	3
114 I would be humiliated.	0	1	2	3
115 People would gossip about me.	0	1	2	3
116 I would be rejected by someone I love.	0	1	2	3
117 People would judge me negatively.	0	1	2	3

Make the selection that best describes **what you worried about** around the time of your abortion(s). Please answer in reference to your *worst experience*.

Items	Answer Options			
	Not worried	A little worried	Quite worried	Extremely worried
118 There would be protestors when accessing my abortion.	0	1	2	3
119 I would be denied an abortion.	0	1	2	3
120 I would have to explain my choice.	0	1	2	3
121 My health care provider would not support me.	0	1	2	3

The following statements are about **sharing information** about your abortion(s).

Make the selection that best describes how you talked about your abortion(s) recently. Please answer in reference to your *worst experience*.

Items	Answer Options				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
122 I speak openly about my abortion when relevant.*	0	1	2	3	4
123 I keep my abortion a secret because I fear negative judgement.	0	1	2	3	4
124 I avoid telling people about my abortion.	0	1	2	3	4
125 I only share my abortion with people who I am confident will have a supportive response.	0	1	2	3	4

126 I share my real emotions about my abortion.*	0	1	2	3	4
127 I avoid sharing positive emotions about my abortion.	0	1	2	3	4
128 I feel safe to share positive aspects about my abortion.*	0	1	2	3	4

The following statements are about **connecting with people** about your abortion experience.

Make the selection that best describes connecting about your abortion with other people recently. Please answer in reference to your *worst experience*.

Items	**Answer Options**			
	Never	Once	A few times	Many times
129 I have had a conversation about my abortion with someone I am close with.*	0	1	2	3
130 I was open about my feelings about my abortion with someone that I am close with.*	0	1	2	3

Items ** Item is reverse-coded*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
131 At the time of my abortion, I had support from someone that I am/was close to.*	0	1	2	3	4
132 I can talk to the people I am close to about my abortion.*	0	1	2	3	4
133 I can trust the people I am close to with information about my abortion.*	0	1	2	3	4
134 When I had my abortion, I felt supported by the people I was close to.*	0	1	2	3	4
135 I felt safe to ask for support about my abortion.*	0	1	2	3	4

The following statements are about **how you have *recently* felt** about your abortion. Make the selection that best describes your *worst experience*.

Items ** Item is reverse-coded*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
136 I felt like a bad person.	0	1	2	3	4
137 I felt good about my decision(s).*	0	1	2	3	4
138 I felt ashamed about my abortion(s).	0	1	2	3	4

139 I felt selfish about my abortion(s).	0	1	2	3	4
140 I felt guilty about my abortion(s).	0	1	2	3	4
141 I felt sad about my abortion(s).	0	1	2	3	4
142 I felt I let my culture down.	0	1	2	3	4
143 I felt judged by people around me.	0	1	2	3	4
144 I felt judgement from myself.	0	1	2	3	4
145 I felt I let myself down.	0	1	2	3	4
146 I felt empowered by my abortion(s).*	0	1	2	3	4
147 I felt that I had done a bad thing.	0	1	2	3	4

The following questions are about **your community** and how <u>you think</u> **the people around you** view abortion. Consider the people a few degrees away from your close relationships.

Make the selection that best describes <u>your perceptions</u> of **how many people** in your <u>current</u> community hold the following opinions about abortion.

Items ** Item is reverse-coded*	**Answer Options**				
	No one	A few people	About half the people	Many people	Most people
148 Abortion is always wrong.	0	1	2	3	4
149 Abortion is the same as murder.	0	1	2	3	4
150 Abortion should be avoided.	0	1	2	3	4
151 There is never a good reason for an abortion.	0	1	2	3	4
152 One abortion is understandable, but more than one is bad.	0	1	2	3	4
153 Abortion can be good for people.*	0	1	2	3	4
154 Abortion is the lazy way out of an unplanned pregnancy.	0	1	2	3	4
155 Abortion should be legal and available.*	0	1	2	3	4
156 Abortion access is a right.*	0	1	2	3	4
157 Abortion access should be restricted by a pregnant person's age.	0	1	2	3	4
158 It is okay to have positive feelings about abortion.*	0	1	2	3	4
159 Abortion is regrettable.	0	1	2	3	4
160 Abortion should be punishable.	0	1	2	3	4

The following questions are about **your abortion experience**. Make the selection that best describes your experience.

Items		Answer Options				
		Not at all	A bit	To some extent	Quite a bit	Extensively
161	I felt safe (physically and emotionally) accessing my abortion(s).*	0	1	2	3	4
162	Messages in the media made me feel bad about my abortion(s).	0	1	2	3	4
163	I have been harassed online because of my abortion(s).	0	1	2	3	4
164	I have been verbally harassed because of my abortion(s).	0	1	2	3	4
165	I have been physically harassed because of my abortion(s).	0	1	2	3	4
166	I have been denied opportunities because of my abortion(s).	0	1	2	3	4
167	I have lost relationships because of my abortion(s)	0	1	2	3	4
168	I was upset at having to pay out of pocket for my abortion(s).	0	1	2	3	4

Right now, how much abortion stigma do you feel?

None to a little amount	Some	A moderate amount	A lot	An extreme amount
0	1	2	3	4

If you have any comments you would like to make, please do so below.

End of survey information

The above questions explore how common and severe abortion stigma is in Australia. This information will help address abortion stigma and support people who seek and/or have had abortions.

The following information is the best available at time of publication. The numbers may be under representative. In Australia, collection of abortion related information is not standardised; states and territories report abortion differently, there is no routine abortion data collection, and there is no national data published.

The majority of the Australian community (87%) believe abortion should be legal [(1)]. More than half of people in Australia (53.6%) believe abortion should be allowed for any reason in the first 3

months [2]. Despite support for legal abortion and choice, some people who have had an abortion(s) experience stigmatisation. This is what is known about abortion in Australia:

- Abortion is decriminalised across all Australian states and territories. Each jurisdiction has different rules as to when an abortion is available "on request" and when permission from a doctor is needed.
- When legal, abortion is a medically safe procedure with lower risk than birth.
- Abortion is common when a pregnancy is unintended. One-third of unintended pregnancies in Australia between 2008 and 2018 ended in medication or surgical abortion [3].
- During 2017-18 it is estimated there were 88,287 medication or surgical abortions in Australia [4]. This is estimated to be one abortion per every three to four known pregnancies, or 25-33% of known pregnancies.

If you wish to talk about your abortion(s) experience further from a pro-choice perspective, these services are available:

- National:
  - Marie Stopes Australia, 1300 863 546
  - Family Planning Talkline, 1300 658 886
  - 1800RESPECT, confidential information, counselling, and support services, call 1800 737 732 or visit https://www.1800respect.org.au/
- Queensland:
  - Children by Choice, counselling, information and referral for sexual and reproductive health choices, call 1800177725 or visit https://www.childrenbychoice.org.au/
- NSW:
  - NSW Pregnancy Choices Helpline, support for free, unbiased and confidential information on pregnancy options, call 1800 008 463 or visit https://www.pregnancychoices.org.au/
- ACT:
  - Sexual Health and Family Planning ACT (SHFPACT), free, confidential, respectful, non-judgemental, and non-directive counselling, call 02 6247 3077 or visit https://www.shfpact.org.au/unplanned-pregnancy-services
- Victoria:
  - 1800MyOptions, free, confidential, and pro-choice information about contraception, pregnancy options, and sexual health in Victoria, call 1800 696 784 or visit https://www.1800myoptions.org.au/
- Tasmania:
  - Women's Health Tasmania, compassionate and confidential information and support on pregnancy choices, call 1800 675 028 or visit https://www.womenshealthtas.org.au/pregnancy-choices-information
- South Australia:
  - Pregnancy Advisory Centre, government health service, call 1800 672 966 or visit https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/services/health+services+for/womens+health+services/unplanned+pregnancy+services/unplanned+pregnancy+services
  - SHINE SA, call 8300 5300 or visit https://shinesa.org.au/health-information/pregnancy/information-on-abortion-in-south-australia/
- Western Australia:
  - Sexual health Quarters helpline, confidential information and referrals, call 9227 6178 (metro), 1800 198 205 (country), or visit https://shq.org.au/helpline/
- Northern Territory:

- Family Planning Welfare Association of NT, call (08) 8948 0144 or visit http://www.fpwnt.com.au/.

These services are also available:

- Blue Knot, a service empowering recovery from complex trauma, call 1300 657 380, 1800 421 468 (disability specific), or visit https://blueknot.org.au/
- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/

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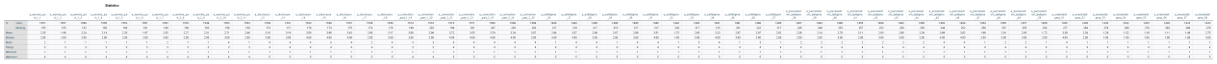
Appendix 5.2. Output from psychometric analysis of ILAS-Aus

i. *Pattern in missing data*

1. *Pattern of response to ILAS-Aus (time point 1)*



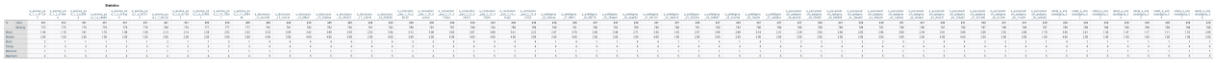
2. Frequency of number of missing items

numissAS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1227	71.7	71.7	71.7
	1.00	137	8.0	8.0	79.7
	2.00	36	2.1	2.1	81.8
	3.00	18	1.1	1.1	82.8
	4.00	4	.2	.2	83.1
	5.00	4	.2	.2	83.3
	6.00	3	.2	.2	83.5
	7.00	1	.1	.1	83.5
	8.00	23	1.3	1.3	84.9
	9.00	4	.2	.2	85.1
	10.00	2	.1	.1	85.2
	12.00	1	.1	.1	85.3
	14.00	1	.1	.1	85.3
	19.00	3	.2	.2	85.5
	21.00	30	1.8	1.8	87.3
	22.00	7	.4	.4	87.7
	31.00	1	.1	.1	87.7
	33.00	12	.7	.7	88.4
	34.00	5	.3	.3	88.7
	37.00	1	.1	.1	88.8
	40.00	24	1.4	1.4	90.2
	41.00	3	.2	.2	90.4
	42.00	1	.1	.1	90.4
	47.00	15	.9	.9	91.3
	55.00	1	.1	.1	91.4
	58.00	148	8.6	8.6	100.0
	Total	1712	100.0	100.0	

3. MCAR Test

ii. Pattern of response to ILAS-Aus (time point 2)



1. Frequency of number of missing items

numissASretest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	384	31.3	31.3	31.3
	1.00	32	2.6	2.6	33.9
	2.00	10	.8	.8	34.7
	3.00	2	.2	.2	34.9
	5.00	1	.1	.1	35.0
	8.00	2	.2	.2	35.1
	21.00	6	.5	.5	35.6
	22.00	1	.1	.1	35.7
	33.00	1	.1	.1	35.8
	34.00	1	.1	.1	35.9
	40.00	6	.5	.5	36.3
	47.00	6	.5	.5	36.8
	58.00	775	63.2	63.2	100.0
	Total	1227	100.0	100.0	

2. MCAR Test

iii. *Difference between complete and incomplete cases*

1. Number of abortions X in/complete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_cases * a_number_of_abortions	1689	98.7%	23	1.3%	1712	100.0%

incomplete_cases * a_number_of_abortions Crosstabulation

			a_number_of_abortions		
			1	2	Total
incomplete_cases	complete	Count	843	382	1225
		Expected Count	852.2	372.8	1225.0
	incomplete	Count	332	132	464
		Expected Count	322.8	141.2	464.0
Total		Count	1175	514	1689

	Expected Count	1175.0	514.0	1689.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.189[a]	1	.275		
Continuity Correction[b]	1.064	1	.302		
Likelihood Ratio	1.199	1	.274		
Fisher's Exact Test				.287	.151
Linear-by-Linear Association	1.189	1	.276		
N of Valid Cases	1689				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 141.21.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.027	.275
	Cramer's V	.027	.275
N of Valid Cases		1689	

2. Recent stigma (<2 yrs, >2yrs, never) X time 1 in/complete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_cases * stigma <2yrs, >2yrs, never	1691	98.8%	21	1.2%	1712	100.0%

incomplete_cases * stigma <2yrs, >2yrs, never Crosstabulation

			stigma <2yrs, >2yrs, never			
			1.00	2.00	3.00	Total
incomplete_cases	complete	Count	656	319	251	1226
			53.51%	26.02	20.47	
		Expected Count	623.5	312.5	290.0	1226.0
	incomplete	Count	204	112	149	465
			43.81	24.09	32.04	
		Expected Count	236.5	118.5	110.0	465.0

Total	Count	860	431	400	1691
	Expected Count	860.0	431.0	400.0	1691.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.729[a]	2	<.001
Likelihood Ratio	24.783	2	<.001
Linear-by-Linear Association	22.577	1	<.001
N of Valid Cases	1691		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 109.99.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.123	<.001
	Cramer's V	.123	<.001
N of Valid Cases		1691	

3. Number of abortions X retest in/complete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_retest_cases * a_number_of_abortions	1689	98.7%	23	1.3%	1712	100.0%

incomplete_retest_cases * a_number_of_abortions Crosstabulation

			a_number_of_abortions		
			1	2	Total
incomplete_retest_cases	complete	Count	288	143	431
		Expected Count	299.8	131.2	431.0
	incomplete	Count	887	371	1258
		Expected Count	875.2	382.8	1258.0
Total		Count	1175	514	1689
		Expected Count	1175.0	514.0	1689.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.062[a]	1	.151		
Continuity Correction[b]	1.891	1	.169		
Likelihood Ratio	2.040	1	.153		
Fisher's Exact Test				.163	.085
Linear-by-Linear Association	2.060	1	.151		
N of Valid Cases	1689				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 131.16.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.035	.151
	Cramer's V	.035	.151
N of Valid Cases		1689	

4. Recent stigma X retest (in)complete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_retest_cases * stigma <2yrs, >2yrs, never	1691	98.8%	21	1.2%	1712	100.0%

incomplete_retest_cases * stigma <2yrs, >2yrs, never Crosstabulation

			stigma <2yrs, >2yrs, never			
			1.00	2.00	3.00	Total
incomplete_retest_cases	complete	Count	216	118	97	431
		Expected Count	219.2	109.9	102.0	431.0
	incomplete	Count	644	313	303	1260
		Expected Count	640.8	321.1	298.0	1260.0
Total		Count	860	431	400	1691
		Expected Count	860.0	431.0	400.0	1691.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.196[a]	2	.550
Likelihood Ratio	1.187	2	.552
Linear-by-Linear Association	.014	1	.905
N of Valid Cases	1691		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 101.95.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.027	.550
	Cramer's V	.027	.550
N of Valid Cases		1691	

iv. *Structural validity*

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	18503.393
	df	1081
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.444	28.603	28.603	13.444	28.603	28.603	7.219	15.360	15.360
2	4.762	10.132	38.735	4.762	10.132	38.735	7.111	15.129	30.489
3	3.212	6.834	45.569	3.212	6.834	45.569	3.720	7.915	38.404
4	2.782	5.919	51.488	2.782	5.919	51.488	3.170	6.744	45.148
5	2.295	4.883	56.372	2.295	4.883	56.372	3.053	6.496	51.644

6	1.920	4.085	60.456	1.920	4.085	60.456	2.943	6.263	57.907
7	1.523	3.240	63.696	1.523	3.240	63.696	2.721	5.789	63.696
8	1.167	2.482	66.178						
9	.896	1.905	68.083						
10	.891	1.895	69.979						
11	.839	1.785	71.764						
12	.792	1.685	73.449						
13	.777	1.653	75.103						
14	.714	1.519	76.621						
15	.690	1.468	78.089						
16	.658	1.400	79.489						
17	.598	1.272	80.761						
18	.578	1.229	81.990						
19	.525	1.117	83.107						
20	.493	1.048	84.155						
21	.480	1.022	85.177						
22	.451	.960	86.137						
23	.435	.926	87.062						
24	.427	.908	87.970						
25	.371	.790	88.760						
26	.362	.769	89.529						
27	.354	.752	90.282						
28	.345	.733	91.015						
29	.330	.702	91.716						
30	.322	.685	92.401						
31	.306	.651	93.052						
32	.299	.636	93.688						
33	.280	.595	94.284						
34	.257	.547	94.830						
35	.256	.545	95.375						
36	.237	.504	95.879						
37	.227	.483	96.362						
38	.218	.465	96.827						
39	.205	.435	97.262						
40	.200	.425	97.687						
41	.188	.399	98.086						
42	.183	.389	98.475						
43	.169	.359	98.834						
44	.166	.354	99.188						
45	.149	.318	99.506						
46	.124	.263	99.769						
47	.109	.231	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
a_perceivedcom_tystigma_41	.816						
a_perceivedcom_tystigma_39	.816						
a_perceivedcom_tystigma_38	.805						
a_perceivedcom_tystigma_46	-.768						
a_perceivedcom_tystigma_44	.747						
a_perceivedcom_tystigma_45	-.744						
a_perceivedcom_tystigma_50	.727						
a_perceivedcom_tystigma_40	.719						
a_perceivedcom_tystigma_42	.699						
a_perceivedcom_tystigma_48	-.615						
a_perceivedcom_tystigma_47	.591						
a_perceivedcom_tystigma_43	-.588						
a_perceivedcom_tystigma_49	.508						
a_selfstigma_30		.835					
a_selfstigma_37		.796					
a_selfstigma_35		.795					
a_selfstigma_34		.790					
a_selfstigma_29		.788					
a_selfstigma_26		.782					
a_selfstigma_28		.770					
a_selfstigma_31		.763					
a_selfstigma_27		-.744					
a_selfstigma_36		-.546					
a_selfstigma_32		.509					
a_worries_part_1_6			.804				
a_worries_part_1_3		.309	.801				
a_worries_part_1_2			.775				
a_worries_part_1_4		.370	.624				
a_worries_part_1_7		.305	.600	.377			
a_worries_part_1_5			.593	.336			
a_disclosure_13				.831			
a_disclosure_14				.830			
a_disclosure_12				-.721			
a_disclosure_15				.688			
a_enactedstigma_55					.828		
a_enactedstigma_54					.722		
a_enactedstigma_56					.713		

a_enactedstigma_53					.663		
a_enactedstigma_57					.627		
a_connection_part_2_24						.875	
a_connection_part_2_21						.821	
a_connection_part_2_25						.787	
a_connection_part_2_23				-.309		.617	
a_worries_part_2_9							.813
a_worries_part_2_11							.794
a_worries_part_2_10							.760
a_worries_part_2_8							.612

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	25658.548
	df	528
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.609	29.119	29.119	9.609	29.119	29.119	6.206	18.806	18.806
2	4.184	12.678	41.796	4.184	12.678	41.796	5.477	16.596	35.402
3	2.493	7.555	49.351	2.493	7.555	49.351	2.930	8.880	44.282
4	2.435	7.379	56.730	2.435	7.379	56.730	2.474	7.497	51.779
5	1.761	5.337	62.067	1.761	5.337	62.067	2.278	6.902	58.682
6	1.445	4.378	66.445	1.445	4.378	66.445	2.102	6.370	65.051
7	1.124	3.408	69.853	1.124	3.408	69.853	1.584	4.801	69.853
8	.803	2.434	72.287						
9	.722	2.188	74.475						
10	.678	2.054	76.529						
11	.605	1.834	78.363						
12	.569	1.723	80.086						
13	.539	1.632	81.718						
14	.511	1.549	83.267						
15	.426	1.290	84.557						

16	.421	1.275	85.832						
17	.406	1.231	87.063						
18	.393	1.190	88.253						
19	.367	1.111	89.363						
20	.350	1.061	90.425						
21	.338	1.024	91.449						
22	.318	.962	92.411						
23	.308	.933	93.344						
24	.297	.899	94.243						
25	.272	.824	95.067						
26	.248	.752	95.819						
27	.237	.718	96.537						
28	.231	.700	97.237						
29	.214	.649	97.885						
30	.202	.613	98.499						
31	.181	.547	99.046						
32	.171	.519	99.565						
33	.144	.435	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
a_selfstigma_30	.871						
a_selfstigma_34	.815						
a_selfstigma_26	.810						
a_selfstigma_35	.804						
a_selfstigma_37	.800						
a_selfstigma_29	.799						
a_selfstigma_28	.767						
a_selfstigma_31	.755						
a_selfstigma_27	-.711						
a_perceivedcom_tystigma_39		.864					
a_perceivedcom_tystigma_38		.840					
a_perceivedcom_tystigma_41		.836					
a_perceivedcom_tystigma_44		.773					
a_perceivedcom_tystigma_40		.753					
a_perceivedcom_tystigma_50		.742					
a_perceivedcom_tystigma_42		.703					
a_perceivedcom_tystigma_47		.619					
a_perceivedcom_tystigma_49		.580					
a_disclosure_13			.851				
a_disclosure_14			.838				

a_disclosure_12			-.762				
a_disclosure_15			.682				
a_connection_part_2_24				.897			
a_connection_part_2_21				.870			
a_connection_part_2_25				.810			
a_worries_part_2_9					.855		
a_worries_part_2_11					.841		
a_worries_part_2_10					.792		
a_enactedstigma_54						.837	
a_enactedstigma_55						.833	
a_enactedstigma_53						.748	
a_worries_part_1_6							.818
a_worries_part_1_3	.306						.811

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

v. *Internal consistency: Cronbach's alphas*

1. *Perceived community stigma.*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.912	9

Inter-Item Correlation Matrix

	a_perceivedcom_tystigma_39	a_perceivedcom_tystigma_38	a_perceivedcom_tystigma_41	a_perceivedcom_tystigma_44	a_perceivedcom_tystigma_40	a_perceivedcom_tystigma_50	a_perceivedcom_tystigma_42	a_perceivedcom_tystigma_47	a_perceivedcom_tystigma_49
a_perceivedcom_tystigma_39	1.000	.830	.813	.645	.600	.675	.531	.466	.423
a_perceivedcom_tystigma_38	.830	1.000	.754	.612	.642	.606	.538	.431	.422
a_perceivedcom_tystigma_41	.813	.754	1.000	.652	.596	.626	.549	.438	.407
a_perceivedcom_tystigma_44	.645	.612	.652	1.000	.561	.540	.586	.436	.456
a_perceivedcom_tystigma_40	.600	.642	.596	.561	1.000	.456	.590	.370	.506

a_perceivedcom_tystigma_50	.675	.606	.626	.540	.456	1.000	.423	.489	.398
a_perceivedcom_tystigma_42	.531	.538	.549	.586	.590	.423	1.000	.402	.459
a_perceivedcom_tystigma_47	.466	.431	.438	.436	.370	.489	.402	1.000	.340
a_perceivedcom_tystigma_49	.423	.422	.407	.456	.506	.398	.459	.340	1.000

2. *Internalised stigma.*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.939	9

Inter-Item Correlation Matrix

	a_selfstigma_26	a_selfstigma_27rev	a_selfstigma_28	a_selfstigma_29	a_selfstigma_30	a_selfstigma_31	a_selfstigma_34	a_selfstigma_35	a_selfstigma_37
a_selfstigma_26	1.000	.565	.740	.678	.748	.531	.672	.636	.696
a_selfstigma_27rev	.565	1.000	.526	.525	.565	.542	.499	.501	.547
a_selfstigma_28	.740	.526	1.000	.665	.728	.482	.679	.651	.675
a_selfstigma_29	.678	.525	.665	1.000	.769	.530	.630	.622	.651
a_selfstigma_30	.748	.565	.728	.769	1.000	.613	.731	.694	.733
a_selfstigma_31	.531	.542	.482	.530	.613	1.000	.586	.563	.533
a_selfstigma_34	.672	.499	.679	.630	.731	.586	1.000	.786	.697
a_selfstigma_35	.636	.501	.651	.622	.694	.563	.786	1.000	.707
a_selfstigma_37	.696	.547	.675	.651	.733	.533	.697	.707	1.000

3. *Anticipated healthcare stigma.*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.834	.834	3

Inter-Item Correlation Matrix

	a_worries_part_2_11	a_worries_part_2_10	a_worries_part_2_9
a_worries_part_2_11	1.000	.660	.646
a_worries_part_2_10	.660	1.000	.574
a_worries_part_2_9	.646	.574	1.000

4. *Enacted stigma*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.764	.778	3

Inter-Item Correlation Matrix

	a_enactedstigma_53	a_enactedstigma_55	a_enactedstigma_54
a_enactedstigma_53	1.000	.437	.536
a_enactedstigma_55	.437	1.000	.642
a_enactedstigma_54	.536	.642	1.000

5. *Anticipated interpersonal stigma*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.849	.849	2

Inter-Item Correlation Matrix

	a_worries_part_1_6	a_worries_part_1_3
a_worries_part_1_6	1.000	.737
a_worries_part_1_3	.737	1.000

6. *Disclosure and secrecy*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.845	4

Inter-Item Correlation Matrix

	a_disclosure_13	a_disclosure_14	a_disclosure_12rev	a_disclosure_15
a_disclosure_13	1.000	.776	.669	.511
a_disclosure_14	.776	1.000	.634	.526
a_disclosure_12rev	.669	.634	1.000	.348
a_disclosure_15	.511	.526	.348	1.000

7. Support

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.886	.886	3

Inter-Item Correlation Matrix

	a_connection_part_2_21rev	a_connection_part_2_24rev	a_connection_part_2_25rev
a_connection_part_2_21rev	1.000	.767	.625
a_connection_part_2_24rev	.767	1.000	.771
a_connection_part_2_25rev	.625	.771	1.000

8. Full scale

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.919	.917	33

vi. Measurement error and reliability

1. Standard error of measurement

Subscale	SD (s)	Cronbach's alpha ®	SEm ($SE_m = s\sqrt{1-R}$)
Internalised Stigma	1.16	.939	.25
Perceived stigmatising community attitudes	.78	.908	.30
Disclosure and Secrecy	1.08	.845	.39
Community Support	1.24	.886	.34
Anticipated healthcare stigma	.99	.834	.41
Enacted Stigma	.65	.763	.49
Anticipated interpersonal stigma	1.06	.849	.39

2. ICC: internalised

Case Processing Summary

		N	%
Cases	Valid	427	34.8
	Excluded[a]	800	65.2
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.913	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.839[a]	.808	.865	11.486	426	426	<.001
Average Measures	.912	.894	.928	11.486	426	426	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

3. ICC: perceived

Case Processing Summary

		N	%
Cases	Valid	425	34.6
	Excluded[a]	802	65.4
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.835	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.717[a]	.668	.760	6.060	424	424	<.001
Average Measures	.835	.801	.864	6.060	424	424	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

4. ICC: disclosure

Case Processing Summary

		N	%
Cases	Valid	444	36.2
	Excluded[a]	783	63.8
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.892	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.805[a]	.769	.835	9.242	443	443	<.001
Average Measures	.892	.870	.910	9.242	443	443	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

5. ICC: support

Case Processing Summary

		N	%
Cases	Valid	436	35.5
	Excluded[a]	791	64.5
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.899	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.817[a]	.783	.846	9.924	435	435	<.001
Average Measures	.899	.879	.917	9.924	435	435	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

6. ICC: anticipated healthcare

Case Processing Summary

		N	%
Cases	Valid	447	36.4

	Excluded[a]	780	63.6
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.804	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.670[a]	.615	.718	5.096	446	446	<.
Average Measures	.802	.762	.836	5.096	446	446	<.

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

7. ICC: enacted

Case Processing Summary

		N	%
Cases	Valid	428	34.9
	Excluded[a]	799	65.1
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.871	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.772[a]	.731	.808	7.774	427	427	<.001
Average Measures	.872	.845	.894	7.774	427	427	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

8. ICC: anticipated interpersonal

Case Processing Summary

		N	%
Cases	Valid	450	36.7
	Excluded[a]	777	63.3
	Total	1227	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.783	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.607[a]	.477	.701	4.609	449	449	<.001
Average Measures	.756	.646	.824	4.609	449	449	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

9. ICC after 2/5/22: Internalized stigma.

Case Processing Summary

		N	%
Cases	Valid	293	26.0
	Excluded[a]	833	74.0
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.794	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.638[a]	.542	.714	4.854	292	292	<.001
Average Measures	.779	.703	.833	4.854	292	292	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

10. ICC after 2/5/22: Perceived stigmatizing community attitudes.

Case Processing Summary

		N	%
Cases	Valid	396	35.2
	Excluded[a]	730	64.8
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.545	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.300[a]	.098	.460	2.200	395	395	<.001
Average Measures	.462	.178	.630	2.200	395	395	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

11. ICC after 2/5/22: Disclosure and Secrecy.

Case Processing Summary

		N	%
Cases	Valid	333	29.6

	Excluded[a]	793	70.4
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.543	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.326[a]	.170	.455	2.189	332	332	<.001
Average Measures	.491	.291	.626	2.189	332	332	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

12. ICC after 2/5/22: Community support.

Case Processing Summary

		N	%
Cases	Valid	196	17.4
	Excluded[a]	930	82.6
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.883	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.791[a]	.732	.838	8.533	195	195	<.001
Average Measures	.883	.845	.912	8.533	195	195	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

13. ICC after 2/5/22: Anticipated stigma: healthcare.

Case Processing Summary

		N	%
Cases	Valid	416	36.9
	Excluded[a]	710	63.1
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.784	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.644[a]	.584	.697	4.624	415	415	<.001
Average Measures	.783	.737	.821	4.624	415	415	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

14. ICC after 2/5/22: Enacted stigma.

Case Processing Summary

		N	%
Cases	Valid	399	35.4
	Excluded[a]	727	64.6
	Total	1126	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.880	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.785[a]	.744	.820	8.301	398	398	<.001
Average Measures	.879	.853	.901	8.301	398	398	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

15. ICC after 2/5/22: Anticipated stigma: interpersonal

Case Processing Summary

		N	%
Cases	Valid	422	37.2
	Excluded[a]	712	62.8
	Total	1134	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.779	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.602[a]	.470	.697	4.526	421	421	<.001
Average Measures	.751	.639	.821	4.526	421	421	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

vii. Responsiveness

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	InternalisedStigma_pre_score	.	0[a]	.	.

	InternalisedStigma_retest_post_score	.	0[a]	.	.
Pair 2	PerceivedStigma_pre_score	.	0[a]	.	.
	PerceivedStigma_retest_post_score	.	0[a]	.	.
Pair 3	DisclosureSecrecy_pre_score	.	0[a]	.	.
	DisclosureSecrecy_retest_post_score	.	0[a]	.	.
Pair 4	CommunitySupport_pre_score	.	0[a]	.	.
	CommunitySupport_retest_post_score	.	0[a]	.	.
Pair 5	AnticipatedStigma_pre_score	.	0[a]	.	.
	AnticipatedStigma_retest_post_score	.	0[a]	.	.
Pair 6	EnactedStigma_pre_score	.	0[a]	.	.
	EnactedStigma_retest_post_score	.	0[a]	.	.
Pair 7	AnticipatedHarm_pre_score	.	0[a]	.	.
	AnticipatedHarm_retest_post_score	.	0[a]	.	.
Pair 8	TotalStigma_pre_score	.	0[a]	.	.
	TotalRetestStigma_post_score	.	0[a]	.	.

a. The correlation and t cannot be computed because there are no valid pairs.

viii. Hypothesis testing.

1. Correlation between RAS and abortion stigma subscales.

Correlations

		PerceivedStigma_score	InternalisedStigma_score	AnticipatedStigma_score	AnticipatedHarm_score	CommunitySupport_score	EnactedStigma_score	DisclosureSecrecy_score
PerceivedStigma_score	Pearson Correlation	1	.310**	.284**	.302**	.254**	.261**	.241**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
InternalisedStigma_score	Pearson Correlation	.310**	1	.201**	.446**	.303**	.110**	.382**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
AnticipatedStigma_score	Pearson Correlation	.284**	.201**	1	.253**	.273**	.296**	.153**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227

AnticipatedHarm_score	Pearson Correlation	.302**	.446**	.253**	1	.293**	.181**	.392**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
CommunitySupport_score	Pearson Correlation	.254**	.303**	.273**	.293**	1	.173**	.277**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
EnactedStigma_score	Pearson Correlation	.261**	.110**	.296**	.181**	.173**	1	-.069*
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		.015
	N	1227	1227	1227	1227	1227	1227	1227
DisclosureSecrecy_score	Pearson Correlation	.241**	.382**	.153**	.392**	.277**	-.069*	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	.015	
	N	1227	1227	1227	1227	1227	1227	1227
RAS_decisionmaking	Pearson Correlation	-.162**	-.254**	-.040	-.174**	-.085**	-.097**	-.159**
	Sig. (2-tailed)	<.001	<.001	.177	<.001	.004	<.001	<.001
	N	1153	1153	1153	1153	1153	1153	1153
RAS_freedom	Pearson Correlation	.207**	.136**	.180**	.133**	.267**	.286**	.077**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	.008
	N	1155	1155	1155	1155	1155	1155	1155
RAS_communication	Pearson Correlation	-.210**	-.185**	-.141**	-.160**	-.344**	-.237**	-.106**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	1151	1151	1151	1151	1151	1151	1151

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

2. Correlation between religiosity and abortion stigma subscales.

Correlations

		PerceivedStigma_score	InternalisedStigma_score	AnticipatedStigma_score	AnticipatedHarm_score	CommunitySupport_score	EnactedStigma_score	DisclosureSecrecy_score	CRS
PerceivedStigma_score	Pearson Correlation	1	.310**	.284**	.302**	.254**	.261**	.241**	.104**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227	1227
InternalisedStigma_score	Pearson Correlation	.310**	1	.201**	.446**	.303**	.110**	.382**	.136**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227	1227
AnticipatedStigma_score	Pearson Correlation	.284**	.201**	1	.253**	.273**	.296**	.153**	-.001
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	.962
	N	1227	1227	1227	1227	1227	1227	1227	1227
AnticipatedHarm_score	Pearson Correlation	.302**	.446**	.253**	1	.293**	.181**	.392**	.123**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227	1227
CommunitySupport_score	Pearson Correlation	.254**	.303**	.273**	.293**	1	.173**	.277**	.056
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	.051
	N	1227	1227	1227	1227	1227	1227	1227	1227
EnactedStigma_score	Pearson Correlation	.261**	.110**	.296**	.181**	.173**	1	-.069*	.055
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		.015	.055
	N	1227	1227	1227	1227	1227	1227	1227	1227
DisclosureSecrecy_score	Pearson Correlation	.241**	.382**	.153**	.392**	.277**	-.069*	1	.066*
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	.015		.021
	N	1227	1227	1227	1227	1227	1227	1227	1227
CRS	Pearson Correlation	.104**	.136**	-.001	.123**	.056	.055	.066*	1
	Sig. (2-tailed)	<.001	<.001	.962	<.001	.051	.055	.021	
	N	1227	1227	1227	1227	1227	1227	1227	1227

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

3. Relationship between CRS categories and abortion stigma subscales.

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Internalised Stigma_score	not religious	737	2.7820	1.17028	.04311	2.6974	2.8666	1.00	5.00
	religious	378	3.1529	1.10758	.05697	3.0408	3.2649	1.00	5.00
	highly religious	21	3.3545	1.26375	.27577	2.7792	3.9297	1.00	5.00
	Total	1136	2.9160	1.16516	.03457	2.8482	2.9838	1.00	5.00
PerceivedStigma_score	not religious	737	2.3504	.77969	.02872	2.2940	2.4068	1.00	5.00
	religious	378	2.4183	.74520	.03833	2.3429	2.4936	1.00	4.56
	highly religious	21	3.0899	.84883	.18523	2.7036	3.4763	1.89	5.00
	Total	1136	2.3866	.77569	.02301	2.3415	2.4318	1.00	5.00
DisclosureSecrecy_score	not religious	737	3.3331	1.08932	.04013	3.2543	3.4119	1.00	5.00
	religious	378	3.4841	1.05033	.05402	3.3779	3.5904	1.00	5.00
	highly relgious	21	3.6905	1.03653	.22619	3.2187	4.1623	1.00	5.00
	Total	1136	3.3900	1.07776	.03198	3.3272	3.4527	1.00	5.00
Community Support_score	not religious	737	2.5708	1.23353	.04544	2.4816	2.6600	1.00	5.00
	religious	378	2.7134	1.24338	.06395	2.5877	2.8392	1.00	5.00
	highly relgious	21	3.0159	1.52562	.33292	2.3214	3.7103	1.00	5.00
	Total	1136	2.6265	1.24441	.03692	2.5540	2.6989	1.00	5.00
AnticipatedStigma_score	not religious	737	2.5097	.99695	.03672	2.4376	2.5818	1.00	4.00
	religious	378	2.4841	1.00245	.05156	2.3827	2.5855	1.00	4.00
	highly relgious	21	2.7460	.90618	.19774	2.3335	3.1585	1.33	4.00
	Total	1136	2.5056	.99699	.02958	2.4475	2.5636	1.00	4.00
EnactedStigma_score	not religious	737	1.2935	.57859	.02131	1.2517	1.3354	1.00	5.00
	religious	378	1.3377	.69797	.03590	1.2672	1.4083	1.00	5.00
	highly relgious	21	1.7619	1.08599	.23698	1.2676	2.2562	1.00	5.00
	Total	1136	1.3169	.63549	.01885	1.2799	1.3539	1.00	5.00
Anticipated Harm_score	not religious	737	2.0190	1.03356	.03807	1.9443	2.0937	1.00	4.00
	religious	378	2.2923	1.07719	.05540	2.1834	2.4013	1.00	4.00
	highly relgious	21	2.7381	1.12493	.24548	2.2260	3.2502	1.00	4.00
	Total	1136	2.1232	1.06019	.03146	2.0615	2.1850	1.00	4.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
InternalisedStigma_score	Between Groups	38.477	2	19.238	14.508	<.001
	Within Groups	1502.405	1133	1.326		
	Total	1540.882	1135			

PerceivedStigma_score	Between Groups	11.736	2	5.868	9.905	<.001
	Within Groups	671.197	1133	.592		
	Total	682.933	1135			
DisclosureSecrecy_score	Between Groups	7.631	2	3.815	3.298	.037
	Within Groups	1310.740	1133	1.157		
	Total	1318.371	1135			
CommunitySupport_score	Between Groups	8.327	2	4.163	2.697	.068
	Within Groups	1749.282	1133	1.544		
	Total	1757.609	1135			
AnticipatedStigma_score	Between Groups	1.401	2	.700	.704	.495
	Within Groups	1126.786	1133	.995		
	Total	1128.187	1135			
EnactedStigma_score	Between Groups	4.725	2	2.363	5.901	.003
	Within Groups	453.635	1133	.400		
	Total	458.360	1135			
AnticipatedHarm_score	Between Groups	26.755	2	13.378	12.135	<.001
	Within Groups	1248.991	1133	1.102		
	Total	1275.746	1135			

Multiple Comparisons

Dependent Variable	(I) CRS_categories	(J) CRS_categories	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
InternalisedStigma_score	not religious	religious	-.37085*	.07285	<.001	-.5418	-.1999
		highly religious	-.57250	.25484	.064	-1.1706	.0256
	religious	not religious	.37085*	.07285	<.001	.1999	.5418
		highly religious	-.20165	.25817	.715	-.8075	.4042
	highly religious	not religious	.57250	.25484	.064	-.0256	1.1706
		religious	.20165	.25817	.715	-.4042	.8075
PerceivedStigma_score	not religious	religious	-.06791	.04869	.344	-.1822	.0464
		highly religious	-.73958*	.17033	<.001	-1.1393	-.3398
	religious	not religious	.06791	.04869	.344	-.0464	.1822
		highly religious	-.67166*	.17256	<.001	-1.0766	-.2667
	highly religious	not religious	.73958*	.17033	<.001	.3398	1.1393
		religious	.67166*	.17256	<.001	.2667	1.0766
DisclosureSecrecy_score	not religious	religious	-.15102	.06805	.068	-.3107	.0087
		highly religious	-.35737	.23803	.291	-.9160	.2012
	religious	not religious	.15102	.06805	.068	-.0087	.3107
		highly religious	-.20635	.24114	.668	-.7723	.3596
	highly religious	not religious	.35737	.23803	.291	-.2012	.9160
		religious	.20635	.24114	.668	-.3596	.7723

CommunitySupport_score	not religious	religious	-.14262	.07861	.165	-.3271	.0419
		highly religious	-.44509	.27498	.238	-1.0904	.2002
	religious	not religious	.14262	.07861	.165	-.0419	.3271
		highly religious	-.30247	.27858	.523	-.9562	.3513
	highly religious	not religious	.44509	.27498	.238	-.2002	1.0904
		religious	.30247	.27858	.523	-.3513	.9562
AnticipatedStigma_score	not religious	religious	.02560	.06309	.913	-.1225	.1737
		highly religious	-.23631	.22070	.532	-.7542	.2816
	religious	not religious	-.02560	.06309	.913	-.1737	.1225
		highly religious	-.26190	.22358	.471	-.7866	.2628
	highly religious	not religious	.23631	.22070	.532	-.2816	.7542
		religious	.26190	.22358	.471	-.2628	.7866
EnactedStigma_score	not religious	religious	-.04421	.04003	.512	-.1382	.0497
		highly religious	-.46837*	.14003	.002	-.7970	-.1397
	religious	not religious	.04421	.04003	.512	-.0497	.1382
		highly religious	-.42416*	.14186	.008	-.7571	-.0912
	highly religious	not religious	.46837*	.14003	.002	.1397	.7970
		religious	.42416*	.14186	.008	.0912	.7571
AnticipatedHarm_score	not religious	religious	-.27333*	.06642	<.001	-.4292	-.1174
		highly religious	-.71910*	.23236	.006	-1.2644	-.1738
	religious	not religious	.27333*	.06642	<.001	.1174	.4292
		highly relgious	-.44577	.23539	.141	-.9982	.1067
	highly religious	not religious	.71910*	.23236	.006	.1738	1.2644
		religious	.44577	.23539	.141	-.1067	.9982

*. The mean difference is significant at the 0.05 level.

4. Relationship between attitudes and abortion stigma subscales.

Correlations

		InternalisedStigma_score	PerceivedStigma_score	DisclosureSecrecy_score	CommunitySupport_score	AnticipatedStigma_score	EnactedStigma_score	AnticipatedHarm_score
Internalised Stigma_score	Pearson Correlation	1	.310**	.382**	.303**	.201**	.110**	.446**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
PerceivedStigma_score	Pearson Correlation	.310**	1	.241**	.254**	.284**	.261**	.302**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227

DisclosureSecrecy_score	Pearson Correlation	.382**	.241**	1	.277**	.153**	-.069*	.392**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	.015	<.001
	N	1227	1227	1227	1227	1227	1227	1227
Community Support_score	Pearson Correlation	.303**	.254**	.277**	1	.273**	.173**	.293**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
AnticipatedStigma_score	Pearson Correlation	.201**	.284**	.153**	.273**	1	.296**	.253**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001
	N	1227	1227	1227	1227	1227	1227	1227
EnactedStigma_score	Pearson Correlation	.110**	.261**	-.069*	.173**	.296**	1	.181**
	Sig. (2-tailed)	<.001	<.001	.015	<.001	<.001		<.001
	N	1227	1227	1227	1227	1227	1227	1227
Anticipated Harm_score	Pearson Correlation	.446**	.302**	.392**	.293**	.253**	.181**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	
	N	1227	1227	1227	1227	1227	1227	1227
attitudes_total	Pearson Correlation	.278**	.097**	.109**	.094**	-.048	-.019	.114**
	Sig. (2-tailed)	<.001	.001	<.001	.002	.118	.526	<.001
	N	1075	1075	1075	1075	1075	1075	1075
attitudes_law	Pearson Correlation	.153**	.103**	.012	.026	-.019	.000	.052
	Sig. (2-tailed)	<.001	<.001	.671	.367	.511	.987	.074
	N	1170	1170	1170	1170	1170	1170	1170
attitudes_trimester_law	Pearson Correlation	.261**	.082**	.122**	.102**	-.058	-.034	.119**
	Sig. (2-tailed)	<.001	.007	<.001	<.001	.057	.269	<.001
	N	1084	1084	1084	1084	1084	1084	1084
attitudes_practice_subscore	Pearson Correlation	.145**	.041	.043	.043	-.007	.023	.051
	Sig. (2-tailed)	<.001	.164	.145	.142	.808	.430	.080
	N	1165	1165	1165	1165	1165	1165	1165

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

ix. Does the ILAS-Aus stigmatise?

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	a_stigmanow_pre	2.04	1184	1.068	.031
	a_stigma_now_post	1.80	1184	.997	.029

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	a_stigmanow_pre & a_stigma_now_post	1184	.623	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance One-Sided p	Significance Two-Sided p
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper				
Pair 1	a_stigmanow_pre - a_stigma_now_post	.236	.900	.026	.184	.287	9.014	1183	<.001	<.001

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper
Pair 1	a_stigmanow_pre - a_stigma_now_post	Cohen's d	.900	.262	.204	.320
		Hedges' correction	.900	.262	.204	.320

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 5.3. Validated ILAS-Aus recommended for future use

The following survey is for people who have had an abortion in Australia. It aims to gather information about the stigmatising feelings and experiences around your abortion(s).

The following statements are worries some people have about their abortion(s).

Make the selection that best describes **what you worry about** recently.

Items	Answer Options			
	Not worried	A little worried	Quite worried	Extremely worried
169 I would disappoint someone I love.	0	1	2	3

170	I would be rejected by someone I love.	0	1	2	3

Make the selection that best describes **what you worried about** around the time of your abortion(s).

Items		Answer Options			
		Not worried	A little worried	Quite worried	Extremely worried
171	I would be denied an abortion.	0	1	2	3
172	My health care provider would not support me.	0	1	2	3
173	I would have to explain my choice.	0	1	2	3

The following statements are about **sharing information** about your abortion(s).

Make the selection that best describes how you talk about your abortion(s) recently.

Items ** Item is reverse-coded [remove for participants]*		Answer Options				
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
174	I keep my abortion a secret because I fear negative judgement.	0	1	2	3	4
175	I avoid telling people about my abortion.	0	1	2	3	4
176	I speak openly about my abortion when relevant.*	0	1	2	3	4
177	I only share my abortion with people who I am confident will have a supportive response.	0	1	2	3	4

The following statements are about **connecting with people** about your abortion experience.

Make the selection that best describes connecting about your abortion with other people recently.

Items ** Item is reverse-coded [remove for participants]*		Answer Options				
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
178	When I had my abortion, I felt supported by the people I was close to.*	0	1	2	3	4
179	At the time of my abortion, I had support from someone that I am/was close to.*	0	1	2	3	4
180	I felt safe to ask for support about my abortion.*	0	1	2	3	4

The following statements are about **how you have <u>recently</u> felt** about your abortion.

Make the selection that best describes how you have felt about your abortion <u>recently</u>.

Items ** Item is reverse-coded [remove for participants]*	**Answer Options**				
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
181 I felt guilty about my abortion(s).	0	1	2	3	4
182 I felt judgment from myself.	0	1	2	3	4
183 I felt like a bad person.	0	1	2	3	4
184 I felt I let myself down.	0	1	2	3	4
185 I felt selfish about my abortion(s).	0	1	2	3	4
186 I felt that I had done a bad thing.	0	1	2	3	4
187 I felt sad about my abortion(s).	0	1	2	3	4
188 I felt ashamed about my abortion(s).	0	1	2	3	4
189 I felt good about my decision(s). φ	0	1	2	3	4

The following questions are about **your community** and how <u>you think</u> **the people around you** view abortion. Consider the people a few degrees away from your close relationships.

Make the selection that best describes <u>your perceptions</u> of **how many people** in your <u>current</u> community hold the following opinions about abortion.

Items	**Answer Options**				
	No one	A few people	About half the people	Many people	Most people
190 Abortion is the same as murder.	0	1	2	3	4
191 Abortion is always wrong.	0	1	2	3	4
192 There is never a good reason for an abortion.					
193 Abortion is the lazy way out of an unplanned pregnancy.	0	1	2	3	4
194 Abortion should be avoided.	0	1	2	3	4
195 Abortion should be punishable.	0	1	2	3	4
196 One abortion is understandable, but more than one is bad.	0	1	2	3	4
197 Abortion access should be restricted by a pregnant person's age.	0	1	2	3	4
198 Abortion is regrettable.	0	1	2	3	4

The following questions are about **your abortion experience**. Make the selection that best describes your experience.

Items		Answer Options				
		Not at all	A bit	To some extent	Quite a bit	Extensively
199	I have been harassed online because of my abortion(s).	0	1	2	3	4
200	I have been verbally harassed because of my abortion(s).	0	1	2	3	4
201	I have been physically harassed because of my abortion(s).	0	1	2	3	4

If you have any comments you would like to make, please do so below.

End of survey information

The above questions explore how common and severe abortion stigma is in Australia. This information will help address abortion stigma and support people who seek and/or have had abortions.

The following information is the best available at time of publication. The numbers may be under representative. In Australia, collection of abortion related information is not standardised; states and territories report abortion differently, there is no routine abortion data collection, and there is no national data published.

The majority of the Australian community (87%) believe abortion should be legal [(1)]. More than half of people in Australia (53.6%) believe abortion should be allowed for any reason in the first 3 months [(2)]. Despite support for legal abortion and choice, some people who have had an abortion/s experience stigmatisation. This is what is known about abortion in Australia:

- Abortion is decriminalised across all Australian states and territories. Each jurisdiction has different rules as to when an abortion is available "on request" and when doctors permission is needed.
- When legal, abortion is a medically safe procedure with lower risk than birth.
- Abortion is common when a pregnancy is unintended. One-third of unintended pregnancies in Australia between 2008 and 2018 ended in medication or surgical abortion [(3)].
- During 2017-18 it is estimated there were 88,287 medication or surgical abortions in Australia [(4)]. This is estimated to be one abortion per every three to four known pregnancies, or 25-33% of known pregnancies.

If you wish to talk about your abortion(s) experience further from a pro-choice perspective, these services are available:

- National:
  - Marie Stopes Australia, 1300 863 546

    - Family Planning Talkline, 1300 658 886
    - 1800RESPECT, confidential information, counselling, and support services, call 1800 737 732 or visit https://www.1800respect.org.au/
- Queensland:
    - Children by Choice, counselling, information and referral for sexual and reproductive health choices, call 1800177725 or visit https://www.childrenbychoice.org.au/
- NSW:
    - NSW Pregnancy Choices Helpline, support for free, unbiased and confidential information on pregnancy options, call 1800 008 463 or visit https://www.pregnancychoices.org.au/
- ACT:
    - Sexual Health and Family Planning ACT (SHFPACT), free, confidential, respectful, non-judgemental, and non-directive counselling, call 02 6247 3077 or visit https://www.shfpact.org.au/unplanned-pregnancy-services
- Victoria:
    - 1800MyOptions, free, confidential, and pro-choice information about contraception, pregnancy options, and sexual health in Victoria, call 1800 696 784 or visit https://www.1800myoptions.org.au/
- Tasmania:
    - Women's Health Tasmania, compassionate and confidential information and support on pregnancy choices, call 1800 675 028 or visit https://www.womenshealthtas.org.au/pregnancy-choices-information
- South Australia:
    - Pregnancy Advisory Centre, government health service, call 1800 672 966 or visit https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/services/health+services+for/womens+health+services/unplanned+pregnancy+services/unplanned+pregnancy+services
    - SHINE SA, call 8300 5300 or visit https://shinesa.org.au/health-information/pregnancy/information-on-abortion-in-south-australia/
- Western Australia:
    - Sexual health Quarters helpline, confidential information and referrals, call 9227 6178 (metro), 1800 198 205 (country), or visit https://shq.org.au/helpline/
- Northern Territory:
    - Family Planning Welfare Association of NT, call (08) 8948 0144 or visit http://www.fpwnt.com.au/.

These services are also available:

- Blue Knot, a service empowering recovery from complex trauma, call 1300 657 380, 1800 421 468 (disability specific), or visit https://blueknot.org.au/
- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/

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2. Wiebe, E.R., Littman, L., Kaczorowski, J. (2015) Knowledge and Attitudes about Contraception and Abortion in Canada, US, UK, France and Australia. Gynecol Obstet (Sunnyvale) 5: 322. doi:10.4172/2161-0932.1000322

3. Taft, A.J. et al., 2018. Unintended and unwanted pregnancy in Australia: a cross-sectional, national random telephone survey of prevalence and outcomes. Med J Aust.;209(9):407-408. doi: 10.5694/mja17.01094.
4. Keogh, L. A., Gurrin, L. C., & Moore, P. (2021). Estimating the abortion rate in Australia from National Hospital Morbidity and Pharmaceutical Benefits Scheme data. The Medical Journal of Australia. doi: 10.5694/mja2.51217.

APPENDIX 6. Supplementary texts for abortion providers instrument validation

Appendix 6.1. Stigma instrument participants completed (i.e., APSS-R-Aus)

The following questions are for health care professionals providing abortion care. They will provide insight into the frequency and severity of abortion stigma you may experience.

Please apply the phrase 'health care professional providing abortion care' to yourself. Please apply the term 'abortion care' to your role(s) in abortion care provision.

What best describes your profession and setting? *Please select all that apply.*

- ☐ General Practice
- ☐ Obstetrics and Gynaecology
- ☐ Nursing and Midwifery
- ☐ Pharmacy
- ☐ Allied Health
- ☐ Psychology
- ☐ Admin and reception
- ☐ Other:

- ☐ Primary Care
- ☐ Hospital: public
- ☐ Hospital: private
- ☐ Clinic: private
- ☐ Clinic: public
- ☐ Sexual and Reproductive Health
- ☐ Women's Advocacy/Health
- ☐ Mental Health
- ☐ Other:

How long have you been providing abortion care?

- ☐ Months
- ☐ 1-3 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ 10+ years

How much of your health care provision is abortion related care?

Little	Some	About half	A lot	Almost all
0-20%	20-40%	40-60%	60-80%	80-100%

<u>Right now</u>, how much stigma do you feel because you provide abortion care?

Abortion stigma involves negative judgement because you provide abortion care. This can occur from others, systems, and yourself. It includes worries about negative judgement.

Little or none at all	Some	A moderate amount	A lot	An extreme amount

1	2	3	4	5

Please circle the response that best reflects your experience of the frequency and importance of the below statements.
Below is an example for the statements *"I am proud that I completed my health provider training"* and *"I feel bad about providing health care".*

First, indicate **how often** you have experienced the feeling or scenario. *For example, "I am <u>often</u> proud that I completed my health provider training", select "3" (often) under the first column group.*
Second, indicate **how much you care** about the feeling or statement. *For example, "I care a <u>moderate</u> amount that I am proud that I completed my health provider training" under the second column group.*

If you "never" experienced the feeling or scenario, select "0" (never) under the first column group. Under the second column group, **indicate how much you care** about this feeling or scenario. *For example, "Feeling bad about providing health care, is of <u>major</u> importance to me" or "If I felt bad about providing health care, I would care a <u>major</u> amount."*

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Moderate	A lot
3.	I am proud that I provide health care.*	0	1	2	3	4	0	1	2	3	4
4.	I feel bad about providing health care.	0	1	2	3	4	0	1	2	3	4

The following statements are about **how you feel** about providing abortion care. Please make the selection that *best describes your experience <u>recently</u>*.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
59.	I feel good about providing abortion care.*	0	1	2	3	4	0	1	2	3	4
60.	I feel connected to others who provide abortion care.*	0	1	2	3	4	0	1	2	3	4
61.	I feel ashamed of the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
62.	By providing abortion care, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
63.	I question whether or not providing abortion care is a good thing to do.	0	1	2	3	4	0	1	2	3	4
64.	I find it important to share with people that I work in abortion care.*	0	1	2	3	4	0	1	2	3	4
65.	I feel guilty about the abortion care I provide.	0	1	2	3	4	0	1	2	3	4
66.	I feel that my abortion care work is politicised more than other types of health care work.	0	1	2	3	4	0	1	2	3	4

67.	I feel that when I disclose providing abortion care to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
68.	I feel that when I disclose my abortion related work to family they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
69.	I feel that when I disclose my abortion related work to friends they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
70.	I am proud that I provide abortion care.*	0	1	2	3	4	0	1	2	3	4

The following statements are about **sharing information** that you provide abortion related care. *Please make the selection that best describes your experience recently.*

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
71.	I am selective to whom I tell that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
72.	I keep my provision of abortion care to myself for fear of people's reactions.	0	1	2	3	4	0	1	2	3	4
73.	I avoid telling people about the abortion care I provide, to prevent upsetting them.	0	1	2	3	4	0	1	2	3	4
74.	I worry about telling family I provide abortion care.	0	1	2	3	4	0	1	2	3	4
75.	I worry about telling the general public I provide abortion care.	0	1	2	3	4	0	1	2	3	4
76.	I worry about telling colleagues that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
77.	I worry about telling organisations that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
78.	It bothers me if people in my casual acquaintances know that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
79.	I avoid sharing that I provide abortion care with some people.	0	1	2	3	4	0	1	2	3	4
80.	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	0	1	2	3	4	0	1	2	3	4
81.	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
82.	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
83.	I am afraid of how people will react if they find out about my work providing abortion care.	0	1	2	3	4	0	1	2	3	4
84.	I feel the need to hide my abortion related work from my friends.	0	1	2	3	4	0	1	2	3	4
85.	I feel the need to hide my abortion related work from my family.	0	1	2	3	4	0	1	2	3	4
86.	I feel the need to hide my abortion related work from my colleagues.	0	1	2	3	4	0	1	2	3	4

87.	I find it hard to tell people I provide abortion care.	0	1	2	3	4	0	1	2	3	4
88.	I speak without hesitancy about the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4
89.	I try to keep that I provide abortion care to myself.	0	1	2	3	4	0	1	2	3	4

The following statements are about **others' perceptions** of you providing abortion care. Please make the selection that *best describes your experience <u>recently</u>*.

[Click here for help answering]

		How often has this occurred?					How much do you care about this?				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
90.	I feel that other health care providers look down on me because of my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
91.	I feel that the general public does not value me providing abortion care.	0	1	2	3	4	0	1	2	3	4
92.	When I see or read something degrading abortion in the media, it makes me feel bad about myself.	0	1	2	3	4	0	1	2	3	4
93.	I feel other health care providers question my professional skills when they learn that I provide abortion care.	0	1	2	3	4	0	1	2	3	4
94.	I feel other health care providers question my decision to provide abortion care.	0	1	2	3	4	0	1	2	3	4
95.	I feel that people question my morals when they learn I provide abortion related care.	0	1	2	3	4	0	1	2	3	4
96.	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	0	1	2	3	4	0	1	2	3	4
97.	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	0	1	2	3	4	0	1	2	3	4
98.	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	0	1	2	3	4	0	1	2	3	4
99.	I fear my casual acquaintances will see me as less if they know I provide abortion care.	0	1	2	3	4	0	1	2	3	4
100	I worry patients will think I am judging them.	0	1	2	3	4	0	1	2	3	4
101.	I go out of my way to ensure people seeking abortion care don't feel I am judging them.*	0	1	2	3	4	0	1	2	3	4
102.	I feel that I let my culture down by providing abortion care.	0	1	2	3	4	0	1	2	3	4

The following statements are about your experience **sharing** your provision of abortion related care with others. All statements assume sharing is within scope of confidentiality. Please make the selection that *best describes your experience <u>recently</u>*.

[Click here for help answering]

	Items * Reverse coded	How often has this occurred? Never	Rarely	Sometimes	Often	Always	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
103	I talk openly, within confines of confidentiality, with people close to me about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
104	I avoid talking to someone close to me about a hard day providing abortion care.	0	1	2	3	4	0	1	2	3	4
105	I talk openly with people with different views to myself about my work providing abortion care.*	0	1	2	3	4	0	1	2	3	4
106	I can freely celebrate milestones in abortion care provision. (e.g., decriminalisation, improved accessibility, reduced stigma)*	0	1	2	3	4	0	1	2	3	4

The following statements are about **degrading outcomes** you may have experienced because of your provision of abortion care. Please make the selection that *best describes your experience recently*.

[Click here for help answering]

	Items * Reverse coded	How often has this occurred? Never	Rarely	Sometimes	Often	Always	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
107	I fear my career may be endangered because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
108	I have lost employment opportunities because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
109	I fear online retaliation because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
110	I have experienced online hate because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
111	I have received messages of support for the abortion care I provide.*	0	1	2	3	4	0	1	2	3	4
112	People I have provided abortion care to have passed negative judgment on me.	0	1	2	3	4	0	1	2	3	4
113	I have been verbally threatened or attacked because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
114	I have been physically threatened or attacked because I provide abortion care.	0	1	2	3	4	0	1	2	3	4
115	My family has been harassed or discriminated against by others who find out I provide abortion care.	0	1	2	3	4	0	1	2	3	4
116	People treat my family members differently if they know about me providing abortion care.	0	1	2	3	4	0	1	2	3	4

Finally, right now, how much stigma do you feel because you provide abortion care?

Little or none at all	Some	A moderate amount	A lot	An extreme amount
1	2	3	4	5

If you have any comments you would like to make, please do so below.

These questions are asked to help inform how common and severe abortion stigma is among people who provide abortion related care in Australia. This information will help inform efforts to address abortion stigma and support people who provide abortion care and people who seek abortions.

If you wish to talk about your experience providing abortion care, the following services are available:

- Australia
  - Doctors Health Advisory Service http://www.dhas.org.au/
  - RANZCOG Employee Assistance Program: 1300 687 327 or https://ranzcog.edu.au/members/member-support-and-wellbeing
  - Nurses and Midwife Support, 1800 667 877 or visit https://www.nmsupport.org.au/
  - 1800RESPECT, 1800 737 732 or visit https://www.1800respect.org.au/
  - Australian Psychological Society, https://psychology.org.au/
  - Beyond Blue, 1300 224 636 or chat online https://www.beyondblue.org.au/about-us/contact-us
  - Lifeline, call 131114 or visit https://www.lifeline.org.au/

Appendix 6.2. Analysis output

i. Patterns in the data: time 1

1. Pattern for response by item

2. Frequency of number of missing items

numissASB

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	251	53.2	53.2	53.2
	1.00	16	3.4	3.4	56.6
	2.00	7	1.5	1.5	58.1
	3.00	3	.6	.6	58.7
	4.00	1	.2	.2	58.9
	12.00	1	.2	.2	59.1
	20.00	10	2.1	2.1	61.2
	21.00	1	.2	.2	61.4
	26.00	1	.2	.2	61.7
	28.00	10	2.1	2.1	63.8
	29.00	2	.4	.4	64.2
	46.00	1	.2	.2	64.4
	54.00	31	6.6	6.6	71.0
	55.00	3	.6	.6	71.6
	58.00	1	.2	.2	71.8
	68.00	1	.2	.2	72.0
	72.00	1	.2	.2	72.2
	81.00	1	.2	.2	72.5
	85.00	1	.2	.2	72.7
	90.00	1	.2	.2	72.9
	92.00	32	6.8	6.8	79.7
	93.00	1	.2	.2	79.9
	94.00	2	.4	.4	80.3
	106.00	2	.4	.4	80.7
	116.00	91	19.3	19.3	100.0
	Total	472	100.0	100.0	

3. Little's MCAR Pattern for response by item

4. Difference between complete and incomplete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_cases * b_duration	443	93.9%	29	6.1%	472	100.0%

incomplete_cases * b_duration Crosstabulation

			b_duration					Total
			Months	1-3 years	4-5 years	6-10 years	More than 10 years	
incomplete_cases	complete	Count	20	91	43	44	53	251
		Expected Count	26.1	90.7	46.5	40.2	47.6	251.0
	incomplete	Count	26	69	39	27	31	192
		Expected Count	19.9	69.3	35.5	30.8	36.4	192.0
Total		Count	46	160	82	71	84	443
		Expected Count	46.0	160.0	82.0	71.0	84.0	443.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.085[a]	4	.193
Likelihood Ratio	6.073	4	.194
Linear-by-Linear Association	3.763	1	.052
N of Valid Cases	443		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.94.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.117	.193
	Cramer's V	.117	.193
N of Valid Cases		443	

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_cases * b_amount_abortion	443	93.9%	29	6.1%	472	100.0%

incomplete_cases * b_amount_abortion Crosstabulation

			b_amount_abortion					Total
			Little (0-20%)	Some (21-40%)	About half (41-60%)	A lot (61-80%)	Almost all (81-100%)	
incomplete_cases	complete	Count	172	37	15	7	20	251
		Expected Count	177.3	38.5	11.3	4.5	19.3	251.0
	incomplete	Count	141	31	5	1	14	192
		Expected Count	135.7	29.5	8.7	3.5	14.7	192.0
Total		Count	313	68	20	8	34	443
		Expected Count	313.0	68.0	20.0	8.0	34.0	443.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.415[a]	4	.170
Likelihood Ratio	7.083	4	.132
Linear-by-Linear Association	1.761	1	.184
N of Valid Cases	443		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.47.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.120	.170
	Cramer's V	.120	.170
N of Valid Cases		443	

ii. Patterns in the data: time 2

1. Pattern for response by item

2. Frequency of number of missing items

numiss_retest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	77	30.7	30.7	30.7
	1.00	9	3.6	3.6	34.3
	2.00	4	1.6	1.6	35.9
	3.00	1	.4	.4	36.3
	12.00	1	.4	.4	36.7
	53.00	4	1.6	1.6	38.2
	91.00	1	.4	.4	38.6
	116.00	154	61.4	61.4	100.0
	Total	251	100.0	100.0	

3. Little's MCAR

4. Difference between complete and incomplete cases

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_retest_cases * b_duration	251	100.0%	0	0.0%	251	100.0%

incomplete_retest_cases * b_duration Crosstabulation

			b_duration					Total
			Months	1-3 years	4-5 years	6-10 years	More than 10 years	
incomplete_retest_cases	.00	Count	6	27	12	13	19	77
		Expected Count	6.1	27.9	13.2	13.5	16.3	77.0
	1.00	Count	14	64	31	31	34	174
		Expected Count	13.9	63.1	29.8	30.5	36.7	174.0
Total		Count	20	91	43	44	53	251
		Expected Count	20.0	91.0	43.0	44.0	53.0	251.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.896[a]	4	.925
Likelihood Ratio	.881	4	.927
Linear-by-Linear Association	.419	1	.517
N of Valid Cases	251		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.14.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.060	.925
	Cramer's V	.060	.925
N of Valid Cases		251	

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
incomplete_retest_cases * b_amount_abortion	251	100.0%	0	0.0%	251	100.0%

incomplete_retest_cases * b_amount_abortion Crosstabulation

			b_amount_abortion					Total
			Little (0-20%)	Some (21-40%)	About half (41-60%)	A lot (61-80%)	Almost all (81-100%)	
incomplete_retest_cases	.00	Count	41	18	6	3	9	77
		Expected Count	52.8	11.4	4.6	2.1	6.1	77.0
	1.00	Count	131	19	9	4	11	174
		Expected Count	119.2	25.6	10.4	4.9	13.9	174.0
Total		Count	172	37	15	7	20	251
		Expected Count	172.0	37.0	15.0	7.0	20.0	251.0

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)

Pearson Chi-Square	12.434[a]	4	.014
Likelihood Ratio	12.014	4	.017
Linear-by-Linear Association	7.014	1	.008
N of Valid Cases	251		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.15.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.223	.014
	Cramer's V	.223	.014
N of Valid Cases		251	

iii. Describing participants

1. Demographic information

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	woman	239	95.2	95.2	95.2
	man	9	3.6	3.6	98.8
	nonbinary	3	1.2	1.2	100.0
	Total	251	100.0	100.0	

education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary education, up to year 10 and above.	1	.4	.4	.4
	Certificate, level III or IV.	1	.4	.4	.8
	Advanced diploma and diploma level	6	2.4	2.4	3.2
	Bachelor degree.	83	33.1	33.5	36.7
	Graduate diploma and graduate certificate level.	59	23.5	23.8	60.5
	Postgraduate degree.	97	38.6	39.1	99.6
	Prefer not to answer.	1	.4	.4	100.0
	Total	248	98.8	100.0	

Missing	System	3	1.2		
Total		251	100.0		

political_affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Liberal	8	3.2	3.2	3.2
	National	1	.4	.4	3.6
	Labor	73	29.1	29.6	33.2
	Greens	95	37.8	38.5	71.7
	Independant	10	4.0	4.0	75.7
	Other	5	2.0	2.0	77.7
	No political affilitation	48	19.1	19.4	97.2
	Prefer not to answer	7	2.8	2.8	100.0
	Total	247	98.4	100.0	
Missing	System	4	1.6		
Total		251	100.0		

religious_affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No religion	164	65.3	66.4	66.4
	Catholic	22	8.8	8.9	75.3
	Anglican	18	7.2	7.3	82.6
	Uniting Church	3	1.2	1.2	83.8
	Buddhism	1	.4	.4	84.2
	Presbyterian	2	.8	.8	85.0
	Baptist	2	.8	.8	85.8
	Other	15	6.0	6.1	91.9
	Spiritual	14	5.6	5.7	97.6
	Prefer not to answer	6	2.4	2.4	100.0
	Total	247	98.4	100.0	
Missing	System	4	1.6		
Total		251	100.0		

RELIGIOUSr

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no religion	164	65.3	65.3	65.3

	Christian	47	18.7	18.7	84.1
	Spitirual	14	5.6	5.6	89.6
	Other	16	6.4	6.4	96.0
	Prefer not to say	10	4.0	4.0	100.0
	Total	251	100.0	100.0	

ancestry_multi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	5	2.0	2.0	2.0
	one ancestry	103	41.0	41.0	43.0
	more than one ancestry	143	57.0	57.0	100.0
	Total	251	100.0	100.0	

Australia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	179	71.3	71.3	71.3
	1	72	28.7	28.7	100.0
	Total	251	100.0	100.0	

2. Abortion related information

b_duration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Months	20	8.0	8.0	8.0
	1-3 years	91	36.3	36.3	44.2
	4-5 years	43	17.1	17.1	61.4
	6-10 years	44	17.5	17.5	78.9
	More than 10 years	53	21.1	21.1	100.0
	Total	251	100.0	100.0	

b_amount_abortion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little (0-20%)	172	68.5	68.5	68.5
	Some (21-40%)	37	14.7	14.7	83.3
	About half (41-60%)	15	6.0	6.0	89.2

	A lot (61-80%)	7	2.8	2.8	92.0
	Almost all (81-100%)	20	8.0	8.0	100.0
	Total	251	100.0	100.0	

3. Primary type of practice

General practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	215	85.7	85.7	85.7
	GP	36	14.3	14.3	100.0
	Total	251	100.0	100.0	

ObGyn

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	226	90.0	90.0	90.0
	ObGyn	25	10.0	10.0	100.0
	Total	251	100.0	100.0	

Nursing and Midwifery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	91	36.3	36.3	36.3
	Nurse/Midwife	160	63.7	63.7	100.0
	Total	251	100.0	100.0	

Pharmacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	244	97.2	97.2	97.2
	Pharm	7	2.8	2.8	100.0
	Total	251	100.0	100.0	

Allied Health

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	245	97.6	97.6	97.6
	Allied Health	6	2.4	2.4	100.0
	Total	251	100.0	100.0	

Psychology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	245	97.6	97.6	97.6
	Psyc	6	2.4	2.4	100.0
	Total	251	100.0	100.0	

Admin and reception

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	245	97.6	97.6	97.6
	Admin/Recep	6	2.4	2.4	100.0
	Total	251	100.0	100.0	

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	234	93.2	93.2	93.2
	1	17	6.8	6.8	100.0
	Total	251	100.0	100.0	

4. Setting of Practice

Primary Care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	198	78.9	78.9	78.9
	primary care	53	21.1	21.1	100.0
	Total	251	100.0	100.0	

Hospital: public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	107	42.6	42.6	42.6
	hosdpital public	144	57.4	57.4	100.0
	Total	251	100.0	100.0	

Hospital: private

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	236	94.0	94.0	94.0
	Hostpial - private	15	6.0	6.0	100.0
	Total	251	100.0	100.0	

Clinic: public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	236	94.0	94.0	94.0
	clinci - public	15	6.0	6.0	100.0
	Total	251	100.0	100.0	

Clinical: private

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	210	83.7	83.7	83.7
	clinic - private	41	16.3	16.3	100.0
	Total	251	100.0	100.0	

SRH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	222	88.4	88.4	88.4
	SRH	29	11.6	11.6	100.0
	Total	251	100.0	100.0	

Women's Advocacy/Health

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	237	94.4	94.4	94.4
	women's advocacy	14	5.6	5.6	100.0

	Total	251	100.0	100.0	

Mental Health

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	245	97.6	97.6	97.6
	Mental Health	6	2.4	2.4	100.0
	Total	251	100.0	100.0	

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	245	97.6	97.6	97.6
	other	6	2.4	2.4	100.0
	Total	251	100.0	100.0	

iv. Structural validity: EFA of confirmed factor structure

1. Stigma frequency

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	9760.591
	df	990
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %

1	14.364	31.920	31.920	14.364	31.920	31.920	10.355	23.011	23.011
2	8.198	18.218	50.139	8.198	18.218	50.139	7.029	15.620	38.631
3	3.279	7.287	57.426	3.279	7.287	57.426	6.317	14.037	52.668
4	2.370	5.266	62.693	2.370	5.266	62.693	4.511	10.024	62.693
5	1.406	3.124	65.816						
6	1.142	2.537	68.354						
7	.901	2.002	70.355						
8	.878	1.950	72.305						
9	.824	1.830	74.136						
10	.750	1.666	75.801						
11	.699	1.553	77.354						
12	.689	1.530	78.885						
13	.615	1.366	80.251						
14	.605	1.345	81.596						
15	.557	1.237	82.834						
16	.512	1.138	83.972						
17	.495	1.099	85.071						
18	.474	1.053	86.125						
19	.453	1.007	87.131						
20	.420	.933	88.065						
21	.394	.875	88.939						
22	.379	.842	89.781						
23	.349	.776	90.557						
24	.335	.745	91.302						
25	.316	.702	92.004						
26	.310	.690	92.694						
27	.304	.677	93.371						
28	.284	.632	94.002						
29	.272	.605	94.607						
30	.262	.581	95.189						
31	.238	.529	95.717						
32	.231	.514	96.231						
33	.203	.451	96.682						
34	.197	.437	97.119						
35	.181	.402	97.521						
36	.169	.375	97.895						
37	.154	.343	98.239						
38	.144	.321	98.559						
39	.136	.302	98.861						
40	.132	.293	99.154						
41	.118	.262	99.416						
42	.096	.213	99.629						

43	.074	.165	99.794						
44	.057	.126	99.920						
45	.036	.080	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
b_disclosure_25a	.832			
b_disclosure_17a	.803			
b_disclosure_14a	.797			
b_disclosure_26a	.790			
b_disclosure_29a	.768			
b_disclosure_24a	.767			
b_disclosure_27a	.765			
b_disclosure_23a	.759			
b_disclosure_16a	.749			
b_disclosure_15a	.737			
b_disclosure_21a	.733			
b_disclosure_31a	.704			.372
b_disclosure_13a	.674			
b_disclosure_22a	.664			
b_disclosure_20a	.648			
b_disclosure_28a	.628			
b_disclosure_18a	.611			
b_disclosure_19a	.580			
b_enactedstigma_57a		.910		
b_enactedstigma_56a		.905		
b_enactedstigma_58a		.876		
b_enactedstigma_55a		.836		
b_enactedstigma_50a		.830		
b_enactedstigma_52a		.787		
b_enactedstigma_49a		.781	.311	
b_enactedstigma_51a		.740	.340	
b_enactedstigma_54a		.702	.321	
b_perceivedstigma_36a			.809	
b_perceivedstigma_38a			.792	
b_perceivedstigma_35a		.359	.762	
b_perceivedstigma_37a			.753	
b_perceivedstigma_41a			.725	
b_perceivedstigma_32a		.362	.669	

b_perceivedstigma_34a			.660	
b_perceivedstigma_40a	.333		.646	
b_perceivedstigma_39a	.301		.618	
b_perceivedstigma_33a			.598	
b_perceivedstigma_44a			.553	.334
b_selfstigma_1a				-.837
b_selfstigma_12a				-.804
b_selfstigma_4a				-.794
b_selfstigma_7a				.749
b_selfstigma_5a				.621
b_selfstigma_3a				.604
b_selfstigma_6a	-.301			-.597

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

2. Stigma importance

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.918
Bartlett's Test of Sphericity	Approx. Chi-Square	6645.018
	df	561
	Sig.	.000

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
b_disclosure_31b	.862				
b_disclosure_25b	.856				
b_disclosure_29b	.846				
b_disclosure_26b	.846				
b_disclosure_27b	.833				
b_disclosure_28b	.819				
b_disclosure_23b	.795				
b_disclosure_24b	.790				
b_disclosure_20b	.780				
b_disclosure_16b	.779				
b_disclosure_18b	.759				

b_disclosure_17b	.758				
b_disclosure_21b	.756				
b_disclosure_22b	.737				
b_disclosure_14b	.725			.300	
b_disclosure_19b	.706				
b_disclosure_15b	.697				
b_enactedstigma_57b		.860			
b_enactedstigma_56b		.817			
b_enactedstigma_50b		.778			
b_enactedstigma_58b		.688			
b_enactedstigma_55b		.649			
b_enactedstigma_49b		.570	.357		
b_perceivedstigma_35b			.838		
b_perceivedstigma_36b			.826		
b_perceivedstigma_32b			.800		
b_perceivedstigma_38b			.544		
b_perceivedstigma_40b				.767	
b_perceivedstigma_41b	.333			.702	
b_perceivedstigma_39b				.701	
b_perceivedstigma_46b				.602	
b_selfstigma_10b					.886
b_selfstigma_11b					.882
b_selfstigma_9b					.735

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.914	37.982	37.982	12.914	37.982	37.982	11.010	32.382	32.382
2	3.870	11.383	49.365	3.870	11.383	49.365	3.510	10.323	42.704
3	2.393	7.038	56.402	2.393	7.038	56.402	2.866	8.429	51.133
4	1.825	5.366	61.769	1.825	5.366	61.769	2.837	8.345	59.478
5	1.620	4.764	66.532	1.620	4.764	66.532	2.398	7.054	66.532
6	1.113	3.274	69.806						
7	.894	2.629	72.436						
8	.823	2.421	74.857						
9	.782	2.299	77.156						

10	.721	2.122	79.278						
11	.683	2.008	81.286						
12	.600	1.764	83.051						
13	.570	1.677	84.728						
14	.465	1.369	86.097						
15	.433	1.273	87.370						
16	.386	1.134	88.504						
17	.365	1.074	89.577						
18	.343	1.009	90.587						
19	.331	.975	91.561						
20	.301	.885	92.446						
21	.282	.830	93.276						
22	.263	.774	94.050						
23	.256	.754	94.804						
24	.239	.704	95.508						
25	.223	.656	96.164						
26	.212	.625	96.789						
27	.181	.534	97.323						
28	.170	.501	97.824						
29	.168	.494	98.318						
30	.139	.410	98.728						
31	.135	.396	99.124						
32	.116	.342	99.466						
33	.102	.301	99.767						
34	.079	.233	100.000						

Extraction Method: Principal Component Analysis.

v. Internal consistency: Cronbach's alpha

1. Frequency: Disclosure

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.952	.954	18

Inter-Item Correlation Matrix

	b_disclosure_13a	b_disclosure_14a	b_disclosure_15a	b_disclosure_16a	b_disclosure_17a	b_disclosure_18a	b_disclosure_19a	b_disclosure_20a	b_disclosure_21a	b_disclosure_22a	b_disclosure_23a	b_disclosure_24a	b_disclosure_25a	b_disclosure_26a	b_disclosure_27a	b_disclosure_28a	b_disclosure_29a	b_disclosure_31a
b_disclosure_13a	1.00	.692	.582	.526	.559	.363	.347	.458	.672	.294	.420	.524	.489	.512	.491	.346	.551	.652
b_disclosure_14a	.692	1.00	.754	.638	.704	.445	.404	.534	.672	.475	.558	.621	.666	.627	.608	.431	.650	.691
b_disclosure_15a	.582	.754	1.00	.584	.682	.371	.364	.508	.635	.440	.481	.604	.586	.548	.574	.374	.585	.649
b_disclosure_16a	.526	.638	.584	1.00	.585	.400	.342	.536	.525	.491	.616	.571	.601	.597	.835	.449	.566	.524
b_disclosure_17a	.559	.704	.682	.585	1.00	.455	.477	.513	.616	.539	.555	.591	.695	.609	.547	.493	.687	.553
b_disclosure_18a	.363	.445	.371	.400	.455	1.00	.526	.469	.387	.449	.447	.379	.477	.467	.429	.697	.400	.361
b_disclosure_19a	.347	.404	.364	.342	.477	.526	1.00	.401	.380	.417	.451	.357	.439	.405	.391	.591	.435	.354
b_disclosure_20a	.458	.534	.508	.536	.513	.469	.401	1.00	.498	.456	.563	.495	.570	.564	.512	.448	.540	.522

b_disclosure_21a	.672	.672	.635	.525	.616	.387	.380	.498	1.00	.417	.504	.616	.593	.577	.562	.333	.599	.692
b_disclosure_22a	.294	.475	.440	.491	.539	.449	.417	.456	.417	1.00	.607	.552	.651	.482	.510	.412	.463	.386
b_disclosure_23a	.420	.558	.481	.616	.555	.447	.451	.563	.504	.607	1.00	.621	.722	.675	.640	.450	.582	.508
b_disclosure_24a	.524	.621	.604	.571	.591	.379	.357	.495	.616	.552	.621	1.00	.750	.620	.598	.398	.649	.599
b_disclosure_25a	.489	.666	.586	.601	.695	.477	.439	.570	.593	.651	.722	.750	1.00	.720	.621	.466	.712	.570
b_disclosure_26a	.512	.627	.548	.597	.609	.467	.405	.564	.577	.482	.675	.620	.720	1.00	.693	.520	.627	.626
b_disclosure_27a	.491	.608	.574	.835	.547	.429	.391	.512	.562	.510	.640	.598	.621	.693	1.00	.522	.547	.552
b_disclosure_28a	.346	.431	.374	.449	.493	.697	.591	.448	.333	.412	.450	.398	.466	.520	.522	1.00	.404	.375
b_disclosure_29a	.551	.650	.585	.566	.687	.400	.435	.540	.599	.463	.582	.649	.712	.627	.547	.404	1.00	.647
b_disclosure_31a	.652	.691	.649	.524	.553	.361	.354	.522	.692	.386	.508	.599	.570	.626	.552	.375	.647	1.00

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_disclosure_13a	14.78	150.074	.674	.599	.951
b_disclosure_14a	15.58	151.828	.817	.737	.948
b_disclosure_15a	15.53	152.914	.746	.660	.949
b_disclosure_16a	16.11	152.276	.741	.752	.949
b_disclosure_17a	15.61	150.486	.780	.687	.949
b_disclosure_18a	16.55	162.193	.568	.555	.952
b_disclosure_19a	16.35	161.350	.535	.449	.952
b_disclosure_20a	16.55	160.952	.668	.477	.951
b_disclosure_21a	15.45	151.585	.743	.645	.949
b_disclosure_22a	16.30	158.684	.619	.521	.951
b_disclosure_23a	16.39	156.952	.733	.644	.950
b_disclosure_24a	15.90	152.034	.757	.650	.949
b_disclosure_25a	16.01	153.236	.815	.772	.948
b_disclosure_26a	16.40	156.137	.777	.686	.949
b_disclosure_27a	16.26	152.785	.758	.781	.949
b_disclosure_28a	16.67	163.352	.585	.623	.952
b_disclosure_29a	15.98	154.031	.766	.652	.949
b_disclosure_31a	15.88	152.989	.740	.658	.949

2. Frequency: Enacted stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.961	.961	9

Inter-Item Correlation Matrix

	b_enactedstigma_49a	b_enactedstigma_50a	b_enactedstigma_51a	b_enactedstigma_52a	b_enactedstigma_54a	b_enactedstigma_55a	b_enactedstigma_56a	b_enactedstigma_57a	b_enactedstigma_58a
b_enactedstigma_49a	1.000	.879	.744	.678	.624	.689	.702	.707	.711
b_enactedstigma_50a	.879	1.000	.769	.753	.631	.700	.744	.751	.737
b_enactedstigma_51a	.744	.769	1.000	.807	.572	.631	.669	.695	.718
b_enactedstigma_52a	.678	.753	.807	1.000	.599	.664	.724	.741	.730
b_enactedstigma_54a	.624	.631	.572	.599	1.000	.648	.681	.649	.644
b_enactedstigma_55a	.689	.700	.631	.664	.648	1.000	.910	.844	.831
b_enactedstigma_56a	.702	.744	.669	.724	.681	.910	1.000	.905	.866
b_enactedstigma_57a	.707	.751	.695	.741	.649	.844	.905	1.000	.945
b_enactedstigma_58a	.711	.737	.718	.730	.644	.831	.866	.945	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_enactedstigma_49a	10.44	128.112	.817	.799	.957
b_enactedstigma_50a	10.67	125.757	.853	.831	.955
b_enactedstigma_51a	10.55	131.673	.796	.738	.958
b_enactedstigma_52a	10.73	130.774	.810	.734	.957
b_enactedstigma_54a	10.70	133.026	.711	.517	.962
b_enactedstigma_55a	10.40	126.905	.851	.840	.955
b_enactedstigma_56a	10.38	124.333	.897	.900	.953
b_enactedstigma_57a	10.40	122.553	.903	.926	.953
b_enactedstigma_58a	10.45	123.288	.893	.905	.953

3. Frequency: Anticipated stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.923	.925	11

Inter-Item Correlation Matrix

	b_perceivedstigma_32a	b_perceivedstigma_33a	b_perceivedstigma_34a	b_perceivedstigma_35a	b_perceivedstigma_36a	b_perceivedstigma_37a	b_perceivedstigma_38a	b_perceivedstigma_39a	b_perceivedstigma_40a	b_perceivedstigma_41a	b_perceivedstigma_44a
b_perceivedstigma_32a	1.000	.545	.501	.675	.632	.557	.656	.473	.498	.460	.299
b_perceivedstigma_33a	.545	1.000	.415	.479	.442	.401	.446	.467	.407	.408	.211
b_perceivedstigma_34a	.501	.415	1.000	.530	.509	.509	.478	.441	.455	.452	.424
b_perceivedstigma_35a	.675	.479	.530	1.000	.805	.615	.676	.476	.564	.573	.440
b_perceivedstigma_36a	.632	.442	.509	.805	1.000	.718	.649	.504	.564	.620	.439
b_perceivedstigma_37a	.557	.401	.509	.615	.718	1.000	.670	.571	.642	.689	.501
b_perceivedstigma_38a	.656	.446	.478	.676	.649	.670	1.000	.543	.560	.669	.518
b_perceivedstigma_39a	.473	.467	.441	.476	.504	.571	.543	1.000	.676	.560	.396
b_perceivedstigma_40a	.498	.407	.455	.564	.564	.642	.560	.676	1.000	.691	.435
b_perceivedstigma_41a	.460	.408	.452	.573	.620	.689	.669	.560	.691	1.000	.565
b_perceivedstigma_44a	.299	.211	.424	.440	.439	.501	.518	.396	.435	.565	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_perceivedstigma_32a	10.61	97.086	.699	.603	.915
b_perceivedstigma_33a	10.10	100.586	.547	.383	.923
b_perceivedstigma_34a	10.66	98.170	.617	.399	.919
b_perceivedstigma_35a	10.72	94.994	.775	.725	.911
b_perceivedstigma_36a	10.76	97.071	.783	.735	.911
b_perceivedstigma_37a	10.58	95.884	.777	.664	.911
b_perceivedstigma_38a	10.92	98.286	.779	.660	.912
b_perceivedstigma_39a	10.09	98.640	.670	.536	.917
b_perceivedstigma_40a	10.40	97.417	.723	.630	.914
b_perceivedstigma_41a	10.88	99.978	.752	.661	.914
b_perceivedstigma_44a	10.88	100.575	.542	.405	.923

4. Frequency: Internalised stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items[a]	N of Items
.129	-.033	7

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Inter-Item Correlation Matrix

	b_selfstigma_1a	b_selfstigma_3a	b_selfstigma_4a	b_selfstigma_5a	b_selfstigma_6a	b_selfstigma_7a	b_selfstigma_12a
b_selfstigma_1a	1.000	-.440	.705	-.429	.565	-.624	.708
b_selfstigma_3a	-.440	1.000	-.453	.426	-.246	.558	-.456
b_selfstigma_4a	.705	-.453	1.000	-.374	.431	-.559	.731
b_selfstigma_5a	-.429	.426	-.374	1.000	-.312	.581	-.366
b_selfstigma_6a	.565	-.246	.431	-.312	1.000	-.434	.464
b_selfstigma_7a	-.624	.558	-.559	.581	-.434	1.000	-.573
b_selfstigma_12a	.708	-.456	.731	-.366	.464	-.573	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_selfstigma_1a	10.11	3.600	.376	.656	-.214[a]
b_selfstigma_3a	13.17	6.124	-.274	.363	.300
b_selfstigma_4a	9.89	3.912	.387	.615	-.166[a]
b_selfstigma_5a	12.99	6.052	-.264	.359	.339
b_selfstigma_6a	11.50	3.387	.292	.340	-.183[a]
b_selfstigma_7a	13.10	6.759	-.433	.577	.395
b_selfstigma_12a	9.95	3.526	.356	.625	-.214[a]

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

5. Importance: Disclosure

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.967	.967	17

Inter-Item Correlation Matrix

	b_disclosure_14b	b_disclosure_15b	b_disclosure_16b	b_disclosure_17b	b_disclosure_18b	b_disclosure_19b	b_disclosure_20b	b_disclosure_21b	b_disclosure_22b	b_disclosure_23b	b_disclosure_24b	b_disclosure_25b	b_disclosure_26b	b_disclosure_27b	b_disclosure_28b	b_disclosure_29b	b_disclosure_31b
b_disclosure_14b	1.000	.822	.699	.750	.501	.492	.536	.680	.552	.579	.655	.699	.628	.629	.502	.703	.708
b_disclosure_15b	.822	1.000	.685	.743	.524	.509	.528	.669	.509	.504	.606	.641	.576	.586	.498	.650	.674
b_disclosure_16b	.699	.685	1.000	.753	.573	.549	.656	.651	.549	.603	.588	.683	.649	.732	.607	.658	.689
b_disclosure_17b	.750	.743	.753	1.000	.594	.579	.565	.720	.584	.548	.634	.672	.582	.598	.533	.669	.672
b_disclosure_18b	.501	.524	.573	.594	1.000	.772	.614	.530	.621	.568	.522	.565	.616	.551	.627	.573	.569
b_disclosure_19b	.492	.509	.549	.579	.772	1.000	.626	.550	.578	.516	.460	.493	.499	.469	.545	.480	.521
b_disclosure_20b	.536	.528	.656	.565	.614	.626	1.000	.605	.449	.586	.499	.626	.630	.613	.654	.662	.636
b_disclosure_21b	.680	.669	.651	.720	.530	.550	.605	1.000	.598	.583	.655	.704	.608	.643	.548	.705	.707
b_disclosure_22b	.552	.509	.549	.584	.621	.578	.449	.598	1.000	.634	.666	.668	.573	.573	.542	.585	.616
b_disclosure_23b	.579	.504	.603	.548	.568	.516	.586	.583	.634	1.000	.689	.732	.733	.714	.712	.705	.672

b_disclosure_24b	.655	.606	.588	.634	.522	.460	.499	.655	.666	.689	1.000	.865	.720	.734	.598	.755	.752
b_disclosure_25b	.699	.641	.683	.672	.565	.493	.626	.704	.668	.732	.865	1.000	.810	.803	.703	.813	.801
b_disclosure_26b	.628	.576	.649	.582	.616	.499	.630	.608	.573	.733	.720	.810	1.000	.865	.732	.786	.796
b_disclosure_27b	.629	.586	.732	.598	.551	.469	.613	.643	.573	.714	.734	.803	.865	1.000	.735	.778	.784
b_disclosure_28b	.502	.498	.607	.533	.627	.545	.654	.548	.542	.712	.598	.703	.732	.735	1.000	.755	.691
b_disclosure_29b	.703	.650	.658	.669	.573	.480	.662	.705	.585	.705	.755	.813	.786	.778	.755	1.000	.820
b_disclosure_31b	.708	.674	.689	.672	.569	.521	.636	.707	.616	.672	.752	.801	.796	.784	.691	.820	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_disclosure_14b	20.16	299.903	.779	.766	.965
b_disclosure_15b	20.19	302.393	.746	.731	.966
b_disclosure_16b	20.41	296.075	.795	.738	.965
b_disclosure_17b	20.22	299.022	.784	.738	.965
b_disclosure_18b	20.82	300.308	.714	.706	.966
b_disclosure_19b	20.91	306.800	.661	.678	.967
b_disclosure_20b	21.08	304.278	.727	.646	.966
b_disclosure_21b	20.46	303.130	.781	.671	.965
b_disclosure_22b	20.43	297.566	.712	.612	.966
b_disclosure_23b	20.72	297.978	.778	.675	.965
b_disclosure_24b	20.52	298.347	.803	.794	.965
b_disclosure_25b	20.63	298.091	.876	.856	.964
b_disclosure_26b	20.70	294.492	.837	.829	.964

b_disclosure_27b	20.64	293.384	.837	.831	.964
b_disclosure_28b	21.03	300.019	.769	.718	.965
b_disclosure_29b	20.64	297.768	.859	.811	.964
b_disclosure_31b	20.48	295.211	.860	.784	.964

6. Importance: Anticipated Enacted stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.836	.851	6

Inter-Item Correlation Matrix

	b_enactedstigma_49b	b_enactedstigma_50b	b_enactedstigma_55b	b_enactedstigma_56b	b_enactedstigma_57b	b_enactedstigma_58b
b_enactedstigma_49b	1.000	.550	.403	.363	.323	.549
b_enactedstigma_50b	.550	1.000	.332	.621	.582	.438
b_enactedstigma_55b	.403	.332	1.000	.488	.539	.495
b_enactedstigma_56b	.363	.621	.488	1.000	.683	.404
b_enactedstigma_57b	.323	.582	.539	.683	1.000	.537
b_enactedstigma_58b	.549	.438	.495	.404	.537	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted

b_enactedstigma_49b	.90	5.493	.559	.465	.830
b_enactedstigma_50b	1.21	6.439	.655	.555	.806
b_enactedstigma_55b	.97	5.691	.582	.406	.818
b_enactedstigma_56b	1.19	6.113	.649	.563	.803
b_enactedstigma_57b	1.23	6.184	.683	.608	.799
b_enactedstigma_58b	1.16	6.015	.644	.466	.803

7. Importance: Perceived stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.815	.819	4

Inter-Item Correlation Matrix

	b_perceivedstigma_32b	b_perceivedstigma_35b	b_perceivedstigma_36b	b_perceivedstigma_38b
b_perceivedstigma_32b	1.000	.656	.680	.358
b_perceivedstigma_35b	.656	1.000	.658	.472
b_perceivedstigma_36b	.680	.658	1.000	.357
b_perceivedstigma_38b	.358	.472	.357	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_perceivedstigma_32b	1.95	5.046	.687	.541	.741
b_perceivedstigma_35b	2.25	5.107	.741	.558	.719
b_perceivedstigma_36b	1.95	5.158	.689	.542	.741
b_perceivedstigma_38b	2.12	5.754	.447	.228	.856

8. Importance: Anticipated stigma

Case Processing Summary

		N	%
Cases	Valid	251	100.0
	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.780	.785	4

Inter-Item Correlation Matrix

	b_perceivedstigma_39b	b_perceivedstigma_40b	b_perceivedstigma_41b	b_perceivedstigma_46b
b_perceivedstigma_39b	1.000	.641	.445	.334
b_perceivedstigma_40b	.641	1.000	.575	.439
b_perceivedstigma_41b	.445	.575	1.000	.430
b_perceivedstigma_46b	.334	.439	.430	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_perceivedstigma_39b	3.10	6.298	.588	.421	.728
b_perceivedstigma_40b	3.55	6.081	.712	.535	.657
b_perceivedstigma_41b	3.94	7.428	.600	.377	.728
b_perceivedstigma_46b	3.27	7.134	.472	.242	.785

9. Importance: Support

Case Processing Summary

		N	%
Cases	Valid	251	100.0

	Excluded[a]	0	.0
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.840	.839	3

Inter-Item Correlation Matrix

	b_selfstigma_9b	b_selfstigma_10b	b_selfstigma_11b
b_selfstigma_9b	1.000	.570	.553
b_selfstigma_10b	.570	1.000	.783
b_selfstigma_11b	.553	.783	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
b_selfstigma_9b	4.90	5.970	.595	.354	.878
b_selfstigma_10b	4.46	5.033	.767	.640	.712
b_selfstigma_11b	4.38	5.316	.756	.630	.726

vi. Measurement error: SEm

	SD	**alpha**	**SEm**
Disclosure (*n* = 92)	6.59	.952	1.44
Enacted Stigma (*n* = 90)	8.92	.961	1.76
Anticipated stigma (*n* = 92)	9.48	.923	2.48
Internalised Stigma (*n* = 95)	2.52	.129	2.35
Disclosure (*n* = 90)	12.86	.967	2.34
Anticipated enacted stigma (*n* = 92)	3.20	.836	1.30
Anticipated stigma: community (*n* = 92)	2.54	.780	1.19

Perceived Stigma: healthcare (*n* = 92)	2.13	.815	0.92
Support (*n* = 96)	3.08	.840	1.23

vii. Reliability: ICC

1. Frequency: Disclosure

Case Processing Summary

		N	%
Cases	Valid	90	35.9
	Excluded[a]	161	64.1
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.873	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.768[a]	.665	.841	7.863	89	89	<.001
Average Measures	.869	.799	.914	7.863	89	89	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

2. Frequency: Enacted stigma

Case Processing Summary

		N	%
Cases	Valid	90	35.9
	Excluded[a]	161	64.1
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.869	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	F Test with True Value 0 Value	df1	df2	Sig
Single Measures	.770[a]	.671	.842	7.662	89	89	<.001
Average Measures	.870	.803	.914	7.662	89	89	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

3. Frequency: Anticipated stigma

Case Processing Summary

		N	%
Cases	Valid	92	36.7
	Excluded[a]	159	63.3
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.808	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	F Test with True Value 0 Value	df1	df2	Sig
Single Measures	.671[a]	.540	.770	5.220	91	91	<.001
Average Measures	.803	.701	.870	5.220	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

4. Frequency: Internalised stigma

Case Processing Summary

		N	%
Cases	Valid	95	37.8
	Excluded[a]	156	62.2
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.895	2

Intraclass Correlation Coefficient

		95% Confidence Interval		F Test with True Value 0			
	Intraclass Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.805[a]	.719	.866	9.565	94	94	<.001
Average Measures	.892	.837	.928	9.565	94	94	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

5. Importance: Disclosure

Case Processing Summary

		N	%
Cases	Valid	90	35.9
	Excluded[a]	161	64.1
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.873	2

Intraclass Correlation Coefficient

	Intraclass	95% Confidence Interval		F Test with True Value 0			
	Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.768[a]	.665	.841	7.863	89	89	<.001
Average Measures	.869	.799	.914	7.863	89	89	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

6. Importance: Anticipated enacted stigma

Case Processing Summary

		N	%
Cases	Valid	92	36.7
	Excluded[a]	159	63.3
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.809	2

Intraclass Correlation Coefficient

		95% Confidence Interval		F Test with True Value 0			
	Intraclass Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.676[a]	.548	.773	5.223	91	91	<.001
Average Measures	.807	.708	.872	5.223	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

7. Importance: Perceived stigma

Case Processing Summary

		N	%
Cases	Valid	92	36.7
	Excluded[a]	159	63.3
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.837	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.721[a]	.607	.807	6.131	91	91	<.001
Average Measures	.838	.755	.893	6.131	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

8. Importance: Anticipated healthcare stigma

Case Processing Summary

		N	%
Cases	Valid	92	36.7
	Excluded[a]	159	63.3
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.837	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.721[a]	.607	.807	6.131	91	91	<.001
Average Measures	.838	.755	.893	6.131	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

9. Importance: Support

Case Processing Summary

		N	%
Cases	Valid	96	38.2
	Excluded[a]	155	61.8
	Total	251	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.751	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.604[a]	.459	.717	4.017	95	95	<.001
Average Measures	.753	.629	.835	4.017	95	95	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

viii. Construct validity: stigma frequency subscales

1. Correlation between stigma frequency subscales and psychological wellbeing

Correlations

		b_stigma_frequency	b_disclosure_A	b_enacted_A	b_anticipated_A	b_internalised_A	comparator_K6_score
b_stigma_frequency	Pearson Correlation	1**	.745**	.738**	.813**	.317**	.186**
	Sig. (2-tailed)	.000	<.001	<.001	<.001	<.001	.003
	N	251	251	251	251	251	248
b_disclosure_A	Pearson Correlation	.745**	1	.225**	.372**	.412**	.265**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	251	251	251	251	251	248
b_enacted_A	Pearson Correlation	.738**	.225**	1	.610**	-.124	.024
	Sig. (2-tailed)	<.001	<.001		<.001	.050	.711
	N	251	251	251	251	251	248
b_anticipated_A	Pearson Correlation	.813**	.372**	.610**	1	.095	.070
	Sig. (2-tailed)	<.001	<.001	<.001		.134	.271
	N	251	251	251	251	251	248

b_internalised_A	Pearson Correlation	.317**	.412**	-.124	.095	1	.211**
	Sig. (2-tailed)	<.001	<.001	.050	.134		<.001
	N	251	251	251	251	251	248
comparator_K6_score	Pearson Correlation	.186**	.265**	.024	.070	.211**	1
	Sig. (2-tailed)	.003	<.001	.711	.271	<.001	
	N	248	248	248	248	248	248

**. Correlation is significant at the 0.01 level (2-tailed).

2. Correlation between stigma frequency subscales and abortion attitudes

Correlations

		b_stigma_frequency	b_disclosure_A	b_enacted_A	b_anticipated_A	b_internalised_A	attitudes_total
b_stigma_frequency	Pearson Correlation	1**	.745**	.738**	.813**	.317**	.077
	Sig. (2-tailed)	.000	<.001	<.001	<.001	<.001	.237
	N	251	251	251	251	251	240
b_disclosure_A	Pearson Correlation	.745**	1	.225**	.372**	.412**	.161*
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	.012
	N	251	251	251	251	251	240
b_enacted_A	Pearson Correlation	.738**	.225**	1	.610**	-.124	-.169**
	Sig. (2-tailed)	<.001	<.001		<.001	.050	.009
	N	251	251	251	251	251	240
b_anticipated_A	Pearson Correlation	.813**	.372**	.610**	1	.095	-.021
	Sig. (2-tailed)	<.001	<.001	<.001		.134	.742
	N	251	251	251	251	251	240
b_internalised_A	Pearson Correlation	.317**	.412**	-.124	.095	1	.574**
	Sig. (2-tailed)	<.001	<.001	.050	.134		<.001
	N	251	251	251	251	251	240
attitudes_total	Pearson Correlation	.077	.161*	-.169**	-.021	.574**	1
	Sig. (2-tailed)	.237	.012	.009	.742	<.001	
	N	240	240	240	240	240	240

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

3. Correlation between stigma frequency subscales and religiosity

Correlations

		b_stigma_frequency	b_disclosure_A	b_enacted_A	b_anticipated_A	b_internalised_A	CRS
b_stigma_frequency	Pearson Correlation	1**	.745**	.738**	.813**	.317**	.121
	Sig. (2-tailed)	.000	<.001	<.001	<.001	<.001	.056
	N	251	251	251	251	251	251
b_disclosure_A	Pearson Correlation	.745**	1	.225**	.372**	.412**	.164**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	.009
	N	251	251	251	251	251	251
b_enacted_A	Pearson Correlation	.738**	.225**	1	.610**	-.124	-.069
	Sig. (2-tailed)	<.001	<.001		<.001	.050	.275
	N	251	251	251	251	251	251
b_anticipated_A	Pearson Correlation	.813**	.372**	.610**	1	.095	.032
	Sig. (2-tailed)	<.001	<.001	<.001		.134	.610
	N	251	251	251	251	251	251
b_internalised_A	Pearson Correlation	.317**	.412**	-.124	.095	1	.433**
	Sig. (2-tailed)	<.001	<.001	.050	.134		<.001
	N	251	251	251	251	251	251
CRS	Pearson Correlation	.121	.164**	-.069	.032	.433**	1
	Sig. (2-tailed)	.056	.009	.275	.610	<.001	
	N	251	251	251	251	251	251

**. Correlation is significant at the 0.01 level (2-tailed).

4. Mean differences in stigma frequency subscales by religiosity categories

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
b_stigma_frequency	not religious	160	44.4375	28.31287	2.23833	40.0168	48.8582	.00	124.00
	religious	76	46.3421	32.13246	3.68585	38.9995	53.6847	.00	138.00
	very religious	7	59.8571	33.97268	12.84047	28.4377	91.2766	10.00	96.00
	Total	243	45.4774	29.70215	1.90539	41.7241	49.2306	.00	138.00
b_disclosure_A	not religious	160	16.0875	11.84936	.93677	14.2374	17.9376	.00	53.00
	religious	76	17.9737	15.05543	1.72698	14.5334	21.4140	.00	60.00
	very religious	7	26.4286	22.18751	8.38609	5.9085	46.9486	.00	57.00
	Total	243	16.9753	13.34629	.85616	15.2888	18.6618	.00	60.00
	not religious	160	12.8938	13.15012	1.03961	10.8405	14.9470	.00	36.00

b_enacted_A	religious	76	10.8026	12.13372	1.39183	8.0300	13.5753	.00	36.00
	very religious	7	6.4286	8.34380	3.15366	-1.2882	14.1453	.00	21.00
	Total	243	12.0535	12.76104	.81862	10.4410	13.6660	.00	36.00
b_anticipated_A	not religious	160	11.8313	11.14186	.88084	10.0916	13.5709	.00	44.00
	religious	76	11.6974	10.87998	1.24802	9.2112	14.1835	.00	41.00
	very religious	7	10.8571	7.66874	2.89851	3.7647	17.9495	1.00	22.00
	Total	243	11.7613	10.94240	.70196	10.3786	13.1440	.00	44.00
b_internalised_A	not religious	160	3.6250	3.08323	.24375	3.1436	4.1064	.00	18.00
	religious	76	5.8684	4.29369	.49252	4.8873	6.8496	.00	22.00
	very religious	7	16.1429	9.47679	3.58189	7.3783	24.9074	4.00	28.00
	Total	243	4.6872	4.37793	.28084	4.1340	5.2405	.00	28.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig
b_stigma_frequency	Between Groups	1677.288	2	838.644	.950	.388
	Within Groups	211819.337	240	882.581		
	Total	213496.626	242			
b_disclosure_A	Between Groups	827.415	2	413.708	2.348	.098
	Within Groups	42278.437	240	176.160		
	Total	43105.852	242			
b_enacted_A	Between Groups	453.357	2	226.679	1.397	.249
	Within Groups	38954.948	240	162.312		
	Total	39408.305	242			
b_anticipated_A	Between Groups	6.816	2	3.408	.028	.972
	Within Groups	28969.340	240	120.706		
	Total	28976.156	242			
b_internalised_A	Between Groups	1205.189	2	602.595	42.127	<.001
	Within Groups	3433.041	240	14.304		
	Total	4638.230	242			

Multiple Comparisons

Dependent Variable	(I) CRS_categories	(J) CRS_categories	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
b_stigma_frequency	not religious	religious	-1.90461	4.13872	.890	-11.6652	7.8559
		very religious	-15.41964	11.47166	.372	-42.4738	11.6345
	religious	not religious	1.90461	4.13872	.890	-7.8559	11.6652
		very religious	-13.51504	11.73439	.483	-41.1888	14.1587
	very religious	not religious	15.41964	11.47166	.372	-11.6345	42.4738

		religious	13.51504	11.73439	.483	-14.1587	41.1888
b_disclosure_A	not religious	religious	-1.88618	1.84903	.565	-6.2468	2.4745
		very religious	-10.34107	5.12511	.110	-22.4279	1.7457
	religious	not religious	1.88618	1.84903	.565	-2.4745	6.2468
		very religious	-8.45489	5.24248	.242	-20.8185	3.9087
	very religious	not religious	10.34107	5.12511	.110	-1.7457	22.4279
		religious	8.45489	5.24248	.242	-3.9087	20.8185
b_enacted_A	not religious	religious	2.09112	1.77486	.467	-2.0946	6.2769
		very religious	6.46518	4.91954	.389	-5.1368	18.0672
	religious	not religious	-2.09112	1.77486	.467	-6.2769	2.0946
		very religious	4.37406	5.03221	.660	-7.4936	16.2418
	very religious	not religious	-6.46518	4.91954	.389	-18.0672	5.1368
		religious	-4.37406	5.03221	.660	-16.2418	7.4936
b_anticipated_A	not religious	religious	.13388	1.53057	.996	-3.4757	3.7435
		very religious	.97411	4.24241	.971	-9.0310	10.9792
	religious	not religious	-.13388	1.53057	.996	-3.7435	3.4757
		very religious	.84023	4.33957	.980	-9.3940	11.0744
	very religious	not religious	-.97411	4.24241	.971	-10.9792	9.0310
		religious	-.84023	4.33957	.980	-11.0744	9.3940
b_internalised_A	not religious	religious	-2.24342*	.52689	<.001	-3.4860	-1.0008
		very religious	-12.51786*	1.46044	<.001	-15.9621	-9.0736
	religious	not religious	2.24342*	.52689	<.001	1.0008	3.4860
		very religious	-10.27444*	1.49388	<.001	-13.7975	-6.7513
	very religious	not religious	12.51786*	1.46044	<.001	9.0736	15.9621
		religious	10.27444*	1.49388	<.001	6.7513	13.7975

*. The mean difference is significant at the 0.05 level.

5. Mean differences in stigma frequency subscales by psychological wellbeing categories

Group Statistics

	comparator_K6_DiCategories	N	Mean	Std. Deviation	Std. Error Mean
b_disclosure_A	No probable serious mental illness	230	16.3000	12.68123	.83618
	Probable serious mental illness	18	25.2778	17.30626	4.07912
b_enacted_A	No probable serious mental illness	230	12.1957	12.86683	.84841
	Probable serious mental illness	18	7.9444	9.77676	2.30440
b_anticipated_A	No probable serious mental illness	230	11.5391	10.98136	.72409
	Probable serious mental illness	18	13.2778	9.87454	2.32745
b_internalised_A	No probable serious mental illness	230	4.4957	4.19268	.27646
	Probable serious mental illness	18	7.8333	6.31758	1.48907

ix. Construct validity: stigma importance subscales

1. Correlation between stigma importance subscales and psychological wellbeing

Correlations

		b_disclosure_B	b_anticipated_enacted_stigma_B	b_anticipated_stigma_community_B	b_perceived_stigma_healthcare_B	b_support_B	b_stigma_importance	comparator_K6_score
b_disclosure_B	Pearson Correlation	1	.244**	.444**	.323**	-.331**	.943**	.054
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	.398
	N	251	251	251	251	251	251	248
b_anticipated_enacted_stigma_B	Pearson Correlation	.244**	1	.332**	.398**	-.150*	.423**	.113
	Sig. (2-tailed)	<.001		<.001	<.001	.018	<.001	.076
	N	251	251	251	251	251	251	248
b_anticipated_stigma_community_B	Pearson Correlation	.444**	.332**	1	.405**	-.055	.623**	.293**
	Sig. (2-tailed)	<.001	<.001		<.001	.383	<.001	<.001
	N	251	251	251	251	251	251	248
b_perceived_stigma_healthcare_B	Pearson Correlation	.323**	.398**	.405**	1	-.044	.520**	.075
	Sig. (2-tailed)	<.001	<.001	<.001		.484	<.001	.242
	N	251	251	251	251	251	251	248
b_support_B	Pearson Correlation	-.331**	-.150*	-.055	-.044	1	-.160*	-.117
	Sig. (2-tailed)	<.001	.018	.383	.484		.011	.067
	N	251	251	251	251	251	251	248
b_stigma_importance	Pearson Correlation	.943**	.423**	.623**	.520**	-.160*	1	.098
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.011		.123
	N	251	251	251	251	251	251	248
comparator_K6_score	Pearson Correlation	.054	.113	.293**	.075	-.117	.098	1
	Sig. (2-tailed)	.398	.076	<.001	.242	.067	.123	

	N	248	248	248	248	248	248	248

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

2. Correlation between stigma importance subscales and abortion attitudes

3. Correlation between stigma importance subscales and religiosity

Correlations

		b_disclosure_B	b_anticipated_enacted_stigma_B	b_anticipated_stigma_community_B	b_perceived_stigma_healthcare_B	b_support_B	b_stigma_importance	CRS
b_disclosure_B	Pearson Correlation	1	.244**	.444**	.323**	-.331**	.943**	.010
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	.879
	N	251	251	251	251	251	251	251
b_anticipated_enacted_stigma_B	Pearson Correlation	.244**	1	.332**	.398**	-.150*	.423**	.042
	Sig. (2-tailed)	<.001		<.001	<.001	.018	<.001	.509
	N	251	251	251	251	251	251	251
b_anticipated_stigma_community_B	Pearson Correlation	.444**	.332**	1	.405**	-.055	.623**	.133*
	Sig. (2-tailed)	<.001	<.001		<.001	.383	<.001	.035
	N	251	251	251	251	251	251	251
b_perceived_stigma_healthcare_B	Pearson Correlation	.323**	.398**	.405**	1	-.044	.520**	.121
	Sig. (2-tailed)	<.001	<.001	<.001		.484	<.001	.056
	N	251	251	251	251	251	251	251
b_support_B	Pearson Correlation	-.331**	-.150*	-.055	-.044	1	-.160*	.130*
	Sig. (2-tailed)	<.001	.018	.383	.484		.011	.040
	N	251	251	251	251	251	251	251
b_stigma_importance	Pearson Correlation	.943**	.423**	.623**	.520**	-.160*	1	.071
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.011		.261
	N	251	251	251	251	251	251	251
CRS	Pearson Correlation	.010	.042	.133*	.121	.130*	.071	1
	Sig. (2-tailed)	.879	.509	.035	.056	.040	.261	
	N	251	251	251	251	251	251	251

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4. Mean differences in stigma importance subscales by religiosity categories

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
b_disclosure_B	Between Groups	79.083	2	39.541	.115	.892
	Within Groups	82859.880	240	345.250		
	Total	82938.963	242			
b_anticipated_enacted_stigma_B	Between Groups	.795	2	.397	.046	.955
	Within Groups	2073.872	240	8.641		
	Total	2074.667	242			
b_anticipated_stigma_community_B	Between Groups	13.485	2	6.743	.592	.554
	Within Groups	2731.437	240	11.381		
	Total	2744.922	242			
b_perceived_stigma_healthcare_B	Between Groups	16.822	2	8.411	.944	.391
	Within Groups	2138.865	240	8.912		
	Total	2155.687	242			
b_support_B	Between Groups	52.028	2	26.014	2.304	.102
	Within Groups	2709.981	240	11.292		
	Total	2762.008	242			
b_stigma_importance	Between Groups	113.061	2	56.530	.117	.889
	Within Groups	115690.330	240	482.043		
	Total	115803.391	242			

Multiple Comparisons

Dependent Variable	(I) CRS_categories	(J) CRS_categories	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
b_disclosure_B	not religious	religious	1.17961	2.58855	.892	-4.9251	7.2843
		very religious	-.66250	7.17490	.995	-17.5834	16.2584
	religious	not religious	-1.17961	2.58855	.892	-7.2843	4.9251
		very religious	-1.84211	7.33922	.966	-19.1505	15.4663
	very religious	not religious	.66250	7.17490	.995	-16.2584	17.5834
		religious	1.84211	7.33922	.966	-15.4663	19.1505
b_anticipated_enacted_stigma_B	not religious	religious	.09046	.40952	.973	-.8753	1.0562
		very religious	.26339	1.13510	.971	-2.4136	2.9404
	religious	not religious	-.09046	.40952	.973	-1.0562	.8753
		very religious	.17293	1.16110	.988	-2.5653	2.9112
	very religious	not religious	-.26339	1.13510	.971	-2.9404	2.4136
		religious	-.17293	1.16110	.988	-2.9112	2.5653

b_anticipated_stigma_community_B	not religious	religious	-.51118	.46998	.523	-1.6196	.5972
		very religious	-.10893	1.30268	.996	-3.1811	2.9633
	religious	not religious	.51118	.46998	.523	-.5972	1.6196
		very religious	.40226	1.33252	.951	-2.7403	3.5448
	very religious	not religious	.10893	1.30268	.996	-2.9633	3.1811
		religious	-.40226	1.33252	.951	-3.5448	2.7403
b_perceived_stigma_healthcare_B	not religious	religious	-.32796	.41589	.710	-1.3088	.6528
		very religious	-1.39375	1.15275	.449	-4.1123	1.3248
	religious	not religious	.32796	.41589	.710	-.6528	1.3088
		very religious	-1.06579	1.17915	.638	-3.8466	1.7151
	very religious	not religious	1.39375	1.15275	.449	-1.3248	4.1123
		religious	1.06579	1.17915	.638	-1.7151	3.8466
b_support_B	not religious	religious	-.70691	.46813	.288	-1.8109	.3971
		very religious	-2.19375	1.29756	.211	-5.2538	.8663
	religious	not religious	.70691	.46813	.288	-.3971	1.8109
		very religious	-1.48684	1.32727	.503	-4.6170	1.6433
	very religious	not religious	2.19375	1.29756	.211	-.8663	5.2538
		religious	1.48684	1.32727	.503	-1.6433	4.6170
b_stigma_importance	not religious	religious	-.27599	3.05867	.996	-7.4894	6.9374
		very religious	-4.09554	8.47798	.879	-24.0895	15.8985
	religious	not religious	.27599	3.05867	.996	-6.9374	7.4894
		very religious	-3.81955	8.67214	.899	-24.2715	16.6324
	very religious	not religious	4.09554	8.47798	.879	-15.8985	24.0895
		religious	3.81955	8.67214	.899	-16.6324	24.2715

5. Mean differences in stigma importance subscales by psychological wellbeing categories

Group Statistics

	comparator_K6_DiCategories	N	Mean	Std. Deviation	Std. Error Mean
b_disclosure_B	No probable serious mental illness	230	21.8217	18.68115	1.23180
	Probable serious mental illness	18	22.5000	15.29033	3.60396
b_anticipated_enacted_stigma_B	No probable serious mental illness	230	1.3391	2.96821	.19572
	Probable serious mental illness	18	1.3889	1.97451	.46540
b_anticipated_stigma_community_B	No probable serious mental illness	230	4.3826	3.19684	.21079
	Probable serious mental illness	18	7.5000	4.09088	.96423
b_perceived_stigma_healthcare_B	No probable serious mental illness	230	2.7087	2.94749	.19435
	Probable serious mental illness	18	3.2778	3.46080	.81572
b_support_B	No probable serious mental illness	230	5.1739	3.38443	.22316
	Probable serious mental illness	18	4.5000	3.43426	.80946

x. Does using the APSS-R-Aus stigmatise?

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	b_stigmanow_pre	1.76	248	.964	.061
	b_stigma_now_post	1.69	248	.930	.059

Paired Samples Correlations

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	b_stigmanow_pre & b_stigma_now_post	248	.624	<.001	<.001

Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	b_stigmanow_pre - b_stigma_now_post	.073	.822	.052	-.030	.175	1.391	247	.083	.165

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	b_stigmanow_pre - b_stigma_now_post	Cohen's d	.822	.088	-.036	.213
		Hedges' correction	.823	.088	-.036	.213

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix 6.3. Validated HAS recommended for future use

The following questions are for health care professionals providing abortion care. They will provide insight into the frequency and severity of abortion stigma you may experience.

Please select the response that best reflects your experience of the frequency of the below statements.

The following statements are about **how you feel** about providing abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

		How often has this occurred?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always
1.	I feel good about providing abortion care.*	0	1	2	3	4
2.	I feel ashamed of the abortion care I provide.	0	1	2	3	4
3.	By providing abortion care, I am making a positive contribution to society.*	0	1	2	3	4
4.	I question whether or not providing abortion care is a good thing to do.	0	1	2	3	4
5.	I find it important to share with people that I work in abortion care.*	0	1	2	3	4
6.	I feel guilty about the abortion care I provide.	0	1	2	3	4
7.	I am proud that I provide abortion care.*	0	1	2	3	4

The following statements are about **sharing information** that you provide abortion related care. *Please make the selection that best describes your experience <u>in the past 3 months</u>.*

		How often has this occurred?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always
8.	I am selective to whom I tell that I provide abortion care.	0	1	2	3	4
9.	I keep my provision of abortion care to myself for fear of people's reactions.	0	1	2	3	4
10.	I avoid telling people about the abortion care I provide, to prevent upsetting them.	0	1	2	3	4

11.	I worry about telling family I provide abortion care.	0	1	2	3	4
12.	I worry about telling the general public I provide abortion care.	0	1	2	3	4
13.	I worry about telling colleagues that I provide abortion care.	0	1	2	3	4
14.	I worry about telling organisations that I provide abortion care.	0	1	2	3	4
15.	It bothers me if people in my casual acquaintances know that I provide abortion care.	0	1	2	3	4
16.	I avoid sharing that I provide abortion care with some people.	0	1	2	3	4
17.	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	0	1	2	3	4
18.	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	0	1	2	3	4
19.	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	0	1	2	3	4
20.	I am afraid of how people will react if they find out about my work providing abortion care.	0	1	2	3	4
21.	I feel the need to hide my abortion related work from my friends.	0	1	2	3	4
22.	I feel the need to hide my abortion related work from my family.	0	1	2	3	4
23.	I feel the need to hide my abortion related work from my colleagues.	0	1	2	3	4
24.	I find it hard to tell people I provide abortion care.	0	1	2	3	4
25.	I try to keep that I provide abortion care to myself.	0	1	2	3	4

The following statements are about **others' perceptions** of you providing abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

		How often has this occurred?				
	Items * Reverse coded	Never	Rarely	Sometimes	Often	Always
26.	I feel that other health care providers look down on me because of my decision to provide abortion care.	0	1	2	3	4
27.	I feel that the general public does not value me providing abortion care.	0	1	2	3	4
28.	When I see or read something degrading abortion in the media, it makes me feel bad about myself.	0	1	2	3	4
29.	I feel other health care providers question my professional skills when they learn that I provide abortion care.	0	1	2	3	4
30.	I feel other health care providers question my decision to provide abortion care.	0	1	2	3	4
31.	I feel that people question my morals when they learn I provide abortion related care.	0	1	2	3	4
32.	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	0	1	2	3	4
33.	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	0	1	2	3	4
34.	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	0	1	2	3	4
35.	I fear my casual acquaintances will see me as less if they know I provide abortion care.	0	1	2	3	4

36.	I feel that I let my culture down by providing abortion care.	0	1	2	3	4

The following statements are about **degrading outcomes** you may have experienced because of your provision of abortion care. Please make the selection that *best describes your experience* <u>*in the past 3 months*</u>.

	Items * Reverse coded	How often has this occurred? Never	Rarely	Sometimes	Often	Always
37.	I fear my career may be endangered because I provide abortion care.	0	1	2	3	4
38.	I have lost employment opportunities because I provide abortion care.	0	1	2	3	4
39.	I fear online retaliation because I provide abortion care.	0	1	2	3	4
40.	I have experienced online hate because I provide abortion care.	0	1	2	3	4
41.	People I have provided abortion care to have passed negative judgment on me.	0	1	2	3	4
42.	I have been verbally threatened or attacked because I provide abortion care.	0	1	2	3	4
43.	I have been physically threatened or attacked because I provide abortion care.	0	1	2	3	4
44.	My family has been harassed or discriminated against by others who find out I provide abortion care.	0	1	2	3	4
45.	People treat my family members differently if they know about me providing abortion care.	0	1	2	3	4

Please circle the response that best reflects your experience of the **severity** of the below statements.

The following statements are about **sharing information** that you provide abortion related care. *Please make the selection that best describes your experience* <u>*in the past 3 months*</u>.

	Item ** Reverse coded*	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
1.	I keep my provision of abortion care to myself for fear of people's reactions.	0	1	2	3	4
2.	I avoid telling people about the abortion care I provide, to prevent upsetting them.	0	1	2	3	4
3.	I worry about telling family I provide abortion care.	0	1	2	3	4
4.	I worry about telling the general public I provide abortion care.	0	1	2	3	4
5.	I worry about telling colleagues that I provide abortion care.	0	1	2	3	4
6.	I worry about telling organisations that I provide abortion care.	0	1	2	3	4

7.	It bothers me if people in my casual acquaintances know that I provide abortion care.	0	1	2	3	4
8.	I avoid sharing that I provide abortion care with some people.	0	1	2	3	4
9.	I am afraid that if I tell people I provide abortion care I could put myself, or my loved ones, at risk of violence.	0	1	2	3	4
10.	I am afraid I will lose or harm relationships with people I care about if they find out I provide abortion care.	0	1	2	3	4
11.	I feel that disclosing that I provide abortion care is not worth the potential hassle that could result.	0	1	2	3	4
12.	I feel the need to hide my abortion related work from my friends.	0	1	2	3	4
13.	I feel the need to hide my abortion related work from my family.	0	1	2	3	4
14.	I feel the need to hide my abortion related work from my colleagues.	0	1	2	3	4
15.	I find it hard to tell people I provide abortion care.	0	1	2	3	4
16.	I try to keep that I provide abortion care to myself.	0	1	2	3	4
17.	I am afraid of how people will react if they find out about my work providing abortion care	0	1	2	3	4

The following statements are about **others' perceptions** of you providing abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

		How much do you care about this?				
	Items * Reverse coded	Not at all	Little	Somewhat	Much	A lot
18.	I feel that other health care providers look down on me because of my decision to provide abortion care.	0	1	2	3	4
19.	I feel other health care providers question my professional skills when they learn that I provide abortion care.	0	1	2	3	4
20.	I feel other health care providers question my decision to provide abortion care.	0	1	2	3	4
21.	I feel other professionals providing abortion care judge the limits or extent of abortion care I provide.	0	1	2	3	4

The following statements are about **fears** you may have because you provide abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

		How much do you care about this?				
	Items * Reverse coded	Not at all	Little	Somewhat	Much	A lot
22.	I avoid talking to someone close to me about a hard day providing abortion care.	0	1	2	3	4
23.	I worry people will think worse of abortion if I talk about the difficult parts of abortion.	0	1	2	3	4
24.	I worry that people will think less of me if I talk about the upsetting or difficult parts of abortion.	0	1	2	3	4

25.	I fear my casual acquaintances will see me as less if they know I provide abortion care.	0	1	2	3	4

The following statements are about potential **discrimination** because of your provision of abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

	Items * Reverse coded	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
26.	I fear my career may be endangered because I provide abortion care.	0	1	2	3	4
27.	I have lost employment opportunities because I provide abortion care.	0	1	2	3	4
28.	I have been verbally threatened or attacked because I provide abortion care.	0	1	2	3	4
29.	I have been physically threatened or attacked because I provide abortion care.	0	1	2	3	4
30.	My family has been harassed or discriminated against by others who find out I provide abortion care.	0	1	2	3	4
31.	People treat my family members differently if they know about me providing abortion care.	0	1	2	3	4

The following statements are about potential **support you feel** because you provide abortion care. Please make the selection that *best describes your experience <u>in the past 3 months</u>*.

	Items * Reverse coded	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
32.	I feel that when I disclose my abortion related work to family they are supportive of me.*	0	1	2	3	4
33.	I feel that when I disclose my abortion related work to friends they are supportive of me.*					
34.	I feel that when I disclose providing abortion care to strangers, they are supportive of me.*	0	1	2	3	4

If you have any comments you would like to make, please do so below.

These questions are asked to help inform how common and severe abortion stigma is among people who provide abortion related care in Australia. This information will help

inform efforts to address abortion stigma and support people who provide abortion care and people who seek abortions.

If you wish to talk about your experience providing abortion care, the following services are available:

- Doctors Health Advisory Service http://www.dhas.org.au/
- RANZCOG Employee Assistance Program: 1300 687 327 or https://ranzcog.edu.au/members/member-support-and-wellbeing
- Nurses and Midwife Support, 1800 667 877 or visit https://www.nmsupport.org.au/
- 1800RESPECT, 1800 737 732 or visit https://www.1800respect.org.au/
- Australian Psychological Society, https://psychology.org.au/
- Beyond Blue, 1300 224 636 or chat online https://www.beyondblue.org.au/about-us/contact-us
- Lifeline, call 131114 or visit https://www.lifeline.org.au/

APPENDIX 7. Supplementary texts for abortion advocates instrument validation

Appendix 7.1. Stigma instrument participants completed (i.e., APSS-R-Adv-Aus)

The following questions are for abortion advocates. This could include anyone who publicly engages in conversations or actions in support of bodily autonomy, reproductive choice, abortion access, or abortion. The questions provide insight into the frequency and importance of stigmatisation of people who advocate for choice, access, or abortion.

Please apply the phrase 'abortion advocate' to yourself and the roles you take in publicly supporting choice, abortion access, and/or abortion.

What does your abortion advocacy work involve?

- ☐ Marches and other public gatherings
- ☐ Government engagement or advice
- ☐ Media engagement (e.g., speaking with traditional media)
- ☐ Online information dissemination (e.g., supporting abortion on social media)
- ☐ Community outreach (e.g., public speaking)
- ☐ Personal conversations, including peer support and counselling
- ☐ Other:

How do you classify your abortion advocacy work?

- ☐ Paid
- ☐ Unpaid
- ☐ Both, paid and unpaid

To what extent does your primary occupation relate to abortion advocacy?

Little or none	Some	Moderate	A lot	Almost all or all
0-20%	20-40%	40-60%	60-80%	80-100%

How much is abortion advocacy part of your life?

Little or none of my life	Some	About half	A lot	Almost all or all of my life
1	2	3	4	5

Please circle the response that best reflects your experience of the frequency and importance of the below statements.

Below is an example for the statements *"I believe people should have reproductive choice"* and *"I feel bad about abortion advocacy".*

3. Indicate **how often** you have experienced the feeling or scenario. *For example, "I <u>always</u> believe people should have reproductive choice", select "4" (always) under the first column group.*
4. Indicate **how much you care** about the feeling or statement. *For example, "I care <u>a lot</u> amount that people should have reproductive choice" under the second column group.*

If you "never" experienced the feeling or scenario, select "0" (never) under the first column group. Under the second column group, **indicate how much you care** about this feeling or scenario. *For example, "Feeling bad about my abortion advocacy work, is <u>a lot</u> important to me" or "If I felt bad about my abortion advocacy work, I would care <u>a lot</u>."*

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
1.	I believe people should have reproductive choice.*	0	1	2	3	4	0	1	2	3	4
2.	I feel bad about abortion advocacy.	0	1	2	3	4	0	1	2	3	4

The following statements are about **how you feel** about your abortion advocacy.

Please make the selection that *best describes your experience* in the last 3 months.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
1.	I feel good about my abortion advocacy work.*	0	1	2	3	4	0	1	2	3	4
2.	I feel connected to others who advocate for abortion.*	0	1	2	3	4	0	1	2	3	4
3.	I feel ashamed of the abortion advocacy work I do.	0	1	2	3	4	0	1	2	3	4
4.	By advocating for abortion, I am making a positive contribution to society.*	0	1	2	3	4	0	1	2	3	4
5.	I question whether or not advocating for abortion is the right thing to do.	0	1	2	3	4	0	1	2	3	4
6.	I feel guilty about advocating for abortion.	0	1	2	3	4	0	1	2	3	4
7.	I am proud that I advocate for abortion.*	0	1	2	3	4	0	1	2	3	4

The following questions are about your **social connection** related to your abortion advocacy work.

Please make the selection that *best describes your experience* in the last 3 months.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
8.	When I disclose that I advocate for abortion, I feel those close to me are supportive.*	0	1	2	3	4	0	1	2	3	4
9.	I talk openly with my family about advocating for abortion.*	0	1	2	3	4	0	1	2	3	4
10.	I avoid talking about a hard day advocating for abortion to someone close to me.	0	1	2	3	4	0	1	2	3	4
11.	I talk openly with people with different views to myself about my work advocating for abortion.*	0	1	2	3	4	0	1	2	3	4
12.	I cannot freely celebrate milestones from my abortion advocacy work (e.g., decriminalisation, improved abortion access, reduced abortion stigma).	0	1	2	3	4	0	1	2	3	4

The following questions are about **sharing** that you advocate for abortion.

Please make the selection that *best describes your experience* in the last 3 months.

		How often has this occurred?					How much do you care about this?				
	Item ** Reverse coded*	Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
13.	I keep my abortion advocacy work to myself for fear of people's reactions.	0	1	2	3	4	0	1	2	3	4
14.	I feel like, if I tell family I advocate for abortion, they will ONLY see me as an abortion advocate.	0	1	2	3	4	0	1	2	3	4
15.	I worry about telling family I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
16.	I avoid telling the general public that I support abortion.	0	1	2	3	4	0	1	2	3	4
17.	I avoid telling people I work with about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
18.	I am afraid that if I tell people I advocate for abortion I could put myself, or my loved ones, at risk for violence.	0	1	2	3	4	0	1	2	3	4
19.	I am afraid I will lose or harm relationships with people I care about if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
20.	I am afraid my employment will suffer if they find out I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
21.	I feel that disclosing I advocate for abortion is not worth the potential hassle that could result.	0	1	2	3	4	0	1	2	3	4
22.	I am afraid of how people will react if they find out about my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
23.	I feel the need to hide my abortion advocacy work from my family.	0	1	2	3	4	0	1	2	3	4
24.	I feel the need to hide my abortion advocacy work from my colleagues.	0	1	2	3	4	0	1	2	3	4
25.	I find it hard to tell people I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
26.	I am selective of whom I tell that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
27.	I am selective of when and where I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
28.	I speak without hesitancy about my work advocating for abortion. *	0	1	2	3	4	0	1	2	3	4
29.	I take extra precautions to control who knows that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4

The following questions are about **others' perceptions** of you advocating for abortion.

Please make the selection that *best describes your experience* in the last 3 months.

	Item * *Reverse coded*	How often has this occurred?					How much do you care about this?				
		Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
30.	I feel that my abortion advocacy work is looked down upon more than other advocacy work.	0	1	2	3	4	0	1	2	3	4
31.	I feel that if I disclose my abortion advocacy work to strangers, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
32.	I feel that when I disclose my abortion advocacy work to family, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
33.	I feel that when I disclose my abortion advocacy work to colleagues, they are supportive of me.*	0	1	2	3	4	0	1	2	3	4
34.	I feel that when my community learns of my abortion advocacy work, they see me as less.	0	1	2	3	4	0	1	2	3	4
35.	I feel that colleagues or employers look down on me because I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
36.	I feel that the general public does not value my abortion advocacy.	0	1	2	3	4	0	1	2	3	4
37.	When I see or read something degrading abortion in the media, it makes me feel negative.	0	1	2	3	4	0	1	2	3	4
38.	I feel colleagues question my professionalism when they learn that I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
39.	I feel that people question my morals when they learn I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
40.	I feel others who are pro-choice judge the extent to which I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
41.	I worry that others will think less of me if I talk about the upsetting or difficult parts of advocating for abortion.	0	1	2	3	4	0	1	2	3	4
42.	I go out of my way to ensure people aren't upset when I talk about abortion.*	0	1	2	3	4	0	1	2	3	4
43.	I fear my community will think less of me if they see me advocating for abortion.	0	1	2	3	4	0	1	2	3	4
44.	People close to me have expressed concerns for my safety because of my work advocating for abortion.	0	1	2	3	4	0	1	2	3	4
45.	My employer has expressed concerns about my work advocating for abortion.	0	1	2	3	4	0	1	2	3	4

The following questions are about **degrading outcomes** you may have experienced because of your abortion advocacy.

Please make the selection that *best describes your experience* <u>in the last 3 months</u>.

		How often has this occurred?					How much do you care about this?				
		Never	Rarely	Sometimes	Often	Always	Not at all	Little	Somewhat	Much	A lot
46.	I fear my career may be jeopardised because I publicly advocate for abortion.	0	1	2	3	4	0	1	2	3	4
47.	I have lost career opportunities because I advocate for abortion.	0	1	2	3	4	0	1	2	3	4
48.	I have experienced online harassment because of my abortion advocacy work.	0	1	2	3	4	0	1	2	3	4
49.	I fear online retaliation to my advocacy for abortion.	0	1	2	3	4	0	1	2	3	4
50.	I fear harassment because I publicly support abortion.	0	1	2	3	4	0	1	2	3	4
51.	When advocating for abortion, I scan the environment for risks of harassment.	0	1	2	3	4	0	1	2	3	4
52.	I actively take actions to reduce risk of discrimination from advocating for abortion.	0	1	2	3	4	0	1	2	3	4
53.	I have been verbally threatened or attacked for publicly expressing support for abortion.	0	1	2	3	4	0	1	2	3	4
54.	I have been physically threatened or attacked for advocating for abortion.	0	1	2	3	4	0	1	2	3	4
55.	The people I love have been harassed or discriminated against because I publicly support abortion	0	1	2	3	4	0	1	2	3	4
56.	People treat those I love differently if they know I advocate for abortion.	0	1	2	3	4	0	1	2	3	4

If you have any comments you would like to make, please do so below.

<u>End of questions information.</u>

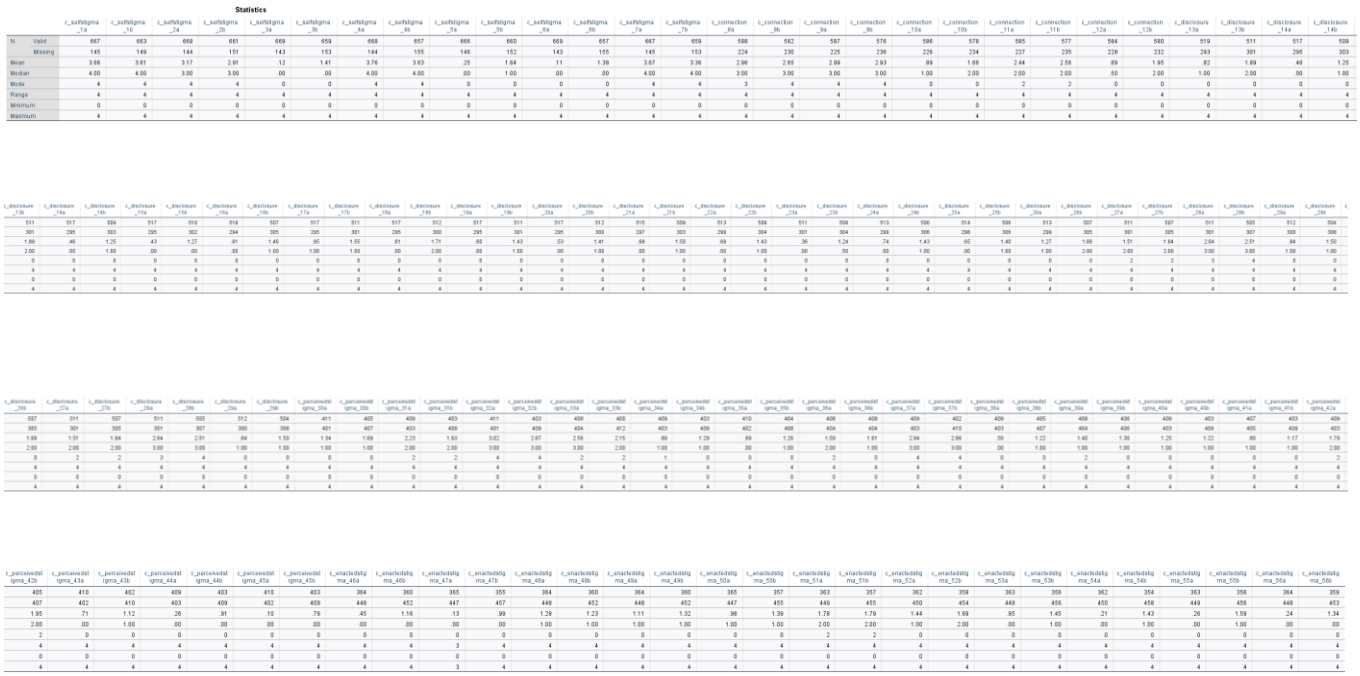
These questions are asked to help us understand how common and important abortion stigma is in Australia among people who advocate for choice, abortion access, and abortion. This information will help inform efforts to address abortion stigma and support people who advocate for abortion, provide abortion care, and people who seek abortions.

If you wish to talk about your experience advocating for abortion, we recommend the following services:

- 1800RESPECT Professional line, call 1800 737 732 or visit https://www.1800respect.org.au/professionals
- Blue Knot professionals or supporters, a service empowering recovery from complex trauma, visit https://professionals.blueknot.org.au/contact-us/ or https://blueknot.org.au/supporters/ or call 1300 657 380
- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/

Appendix 7.2. Analysis output

i. Patterns in response rates

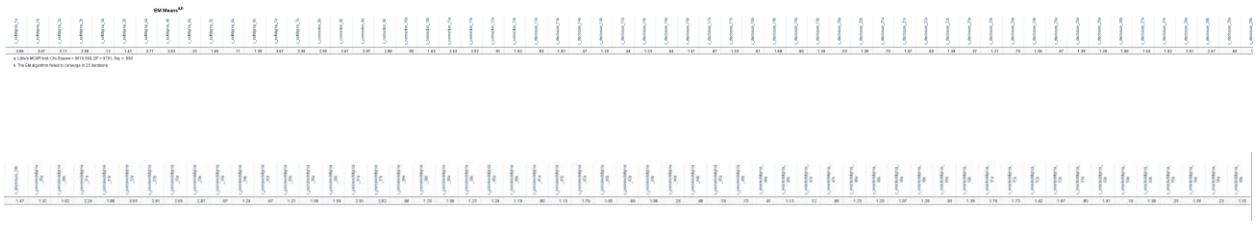


numissASC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	283	34.9	34.9	34.9
	1.00	45	5.5	5.5	40.4
	2.00	21	2.6	2.6	43.0
	3.00	6	.7	.7	43.7
	4.00	1	.1	.1	43.8
	6.00	1	.1	.1	44.0
	7.00	1	.1	.1	44.1
	8.00	1	.1	.1	44.2
	12.00	1	.1	.1	44.3

	22.00	36	4.4	4.4	48.8
	23.00	4	.5	.5	49.3
	24.00	4	.5	.5	49.8
	26.00	1	.1	.1	49.9
	50.00	1	.1	.1	50.0
	52.00	1	.1	.1	50.1
	54.00	88	10.8	10.8	61.0
	55.00	12	1.5	1.5	62.4
	56.00	4	.5	.5	62.9
	60.00	1	.1	.1	63.1
	61.00	1	.1	.1	63.2
	67.00	1	.1	.1	63.3
	68.00	1	.1	.1	63.4
	72.00	1	.1	.1	63.5
	73.00	1	.1	.1	63.7
	76.00	1	.1	.1	63.8
	86.00	1	.1	.1	63.9
	88.00	61	7.5	7.5	71.4
	89.00	5	.6	.6	72.0
	90.00	2	.2	.2	72.3
	94.00	1	.1	.1	72.4
	98.00	78	9.6	9.6	82.0
	100.00	2	.2	.2	82.3
	105.00	1	.1	.1	82.4
	112.00	143	17.6	17.6	100.0
	Total	812	100.0	100.0	

ii. MCAR



iii. Participant demographics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
age	258	18	79	40.66	14.007

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	.4	.4	.4
	woman	244	86.2	86.2	86.6
	nonbinary - man	2	.7	.7	87.3
	nonbinary - woman	4	1.4	1.4	88.7
	man	18	6.4	6.4	95.1
	nonbinary	14	4.9	4.9	100.0
	Total	283	100.0	100.0	

birth_place

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Australia	244	86.2	86.2	86.2
	England	9	3.2	3.2	89.4
	New Zealand	5	1.8	1.8	91.2
	Philippines	1	.4	.4	91.5
	South Africa	3	1.1	1.1	92.6
	Scotland	1	.4	.4	92.9
	Other	20	7.1	7.1	100.0
	Total	283	100.0	100.0	

c_advocacy_pay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	.4	.4
	2	261	92.2	92.2	92.6
	3	21	7.4	7.4	100.0
	Total	283	100.0	100.0	

education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	5	1.8	1.8	1.8
	12	1	.4	.4	2.1
	13	30	10.6	10.7	12.9
	14	24	8.5	8.6	21.4
	15	26	9.2	9.3	30.7

	16	92	32.5	32.9	63.6
	17	31	11.0	11.1	74.6
	18	69	24.4	24.6	99.3
	19	2	.7	.7	100.0
	Total	280	98.9	100.0	
Missing	System	3	1.1		
Total		283	100.0		

political_affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1.8	1.8	1.8
	2	2	.7	.7	2.5
	3	69	24.4	24.7	27.2
	4	130	45.9	46.6	73.8
	5	8	2.8	2.9	76.7
	6	10	3.5	3.6	80.3
	7	46	16.3	16.5	96.8
	8	9	3.2	3.2	100.0
	Total	279	98.6	100.0	
Missing	System	4	1.4		
Total		283	100.0		

religious_affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	191	67.5	68.7	68.7
	2	16	5.7	5.8	74.5
	3	13	4.6	4.7	79.1
	4	4	1.4	1.4	80.6
	5	1	.4	.4	80.9
	6	4	1.4	1.4	82.4
	7	1	.4	.4	82.7
	10	1	.4	.4	83.1
	11	19	6.7	6.8	89.9
	12	27	9.5	9.7	99.6
	13	1	.4	.4	100.0
	Total	278	98.2	100.0	
Missing	System	5	1.8		
Total		283	100.0		

iv. Structural validity

1. Frequency scale

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.909
Bartlett's Test of Sphericity	Approx. Chi-Square	3192.501
	df	190
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.050	40.248	40.248	8.050	40.248	40.248	5.343	26.714	26.714
2	2.406	12.032	52.281	2.406	12.032	52.281	3.689	18.443	45.157
3	1.647	8.234	60.514	1.647	8.234	60.514	3.072	15.358	60.514
4	.937	4.683	65.198						
5	.827	4.133	69.331						
6	.768	3.842	73.173						
7	.693	3.463	76.636						
8	.581	2.904	79.540						
9	.537	2.684	82.224						
10	.495	2.474	84.699						
11	.441	2.206	86.905						
12	.410	2.051	88.955						
13	.372	1.859	90.814						
14	.344	1.721	92.535						
15	.334	1.672	94.206						
16	.305	1.523	95.729						
17	.260	1.302	97.031						
18	.241	1.206	98.237						
19	.214	1.072	99.309						
20	.138	.691	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
c_disclosure_26a	.832		
c_disclosure_27a	.776		
c_disclosure_16a	.772		
c_disclosure_17a	.756		
c_disclosure_21a	.732	.335	
c_disclosure_22a	.723	.348	
c_disclosure_25a	.719	.343	
c_disclosure_29a	.668	.308	
c_enactedstigma_51a	.558		.386
c_disclosure_15a	.346	.797	
c_disclosure_23a	.371	.759	
c_perceivedstigma_32a		-.759	
c_disclosure_14a		.693	

c_connection_9a	-.313	-.622	
c_selfstigma_6a	.308	.515	
c_enactedstigma_54a			.767
c_enactedstigma_53a			.764
c_enactedstigma_48a			.762
c_perceivedstigma_44a			.703
c_enactedstigma_56a		.301	.592

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

2. Importance scale

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett's Test of Sphericity	Approx. Chi-Square	2517.116
	df	78
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.821	44.778	44.778	5.821	44.778	44.778	5.113	39.329	39.329
2	2.064	15.879	60.656	2.064	15.879	60.656	2.496	19.197	58.527
3	1.620	12.463	73.120	1.620	12.463	73.120	1.897	14.593	73.120
4	.724	5.568	78.688						
5	.562	4.326	83.014						
6	.473	3.637	86.651						
7	.431	3.317	89.969						
8	.364	2.801	92.770						
9	.277	2.131	94.901						
10	.219	1.687	96.588						
11	.177	1.358	97.946						
12	.136	1.048	98.993						
13	.131	1.007	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
c_enactedstigma_49b	.883		
c_enactedstigma_50b	.879		
c_enactedstigma_51b	.872		
c_enactedstigma_53b	.869		
c_enactedstigma_48b	.840		
c_enactedstigma_54b	.823		
c_enactedstigma_52b	.725		
c_selfstigma_6b		.907	
c_selfstigma_5b		.877	

c_selfstigma_3b		.856	
c_connection_9b			.853
c_connection_11b			.777
c_connection_8b			.692

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 4 iterations.

v. Internal consistency: Cronbach's alpha

1. Frequency: anticipated (public) stigma

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.914	.920	9

Inter-Item Correlation Matrix

	c_disclosure_16a	c_disclosure_17a	c_disclosure_21a	c_disclosure_22a	c_disclosure_25a	c_disclosure_26a	c_disclosure_27a	c_disclosure_29a	c_enactedstigma_51a
c_disclosure_16a	1.000	.625	.580	.611	.602	.647	.541	.559	.409
c_disclosure_17a	.625	1.000	.529	.517	.561	.593	.496	.502	.315
c_disclosure_21a	.580	.529	1.000	.743	.708	.657	.551	.540	.445
c_disclosure_22a	.611	.517	.743	1.000	.704	.681	.531	.574	.497
c_disclosure_25a	.602	.561	.708	.704	1.000	.661	.530	.569	.426
c_disclosure_26a	.647	.593	.657	.681	.661	1.000	.709	.634	.492
c_disclosure_27a	.541	.496	.551	.531	.530	.709	1.000	.539	.463
c_disclosure_29a	.559	.502	.540	.574	.569	.634	.539	1.000	.475
c_enactedstigma_51a	.409	.315	.445	.497	.426	.492	.463	.475	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_disclosure_16a	8.80	44.195	.727	.558	.904
c_disclosure_17a	8.54	42.972	.645	.480	.908
c_disclosure_21a	8.78	42.824	.753	.643	.901

c_disclosure_22a	8.73	43.426	.775	.666	.901
c_disclosure_25a	8.81	44.082	.756	.624	.902
c_disclosure_26a	8.16	39.493	.820	.696	.895
c_disclosure_27a	7.90	41.512	.698	.540	.905
c_disclosure_29a	8.61	42.565	.699	.495	.904
c_enactedstigma_51a	7.65	42.540	.549	.335	.918

2. Frequency: anticipated stigma

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.837	.848	6

Inter-Item Correlation Matrix

	c_disclosure_15a	c_perceivedstigma_32arev	c_disclosure_23a	c_disclosure_14a	c_connection_9arev	c_selfstigma_6a
c_disclosure_15a	1.000	.548	.815	.667	.489	.450
c_perceivedstigma_32arev	.548	1.000	.523	.448	.505	.293
c_disclosure_23a	.815	.523	1.000	.547	.518	.484
c_disclosure_14a	.667	.448	.547	1.000	.304	.301
c_connection_9arev	.489	.505	.518	.304	1.000	.334
c_selfstigma_6a	.450	.293	.484	.301	.334	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_disclosure_15a	3.1625	9.888	.801	.745	.772
c_perceivedstigma_32arev	2.6254	10.107	.619	.393	.810
c_disclosure_23a	3.2191	10.257	.770	.698	.780
c_disclosure_14a	3.0848	10.546	.583	.458	.816
c_connection_9arev	2.5901	9.888	.553	.356	.831
c_selfstigma_6a	3.5159	13.201	.465	.251	.842

3. Frequency: enacted stigma

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.776	.794	5

Inter-Item Correlation Matrix

	c_perceivedstigma_44a	c_enactedstigma_48a	c_enactedstigma_53a	c_enactedstigma_54a	c_enactedstigma_56a
c_perceivedstigma_44a	1.000	.404	.360	.498	.440
c_enactedstigma_48a	.404	1.000	.637	.431	.279
c_enactedstigma_53a	.360	.637	1.000	.525	.277
c_enactedstigma_54a	.498	.431	.525	1.000	.506
c_enactedstigma_56a	.440	.279	.277	.506	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_perceivedstigma_44a	2.65	7.156	.534	.333	.744
c_enactedstigma_48a	1.68	5.097	.611	.443	.729
c_enactedstigma_53a	2.10	5.576	.637	.483	.704
c_enactedstigma_54a	2.74	6.917	.638	.459	.718
c_enactedstigma_56a	2.73	7.757	.447	.304	.769

4. Frequency: total scale

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.911	.915	20

Inter-Item Correlation Matrix

	c_disclosure_16a	c_disclosure_17a	c_disclosure_21a	c_disclosure_22a	c_disclosure_25a	c_disclosure_26a	c_disclosure_27a	c_disclosure_29a	c_enactedstigma_51a	c_disclosure_15a	c_perceivedstigma_32arev	c_disclosure_23a	c_disclosure_14a	c_connection_9arev	c_selfstigma_6a	c_perceivedstigma_44a	c_enactedstigma_48a	c_enactedstigma_53a	c_enactedstigma_54a	c_enactedstigma_56a
c_disclosure_16a	1.000	.625	.580	.611	.602	.647	.541	.559	.409	.468	.279	.423	.306	.390	.336	.244	.106	.116	.081	.209
c_disclosure_17a	.625	1.000	.529	.517	.561	.593	.496	.502	.315	.321	.176	.356	.225	.349	.253	.151	.095	.134	.093	.158
c_disclosure_21a	.580	.529	1.000	.743	.708	.657	.551	.540	.445	.515	.347	.571	.352	.422	.361	.261	.191	.193	.200	.227
c_disclosure_22a	.611	.517	.743	1.000	.704	.681	.531	.574	.497	.540	.352	.595	.412	.343	.404	.308	.226	.233	.238	.328
c_disclosure_25a	.602	.561	.708	.704	1.000	.661	.530	.569	.426	.525	.311	.573	.356	.396	.481	.315	.191	.245	.261	.343
c_disclosure_26a	.647	.593	.657	.681	.661	1.000	.709	.634	.492	.515	.312	.504	.313	.415	.381	.194	.111	.122	.136	.236
c_disclosure_27a	.541	.496	.551	.531	.530	.709	1.000	.539	.463	.403	.272	.377	.225	.309	.353	.083	.112	.082	.046	.091
c_disclosure_29a	.559	.502	.540	.574	.569	.634	.539	1.000	.475	.518	.343	.509	.337	.386	.354	.323	.220	.207	.251	.253
c_enactedstigma_51a	.409	.315	.445	.497	.426	.492	.463	.475	1.000	.359	.193	.369	.260	.281	.239	.310	.303	.293	.264	.324
c_disclosure_15a	.468	.321	.515	.540	.525	.515	.403	.518	.359	1.000	.548	.815	.667	.489	.450	.179	.162	.201	.251	.294
c_perceivedstigma_32arev	.279	.176	.347	.352	.311	.312	.272	.343	.193	.548	1.000	.523	.448	.505	.293	.078	.085	.085	.191	.225
c_disclosure_23a	.423	.356	.571	.595	.573	.504	.377	.509	.369	.815	.523	1.000	.547	.518	.484	.234	.173	.217	.328	.279
c_disclosure_14a	.306	.225	.352	.412	.356	.313	.225	.337	.260	.667	.448	.547	1.000	.304	.301	.271	.191	.188	.236	.340
c_connection_9arev	.390	.349	.422	.343	.396	.415	.309	.386	.281	.489	.505	.518	.304	1.000	.334	.078	.003	.080	.149	.128
c_selfstigma_6a	.336	.253	.361	.404	.481	.381	.353	.354	.239	.450	.293	.484	.301	.334	1.000	.056	.062	.124	.265	.334
c_perceivedstigma_44a	.244	.151	.261	.308	.315	.194	.083	.323	.310	.179	.078	.234	.271	.078	.056	1.000	.404	.360	.498	.440
c_enactedstigma_48a	.106	.095	.191	.226	.191	.111	.112	.220	.303	.162	.085	.173	.191	.003	.062	.404	1.000	.637	.431	.279
c_enactedstigma_53a	.116	.134	.193	.233	.245	.122	.082	.207	.293	.201	.085	.217	.188	.080	.124	.360	.637	1.000	.525	.277
c_enactedstigma_54a	.081	.093	.200	.238	.261	.136	.046	.251	.264	.251	.191	.328	.236	.149	.265	.498	.431	.525	1.000	.506
c_enactedstigma_56a	.209	.158	.227	.328	.343	.236	.091	.253	.324	.294	.225	.279	.340	.128	.334	.440	.279	.277	.506	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_disclosure_16a	15.4170	121.145	.661	.591	.904
c_disclosure_17a	15.1590	119.978	.562	.510	.906
c_disclosure_21a	15.3958	118.127	.732	.661	.902

c_disclosure_22a	15.3428	118.786	.768	.693	.901
c_disclosure_25a	15.4276	119.770	.754	.668	.902
c_disclosure_26a	14.7703	114.284	.731	.707	.901
c_disclosure_27a	14.5194	118.151	.594	.578	.906
c_disclosure_29a	15.2226	117.266	.704	.543	.902
c_enactedstigma_51a	14.2650	117.153	.568	.404	.907
c_disclosure_15a	15.6360	120.927	.697	.771	.903
c_perceivedstigma_32arev	15.0989	123.721	.461	.422	.909
c_disclosure_23a	15.6926	121.391	.711	.745	.903
c_disclosure_14a	15.5583	123.311	.513	.504	.907
c_connection_9arev	15.0636	121.748	.485	.421	.908
c_selfstigma_6a	15.9894	129.592	.488	.394	.909
c_perceivedstigma_44a	15.7915	127.924	.393	.447	.910
c_enactedstigma_48a	14.8198	124.978	.320	.467	.914
c_enactedstigma_53a	15.2332	125.640	.351	.501	.912
c_enactedstigma_54a	15.8763	128.144	.393	.512	.910
c_enactedstigma_56a	15.8693	128.476	.420	.425	.909

5. Importance: enacted stigma

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.940	7

Inter-Item Correlation Matrix

	c_enactedstigma_48b	c_enactedstigma_49b	c_enactedstigma_50b	c_enactedstigma_51b	c_enactedstigma_52b	c_enactedstigma_53b	c_enactedstigma_54b
c_enactedstigma_48b	1.000	.782	.744	.641	.524	.739	.643
c_enactedstigma_49b	.782	1.000	.850	.764	.546	.734	.682

c_enactedstigma_50b	.744	.850	1.000	.774	.571	.753	.739
c_enactedstigma_51b	.641	.764	.774	1.000	.721	.722	.691
c_enactedstigma_52b	.524	.546	.571	.721	1.000	.534	.513
c_enactedstigma_53b	.739	.734	.753	.722	.534	1.000	.835
c_enactedstigma_54b	.643	.682	.739	.691	.513	.835	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_enactedstigma_48b	9.24	56.105	.786	.685	.931
c_enactedstigma_49b	9.16	54.780	.849	.793	.926
c_enactedstigma_50b	9.14	53.944	.866	.791	.924
c_enactedstigma_51b	8.71	55.575	.838	.757	.927
c_enactedstigma_52b	8.82	58.838	.639	.531	.944
c_enactedstigma_53b	9.05	54.324	.845	.782	.926
c_enactedstigma_54b	9.11	53.145	.794	.730	.931

6. Importance: internalised stigma

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.880	.880	3

Inter-Item Correlation Matrix

	c_selfstigma_3b	c_selfstigma_5b	c_selfstigma_6b
c_selfstigma_3b	1.000	.649	.723
c_selfstigma_5b	.649	1.000	.759
c_selfstigma_6b	.723	.759	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_selfstigma_3b	3.07	10.147	.731	.546	.863
c_selfstigma_5b	2.83	9.905	.759	.597	.839
c_selfstigma_6b	3.12	9.456	.816	.668	.787

7. Importance: community support

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.684	.693	3

Inter-Item Correlation Matrix

	c_connection_11brev	c_connection_9brev	c_connection_8brev
c_connection_11brev	1.000	.503	.335
c_connection_9brev	.503	1.000	.451
c_connection_8brev	.335	.451	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_connection_11brev	2.4876	4.272	.480	.268	.612
c_connection_9brev	2.8834	4.188	.581	.343	.498
c_connection_8brev	2.5442	3.802	.450	.219	.668

8. Importance: total scale

Case Processing Summary

		N	%
Cases	Valid	283	100.0
	Excluded[a]	0	.0
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.814	.798	13

Inter-Item Correlation Matrix

	c_enactedstigma_48b	c_enactedstigma_49b	c_enactedstigma_50b	c_enactedstigma_51b	c_enactedstigma_52b	c_enactedstigma_53b	c_enactedstigma_54b	c_selfstigma_3b	c_selfstigma_5b	c_selfstigma_6b	c_connection_11brev	c_connection_9brev	c_connection_8brev
c_enactedstigma_48b	1.000	.782	.744	.641	.524	.739	.643	.242	.180	.225	-.139	-.099	-.258
c_enactedstigma_49b	.782	1.000	.850	.764	.546	.734	.682	.246	.257	.262	-.161	-.104	-.262
c_enactedstigma_50b	.744	.850	1.000	.774	.571	.753	.739	.324	.341	.358	-.140	-.105	-.272
c_enactedstigma_51b	.641	.764	.774	1.000	.721	.722	.691	.241	.268	.252	-.127	-.107	-.294
c_enactedstigma_52b	.524	.546	.571	.721	1.000	.534	.513	.135	.153	.150	-.096	-.125	-.294
c_enactedstigma_53b	.739	.734	.753	.722	.534	1.000	.835	.281	.245	.248	-.172	-.134	-.275
c_enactedstigma_54b	.643	.682	.739	.691	.513	.835	1.000	.273	.307	.295	-.180	-.118	-.245
c_selfstigma_3b	.242	.246	.324	.241	.135	.281	.273	1.000	.649	.723	-.153	-.113	-.202
c_selfstigma_5b	.180	.257	.341	.268	.153	.245	.307	.649	1.000	.759	-.109	-.151	-.178
c_selfstigma_6b	.225	.262	.358	.252	.150	.248	.295	.723	.759	1.000	-.165	-.129	-.146
c_connection_11brev	-.139	-.161	-.140	-.127	-.096	-.172	-.180	-.153	-.109	-.165	1.000	.503	.335
c_connection_9brev	-.099	-.104	-.105	-.107	-.125	-.134	-.118	-.113	-.151	-.129	.503	1.000	.451
c_connection_8brev	-.258	-.262	-.272	-.294	-.294	-.275	-.245	-.202	-.178	-.146	.335	.451	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c_enactedstigma_48b	17.7138	90.779	.668	.690	.784
c_enactedstigma_49b	17.6325	88.978	.734	.795	.779
c_enactedstigma_50b	17.6148	86.798	.800	.803	.772
c_enactedstigma_51b	17.1837	89.867	.726	.759	.780
c_enactedstigma_52b	17.2898	94.568	.515	.542	.797
c_enactedstigma_53b	17.5230	88.605	.725	.786	.779
c_enactedstigma_54b	17.5795	86.521	.710	.737	.778
c_selfstigma_3b	17.5689	93.140	.443	.567	.803
c_selfstigma_5b	17.3286	92.682	.456	.619	.802
c_selfstigma_6b	17.6184	92.038	.476	.680	.800
c_connection_11brev	17.5406	111.895	-.113	.296	.836
c_connection_9brev	17.9364	110.620	-.059	.354	.832
c_connection_8brev	17.5972	115.993	-.254	.300	.850

vi. Reliability: ICC

1. Frequency: anticipated (public) stigma

Case Processing Summary

		N	%
Cases	Valid	92	32.5
	Excluded[a]	191	67.5
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.890	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.783[a]	.666	.859	9.107	91	91	<.001
Average Measures	.878	.800	.924	9.107	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

2. Frequency: anticipated (close relationships) stigma

Case Processing Summary

		N	%
Cases	Valid	93	32.9
	Excluded[a]	190	67.1
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.926	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.862[a]	.799	.907	13.439	92	92	<.001
Average Measures	.926	.889	.951	13.439	92	92	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

3. Frequency: enacted stigma

Case Processing Summary

		N	%
Cases	Valid	92	32.5
	Excluded[a]	191	67.5
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.881	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.790[a]	.698	.856	8.428	91	91	<.001
Average Measures	.882	.822	.922	8.428	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

4. Frequency full scale

Case Processing Summary

		N	%
Cases	Valid	92	32.5
	Excluded[a]	191	67.5
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.930	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.861[a]	.790	.908	14.294	91	91	<.001
Average Measures	.925	.883	.952	14.294	91	91	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

5. Importance: enacted stigma

Case Processing Summary

		N	%
Cases	Valid	90	31.8
	Excluded[a]	193	68.2
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.680	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.517[a]	.348	.654	3.121	89	89	<.001
Average Measures	.682	.516	.791	3.121	89	89	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

6. Importance: internalised stigma

Case Processing Summary

		N	%
Cases	Valid	107	37.8
	Excluded[a]	176	62.2
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.515	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.349[a]	.170	.505	2.063	106	106	<.001
Average Measures	.517	.291	.671	2.063	106	106	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

7. Importance: community support

Case Processing Summary

		N	%
Cases	Valid	98	34.6
	Excluded[a]	185	65.4
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.482	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.317[a]	.129	.484	1.931	97	97	<.001
Average Measures	.482	.228	.653	1.931	97	97	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

8. Importance full scale

Case Processing Summary

		N	%
Cases	Valid	90	31.8
	Excluded[a]	193	68.2
	Total	283	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.710	2

Intraclass Correlation Coefficient

	Intraclass Correlation[b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.553[a]	.390	.681	3.443	89	89	<.001
Average Measures	.712	.562	.811	3.443	89	89	<.001

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

vii. Construct validity: stigma frequency and importance subscales

1. Correlation between stigma frequency and importance subscales and psychological wellbeing

Correlations

		c_anticipatedstigma_public_frequency	c_anticipatedstigma_frequency	c_enactedstigma_frequency	c_frequency_fullscale	c_enactedstigma_importance	c_internalisedstigma_importance	c_empowerment_importance	c_importance_fullscale	comparator_K6_score
c_anticipatedstigma_public_frequency	Pearson Correlation	1	.615**	.335**	.923**	.506**	.126*	.068	.488**	.238**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	.034	.254	<.001	<.001
	N	283	283	283	283	283	283	283	283	278
c_anticipatedstigma_frequency	Pearson Correlation	.615**	1	.291**	.797**	.301**	.173**	.044	.334**	.246**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	.003	.465	<.001	<.001
	N	283	283	283	283	283	283	283	283	278
c_enactedstigma_frequency	Pearson Correlation	.335**	.291**	1	.575**	.360**	.090	-.076	.314**	.248**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	.131	.202	<.001	<.001
	N	283	283	283	283	283	283	283	283	278
c_frequency_fullscale	Pearson Correlation	.923**	.797**	.575**	1	.515**	.161**	.037	.502**	.298**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	.007	.535	<.001	<.001
	N	283	283	283	283	283	283	283	283	278
c_enactedstigma_importance	Pearson Correlation	.506**	.301**	.360**	.515**	1	.328**	-.271**	.891**	.184**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	<.001	.002
	N	283	283	283	283	283	283	283	283	278
c_internalisedstigma_importance	Pearson Correlation	.126*	.173**	.090	.161**	.328**	1	-.214**	.647**	.082
	Sig. (2-tailed)	.034	.003	.131	.007	<.001		<.001	<.001	.173
	N	283	283	283	283	283	283	283	283	278
c_empowerment_importance	Pearson Correlation	.068	.044	-.076	.037	-.271**	-.214**	1	-.048	-.017
	Sig. (2-tailed)	.254	.465	.202	.535	<.001	<.001		.426	.773
	N	283	283	283	283	283	283	283	283	278
c_importance_fullscale	Pearson Correlation	.488**	.334**	.314**	.502**	.891**	.647**	-.048	1	.182**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	.426		.002
	N	283	283	283	283	283	283	283	283	278
comparator_K6_score	Pearson Correlation	.238**	.246**	.248**	.298**	.184**	.082	-.017	.182**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	.002	.173	.773	.002	
	N	278	278	278	278	278	278	278	278	278

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

2. Correlation between stigma frequency and importance subscales and abortion attitudes

Correlations

		attitudes_total	c_anticipated stigma_public_frequency	c_anticipated stigma_frequency	c_enactedstigma_frequency	c_frequency_fullscale	c_enactedstigma_importance	c_internalisedstigma_importance	c_empowerment_importance	c_importance_fullscale
attitudes_total	Pearson Correlation	1	.308**	.330**	.076	.322**	.118	.044	.034	.124*
	Sig. (2-tailed)		<.001	<.001	.214	<.001	.054	.475	.576	.043
	N	270	270	270	270	270	270	270	270	270
c_anticipatedstigma_public_frequency	Pearson Correlation	.308**	1	.615**	.335**	.923**	.506**	.126*	.068	.488**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	.034	.254	<.001
	N	270	283	283	283	283	283	283	283	283
c_anticipatedstigma_frequency	Pearson Correlation	.330**	.615**	1	.291**	.797**	.301**	.173**	.044	.334**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	.003	.465	<.001
	N	270	283	283	283	283	283	283	283	283
c_enactedstigma_frequency	Pearson Correlation	.076	.335**	.291**	1	.575**	.360**	.090	-.076	.314**
	Sig. (2-tailed)	.214	<.001	<.001		<.001	<.001	.131	.202	<.001
	N	270	283	283	283	283	283	283	283	283
c_frequency_fullscale	Pearson Correlation	.322**	.923**	.797**	.575**	1	.515**	.161**	.037	.502**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	.007	.535	<.001
	N	270	283	283	283	283	283	283	283	283
c_enactedstigma_importance	Pearson Correlation	.118	.506**	.301**	.360**	.515**	1	.328**	-.271**	.891**
	Sig. (2-tailed)	.054	<.001	<.001	<.001	<.001		<.001	<.001	<.001
	N	270	283	283	283	283	283	283	283	283
c_internalisedstigma_importance	Pearson Correlation	.044	.126*	.173**	.090	.161**	.328**	1	-.214**	.647**
	Sig. (2-tailed)	.475	.034	.003	.131	.007	<.001		<.001	<.001
	N	270	283	283	283	283	283	283	283	283
c_empowerment_importance	Pearson Correlation	.034	.068	.044	-.076	.037	-.271**	-.214**	1	-.048
	Sig. (2-tailed)	.576	.254	.465	.202	.535	<.001	<.001		.426
	N	270	283	283	283	283	283	283	283	283
c_importance_fullscale	Pearson Correlation	.124*	.488**	.334**	.314**	.502**	.891**	.647**	-.048	1
	Sig. (2-tailed)	.043	<.001	<.001	<.001	<.001	<.001	<.001	.426	
	N	270	283	283	283	283	283	283	283	283

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

3. Mean differences in stigma frequency and importance subscales by religiosity categories

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
c_anticipatedstigma_public_frequency	not religious	180	8.4778	7.06748	.52678	7.4383	9.5173	.00	30.00
	religious	88	10.8523	6.95724	.74164	9.3782	12.3264	.00	25.00
	highly relgiious	7	18.0000	10.50397	3.97013	8.2855	27.7145	9.00	36.00
	Total	275	9.4800	7.31677	.44122	8.6114	10.3486	.00	36.00
c_anticipatedstigma_frequency	not religious	180	3.1444	3.40411	.25373	2.6438	3.6451	.00	18.00
	religious	88	4.4773	4.01428	.42792	3.6267	5.3278	.00	16.00
	highly relgiious	7	7.0000	8.38650	3.16980	-.7562	14.7562	.00	24.00
	Total	275	3.6691	3.86019	.23278	3.2108	4.1274	.00	24.00
c_enactedstigma_frequency	not religious	180	2.7833	2.77715	.20700	2.3749	3.1918	.00	15.00
	religious	88	3.0568	3.29527	.35128	2.3586	3.7550	.00	15.00
	highly relgiious	7	5.7143	5.43796	2.05536	.6850	10.7436	.00	15.00
	Total	275	2.9455	3.05795	.18440	2.5824	3.3085	.00	15.00
c_frequency_fullscale	not religious	180	14.4056	10.58179	.78872	12.8492	15.9619	.00	54.00
	religious	88	18.3864	11.36180	1.21117	15.9790	20.7937	.00	50.00
	highly relgiious	7	30.7143	21.49197	8.12320	10.8375	50.5910	15.00	75.00
	Total	275	16.0945	11.54451	.69616	14.7240	17.4650	.00	75.00
c_enactedstigma_importance	not religious	180	9.9222	8.66538	.64588	8.6477	11.1967	.00	28.00
	religious	88	11.2841	8.34314	.88938	9.5163	13.0518	.00	28.00
	highly relgiious	7	18.4286	9.53690	3.60461	9.6084	27.2487	5.00	28.00
	Total	275	10.5745	8.66978	.52281	9.5453	11.6038	.00	28.00
c_internalisedstigma_importance	not religious	180	4.7222	4.71543	.35147	4.0287	5.4158	.00	12.00
	religious	88	3.9659	4.15352	.44277	3.0859	4.8460	.00	12.00
	highly relgiious	7	6.2857	6.04743	2.28571	.6928	11.8787	.00	12.00
	Total	275	4.5200	4.58363	.27640	3.9759	5.0641	.00	12.00
c_empowerment_importance	not religious	180	3.8500	2.79759	.20852	3.4385	4.2615	.00	12.00
	religious	88	4.0114	2.75637	.29383	3.4273	4.5954	.00	11.00
	highly relgiious	7	4.4286	4.23703	1.60144	.5100	8.3472	.00	10.00
	Total	275	3.9164	2.81619	.16982	3.5820	4.2507	.00	12.00
c_importance_fullscale	not religious	180	18.4944	10.59909	.79001	16.9355	20.0534	.00	46.00
	religious	88	19.2614	10.30288	1.09829	17.0784	21.4443	1.00	40.00
	highly relgiious	7	29.1429	8.76410	3.31252	21.0374	37.2483	16.00	40.00
	Total	275	19.0109	10.56384	.63702	17.7568	20.2650	.00	46.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
c_anticipatedstigma_public_frequency	Between Groups	854.649	2	427.325	8.414	<.001
	Within Groups	13813.991	272	50.787		
	Total	14668.640	274			
c_anticipatedstigma_frequency	Between Groups	184.688	2	92.344	6.443	.002
	Within Groups	3898.199	272	14.332		
	Total	4082.887	274			
c_enactedstigma_frequency	Between Groups	59.487	2	29.744	3.233	.041
	Within Groups	2502.694	272	9.201		
	Total	2562.182	274			
c_frequency_fullscale	Between Groups	2471.855	2	1235.928	9.874	<.001
	Within Groups	34045.687	272	125.168		
	Total	36517.542	274			
c_enactedstigma_importance	Between Groups	552.699	2	276.349	3.750	.025
	Within Groups	20042.523	272	73.686		
	Total	20595.222	274			
c_internalisedstigma_importance	Between Groups	56.203	2	28.101	1.341	.263
	Within Groups	5700.437	272	20.957		
	Total	5756.640	274			
c_empowerment_importance	Between Groups	3.423	2	1.712	.215	.807
	Within Groups	2169.653	272	7.977		
	Total	2173.076	274			
c_importance_fullscale	Between Groups	772.127	2	386.064	3.523	.031
	Within Groups	29804.840	272	109.577		
	Total	30576.967	274			

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) CRS_categories	(J) CRS_categories	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
c_anticipatedstigma_public_frequency	not religious	religious	-2.37449*	.92697	.029	-4.5590	-.1900
		highly relgiious	-9.52222*	2.74543	.002	-15.9922	-3.0523
	religious	not religious	2.37449*	.92697	.029	.1900	4.5590
		highly relgiious	-7.14773*	2.79864	.030	-13.7430	-.5524
	highly relgiious	not religious	9.52222*	2.74543	.002	3.0523	15.9922
		religious	7.14773*	2.79864	.030	.5524	13.7430
c_anticipatedstigma_frequency	not religious	religious	-1.33283*	.49242	.020	-2.4933	-.1724
		highly relgiious	-3.85556*	1.45842	.024	-7.2925	-.4186
	religious	not religious	1.33283*	.49242	.020	.1724	2.4933
		highly relgiious	-2.52273	1.48669	.208	-6.0263	.9808
	highly relgiious	not religious	3.85556*	1.45842	.024	.4186	7.2925
		religious	2.52273	1.48669	.208	-.9808	6.0263
c_enactedstigma_frequency	not religious	religious	-.27348	.39456	.768	-1.2033	.6563
		highly relgiious	-2.93095*	1.16857	.034	-5.6848	-.1771
	religious	not religious	.27348	.39456	.768	-.6563	1.2033
		highly relgiious	-2.65747	1.19122	.068	-5.4647	.1498
	highly relgiious	not religious	2.93095*	1.16857	.034	.1771	5.6848
		religious	2.65747	1.19122	.068	-.1498	5.4647
c_frequency_fullscale	not religious	religious	-3.98081*	1.45525	.018	-7.4103	-.5514
		highly relgiious	-16.30873*	4.31005	<.001	-26.4659	-6.1516
	religious	not religious	3.98081*	1.45525	.018	.5514	7.4103
		highly relgiious	-12.32792*	4.39357	.015	-22.6819	-1.9740
	highly relgiious	not religious	16.30873*	4.31005	<.001	6.1516	26.4659
		religious	12.32792*	4.39357	.015	1.9740	22.6819
c_enactedstigma_importance	not religious	religious	-1.36187	1.11656	.443	-3.9932	1.2694
		highly relgiious	-8.50635*	3.30695	.029	-16.2996	-.7131
	religious	not religious	1.36187	1.11656	.443	-1.2694	3.9932
		highly relgiious	-7.14448	3.37103	.088	-15.0887	.7998
	highly relgiious	not religious	8.50635*	3.30695	.029	.7131	16.2996
		religious	7.14448	3.37103	.088	-.7998	15.0887
c_internalisedstigma_importance	not religious	religious	.75631	.59547	.413	-.6470	2.1596
		highly relgiious	-1.56349	1.76362	.649	-5.7197	2.5927
	religious	not religious	-.75631	.59547	.413	-2.1596	.6470
		highly relgiious	-2.31981	1.79780	.402	-6.5565	1.9169
	highly relgiious	not religious	1.56349	1.76362	.649	-2.5927	5.7197
		religious	2.31981	1.79780	.402	-1.9169	6.5565
c_empowerment_importance	not religious	religious	-.16136	.36737	.899	-1.0271	.7044
		highly relgiious	-.57857	1.08804	.856	-3.1427	1.9855
	religious	not religious	.16136	.36737	.899	-.7044	1.0271
		highly relgiious	-.41721	1.10913	.925	-3.0310	2.1966
	highly relgiious	not religious	.57857	1.08804	.856	-1.9855	3.1427
		religious	.41721	1.10913	.925	-2.1966	3.0310
c_importance_fullscale	not religious	religious	-.76692	1.36160	.840	-3.9757	2.4418
		highly relgiious	-10.64841*	4.03269	.024	-20.1519	-1.1449
	religious	not religious	.76692	1.36160	.840	-2.4418	3.9757
		highly relgiious	-9.88149*	4.11084	.044	-19.5692	-.1938
	highly relgiious	not religious	10.64841*	4.03269	.024	1.1449	20.1519
		religious	9.88149*	4.11084	.044	.1938	19.5692

*. The mean difference is significant at the 0.05 level.

4. Mean differences in stigma frequency subscales by psychological wellbeing categories

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
c_anticipatedstigma_public_frequency	Between Groups	413.156	2	206.578	3.946	.020
	Within Groups	14607.256	279	52.356		
	Total	15020.411	281			
c_anticipatedstigma_frequency	Between Groups	189.771	2	94.885	6.623	.002
	Within Groups	3997.056	279	14.326		
	Total	4186.826	281			
c_enactedstigma_frequency	Between Groups	90.328	2	45.164	4.821	.009
	Within Groups	2613.615	279	9.368		
	Total	2703.943	281			
c_frequency_fullscale	Between Groups	1881.644	2	940.822	7.294	<.001
	Within Groups	35985.395	279	128.980		
	Total	37867.039	281			
c_enactedstigma_importance	Between Groups	457.136	2	228.568	3.119	.046
	Within Groups	20443.946	279	73.276		
	Total	20901.082	281			
c_internalisedstigma_importance	Between Groups	49.937	2	24.968	1.196	.304
	Within Groups	5826.560	279	20.884		
	Total	5876.496	281			
c_empowerment_importance	Between Groups	12.990	2	6.495	.814	.444
	Within Groups	2226.500	279	7.980		
	Total	2239.489	281			
c_importance_fullscale	Between Groups	599.555	2	299.777	2.741	.066
	Within Groups	30513.158	279	109.366		
	Total	31112.713	281			

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) comparator_K6_DiCategories	(J) comparator_K6_DiCategories	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
c_anticipatedstigma_public_frequency	no probable serious mental illness	probable serious mental illness	-3.00937*	1.16784	.028	-5.7611	-.2576
		3.00	3.57759	3.64892	.590	-5.0203	12.1755
	probable serious mental illness	no probable serious mental illness	3.00937*	1.16784	.028	.2576	5.7611
		3.00	6.58696	3.77188	.190	-2.3007	15.4746
	3.00	no probable serious mental illness	-3.57759	3.64892	.590	-12.1755	5.0203
		probable serious mental illness	-6.58696	3.77188	.190	-15.4746	2.3007
c_anticipatedstigma_frequency	no probable serious mental illness	probable serious mental illness	-2.05079*	.61090	.003	-3.4902	-.6113
		3.00	2.34052	1.90875	.439	-2.1571	6.8381
	probable serious mental illness	no probable serious mental illness	2.05079*	.61090	.003	.6113	3.4902
		3.00	4.39130	1.97308	.069	-.2578	9.0404
	3.00	no probable serious mental illness	-2.34052	1.90875	.439	-6.8381	2.1571
		probable serious mental illness	-4.39130	1.97308	.069	-9.0404	.2578
c_enactedstigma_frequency	no probable serious mental illness	probable serious mental illness	-1.51518*	.49399	.007	-2.6792	-.3512
		3.00	.49569	1.54348	.945	-3.1412	4.1326
	probable serious mental illness	no probable serious mental illness	1.51518*	.49399	.007	.3512	2.6792
		3.00	2.01087	1.59549	.419	-1.7486	5.7703
	3.00	no probable serious mental illness	-.49569	1.54348	.945	-4.1326	3.1412
		probable serious mental illness	-2.01087	1.59549	.419	-5.7703	1.7486
c_frequency_fullscale	no probable serious mental illness	probable serious mental illness	-6.57534*	1.83299	.001	-10.8944	-2.2563
		3.00	6.41379	5.72721	.503	-7.0812	19.9088
	probable serious mental illness	no probable serious mental illness	6.57534*	1.83299	.001	2.2563	10.8944
		3.00	12.98913	5.92021	.074	-.9606	26.9389
	3.00	no probable serious mental illness	-6.41379	5.72721	.503	-19.9088	7.0812
		probable serious mental illness	-12.98913	5.92021	.074	-26.9389	.9606
c_enactedstigma_importance	no probable serious mental illness	probable serious mental illness	-2.33302	1.38159	.211	-5.5885	.9224
		3.00	7.54741	4.31680	.189	-2.6242	17.7191
	probable serious mental illness	no probable serious mental illness	2.33302	1.38159	.211	-.9224	5.5885
		3.00	9.88043	4.46228	.071	-.6340	20.3949
	3.00	no probable serious mental illness	-7.54741	4.31680	.189	-17.7191	2.6242
		probable serious mental illness	-9.88043	4.46228	.071	-20.3949	.6340
c_internalisedstigma_importance	no probable serious mental illness	probable serious mental illness	-1.13756	.73757	.273	-2.8755	.6004
		3.00	.06897	2.30455	1.000	-5.3612	5.4992
	probable serious mental illness	no probable serious mental illness	1.13756	.73757	.273	-.6004	2.8755
		3.00	1.20652	2.38221	.868	-4.4067	6.8197
	3.00	no probable serious mental illness	-.06897	2.30455	1.000	-5.4992	5.3612
		probable serious mental illness	-1.20652	2.38221	.868	-6.8197	4.4067
c_empowerment_importance	no probable serious mental illness	probable serious mental illness	.57777	.45594	.415	-.4966	1.6521
		3.00	.30603	1.42459	.975	-3.0507	3.6628
	probable serious mental illness	no probable serious mental illness	-.57777	.45594	.415	-1.6521	.4966
		3.00	-.27174	1.47260	.981	-3.7416	3.1981
	3.00	no probable serious mental illness	-.30603	1.42459	.975	-3.6628	3.0507
		probable serious mental illness	.27174	1.47260	.981	-3.1981	3.7416
c_importance_fullscale	no probable serious mental illness	probable serious mental illness	-2.89280	1.68788	.202	-6.8699	1.0843
		3.00	7.92241	5.27380	.291	-4.5042	20.3490
	probable serious mental illness	no probable serious mental illness	2.89280	1.68788	.202	-1.0843	6.8699
		3.00	10.81522	5.45152	.118	-2.0301	23.6606
	3.00	no probable serious mental illness	-7.92241	5.27380	.291	-20.3490	4.5042
		probable serious mental illness	-10.81522	5.45152	.118	-23.6606	2.0301

*. The mean difference is significant at the 0.05 level.

Appendix 7.3. Validated instrument for abortion advocates recommended for future use (AAS)

The following questions are for abortion advocates. This could include anyone who publicly engages in conversations or actions in support of bodily autonomy, reproductive choice, abortion access, or abortion. The questions provide insight into the frequency and importance of stigmatisation of people who advocate for choice, access, or abortion.

Please apply the phrase 'abortion advocate' to yourself and the roles you take in publicly supporting choice, abortion access, and/or abortion.

The following statements are about how often your have an experience.

The following questions are about **sharing** that you advocate for abortion. Please make the selection that *best describes your experience* in the past 3 months.

	Item ** Reverse coded*	How often has this occurred? Never	Rarely	Sometimes	Often	Always
57.	I am selective of whom I tell that I advocate for abortion.	0	1	2	3	4
58.	I am selective of when and where I advocate for abortion.	0	1	2	3	4
59.	I avoid telling people I work with about my abortion advocacy work.	0	1	2	3	4
60.	I avoid telling the general public that I support abortion.	0	1	2	3	4
61.	I feel that disclosing I advocate for abortion is not worth the potential hassle that could result.	0	1	2	3	4
62.	I am afraid of how people will react if they find out about my abortion advocacy work.	0	1	2	3	4
63.	I find it hard to tell people I advocate for abortion.	0	1	2	3	4
64.	I take extra precautions to control who knows that I advocate for abortion.	0	1	2	3	4
65.	When advocating for abortion, I scan the environment for risks of harassment.	0	1	2	3	4

The following questions are about **feelings** you have about advocating for abortion. Please make the selection that *best describes your experience* in the past 3 months.

	Item ** Reverse coded*	How often has this occurred? Never	Rarely	Sometimes	Often	Always
66.	I worry about telling family I advocate for abortion.	0	1	2	3	4

67.	I feel that when I disclose my abortion advocacy work to family, they are supportive of me. ‡	0	1	2	3	4
68.	I feel the need to hide my abortion advocacy work from my family.	0	1	2	3	4
69.	I feel like, if I tell family I advocate for abortion, they will ONLY see me as an abortion advocate.	0	1	2	3	4
70.	I talk openly with my family about advocating for abortion. ‡	0	1	2	3	4
71.	I feel guilty about advocating for abortion.	0	1	2	3	4

The following questions are about **degrading outcomes** you may have experienced because of your abortion advocacy. Please make the selection that *best describes your experienc*e in the past 3 months.

		How often has this occurred?				
		Never	Rarely	Sometimes	Often	Always
72.	I have been physically threatened or attacked for advocating for abortion.	0	1	2	3	4
73.	I have been verbally threatened or attacked for publicly expressing support for abortion.	0	1	2	3	4
74.	I have experienced online harassment because of my abortion advocacy work.	0	1	2	3	4
75.	People close to me have expressed concerns for my safety because of my work advocating for abortion.	0	1	2	3	4
76.	People treat those I love differently if they know I advocate for abortion.	0	1	2	3	4

If you have any comments you would like to make, please do so below.

The following questions are about the importance of the listed experience.

The following questions are about **degrading outcomes** you may have experienced because of your abortion advocacy. Please make the selection that *best describes how much you cared about the statements* in the past 3 months.

	Item * *Reverse coded*	How much do you care about this?				
		Not at all	Little	Somewhat	Much	A lot
1.	I fear online retaliation to my advocacy for abortion.	0	1	2	3	4

2.	I fear harassment because I publicly support abortion.	0	1	2	3	4
3.	When advocating for abortion, I scan the environment for risks of harassment.	0	1	2	3	4
4.	I have been verbally threatened or attacked for publicly expressing support for abortion.	0	1	2	3	4
5.	I have experienced online harassment because of my abortion advocacy work.	0	1	2	3	4
6.	I have been physically threatened or attacked for advocating for abortion.	0	1	2	3	4
7.	I actively take actions to reduce risk of discrimination from advocating for abortion.	0	1	2	3	4

The following questions are about **feelings** that you have about advocating for abortion. Please make the selection that *best describes how much you cared about the statements* in the past 3 months.

	Item ** Reverse coded*	How much do you care about this? Not at all	Little	Somewhat	Much	A lot
8.	I feel guilty about advocating for abortion.	0	1	2	3	4
9.	I question whether or not advocating for abortion is the right thing to do.	0	1	2	3	4
10.	I feel ashamed of the abortion advocacy work I do.	0	1	2	3	4

The following questions are about **sharing** that you advocate for abortion. Please make the selection that *best describes how much you cared about the statements* in the past 3 months.

	Item ** Reverse coded*	How much do you care about this? Little	Somewhat	Much	A lot
11.	I talk openly with my family about advocating for abortion. ‡	1	2	3	4
12.	I talk openly with people with different views to myself about my work advocating for abortion. ‡	1	2	3	4
13.	When I disclose that I advocate for abortion, I feel those close to me are supportive. ‡	1	2	3	4

If you have any comments you would like to make, please do so below.

End of questions information.

These questions are asked to help us understand how common and important abortion stigma is in Australia among people who advocate for choice, abortion access, and abortion. This information will help inform efforts to address abortion stigma and support people who advocate for abortion, provide abortion care, and people who seek abortions.

If you wish to talk about your experience advocating for abortion, we recommend the following services:

- 1800RESPECT Professional line, call 1800 737 732 or visit https://www.1800respect.org.au/professionals
- Blue Knot professionals or supporters, a service empowering recovery from complex trauma, visit https://professionals.blueknot.org.au/contact-us/ or https://blueknot.org.au/supporters/ or call 1300 657 380
- QLife, LGBTI peer support and referral, call 1800 184 527 or visit https://qlife.org.au/get-help
- People with Disabilities Australia, call 1800 422 015 or visit https://pwd.org.au/