



THE UNIVERSITY OF SYDNEY

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**Young people's perceptions and experiences of social media for  
social support and sexual interactions**

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**Matthew Neil Berger**

MPH, MScMed (InfnImm), GCEdSt, BSc (Nursing)

*A thesis submitted for the fulfilment of the degree of  
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## Originality Statement

This thesis has not been submitted for any other degree or purposes, except where acknowledged within the thesis. 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.



Matthew Neil Berger

Date: 13<sup>th</sup> December 2021

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## Abstract

**Background:** Social media use is common among adolescents and is fundamental to how they experience their world. Social media has been described as a safe environment for lesbian, gay, bisexual, transgender, and queer and/or questioning (LGBTQ) adolescents. This thesis aimed to first describe the effects of social media on mental health and wellbeing among LGBTQ youth. Second, I used qualitative data to explore social support for LGBTQ peers. Lastly, I explored attitudes and experiences of adolescents regarding flirting and dating app use.

**Methods:** For the systematic review (*Chapter 2*), five databases were searched, papers that satisfied the inclusion criteria were assessed for quality and findings were qualitatively synthesised. For *Chapters 4 and 5*, data from 61 adolescent participants in the longitudinal Social Networks and Agency Project (SNAP) aged 14-17, of which 30 identified as LGBTQ, were used. In SNAP, semi-structured interviews were conducted over an 18-month follow-up at three time points (baseline, midpoint, and endpoint). Thematic analysis of data was undertaken to explore perceptions and experiences of participants in relation to social media use, social support, and sexual interactions.

**Results:** In the systematic review (*Chapter 2*), we found that most studies reported a positive association or relationship between mental health and wellbeing and social media use for peer connection, identity development, and social support. However, this review noted some risks for negative mental health and wellbeing usually where there was prejudice or excessive use of social media. Three overarching themes were identified in study two (*Chapter 4*): (1) LGBTQ adolescents use social media for identity, relationships, and wellbeing support, (2) social media is not always free of discrimination for LGBTQ adolescents, and (3) non-LGBTQ adolescents rely on in-person networks. LGBTQ Facebook groups were considered a vital support for those with mental health concerns. Participants gave and received support from members of the group which was considered useful for

those feeling isolated or victimised. Participants described negative experiences including discrimination within Facebook groups, mismanaged groups, and exposure to anti-LGBTQ sentiments. Study three (*Chapter 5*) identified three overarching themes: (1) to sext or not to sext (send/receive sexually explicit content online), (2) flirting online is comfortable, but in-person is preferable, and (3) dating apps are part of adolescent networking. Negative attitudes were expressed mostly due to unsolicited sexts however, benefits such as maintaining intimate connections were seen. Trust and comfort were important factors in the practice of consensual sexting. Online flirting and approaching potential partners were common on social media platforms but not dating apps among adolescents. Dating app use was relatively common but mostly for entertainment which became more sexual in later interviews (i.e., midpoint and endpoint).

**Conclusion:** Social media is an environment where LGBTQ adolescents can connect, educate, and support each other, which may have beneficial effects. There remain issues with social media including discrimination against/within LGBTQ communities. Social media plays vital roles in sexual interactions among adolescents. This research may inform policy and be useful in understanding social media roles for professionals.

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## Dissemination of Study Findings

### Publications

#### *Chapter 2*

Chapter 2 has been submitted to a journal.

#### *Chapter 4*

This chapter was published in the journal *Sexual Health* and is included in [appendix 1](#).

**Berger, M. N.**, Taba, M., Marino, J. L., Lim, M. S. C., Cooper, S. C., Lewis, L., ... Skinner S. R. Social media's role in support networks among LGBTQ adolescents: A qualitative study. *Sexual Health*, 18(5), 421-431. doi:[10.1071/SH21110](https://doi.org/10.1071/SH21110)

#### *Chapter 5*

Chapter 5 is currently being considered for submission to a journal.

### Oral Conference Presentations

#### *Chapter 4*

Slides for the below conference presented at the Joint Australasian Sexual Health + HIV&AIDS Conferences are included in [appendix 2](#).

**Berger, M. N.**, Taba, M., Marino, J. L., Lim, M. S. C., Lewis, L., Albury, K., ... Skinner S. R. (2021, September 6–9). *Social media and its use in support networks among LGBTQ adolescents* [Conference presentation]. Joint Australasian Sexual Health + HIV&AIDS Conferences, Australia.

**Berger, M. N.**, Taba, M., Lewis, L., Marino J. L., Lim, M. S. C., Skinner, S. R. (2020, December 1). *Sexually and gender diverse adolescents use social media as a support network* [Conference presentation]. HDR Student Roadshow, Online, Australia.

## Chapter 1: Introduction

According to the World Health Organization (2021) adolescents are defined as those between the ages 10 to 19 years. Youth is defined as those aged 15 to 24 years old and young people are aged 10 to 24 years old (World Health Organization, 2016). Adolescence is an important time of development with rapid physical (i.e., puberty), psychological, cognitive, emotional and social growth (Katharine & Michael, 2013). This period of adolescence is the transition between childhood to adulthood and is vital to promoting healthy behaviours but, there is significant risk of mortality and morbidity (Katharine & Michael, 2013). For healthy development, adolescents require comprehensive sexuality education, opportunities for life skill development, access to effective and equitable health services, and safe environments (World Health Organization, 2021). With these, adolescents can establish healthy behaviour patterns regarding sexual activity, substance use, physical activity, and diet (Blum & Nelson-Mmari, 2004; Katharine & Michael, 2013).

Adolescents are known to engage in risk taking behaviours most of which are preventable; for example, speeding, drink driving, unprotected sex (Steinberg, 2008). As adolescents explore their sexuality there is risk for exposure to sexually transmitted infections (STIs) particularly *Chlamydia trachomatis*, human papillomavirus (HPV), *Neisseria gonorrhoeae* and herpes simplex virus (Shannon & Klausner, 2018). Prevalence differs among populations and countries which are influenced by sexual health education, prevention (i.e., condoms) and vaccination. Globally, In the United States, 20 million STIs are diagnosed annually with 1 in 2 in people aged 15 to 24 years (Shannon & Klausner, 2018). Australia has seen a reduction in some STIs and blood-borne viruses (BBVs) such as genital warts from HPV after the HPV vaccination was added to the national immunisation program (Kirby Institute, 2018). However, there has been an upward trend in STIs such as *Chlamydia* in

young people aged 15 to 29 years with large proportion remaining undiagnosed and untreated (Kirby Institute, 2018). There remains significant health disparities among men who have sex with men (MSM) and Aboriginal and Torres Strait Islander populations (Kirby Institute, 2018). It is important to note that sexual health is not solely absence of disease; sexual health is defined as:

*“a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled.”* (World Health Organization, 2006, p. 9).

“Human beings are sexual beings throughout their entire lives” (DeLamater & Friedrich, 2002, p. 10). Preadolescence (aged 8 to 12 years) is the period most experience their first attraction and masturbation (DeLamater & Friedrich, 2002). Adolescents aged 13 to 19 years in the time of a surge in sexual interest accompanied by biological changes of puberty (i.e., maturation of genitalia and secondary sex characteristics) (DeLamater & Friedrich, 2002). This is also the period adolescents discover gender identity and sexual identity and attraction (e.g., heterosexual, homosexual, bisexual, etc.) (DeLamater & Friedrich, 2002). Sexual identity and sex of sexual partners is not necessarily congruent, and attraction can change over time (Institute of Medicine, 2011; Ybarra, Price-Feeney, & Mitchell, 2019). Self-identification is common in adolescence where some may identify as lesbian, gay, bisexual, transgender, questioning and/or queer (LGBTQ) (Institute of Medicine, 2011). On average, same-sex attraction occurs around 9 years old and identifying as LGBTQ at approximately 16 years old (Institute of Medicine, 2011). In Australia, it is estimated that 4% of males and 7% of females aged under 25 years old identify as LGB (Carman, Farrugia, Bourne, Power,

& Rosenberg, 2020). In a national survey, 2.3% of Australian adolescents self-identified as transgender or gender diverse, 4.7% as gay or lesbian, 16.4% as bisexual, and 5.2% as questioning (Fisher et al., 2018).

To promote sexual health among adolescents, comprehensive sexuality education (CSE) is recommended over alternatives particularly abstinence-based programs (Kedzior et al., 2020; UNESCO, 2018). Effective sexual health education is associated with reduced STIs, BBVs, unintended pregnancies, sexual coercion and increased condom use, capacity to negotiate sex and later first intercourse (UNESCO, 2018; Yeung et al., 2017). Approximately one-third of Australian schools are non-governmental where sexual health education is influenced by other factors commonly religion (Australian Bureau of Statistics, 2018b; Hill et al., 2021). Abstinence-based sex education continues to be taught in schools but is ineffective in preventing risky sexual behaviour or sexual debut (Santelli et al., 2017). Furthermore, sex education tends to be heteronormative, stigmatising, or blatantly homophobic or transphobic (Hill et al., 2021; Santelli et al., 2017). CSE has demonstrated promise with improved sexual and reproductive health (i.e., reduced unwanted pregnancies, decreased risky sexual behaviours, and delayed sexual activity) (Leung, Shek, Leung, & Shek, 2019; Secor-Turner, Randall, Christensen, Jacobson, & Loyola Meléndez, 2017). LGBTQ inclusive sex education is vital and has demonstrated lower odds of poor mental health outcomes and victimisation at school (Proulx, Coulter, Egan, Matthews, & Mair, 2019; Snapp, McGuire, Sinclair, Gabrion, & Russell, 2015).

The rapid development of technology has changed significantly and created new challenges to adolescent development. Technology especially online media (i.e., internet use, social media and dating applications (apps)) has become fundamental in daily living (Walgrave, Ponnet, Vanderhoven, Haers, & Segaert, 2016). Social media can be defined as an

application or website that facilitate the creation and sharing of content (e.g., videos, images or written content), and participate in social networking (Aichner, Grünfelder, Maurer, & Jegeni, 2021). Some common social media platforms include Facebook, Instagram, LinkedIn, Pinterest, Snapchat, TikTok, Tumblr, Twitter, WeChat, WhatsApp, and YouTube (Aichner et al., 2021; Fisher et al., 2019). Similar to social media, dating apps can be used to connect with others but is primarily used for casual sex, friendships, or romance and usually location-based (Anzani, Di Sarno, & Prunas, 2018).

These advances have benefitted daily life for example, making education, communication and health information easier and more accessible (Tonsaker, Bartlett, & Trpkov, 2014). Adolescents are recognised as one of the heaviest users of internet technology including social media (Fisher et al., 2019). Adolescents are commonly considered experts in using technology and social media (Spies Shapiro & Margolin, 2014). Adolescents are also known as 'digital natives' as they were born into a world immersed in technology whereas 'digital immigrants' are those who are not as familiar with technology (Haluzá, Naszay, Stockinger, & Jungwirth, 2017). According to the Pew Research Center (2018) adolescents prefer smartphones compared to desktop computers or laptops for communicating online with approximately 95% owning one according to a United States (US) report.

### **1.1 Young people's use of social media and sexual behaviours**

Social media platforms are constructed specifically to embrace social interaction and communication utilising a virtual context (Pempek, Yermolayeva, & Calvert, 2009). Social media is a vital aspect of today's adolescent lives with users sharing content, directly messaging, commenting on posts and following pages (Walgrave et al., 2016). According to a report from the Australian Bureau of Statistics (2018a) adolescents aged 15 to 17 years were the heaviest users of internet services with primary motivation being entertainment and

social media access. Some of the most commonly used platforms include: Facebook, Instagram, Snapchat, Twitter, WeChat, inter alia (Kranzler & Bleakley, 2019). Among Australian adolescents and youth, Facebook, YouTube, Snapchat, and Instagram were the most commonly used platforms (Fisher et al., 2019). Female adolescents were more inclined to use Snapchat and Instagram compared to males (Fisher et al., 2019). Snapchat was the most frequently accessed platform with two in three adolescents using it five or more times per day (Fisher et al., 2019). However, over 99% of adolescents had Facebook, making it the most used platform (Fisher et al., 2019). The extensive presence of the internet, social media and other technologies has raised interest and questions regarding its influence on sexual health and wellbeing.

Social media is an online space for constructing friendships and romantic relationships among young people that exist solely online or develop an offline component. It is also used in facilitating existing relationships via its communication methods including: instant messaging, 'tagging' people in posts and sharing content (Pempek et al., 2009). Social media is useful in maintaining communication with those users no longer see or from whom they are geographically separated (Gray, 2009). People are able to develop relationships with others they have recently met via messaging promoting the potential for future in-person meetings (Pempek et al., 2009). Social media can influence adolescent relationships and dating particularly due to ease of communicating with potential partners compared to in-person (Van Ouytsel, Van Gool, Walrave, Ponnet, & Peeters, 2016). Social media may also negatively affect relationships with jealousy (e.g., partner posting pictures with others) and/or facilitating abuse (e.g., partner surveillance) (Muisse, Christofides, & Desmarais, 2014). Adolescents commonly portray their relationships via social media unrealistically with an idealistic filter (Taba et al., 2020).

Generally there is less parental monitoring of online actions compared to the offline environment where there is frequent contact with family or teachers (Eleuteri, Saladino, & Verrastro, 2017). Social media platforms allow freedom of expression and can be used for sexual interactions including flirting, sending sexual images or videos (sexting) or arranging sexual encounters (Eleuteri et al., 2017). Sexting is generally understood as being the action of sending or receiving through a device, media content such as images or videos with full or partial nudity of oneself or others (Barrense-Dias, Berchtold, Surís, & Akre, 2017). In an Australian report, sexting was relatively common practice with one in three adolescents sexting in the last two months (Fisher et al., 2019). Sexting among Australian adolescents was mostly done between romantic partners or friends (Fisher et al., 2019; Lucy Watchirs et al., 2016). Thirty percent specifically used social media for sexual reasons with the most frequent experience receiving sexually explicit messages (Fisher et al., 2019). It was also common for adolescents to receive sexts more than sending sexts, and less common to send other people's sexually explicit content to others (Fisher et al., 2019). Social media can also be a medium where adolescents distribute sexualised presentations of themselves, usually through Instagram (Van Ouytsel, Walrave, Ojeda, Del Rey, & Ponnet, 2020).

## **1.2 Online sexually explicit content and influence on adolescent sexual activity**

It has been well documented that online pornography can be accessed by adolescents thus influencing their perceptions on sex and relationships (Lin, Liu, & Yi, 2020; Peter & Valkenburg, 2016). Viewing sexually explicit online content during adolescence has been associated with risky sexual behaviours in emerging adulthood (Lin et al., 2020). Receiving sexual content among young people is perceived as either positive or negative with consent being a primary factor (Oswald, Lopes, Skoda, Hesse, & Pedersen, 2020). Level of exposure is usually associated with a variety of reaction such as disgust, humour, or surprise (Lewis, Somers, Guy, Watchirs-Smith, & Skinner, 2018; Oswald et al., 2020).



### **1.3 Social media and dating apps association with STIs and HIV**

Dating apps are used by 7.7% of Australian adolescents in a national survey, with Tinder being the most frequently used (by approximately 44% among adolescents who used dating apps) (Fisher et al., 2019). Dating app use is twice as high (15.6%) among trans and gender diverse than among cisgender adolescents (and least among cisgender female adolescents (5.6%)) (Fisher et al., 2019). Seeking sexual partners online is uncommon among school-aged adolescents but, more common among same-sex attracted individuals (Ceglarek & Ward, 2016). Although use of dating or hook-up apps are restricted to those aged eighteen and above; underage use is common (Macapagal et al., 2018). Dating apps are designed either solely for same-sex partner seeking or some have same-sex options available (Macapagal et al., 2018). Young MSM appear to utilise Facebook, dating applications and MSM-specific applications such as Grindr (I. W. Holloway et al., 2014). One study found that only 25% of young MSM used a condom with others they had met online (Macapagal et al., 2018). Those using an MSM-specific apps have more sexual partners, more condomless anal sex and more engagement with sexual health clinics (including testing for human immunodeficiency virus (HIV)) than those not using dating apps (Macapagal et al., 2018).

### **1.4 Online sexual victimisation**

Due to the nature of social media and other online communication sites, adolescents can be vulnerable to unwanted sexual interactions usually perpetrated by strangers (Marret & Choo, 2017). It is relatively common for adolescents to receive unwanted sexual content on social media with one study finding up to 2 in 3 being exposed (Nicklin, Swain, & Lloyd, 2020; Zetterström Dahlqvist & Gillander Gådin, 2018). Adolescent females are at risk of mental health conditions with higher likelihood of depressive symptoms after such encounters compared to males (Zetterström Dahlqvist & Gillander Gådin, 2018). Other consequences

for adolescents include reduced self-esteem, damaged parental relationships (through overprotection or low parental care), and higher chances of risk behaviours (Jonsson, Fredlund, Priebe, Wadsby, & Svedin, 2019).

### **1.5 Online sexual health promotion**

As technology and smartphone usage has emerged rapidly over the past decade, there has been increasing focus on social media as a method to target adolescents for sexual health promotion (Wadham, Green, Debattista, Somerset, & Sav, 2019). Social media as a medium for sexual health information has demonstrated significant risk reduction in youth by encouraging condom and contraception use (Stevens et al., 2017). In some studies, this has shown greater effect than traditional methods such as parents, and mass media campaigns (i.e., television) (Stevens et al., 2017). Young people may be hesitant of seeking sexual health services from general practitioners and clinics due to concern of possible judgement, power-differential, and privacy from the provider and may prefer use of social media for information (Coleman et al., 2019; Hoopes et al., 2017).

Dating apps can be suitable sites for sexual health information to reduce risk of STIs and BBVs (Lim, Vella, Sacks-Davis, & Hellard, 2014; Wadham et al., 2019). However, adolescents are reportedly less comfortable receiving sexual health information on social media compared to traditional measures (i.e., clinician follow-up, school, and mainstream media) (Lim et al., 2014). Comfort was greater when searching the internet for sexual health information likely due to anonymity compared to less anonymous options such as social media (Lim et al., 2014). Personalised communication to specific audiences (e.g., sexual information for same-sex attracted individuals) improved knowledge, engagement and protective behaviours (Wadham et al., 2019). While websites may be more comfortable, some websites (e.g., Wikipedia, or abstinence-based websites) are not accurate and may

seek to influence for other motives (e.g., religion) particularly among those with low digital health literacy (Lim et al., 2014).

### **1.6 Relationship between social support and sexual interactions**

Adolescence is an important life stage for establishment of romantic relationships and sexuality, where peers have a fundamental influence on emerging sexual behaviours (Potard, Courtois, & Rusch, 2009). Young people are using online methods, which include social media and dating apps to start friendships and romantic relationships (Lykens et al., 2019). Parents and peers provide social support that protects young people from engaging in potentially risky sexual behaviours such as earlier age of first intercourse, condomless sex, and multiple sexual partners (Bruederle, Delany-Moretlwe, Mmari, & Brahmbhatt, 2019; Majumdar, 2006). Parents and best friends typically have their child's/friend's best interests in mind and facilitate support that protects from harm (Majumdar, 2006). However, peers can negatively influence young people and expose them to risky sexual behaviours (Majumdar, 2006). Peer relationships particularly those of best friends can facilitate a support network that is protective of young people's mental and sexual health (Majumdar, 2006; Roach, 2018). Young people with higher social statuses are more likely to experience healthy development and less STIs than those of lower social status (Wesche, Kreager, Feinberg, & Lefkowitz, 2019).

### **1.7 LGBTQ adolescents and uses of social media**

LGBTQ youth are more vulnerable to poor mental health outcomes, exclusion, and discrimination compared to non-LGBTQ youth (Kelleher, 2009; Liu & Mustanski, 2012). LGBTQ youth are at a significantly higher risk of poor mental health particularly self-harm and suicidal ideation (Russell & Fish, 2016; Williams et al., 2021). Other psychological disorders experienced at an increased rate are anxiety, mood disorders, depression, post-

traumatic stress disorder, psychiatric comorbidity, substance, and alcohol addiction (Russell & Fish, 2016; Williams et al., 2021). Social isolation (e.g., loneliness and reduced sense of belonging) and marginalisation has led to significant burden on mental health and wellbeing in LGBTQ people (Garcia et al., 2020). In addition to the above mental health conditions, social isolation has also caused LGBTQ people to engage in sexual risk-taking behaviours, be excluded from politics and socially rejected, and have limited access to mental health services (Garcia et al., 2020). Several practices have shown promise for LGBTQ social connectedness and wellbeing through the incorporation of resilience enabling, gay-straight alliances in schools, and peer networks (Garcia et al., 2020). However, there remains significant gaps and to address this by creating role models or mentors (e.g., teachers, religious leaders, etc.), reduce structural stigma through policy, teach LGBTQ history in school, and include social isolation indicators in global databases (i.e., WHO and Work Bank) (Garcia et al., 2020).

Victimisation is the primary predictor for self-harm and suicidal ideation with over a 2-fold higher risk compared to non-LGBTQ youth (Russell & Fish, 2016). Lack of support and inclusion within networks (schools, church, family, etc.) makes the LGBTQ population vulnerable to social isolation and marginalisation (Russell & Fish, 2016). For example, schools without anti-discrimination policies see higher rates of victimisation (Russell & Fish, 2016). Family rejection is another risk with many fearing 'coming out' and its potential consequences including homelessness, verbal and/or physical abuse and disapproval (Russell & Fish, 2016). An outreach service in California noted that every two out of five homeless youth attending outreach programs identified as LGBTQ (Russell & Fish, 2016). It is vital for LGBTQ youth to possess positive relationships and networks to reduce these concerns.

LGBTQ adolescents use social media for its primary function of entertainment but also support, education, and, LGBTQ-specific information (Craig, Eaton, McInroy, Leung, & Krishnan, 2021). Social media is a vital space for LGBTQ youth more so as some are restricted to the home due to the COVID-19 pandemic (Hanckel & Chandra, 2021). LGBTQ youth are able to construct comfortable spaces on social media to connect with like-minded individuals or their in-person network (Escobar-Viera et al., 2018; Hanckel & Chandra, 2021). Social media can be a space for anti-LGBTQ content or negative interactions but, users have the ability to remove content or people from their accounts (Escobar-Viera et al., 2018; Hanckel & Chandra, 2021). Social media is both a protective and risk factor for mental health and wellbeing among LGBTQ adolescents (Escobar-Viera et al., 2018). Researchers have found social media to be both associated with poor mental health (usually from discrimination and social rejection), and improved mental health from support that mitigates this negative aspect (Escobar-Viera et al., 2018). Social media has significant implications for LGBTQ adolescents, clinicians (e.g., psychologists or adolescent physicians), and educators (Craig et al., 2021).

Research on LGBTQ adults has established that social support networks are formed offline, also known as “chosen family” (Fingerhut, 2018; Frost, Meyer, & Schwartz, 2016). Online has been identified as a method for LGBTQ people to access social support and other activities (e.g., LGBTQ identity, and community connectivity) (Harper, Serrano, Bruce, & Bauermeister, 2016). Other online tools have also facilitated LGBTQ people to communicate with like-minded people using blogs, chatrooms, email, forums, games, and text messaging (Harper et al., 2016; Lucassen et al., 2018). Considering that LGBTQ adolescents are a marginalised group there is limited research on how social media may be used by adolescents for social support and how it functions to achieve this. There is limited research on how social media is used by LGBTQ adolescents to connect with LGBTQ communities, develop their identity, and seek support. Yet, social media is recognised as playing a vital

role in how adolescents experience their world and mental health (Abi-Jaoude, Naylor, & Pignatiello, 2020).

## 1.8 Thesis aims

There are gaps in research on how LGBTQ young people use social media to access support and engage in sexual interactions. There is in particular limited research exploring social media and its use for sexual interactions among young people under 18 years old. This thesis builds on previous literature to improve understanding of LGBTQ young people's use of online networks, motivations of social media and benefits.

The overarching aim of this thesis is to explore the ways that social media influences, informs and shapes young people's experiences of their health and well-being to address the above gaps. Specific aims are 1) how does social media use influence LGBTQ young people's mental health and wellbeing through connection to LGBTQ peers or groups, the development and management of identity, and social support. This aim is explored in *Chapter 2* as a systematic review of qualitative and quantitative research. Secondly, 2) how do LGBTQ young people utilise social media to provide and seek social support. This is explored using a qualitative study design and is presented in *Chapter 4*. And 3) how do young people perceive the influences of social media on sexual interactions, social support, and sexual interactions. This is explored using qualitative study design and presented in *Chapter 5*. This thesis addresses research gaps in use of social media by LGBTQ young people, as well as supporting previous studies.

Exploring the experiences and perceptions of young people has implications for real world contexts which may aid clinicians, educators, and policy makers. This research has highlighted the importance of social media in the lives of LGBTQ young people and its role in sexual interactions. For the purpose of this thesis, *Chapter 2* will use the term 'young people' as it explores those aged 10 to 24 years old. *Chapters 4 and 5* will use 'adolescents' as our participants' ages ranged from 14 to 19 years old.

## **Chapter 2: Mental Health and Wellbeing among LGBTQ Young People Who Use Social Media – A Systematic Review**

### **2.1 Introduction**

Recent years have seen social media become a part of our daily lives, especially for adolescents and young adults (Australian Bureau of Statistics, 2018a). Facebook, Instagram, Snapchat and YouTube are among the most popular platforms used by adolescents (Fisher et al., 2019; Pew Research Center, 2018). Social media can be utilised to overcome barriers of distance, expanding and/or strengthening social networks (Subrahmanyam, Reich, Waechter, & Espinoza, 2008). Several benefits to wellbeing have been associated with social media including strengthened peer relationships, involvement in specific social networks, and facilitation of identity expression (Pempek et al., 2009; Spies Shapiro & Margolin, 2014). Social media platforms are constantly evolving and facilitate a plethora of activities ranging from communicating with family and friends, sharing content and knowledge (Benamar, Balagué, & Ghassany, 2017). Motivations for social media use include entertainment, relationships, information, identity development and management (Alhabash & Ma, 2017). LGBTQ people are heavier users of social media and are more likely to have multiple accounts compared to their non-LGBTQ counterparts (Frost et al., 2016).

LGBTQ people experience higher rates of mental health concerns and behaviours including: suicidal ideation, self-harm, anxiety, depression and posttraumatic stress disorder (PTSD) (Russell & Fish, 2016). LGBTQ populations are also at a higher risk of experiencing violence, discrimination, and adversity (Higa et al., 2014; Meyer, 2003, 2016). LGBTQ young people in particular, have a higher prevalence of victimisation than non-LGBTQ youth due to increased exposure to prejudice and violence at school (Meyer, 2003). Non-supportive



family and peers contribute significantly to an increased risk of mental health disorders and substance use (Harlow et al., 2021; Katz-Wise, Rosario, & Tsappis, 2016; Rothman, Sullivan, Keyes, & Boehmer, 2012). However, disclosure of sexual or gender identity or “coming out” is associated with reduced risk of mental health issues (Harlow et al., 2021; Katz-Wise et al., 2016; Rothman et al., 2012). To counter the negative consequences of coming out some LGBTQ individuals utilise selective disclosure strategies, particularly due to concerns about losing friends and/or family (Katz-Wise et al., 2016). Family, friend, and society acceptance are predictors of positive mental health, wellbeing, and self-esteem for LGBTQ individuals (McConnell, Birkett, & Mustanski, 2015; Snapp, Watson, Russell, Diaz, & Ryan, 2015). Other support networks are also a vital part of improving mental health and wellbeing among LGBTQ people such as involvement in LGBTQ sporting clubs (Bowling, Barker, Gunn, & Lace, 2020; Ceatha, Mayock, Campbell, Noone, & Browne, 2019). Additionally, LGBTQ people tend to rely on other LGBTQ individuals for support, (Bowling et al., 2020; Ceatha et al., 2019; Frost et al., 2016) and not connecting with/part-taking in LGBTQ support networks is associated with poorer mental health outcomes (Bowling et al., 2020).

Many LGBTQ individuals live in environments where sexuality and gender diversity are not accepted (Russell & Fish, 2016). Some countries still treat LGBTQ identities as a mental condition, grounds for discrimination or punishable by law (Ponzetti, 2015). Most western countries have protections and marriage rights for same-sex couples but, at least 69 countries criminalise same-sex relations and 9 countries criminalise gender nonconformity (Human Rights Watch, n.d.). For example, Russia introduced the “Gay Propaganda Law” in 2013, which restricts public communication including LGBTQ informative websites (Voyles & Chilton, 2019). These environments make LGBTQ identity development difficult or impossible and individuals are forced to conform to heteronormativity to avoid persecution. Even societies that are more accepting of LGBTQ people still, maintain mainstream

heteronormative environments (Owens, 2017). For example, school sexual health education often only refer to heterosexual people and do not cater to other sexualities (Leung et al., 2019; McNeill, 2013). Social media can act as a safe environment to access information about identity, express identity, and/or support among LGBTQ people thus supporting mental health and wellbeing (Bates, Hobman, & Bell, 2020; Berger et al., 2021; Byron, Robards, Hanckel, & Churchill, 2019; Craig & McInroy, 2014; Harper et al., 2016; Hillier, Mitchell, & Ybarra, 2012; Lucero, 2017; McInroy, McCloskey, Craig, & Eaton, 2019; Rubin & McClelland, 2015).

### **2.1.1 Aims**

In this systematic review, we sought to explore the relationship between social media use and mental health and wellbeing in LGBTQ youth. Specifically, we aimed to identify how LGBTQ young people use social media compared to non-LGBTQ for: (1) connection with other LGBTQ peers/groups, (2) healthy identity development, and (3) social support, and how these affect mental health and wellbeing. We also sought to identify any impact of social media on the mental health of LGBTQ young people. For this review “queer” represents gender and/or sexualities otherwise not classified within LGBTQ. The World Health Organization classifies young people as those aged between 10-24 years (World Health Organization, 2021).

## **2.2 Methods**

### **2.2.1 Search strategy**

Electronic databases were searched for literature, these included: CINAHL (1939 – March 2021), OVID Embase (1947 – March 2021), OVID Medline (1946 – March 2021), Web of Science (1900 – March 2021) and ACM Digital Library (1985 – March 2021). Additional studies were found through Google Scholar and PubMed and added into the screening

process. A manual hand search through the reference list of included papers was also conducted to identify any studies missed in the search terms. These searches were conducted using a search strategy with the following keywords:

*LGB\* or GLB\* or Sexual and Gender Minorities or gay or lesbian or queer or transgender or sexually and gender diverse or gender and sexually diverse or homosexual\* or bisexual\* or sexual orientation AND identit\* or support\* or help\* or friend\* or relationship\* or partner\* or mental health or depression or anxiety or mood disorder or posttraumatic stress disorder or PTSD or suicid\* or self-harm or wellbeing AND social media\* or social networking site\* or Facebook or Instagram or Tumblr or Twitter\* or YouTube or LinkedIn or WeChat or Snapchat or TikTok AND adolescen\* or young adult\* or teen\* or youth\**

### **2.2.2 Inclusion and exclusion criteria**

To be included, studies needed to: (1) include at least 50% young people (10-24 years old), (2) be specific to LGBTQ populations or present LGBTQ findings separately from any non-LGBTQ sample, (3) include social media as part of findings, (4) explore connecting to peers, identity development, or social support, (5) be published from 2012 onwards, and (6) be available in full-text and in English. All study designs were eligible, including quantitative, qualitative and mixed-methods research. Only peer-reviewed articles of original research were eligible; case studies, narratives, conference presentations and other non-empirical works were not included. Papers were first screened by title and abstract and again by full text. A total of 968 papers were processed for data extraction and appraisal by Matthew Neil Berger and Melody Taba. All included papers were subject to quality appraisal to assess research design, ethics compliance, and risk of bias. The Newcastle-Ottawa Quality Assessment Scale (NOS) was utilised to assess quality of quantitative papers (Wells et al., 2012) including an adapted version for cross-sectional studies (Herzog et al., 2013). NOS assesses studies based on three domains selection, comparability, and outcome, and ranks

them as good, fair, or poor quality (Wells et al., 2012). For qualitative papers, the Critical Appraisal Skills Programme (CASP) was used to assess quality (Critical Appraisal Skills Programme, 2018). Both NOS and CASP were applied to mixed-methods papers. This review was registered with PROSPERO prior to data synthesis (ID: CRD42020222535) (Berger, Taba, Lim, Marino, & Skinner, 2020).

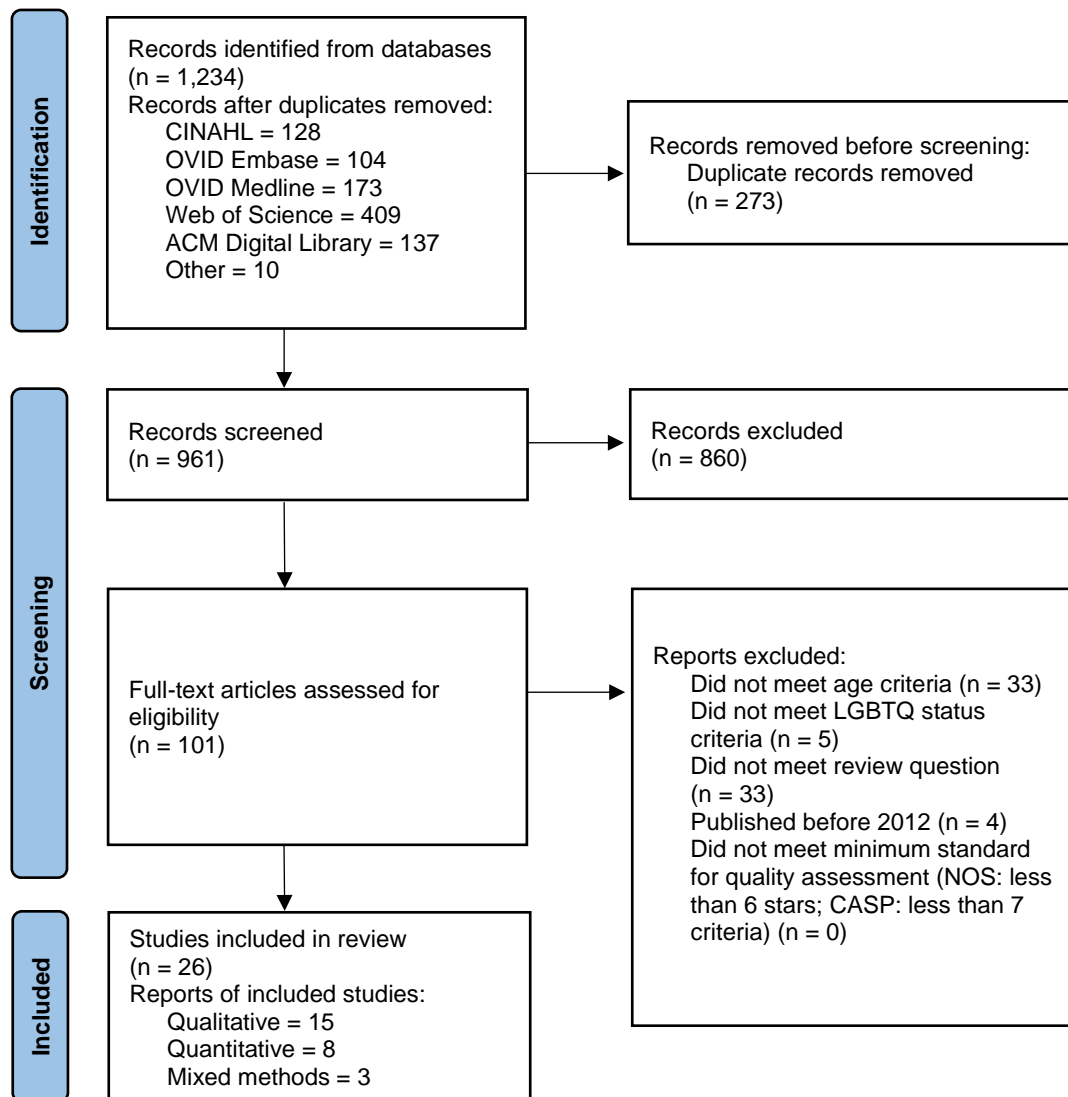
### **2.2.3 Data synthesis**

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) procedures were used to guide the review (Page et al., 2021). A summary table of the papers including study characteristics was produced (Tables 1 and 2), and a quality assessment table displaying CASP and/or NOS scores (Table 3). Themes were developed and refined prior to conducting the search, based on preliminary literature searches and the review's aims. The findings were divided into three themes and, within each theme into qualitative and quantitative. The three themes were: (1) connecting with other LGBTQ young people on social media, (2) LGBTQ identity development using social media, and (3) social support on social media.

## **2.3 Results**

This search resulted in a total of 961 papers retrieved from the specified databases with 273 duplicates removed (figure 1). Title and abstract screening excluded 867 papers leaving 101 papers for full-text screening of which 26 met the aims and criteria of this review. Of the 26 included papers, 15 were qualitative, 8 quantitative and 3 mixed methods. Included research was mostly conducted within the United States (US) (n = 17), while others were in: Australia (n = 2), Canada (n = 4), China (n = 1), Ukraine (n = 1) and United Kingdom (n = 3). Ages of study participants ranged from 13 to 34, most young people, with a total of 14,112 participants across the 26 studies.

Figure 1  
PRISMA flow diagram of selection process (Page et al., 2021).



### 2.3.1 Quality assessment

Overall, the included articles are moderate in quality but are limited to descriptive only due to study design. Most qualitative studies were limited by a lack of sample description (Byron et al., 2019; Hanckel, Vivienne, Byron, Robards, & Churchill, 2019; Herrera, 2018), predominately Caucasian sample (Bates et al., 2020; Craig & McInroy, 2014; Hillier et al., 2012), higher socioeconomic backgrounds (Craig & McInroy, 2014), or small sample size (Rubin & McClelland, 2015). One study collected data from 2004 to 2006, which is likely not reflective of current use of social media or perspectives of LGBTQ young people (Harper et

al., 2016). Two studies had small transgender subpopulations ( $n = \leq 4$ ) (McInroy & Craig, 2015; Pacey, Goffnett, Sanders, & Gadd-Nelson, 2020). Two studies were limited due to their restrictive recruitment (i.e., primarily from one source) (Bates et al., 2020; Fox & Ralston, 2016). Some studies had limited sample description (Byron et al., 2019; Harper et al., 2016; Selkie, Adkins, Masters, Bajpai, & Shumer, 2020), and one study recruited subjects from a gender diversity clinic requiring parental permission, thus had parents who were more supportive (Selkie et al., 2020).

Seven quantitative studies used cross-sectional designs (Byron et al., 2019; Chong, Zhang, Mak, & Pang, 2015; Craig et al., 2021; Lucero, 2017; McInroy et al., 2019) with low (Bond & Figueroa-Caballero, 2016; Ceglarek & Ward, 2016) to medium risk of bias (Lucero, 2017; Twist, Bergdall, Belous, & Maier, 2017). One study used a longitudinal design but with no loss to follow-up description (Pellicane, Cooks, & Ciesla, 2021). Only two studies described confounding assessment in their analyses (Bond & Figueroa-Caballero, 2016; Ceglarek & Ward, 2016). Four studies had generalisability concerns (Byron et al., 2019; Chong et al., 2015; Lucero, 2017; McInroy et al., 2019), two studies had insufficient descriptions of the sample (Byron et al., 2019; Craig et al., 2021), two used inadequately validated measures (Craig et al., 2021; Lucero, 2017), and one had significant volunteer bias (McInroy et al., 2019). One study was limited due to its small sample size ( $n = 19$ ), and inadequately validated measure (Lucero, 2017).

### ***2.3.2 Connecting with other LGBTQ young people on social media***

Qualitative and quantitative studies found that online environments were safe spaces for LGBTQ peer connection (Bates et al., 2020; Byron et al., 2019; Craig & McInroy, 2014; Harper et al., 2016; Hillier et al., 2012; Lucero, 2017; McInroy et al., 2019; Rubin & McClelland, 2015). LGBTQ young people commonly connected with peers via social media

platforms (Bates et al., 2020; Byron et al., 2019; Craig & McInroy, 2014; Pacey et al., 2020; Varjas, Meyers, Kiperman, & Howard, 2013). All studies included were at risk for volunteer bias due to the nature of target population and recruitment methods.

### *Qualitative studies*

Thirteen qualitative studies explored narratives about LGBTQ young people's connection to peers via social media (Bates et al., 2020; Craig & McInroy, 2014; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; Hillier et al., 2012; McConnell et al., 2018; McInroy & Craig, 2015; Pacey et al., 2020; Rubin & McClelland, 2015; Selkie et al., 2020; Singh, 2013; Varjas et al., 2013). Instagram, Tumblr, Twitter, and YouTube were commonly used to connect, at times anonymously (Byron et al., 2019; Hanckel et al., 2019; Pacey et al., 2020; Selkie et al., 2020; Singh, 2013). One study found Facebook policies limited anonymity but did not specify an analytical method and did not describe recruitment (Hanckel et al., 2019). Tumblr was popular among LGBTQ young people, providing community connection, information, and support (Byron et al., 2019; Hanckel et al., 2019; Pacey et al., 2020). Participants reported they ceased using Tumblr once it became "toxic" and negatively affected their mental health (Byron et al., 2019). Instagram users were able to find and connect to others via hashtags (e.g. #lesbian) (Herrera, 2018). Recruitment for this study was performed by inviting participants through Instagram comments which introduces selection bias (Herrera, 2018). LGBTQ young people could cease negative interactions (e.g., block profiles) easily via social media if they felt uncomfortable talking to others (Pacey et al., 2020).

LGBTQ young people also resorted to social media to connect with the LGBTQ community when there was a lack of offline opportunities (Pacey et al., 2020; Rubin & McClelland, 2015). Social media was a vital tool for those in rural and remote settings to connect with

LGBTQ peers (Harper et al., 2016). Young people reported reduced feelings of isolation and increased wellbeing when connecting with other LGBTQ young people (Harper et al., 2016; Pacey et al., 2020; Selkie et al., 2020; Varjas et al., 2013). LGBTQ young people could converse with LGBTQ peers anonymously and as comfort increased could meet offline (Harper et al., 2016; Pacey et al., 2020; Selkie et al., 2020). One study by Varjas and colleagues required parental permission which limited their sample to those with generally supportive parents (Varjas et al., 2013). Developing an online and offline connection with those sharing the same identities helped emotional connection within the community and individuals (e.g., romantic relationships) (Harper et al., 2016; Hillier et al., 2012; Pacey et al., 2020; Rubin & McClelland, 2015). These platforms acted as a mechanism for LGBTQ young people to engage in sexual encounters on- and/or offline (Pacey et al., 2020). LGBTQ young people were more likely to meet their online connections in-person compared to non-LGBTQ peers (Hillier et al., 2012). Many LGBTQ young people turned to online spaces like social media as their offline environment was unaccepting (Hillier et al., 2012; Pacey et al., 2020).

### *Quantitative studies*

Five studies investigated peer and group LGBTQ connections among young people (Byron et al., 2019; Chong et al., 2015; Craig et al., 2021; Lucero, 2017; McInroy et al., 2019). One study reported that 65% of LGBTQ Tumblr users in Australia utilised the platform to connect with other LGBTQ young people (Byron et al., 2019). Only 3% of participants used Tumblr to connect with friends; rather it was specifically used to interact with strangers sharing identities (Byron et al., 2019). Social media was used to connect with others including LGBTQ celebrities or groups which improved sense of belonging and provided gratification (Chong et al., 2015; Craig et al., 2021; McInroy & Craig, 2015). One study noted approximately 80% of LGBTQ young people followed LGBTQ celebrities and communities (Chong et al., 2015; Craig et al., 2021; McInroy & Craig, 2015). One study identified mental



health and wellbeing was positively affected via social media connection but, this study was limited due to its small sample size of 19 young people, mainly gay males (42%) (Lucero, 2017).

### ***2.3.3 LGBTQ identity development using social media***

This theme explored LGBTQ young people identity development/management of through use of social media strategies for identity expression, accessing information and censorship. These strategies focused on methods to avoid conflict and protect wellbeing (Bates et al., 2020; McConnell et al., 2018; Rubin & McClelland, 2015; Taylor, Falconer, & Snowdon, 2014). Healthy identity development can improve mental health and wellbeing among LGBTQ young people (Bond & Figueroa-Caballero, 2016; Ceglarek & Ward, 2016; Hanckel et al., 2019).

#### *Qualitative studies*

Nearly all qualitative studies (n = 16) explored concepts of LGBTQ identity development via social media (Bates et al., 2020; Craig & McInroy, 2014; Duguay, 2016; Fox & Ralston, 2016; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; Hillier et al., 2012; McInroy & Craig, 2015; Pacey et al., 2020; Rubin & McClelland, 2015; Singh, 2013; Taylor et al., 2014; Varjas et al., 2013). Studies noted from participant narratives that Facebook, Tumblr, and Twitter tended to be used more than other platforms for facilitating identity development (Bates et al., 2020; Byron et al., 2019; Duguay, 2016; Hanckel et al., 2019; Hillier et al., 2012; Pacey et al., 2020). LGBTQ young people found social media vital for identity development as it reduced danger and stigma of the meeting in-person (Craig & McInroy, 2014; Duguay, 2016). LGBTQ young people developed understanding and acceptance of, and comfort with their identity through exposure to experiences of peers via forums, videos, and written blogs (Craig & McInroy, 2014; Harper et al., 2016; McInroy & Craig, 2015;

Paceley et al., 2020; Selkie et al., 2020). Social media allowed these individuals to explore identities safely and access identity transition information (Craig & McInroy, 2014; Fox & Ralston, 2016; Hillier et al., 2012; Paceley et al., 2020; Selkie et al., 2020; Singh, 2013). One of these studies had possible risk of bias due to use of telephone interviews only and small sample size (n = 13) (Singh, 2013).

Facebook, Tumblr, and Twitter were commonly mentioned platforms facilitating identity expression and exploration (Bates et al., 2020; Byron et al., 2019; Duguay, 2016; Hanckel et al., 2019). Many turned to Tumblr and Twitter to specifically express their LGBTQ identity rather than Facebook due to its restrictive policies and audiences (i.e., changing name in URL, and limited identity options) (Byron et al., 2019; Duguay, 2016; Hanckel et al., 2019). For example a young transgender individual found that the public URL address for their Facebook account still had their previous name (Hanckel et al., 2019). Young people found that connecting with LGBTQ communities allowed them to share experiences, for example, medical information and surgery experiences for transgender young people (Fox & Ralston, 2016; Harper et al., 2016; McInroy & Craig, 2015; Selkie et al., 2020; Varjas et al., 2013). Many appreciated sharing feelings and lived experiences, reporting other LGBTQ individuals understand them better compared to non-LGBTQ people (Harper et al., 2016; Herrera, 2018).

Narratives from participants included how social media can be a safe environment that facilitates healthy identity development due to privacy setting features (Bates et al., 2020; Craig & McInroy, 2014; Duguay, 2016; Taylor et al., 2014). Participants felt they could only explore identity if they felt safe; feelings of security were imperative to LGBTQ young people's online engagement (Bates et al., 2020). Privacy settings and friending practices provided them the ability to choose their social network audience and therefore how they

expressed their identity (Bates et al., 2020; Duguay, 2016; Hanckel et al., 2019). Some would friend only those within the same ages, remove current friends or adjust what some individuals could view on their social media accounts (Duguay, 2016; Hanckel et al., 2019). This permitted LGBTQ young people to manage disclosure experience such as a gradually disclosing one's identity or remaining undisclosed if preferred (Bates et al., 2020; Duguay, 2016). Communicating with other LGBTQ individuals provided them the confidence required to disclose identity (Harper et al., 2016). Online disclosure permitted time to articulate how they would communicate particularly for closer contacts (Harper et al., 2016).

Transgender and queer users were able to trial their changed name via the nickname function on Facebook Messenger as part of a gradual identity disclosure (Hanckel et al., 2019; Hillier et al., 2012). For some it was vital to remain undisclosed to avoid danger, relationship deterioration and negative interactions (Duguay, 2016). Social media could offer identity disclosure without the expectations, danger and pressure associated with offline networks (Craig & McInroy, 2014; Hillier et al., 2012). Online presentations of the participants were often not completely representative of their identity (Bates et al., 2020; Taylor et al., 2014). LGBTQ young people could express their identity by sharing with their audience using subtle posts (Bates et al., 2020; Taylor et al., 2014). This may include images of same-sex partners for same-sex attracted young people or profile gender changes (i.e., name, description, or pronouns) for transgender and queer young people (Bates et al., 2020; Taylor et al., 2014). LGBTQ young people found social media as an ideal starting point for disclosing identity to their network which could be translated to offline networks (Bates et al., 2020; Craig & McInroy, 2014; Selkie et al., 2020; Taylor et al., 2014).

Subtle methods for identity disclosure commonly occurred through displaying sexual preferences, interests, and relationship status (Craig & McInroy, 2014; Duguay, 2016;

Paceley et al., 2020; Taylor et al., 2014). Others reported that if sexual preferences were left empty on Facebook, the person was considered likely not heterosexual (Duguay, 2016; Rubin & McClelland, 2015). Many found Facebook's preferences were too restrictive due to limited (e.g., interested in men or women) (Duguay, 2016). Some felt that sexual preferences are only appropriate to be displayed on dating apps (Duguay, 2016). Less subtle displays of 'outness' usually occurred by having highly expressive and visible profiles (Duguay, 2016). These actions required considerable contemplation of potential repercussions and reactions of audiences (Craig & McInroy, 2014; McConnell et al., 2018).

Social media offered a way for LGBTQ young people to disclose their identity without reprisal from friends or family (Craig & McInroy, 2014). Social media distanced LGBTQ young people from heteronormative environments, homophobia, and transphobia they may have experienced offline (Craig & McInroy, 2014; Hanckel et al., 2019; McConnell et al., 2018; McInroy & Craig, 2015; Selkie et al., 2020; Singh, 2013). There were mixed views of the platforms' (i.e., Facebook's) use of LGBTQ specific categories, with some praising the understanding of their identity, and others finding it restrictive (Bates et al., 2020; Fox & Ralston, 2016). At times pre-existing terminology did not match participants' self-concepts or presences (Bates et al., 2020; Duguay, 2016; Herrera, 2018). A study focussing on Instagram users found using identity hashtags was a better way to connect with peers (Herrera, 2018).

Qualitative studies noted multiple social media accounts permitted LGBTQ young people to express and explore identities with specific audiences in anonymity (Bates et al., 2020; Byron et al., 2019; Craig & McInroy, 2014; Duguay, 2016; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; McConnell et al., 2018). Family, religious groups and work were commonly named as audiences with whom LGBTQ young people needed multiple accounts

and self-censorship to manage (McConnell et al., 2018; Taylor et al., 2014). Pressure was experienced as friends and family monitored LGBTQ young people's social media (Hanckel et al., 2019; Rubin & McClelland, 2015). Some were fearful that friends or family would see posts or ask them to justify activities and thus accidentally learn their identity (Hanckel et al., 2019; Rubin & McClelland, 2015; Selkie et al., 2020). Anonymity was an important function for some to avoid identification and being searched by offline contacts (Hanckel et al., 2019). LGBTQ young people connected with audiences that were likely accepting thus avoiding accidental disclosure (Bates et al., 2020; Rubin & McClelland, 2015). Accidental disclosure of an LGBTQ identity, most commonly by sharing with unintended audiences, was identified as a risk of social media for identity expression (Duguay, 2016; Hanckel et al., 2019; McConnell et al., 2018).

Preventative strategies, often successful, included separating audiences, deidentifying locations and names, and adjusting privacy settings (Duguay, 2016; Hanckel et al., 2019; McConnell et al., 2018). Users were able to block and/or report others for anti-LGBTQ sentiments/interactions (Hanckel et al., 2019). These strategies assisted in managing exposure to marginalisation and stigma (Hanckel et al., 2019). Even when censoring identity on social media, other indicators such as: likes, images, group memberships, and friends' posts and events could be displayed (Duguay, 2016; Rubin & McClelland, 2015). Following disclosure on social media, users felt they needed to be cautious about posting images with partners due to negative interactions (Duguay, 2016). Some individuals seemed accepting then disliked and made negative comments in response to displaying LGBTQ identities (Duguay, 2016). Other users constantly monitored and censored references to LGBTQ content due to concerns of negative interactions (McConnell et al., 2018). These concealment practices could be overwhelming and restrict identity development, causing young people to conform to heteronormative expectations (Rubin & McClelland, 2015; Taylor et al., 2014).

Being able to view and interact with others expressing similar LGBTQ identities was validating for young people (Harper et al., 2016; McInroy & Craig, 2015). Seeing other young people, including schoolmates, engaging in LGBTQ-orientated activities on social media allowed further identity exploration and understanding (Harper et al., 2016). This exposure to other LGBTQ young people helped affirm one's identity and prove that LGBTQ people exist (e.g., 'liking' of posted LGBTQ content) (Harper et al., 2016; Herrera, 2018; Hillier et al., 2012; McConnell et al., 2018; McInroy & Craig, 2015; Selkie et al., 2020; Singh, 2013). Shared backgrounds were another important factor for identity affirmation among ethnic minority and religious groups (Harper et al., 2016; Singh, 2013; Taylor et al., 2014). Social media may assist in identity clashes (i.e., LGBTQ and Christian identities) that create difficulties in understanding, exploration, and transition (Taylor et al., 2014). In some circumstances religion and LGBTQ clash; for example, it may be forbidden to have sexual relations with the same-sex (Taylor et al., 2014).

### *Quantitative studies*

Five studies examined LGBTQ identity development and management (Bond & Figueroa-Caballero, 2016; Ceglarek & Ward, 2016; Lucero, 2017; McConnell, Clifford, Korpak, Phillips, & Birkett, 2017; Twist et al., 2017). Overall, increased understanding of identity via social media was associated with improved wellbeing outcomes (Bond & Figueroa-Caballero, 2016; Ceglarek & Ward, 2016). Social media was reported as a safer and more comfortable approach for identity exploration than offline alternatives (Lucero, 2017). One study among same-sex attracted young people in the US noted 63% had their identity disclosed on social media (Twist et al., 2017). This study had significant generalisability issues as recruitment was restricted to undergraduate students in family studies at one university (Twist et al., 2017). Identity exploration and wellbeing was associated with higher use of social media among LGB young people compared to non-LGB young people

attending a straight-gay alliance at a US high school (Bond & Figueroa-Caballero, 2016). Identity exploration via social media was associated with lower paranoia scores among American LGB young people (Ceglarek & Ward, 2016). However, heavy use of social media for identity exploration had negative mental health consequences, increasing loneliness and increased sensitivity to emotional, physical, or social stimuli (Ceglarek & Ward, 2016).

In a study of US LGBTQ young people, 13% of 181 participants had multiple Facebook accounts for identity exploration/expression (McConnell et al., 2017). Of this sample, 27% had publicly visible profiles whereas 54% restricted their profiles to friends only (McConnell et al., 2017). Forty-three percent restricted what their friends could view on their Facebook profiles (McConnell et al., 2017). High levels of disclosure on Facebook were common among 64% with LGBTQ freely displaying their identity (McConnell et al., 2018). Another study found 30% LGBTQ young people disclosed on Facebook, significantly higher than other platforms including Tumblr (5-9%) or Twitter (8-13%) (Twist et al., 2017). Level of identity disclosure related to the individual's willingness to express their identity (McConnell et al., 2018). LGBTQ young people who were not disclosed to their family were often highly engaged/disclosed to their LGBTQ networks online compared to those who were disclosed to family (McConnell et al., 2018). LGBTQ young people did not consider their partner not being disclosed on social media or offline as an issue for their relationship or satisfaction (Twist et al., 2017).

#### ***2.3.4 Social support on social media***

This final theme explored support mechanisms LGBTQ young people utilised via social media. LGBTQ young people would find support through connecting with other LGBTQ people/groups and obtain pertinent information (Harper et al., 2016; Hillier et al., 2012;

Paceley et al., 2020; Selkie et al., 2020). Access to social support and information can be beneficial to mental health and wellbeing (Craig et al., 2021; Pellicane et al., 2021).

### *Qualitative studies*

Almost half (n = 7) of qualitative studies explored social support among LGBTQ young people through social media (Byron et al., 2019; Harper et al., 2016; Hillier et al., 2012; Lucero, 2017; McInroy & Craig, 2015; Paceley et al., 2020; Selkie et al., 2020). Social support among LGBTQ young people was more commonly reported as online compared to their non-LGBTQ counterparts, whose offline networks were sufficient (Hillier et al., 2012). Social media connections were useful for seeking support during difficult times for young LGBTQ individuals (Hillier et al., 2012; Paceley et al., 2020; Selkie et al., 2020). Facebook was used to participate in LGBTQ groups where individuals could express emotions and seek support (Lucero, 2017; Paceley et al., 2020).

Online friends could provide support without geographical restriction, as participants communicated with others in different countries (Paceley et al., 2020; Selkie et al., 2020). Posting within social media regarding mental or physical health concerns was not always used as a method to elicit social support, but could be used to simply be heard (Byron et al., 2019). LGBTQ young people were able to interact with other/experienced LGBTQ members for advice on dating, safety, sex, identity disclosure and sexuality (Harper et al., 2016; Hillier et al., 2012; Paceley et al., 2020). Social support via social media was highly convenient and could be obtained whenever required even at short notice (Paceley et al., 2020). LGBTQ young people could post seeking support and would receive messages from others (Paceley et al., 2020). Transgender young people were able to seek specific support from other transgender individuals and share transition experiences (McInroy & Craig, 2015; Selkie et al., 2020). Many transgender young people reported viewing YouTube videos as a support



for their transitioning by accessing information generally inaccessible offline (McInroy & Craig, 2015). Transgender young people were able to access pertinent medical information and resources (McInroy & Craig, 2015). LGBTQ young people described keeping connected to offline LGBTQ organisations via social media for social support (Paceley et al., 2020).

### *Quantitative studies*

Six studies examined social support through social media among LGBTQ young people, social media afforded LGBTQ young people social support which they might not have achieved offline (Bond & Figueroa-Caballero, 2016; McInroy & Craig, 2015). Use of social media for social support was linked to reduced mental health symptoms among LGB young people from self-reported data (Ceglarek & Ward, 2016). Social media acceptance and support was associated with reduced anxiety among LGB young people however, this study did not describe loss to follow-up (Pellicane et al., 2021). Social media use was associated with feelings of being loved or feeling stronger (Craig et al., 2021). Although Tumblr was not a uniformly positive experience, 30% of surveyed LGBTQ young people reported it as a useful resource (Byron et al., 2019). As age increased, use of social media for social support and information decreased (Craig et al., 2021).

Table 1  
Qualitative studies

Author, year, and country	Purpose	Age (years) and sample size	LGBTQ sample	Method	Findings / themes	Summary and example extracts/quotes
Bates, A., Hobman, T., & Bell B.T. (2020) UK	Explore LGBTQ+ young people constructing identities via social media.	19 - 23 (M = 20.29, SD = 1.4)  n = 17	Bisexual (n = 4); nonbinary (n = 1); pansexual/fluid/queer (n = 3); homosexual (n = 3); heterosexual (n = 6)	Recruitment: email advertisements to students in small public university. Data collection: semi-structured interviews. Data analysis: thematic analysis.	Narratives of Merging Safe Spaces Offline/Online: feeling safe was vital for young people to express their identity. Online spaces are usually safe for LGBTQ young people in part due to privacy settings. Narratives of External Identity Alignment: Some felt that LGBTQ+ labels did not fit their identity and wanted to be known for "who I already am". Narratives of Multiple Context-Based Identities: LGBTQ young people may identify with multiple overt identities across on- and offline audiences. Narratives of Individuality and Autonomy: Social media was recognised as a space unconstrained and allowed LGBTQ young people to develop identity.	Participant experiences demonstrated how social media is a transformative tool with platforms being used for differing LGBTQ identity development. Quote: <i>"lots of people putting their own experiences forward, and that makes room for validation and self-discovery."</i> Quote: <i>"I've just started saying that I'm queer which covers everything, ... not to say I am, it just covers all grounds."</i>
Byron, P.B., Robards, B., Hanckel, B., Vivienne, S., & Churchill, B. (2019) Australia	How Tumblr is used among LGBTQ young people to connect with peers, develop identity and wellbeing.	16 - 34 (M = 24.6)  n = 23	transgender / nonbinary (n = 11); homosexual (n = 8); bisexual (n = 5); queer (n = 6); asexual (n = 3); pansexual (n = 3).	Recruitment: via social media advertisements and flyers to LGBTQ organisations. Data collection: semi-structured interviews; questionnaires / surveys. Data analysis: not described.	Queer Tumblr: Tumblr offers a safe space for gender diverse and transgender young people which does not rely on existing relationships. Lessons on Gender and Sexuality: Tumblr is an effective tool for identity development where experiences are shared, and affirmation is achieved. Communities, Followers, and "People Like Me": Sharing experiences was not indicative of needing a response but rather to be heard. "Somewhere to Put Things": Recording, Documenting, and Processing Queer Lives: Tumblr acted as a curatorial space for documenting life experiences (e.g., gender transitioning). "Everything Was Problematic": Tumblr Intensities: Tumblr commonly transformed from an identity tool to a negative space. Leaving Tumblr: Negativity caused many participants to limit use or leave.	Tumblr as a social media platform allowed LGBTQ users to exchange experiences, explore sexuality and gender identity, and peer support. Quote: <i>"I actually learned about agender and ... other genders from Tumblr. Before that, all I really knew was there are men and there are women, ... I engage with ... nonbinary people and trans people quite a bit."</i> Quote: <i>"[Tumblr] introduced me to the concept of asexuality. Stopped [using] because Tumblr is 90% toxic cesspool now, sadly"</i>

Craig, S.L., McInroy, L. (2014) Canada (Toronto)	Examine self-disclosure and identity development of LGBTQ young people in online media.	18 - 22 (M = 19.47; SD = 1.2)  n = 19	Gay (n = 6); lesbian (n = 4); bisexual (n = 2); polysexual (n = 1); queer (n = 1); transgender/genderqueer (n = 4); transgender/transsexual male (n = 3); genderqueer (n = 1); cisgender (n = 15)	Recruitment: email advertisements to LGBTQ organisations. Data collection: semi-structured interviews. Data analysis: grounded theory.	Coming Out Digitally: Social media was commonly used to disclose LGBTQ identity however, required considerable effort in assessing audiences' reactions prior.	LGBTQ young people were able to access new media including social media to explore their identity and disclose their identity. Participants were also able to use this function to extend their identities offline.  Quote: <i>"I think the big thing about coming out now is ... Facebook interested or Facebook in a relationship. That's a big decision because everybody on your Facebook list is going to see that."</i>
Duguay, S. (2016) UK	Explore LGBTQ young people's decisions on self-disclosure and context collapse and its prevention.	18 - 25 (M = 20)  n = 27	Gay (n = 14); bisexual (n = 5); lesbian (n = 4); queer (n = 2); pansexual (n = 1); asexual (n = 1)	Recruitment: from LGBTQ groups at 11 universities. Data collection: semi-structured interviews. Data analysis: grounded theory.	Identity Disclosures and Experiences of Context Collapse: Few participants disclosed identity with high visibility as a timeline post, more commonly indirect methods such as use of Facebook's 'interested in' function. Some displays of LGBTQ identity leaked into unintended audiences via 'likes', group memberships, friends' posts or photos.  Strategies for Preventing Context Collapse: To prevent unintended identity disclosure audiences were separated taking significant effort to 'weed out' contacts.	LGBTQ identity disclosure was influenced by the design of social media platforms. Individuals would reinstate heteronormative appearance with particular audiences to avoid accidental disclosure.  Quote: <i>"I don't want to run the risk of having a confrontation in real life so if I have it on Facebook, they can take it in ... and then it's over and done with and I never had to say anything."</i>
Fox, J., & Ralston, R. (2016) US (Midwest)	Identify learning experiences of LGBTQ young people on social media, and how social media shapes the experiences.	18 - 28 (M = 20.91; SD = 2.65)  n = 33	Gay (n = 8); lesbian (n = 4); bisexual (n = 13); transgender (n = 4); transgender (n = 4); asexual (n = 2); genderqueer (n = 2); pansexual (n = 2)	Recruitment: flyers displayed on community boards targeting LGBTQ participants in a large city. Data collection: semi-structured interviews. Data analysis: grounded theory / thematic coding.	Traditional Learning: Social media was a tool used to learn about identity terminology and meaning, transitioning and community connections. Experiential Learning: Participants described methods to explore identity before disclosing identity (e.g., sharing/posting support for LGBTQ rights on social media). Teaching Others: Once identity was established participants shared LGBTQ information or engaging in discussions within their networks.	Social media allowed LGBTQ young people to visualise via posts similar identifying peers thus assisting their identity development. Participants found it important to seek peers in similar circumstances and experiences.  Quote: <i>"Before I joined Tumblr, I felt like I didn't have language for a lot of things, like I didn't know transgender was a thing until then. So, knowing about those things definitely helped the process."</i>
Hanckel, B., Vivienne, S., Byron, P., Robards, B., &	How identity is developed and managed across social media.	16 - 34 (M = 24.6)  n = 23	Lesbian (n = 3); gay (n = 5); bisexual (n = 5); asexual (n = 2)	Recruitment: not described. Data collection: in-depth interviews. Data analysis: not described.	Curation of LGBTIQ+ Identity Across Social Media Spaces: Participants were able to manage the degree of anonymity across platforms and select audiences to share LGBTQ content with. There is	LGBTQ young adults were able to utilise social media to seek and foster support. LGBTQ participants negotiated risk on social media utilising platform specific

Churchill, B. (2019) Australia			= 3); pansexual (n = 2); panromantic (n = 1); queer (n = 6); transgender (n = 7); nonbinary (n = 3); agender (n = 1); genderfluid (n = 2)		emotional labour involved in 'unfriending' or blocking people and removing existing LGBTQ content. Platforms, Policies and Normative Space/s: Curation Constraints and Possibilities: Gender diverse participants were able to change names with select contacts (i.e., via Facebook Messenger). Many shared or sought LGBTQ information.	functions (e.g., unfollowing, blocking and anonymity). Quote: <i>"It helps ... that I'm anonymous, I feel a lot more open ... about my sexuality on Instagram."</i>
Harper, G.W., Serrano, P.A., Bruce, D. & Bauermeister, J.A. (2016) US (Chicago and Miami)	Explore the internet's role in development of sexually diverse identities.	15 - 23 (M = 19)  n = 63	Gay (n = 46); bisexual (n = 15); questioning (n = 2)	Recruitment: same-sex attracted males from larger pool. Data collection: semi-structured interviews. Data analysis: phenomenological inquiry framework.	Learning About and Exploring Sexual Orientation and the Gay Community: Exploring sexuality online affirmed identity and learn through peer narratives. Connecting and Socialising with Other Gay and Bisexual Peers: Internet including social media was a widely used tool for connecting with LGB peers. Gaining Self-Acceptance and Sharing Sexual Orientation Identity with Others: Online and offline LGB networks provided young people with emotional comfort. The internet was also used for self-disclosure.	Participants found that the internet including social media offered a space for identity exploration and acceptance. Participants achieved this from increased awareness, learning about gay/bisexual communities, connecting with other gay/bisexual men, and self-disclosure. Quote: <i>"Through the internet, these affirmations served a positive role in helping youth to come to terms with their sexual orientation identity."</i>
Herrera, A.P. (2018) Location not reported	Explore the relationship between hashtags and lesbian identity.	18 - 30 (M = 24.15)  n = 20	Lesbian (n = 15); gay (n = 3); bisexual (n = 1); queer (n = 3); fluid (n = 1)	Recruitment: commenting on Instagram posts of those using lesbian-related hashtags. Data collection: semi-structured interviews Data analysis: grounded theory.	What is a lesbian? #lesbian could be used to display sexual desire or sexuality among followers. "Labels Suck": The Social Imperative to Claim an Intelligible Sexual Identity: Most shared dislike for sexual identity labels finding them too restrictive. Hashtagging #lesbian: The Technological Imperative to Name the Sexual Self: #lesbian can be searched allowing users to view public profiles however, for this function labels must be used. (#)Queer: A Viable Alternative to (#)lesbian? #queer could be used in addition to #lesbian expressing wide sexual and gender identities. Label use was used strategically or when needed.	Instagram as a social media platform allows a user to express identity through words as hashtags (which enable audiences to view their images). The hashtag allows the user to construct an identity and encourage others to account for their own identity. Quote: <i>"lesbian can be a bit limiting and simplified."</i>
Hillier, L., Mitchell, K.J., & Ybarra, M.L. (2012) US	Explore LGB young people internet use for social support, friendships and romantic relationships	13 - 18  n = 59	LGB (n = 33); non-LGB (n = 26)	Recruitment: email advertisement to gay, lesbian, and straight organisations. Data collection: focus groups. Data analysis: thematic analysis.	Online Friendships: 'Perv', 'stalker' and 'serial killer' were common words used by non-LGB young people to describe connecting with online strangers. Whereas online connections were more accepted by LGB young people. Support from Friends Online: The level of support among LGB young people was likely subject to	LGB young people utilised the internet including social media for connecting with LGB communities and social support. Most participants sought to explore sexual attraction and feelings.

	compared to non-LGB young people.				their disclosure status offline. LGB young people received support online and used it to come out usually before doing so offline. Finding Romance Online: Some LGB young people formed online relationships from social media.	Quote: <i>[Non-LGB] "I don't meet new people online in case they are kidnapers."</i> Quote: <i>"My ex-boyfriend, I met him on Myspace and went out with him."</i>
Lucero, L. (2017) Ukraine; US	Examine whether social media provides LGBTQ young people a safe space for identity exploration and expression.	14 - 17 (M = 16.3) n = 19	Lesbian (n = 3); gay (n = 8); bisexual (n = 1); queer (n = 1); unsure (n = 3) not straight (n = 3)	Recruitment: flyers sent to LGBTQ organisations and Facebook. Data collection: questionnaires / surveys. Data analysis: social constructionist theory.	Comfort Online: Participants felt that support was more accessible on social media and felt safe compared to offline.	LGBTQ young people felt comfortable expressing their LGBTQ identity on social media as a safer space than offline alternatives. Quote: <i>"On Facebook, I am more likely to find support."</i>
McConnell, E., Néray, B., Hogan, B., Korpak, A., Clifford, A., & Birkett, M. (2018) US (Chicago)	Examine the relationship between Facebook and LGBTQ young people identity management.	19 - 28 (M = 24.13; SD = 1.64) n = 49	Identifying as male (n = 77); identifying as female (n = 108); transwomen (n = 15); transmen (n = 3); gay (n = 69); lesbian (n = 55); bisexual (n = 49); heterosexual (n = 10); unsure (n = 8)	Recruitment: LGBTQ young people from a longitudinal study. Data collection: open-ended interviews. Data analysis: not described.	Qualitative Experiences Online: Participants had varying levels of disclosure among on- and offline networks. Facebook could be used to manage how LGBTQ young people express identity by using multiple accounts for different audiences or censoring what they share. Additionally, Facebook allowed for affirmation via 'likes' on posts.	LGBTQ young people free self-expression on social media is complicated due to factors relating to identity disclosure. By investigating Facebook accounts, young people were mostly either categorised as low outness or high outness. Some would purposely censor their identity expression to avoid unintentional identity disclosures. Quote: <i>"[My female partner] and I recently got married, so we've been posting some pictures ... People are very supportive of our relationship and enjoy looking at our pictures."</i>
McInroy, L.B., & Craig, S.L. (2015) Canada (Toronto)	Investigate media representation of transgender individuals (including social media).	18 - 22 (M = 19.47; SD = 1.2) n = 19	Gay (31.6%); lesbian (21.1%); bisexual (10.5%); queer/polysexual (10.6%); cisgender (79%); transgender man (15.8%)	Recruitment: from organisations as part of a larger study. Data collection: semi-structured interviews. Data analysis: grounded theory.	Online Media: Explicit Transphobia Versus Resources that Support Healthy Development: Social media is a resource that promotes health development of identity among transgender young people. It serves as a wealth of information about transgender identity (e.g., transitioning).	Transgender young people were able to utilise social media to construct support networks among transgender peers. These networks reported experiences of transitioning and encouraged a feeling of connectedness. Quote: <i>"I'd just go ... [to] YouTube and type in transgender and then some guys that were trans[gender], they'd pop up. And then they'd have videos of their whole [transition] process"</i>
Paceley, M.S., Goffnett, J., Sanders, L., & Gadd-Nelson, J. (2020) US (Midwest)	Explore how LGBTQ young people in rural areas use social media for identity development.	14 - 18 (M = 16) n = 34	Gay (21%); lesbian (12%); bisexual (32%); queer (3%); transgender (12%);	Recruitment: advertisements on social media and flyers, part of a larger study. Data collection: semi-structured interviews. Data analysis: grounded theory.	Finding Community: Social media is a space where LGBTQ young people find peers, especially those living in rural areas. Expressing Oneself: Social media was a method LGBTQ young people used for identity disclosure and venting using anonymity strategically.	LGBTQ young people used social media to construct networks among other LGBTQ individuals. Some specifically referenced the lack of LGBTQ networks in rural and remote locations. These networks were further used to create

			cisgender (79%)		Seeking Resources and Information: Social media connections allowed for identity support, particularly Tumblr.	friendships and share identity specific experiences. Quote: <i>"Just full of gay people. Tumblr is the gay person's haven."</i>
Rubin, J.D., & McClelland, S.I. (2015) US (San Francisco)	Examine identity management on Facebook among LGBTQ young people and effect on emotional health and social support.	16 - 19  n = 8	Lesbian (n = 5); bisexual (n = 3)	Recruitment: online advertisements via websites and social media. Data collection: semi-structured interviews. Data analysis: thematic analysis.	Emotional Labour of Concealment: Offline monitoring of heteronormativity extended to Facebook. Facebook and Homophobia: Facebook was a space for LGBTQ young people to view LGBTQ content or express identity with the limitation of witnessing homophobia. Labour of Social Surveillance: Significant labour was reported in mitigating stigma through censoring Facebook content. Ruminating About Profile Content: Continuing monitoring of Facebook content was emotionally laborious.	Presence of homophobia and heteronormative attitudes has made sexually diverse individuals feel a lack of belongingness. Identities were managed online to prevent unintentional disclosure and remain 'virtually closeted'. Participants described symptoms of depression and anxiety when monitoring their social media due to fear of being outed and excluded. Quote: <i>"I don't mark my sexual orientation on Facebook partly because ... there is hatred against gays and lesbians in the USA, in my school, and with my parents."</i>
Selkie, E., Adkins, V., Masters, E., Bajpai, A., & Shumer, D. (2020) US (Midwest)	Understand transgender young people's uses of social media for support.	15 - 18 (M = 16)  n = 25	Transfeminine (n = 11); transmasculine (n = 13); nonbinary (n = 1)	Recruitment: from gender services clinic. Data collection: semi-structured interviews. Data analysis: thematic analysis.	Emotional Support: Social media is a space to interact with other transgender young people. Appraisal Support: Transgender representation on social media provided transgender young people validation. Informational Support: Transgender young people were able to access information such as transitioning therapies and surgery. This was also beneficial in informing parents of transgender young people. Negative Social Media Experiences: Social media is a positive experience for most but is prone to witnessing/experiencing negative interactions.	Communities of support can be formed via social media among transgender young people which provide appraisal, information, and emotional support. Online networks can be subject to exclusionary behaviours and harassment. Quote: <i>"Social media ... there's more anonymity there really, more people are open to talking about their experiences as trans people and helps you understand it more."</i>
Singh, A.A. (2013) US (Southeast)	Explore resilience strategies among transgender young people of colour negotiating prejudice and racism.	15 - 24 (M = 18.3)  n = 13	Transgender male (n = 5); transgender female (n = 4); transsexual female (n = 1); genderqueer (n = 2); genderfluid (n = 1)	Recruitment: flyers distributed to organisations servicing transgender young people. Data collection: semi-structured interviews. Data analysis: grounded theory.	Use of Social Media to Affirm One's Identities as a Transgender Young People of Colour: Participants connected via various platforms (i.e., Facebook, Myspace, Twitter, and trans-specific platforms) which provided inspirational transgender role models.	Social media has been associated with connecting with transgender peers of colour to affirm identity. Transgender young people also used these networks to understand connections between ethnicity and their gender identity. Quote: <i>"[Participant] wished there was more access at school to trans sites — it's cool to have people to look up to and follow on Twitter."</i> Extract: <i>"Social media helped [participants] see new perspectives — namely</i>

Taylor, Y., Falconer, E., & Snowdon, R. (2014) UK (Newcastle, Manchester, and London)	Understand LGBTQ young people negotiate Christian and sexually and gender diverse identities.	17 - 34 (M = 24) n = 38	Gay (n = 15); lesbian (n = 13); bisexual (n = 5); queer (n = 4); asexual (n = 1); genderqueer (n = 3); transgender (n = 1); transsexual (n = 1)	Recruitment: online via the study's website and Facebook. Data collection: semi-structured interviews. Data analysis: thematic analysis.	'Coming Out' as Queer and Religious Online – Negotiating (Dis)Embodied Identities: Social media (i.e., Facebook and Twitter) provided religious young people opportunities to disclose LGBTQ identity online. Some will deliberately hide their LGBTQ identity from what religious groups can view. (Dis)Embodiment, (Dis)Connection and Temporality: Certain factors illuminate a particular identity (religious or LGBTQ) depending on activities. Online Spaces, New Opportunities? Social media allows young people to negotiate religious and LGBTQ identities.	Participants described social media such as Facebook beneficial to allowing a smoother disclosure of sexual/gender identity and being religious. Social media can offer a space to negotiate identities for LGBT religious young people. Quote: <i>“On Facebook ..., you've got a little box to fill in a brief description of you, their religious views and sexual orientation going to go in there definitely.”</i>
Varjas, K., Meyers, J., Kiperman, S., & Howard, A. (2013) US (Southeast)	Explore LGB young people's perceptions of technology use in relation to cyberbullying and cybervictimisation.	15 - 18 (M = 17.1; SD = 0.9) n = 18	Lesbian (n = 5); bisexual (n = 3); gay (n = 9)	Recruitment: from organisations serving LGB young people. Data collection: semi-structured interviews. Data analysis: grounded theory.	Constructive Technology Use by LGB Adolescents: Social media provides young people a comfortable method to explore sexual identities using anonymity. Young people could connect other LGBTQ individuals and transition to offline friendships or romantic relationships.	Technology including social media was beneficial to LGB young people particularly those feeling depressed and/or isolated. Participants also used these tools to seek social support and identity disclosure. Quote: <i>“MySpace and Facebook ... might be the only way and it's like a safeguard [be]cause they might not know you on the Internet and so it's like a safe haven, a place to be yourself.”</i>

Table 2  
Qualitative studies

Author, year, and country	Purpose	Age and sample size	LGBTQ sample	Method	Findings	Summary
Bond, B.J., & Figueroa-Caballero, A. (2016) US	Understand the relationships between technology, sexual identity and wellbeing based on age, gender, geographic location, race, religion.	13 - 19 (M = 16.5, SD = 1.3) n = 570	Gay (45%); bisexual (27%); and lesbian (24%)	Recruitment: from gay-straight alliances, and online messaging boards. Data collection: questionnaires / surveys. Measure/s: Rosenberg Self-Esteem Scale, Multiple Affective Adjective Checklist, Multidimensional Scale of Perceived Social Support and	Using regression analyses, LGB young people spend more time on social media compared to non-LGB with time spent significantly on sexual identity ( $\beta = 0.14, p = <0.01$ ) and wellbeing ( $\beta = 0.11, p = <0.05$ ). Time spent on social media was associated with sexual identity ( $b = 0.08, SE = 0.02, p < 0.001$ ) but not directly wellbeing ( $b = 0.04, SE = 0.03, p = 0.21$ ). Wellbeing was significantly associated with sexual identity commitment ( $b = 0.47, SE = 0.08, p < 0.001$ ).	Social media demonstrated a connection with sexual identity development associated with wellbeing. LGBTQ young people used social media to understand sexuality and give social support, which may not be as significant offline.

Measure of Sexual Identity  
Exploration and Commitment

Byron, P.B., Robards, B., Hanckel, B., Vivienne, S., & Churchill, B. (2019) Australia	How Tumblr is used among LGBTQ young people to connect with peers, develop identity and wellbeing.	16 - 34 (M = 24.6) n = 1,304	Homosexual (33.9%); bisexual (24.7%); queer (18%); pansexual, agender, panromantic and demisexual (19.8%).	Recruitment: via social media advertisements and flyers to LGBTQ organisations. Data collection: semi-structured interviews; questionnaires / surveys. Measure/s: Two nominal questions.	Tumblr was the most commonly platform participants left (11.7%) (excluding Myspace and Tinder). Tumblr was abandoned for several reasons, 34% found it too time consuming, 30% felt it became a negative space, and 15% found it to have negative health impacts.	Negative experiences were common with participants describing Tumblr as becoming toxic, although useful.
Ceglarek, P.J.D., & Ward, L.M. (2016) US (Michigan)	Understand LGB use of social media for identity exploration and expression and connect with LGB communities.	18 - 24 (M = 20.23; SD = 1.68) [LGBTQ participants] n = 570	Heterosexual (n = 446); homosexual (n = 68); not sure (n = 4); other (n = 21)	Recruitment: from LGBTQ support organisations. Data collection: questionnaires / surveys. Measure/s: Lesbian, Gay, and Bisexual Identity Scale, Short Scale for Measuring Loneliness and Brief Symptom Inventory.	Among LGB young people, higher social support on social media was associated with lower levels of loneliness (-0.27, $p \leq 0.01$ ) and paranoia (-0.21, $p \leq 0.05$ ) using beta coefficients. Learning about sexuality via social media reduced anxiety (-0.35, $p \leq 0.05$ ), hostility (-0.32, $p \leq 0.05$ ) and paranoia (-0.43, $p \leq 0.01$ ).	Social media has potential to allow LGBTQ young people to develop identity and thus have improved mental health. When seeking identity expressions and social support online may provide avenues with reduced stigmatisation compared to offline.
Chong, E.S.K., Zhang, Y., Mak, W.W.S., & Pang, I.H.Y. (2015) China (Hong Kong)	Understand LGB social media for identity, community monitoring and support and sense of belongingness.	M = 23.3; SD = 6.33 n = 233	Lesbian (n = 86); gay (n = 107); bisexual (n = 40)	Recruitment: flyers distributed to LGBTQ organisations and social media. Data collection: questionnaires / surveys. Measure/s: Inclusion of Community in Self, Mental Health Inventory, Life Satisfaction Scale and Satisfaction with Life Scale.	Using structural equation modelling, sense of belonging among LGB young people was associated with social media use for LGB group membership ( $\beta = 0.22$ , $p < 0.05$ ). LGB group connection via social media was indirectly associated with improved mental wellbeing through reduced stigma ( $\beta = 0.27$ , $p < 0.05$ ). Social media use to enhance LGB connection and reduced stigma effected mental wellbeing ( $\beta = 0.06$ and $0.09$ , $p < 0.05$ ).	Social media is a vital resource for LGB young people to express sexual or gender identity and social support. Mental health can be improved with positive social media capital.
Craig, S.L., Eaton, A.D., McInroy, L.B., Leung, V.W.Y., & Krishnan, S. (2021) Canada; US	Explore benefits of social media among LGBTQ young people and develop the Social Media Benefits Scale.	14 - 29 (M = 18.21; SD = 3.6) n = 6,178	Pansexual (n = 1,782); bisexual (n = 1,602); queer (n = 1,305); gay (n = 970); lesbian (n = 968); asexual (n = 691); not sure (n = 398); cisgender (n = 3,950); gender	Recruitment: flyers displayed online on social media and sent to LGBTQ organisations. Data collection: questionnaires / surveys. Measure/s: Social Media Benefits Scale.	Of those who chose Facebook as their favourite platform, 11% reported that it helped them feel loved. Adolescents (14-18 years) were the most likely group to use social media for emotional support and development ( $p < 0.0005$ ). Those age 19-24 years were also likely to use social media for these purposes ( $p < 0.0005$ ).	Younger young people were more likely to use social media for its benefits such as social support, connectivity, and information. Young people would commonly connect with LGBTQ individuals/groups and celebrities. Other benefits included improved emotional support and development.



			non-conforming (n = 2,168); transgender (n = 909)			
Lucero, L. (2017) Ukraine; US	Examine whether social media provides LGBTQ young people a safe space for identity exploration and expression.	14 - 17 (M = 16.3)  n = 19	Lesbian (n = 3); gay (n = 8); bisexual (n = 1); queer (n = 1); unsure (n = 3) not straight (n = 3)	Recruitment: flyers sent to LGBTQ organisations and Facebook. Data collection: questionnaires / surveys. Measure/s: Social Media Frequency Survey and Facebook Intensity Scale.	Facebook was used primarily for new friendships or relationships more so than meeting strangers online. Over two thirds of participants reported social media as a comfortable environment compared to offline.	LGBTQ social media users felt safe to communicate and explore with peers on platforms like Facebook.
McConnell, E., Néray, B., Hogan, B., Korpak, A., Clifford, A., & Birkett, M. (2018) US (Chicago)	Examine the relationship between Facebook and LGBTQ young people identity management.	19 - 28 (M = 24.13; SD = 1.64)  n = 199	Identifying as male (n = 77); identifying as female (n = 108); transwomen (n = 15); transmen (n = 3); gay (n = 69); lesbian (n = 55); bisexual (n = 49); heterosexual (n = 10); unsure (n = 8)	Recruitment: LGBTQ young people from a longitudinal study. Data collection: Questionnaires / surveys. Measure/s: Adapted Outness Inventory.	Participants were grouped into four categories of Facebook level of identity disclosure, cluster one (high overall outness), cluster two (low overall outness), cluster three (less out to family) and cluster four (more out to family). Cluster 1 consisted of 64% of participants with high levels of disclosure among family, classmates/colleagues, and others.	LGBTQ young people felt free self-expression on social media is complicated due to factors relating to identity disclosure. By investigating Facebook accounts, young people were mostly either categorised as low outness or high outness. Some would purposely censor their identity expression to avoid unintentional identity disclosures.
McConnell, E.A., Clifford, A., Korpak, A.K., Phillips, G., & Birkett, M. (2017) US (Chicago)	Examine Facebook use among LGBTQ young people identity management methods and effects of outness.	M = 24.02; SD = 1.65  n = 175	Transgender (n = 24); gay (n = 59); lesbian (n = 49); bisexual (n = 42); heterosexual (n = 9); unsure (n = 5)	Recruitment: LGBTQ young people from a longitudinal study via email and flyers sent to LGBTQ organisations. Data collection: questionnaires / surveys. Measure/s: Adapted Outness Inventory, Multidimensional Scale of Perceived Social Support and Brief Symptom Inventory.	Over 13% had multiple Facebook accounts, and over 42% used privacy settings to limit viewable content for selected friends. Participants reported high outness offline and on Facebook, both positively correlated ( $r = 0.72$ , $p < 0.001$ ). Facebook outness showed high positive correlation ( $r = 0.73$ ), and the lowest correlation among friends ( $r = 0.53$ ).	Social media can act as a strategy for identity management which some users find important. Some LGBTQ young people possessed multiple accounts/platforms where they could differ identity expression according to audience.

McInroy, L.B., McCloskey, R.J., Craig, S.L., Eaton, A.D. (2019) Canada; US	Explore LGBTQ engagement in on- and offline communities, activities, and resources.	14 - 29 (M = 18.35; SD 3.64)  n = 4,009	LGBTQ+ (n = 7,986); heterosexual (n = 58); cisgender (n = 2,211)	Recruitment: from LGBTQ organisations and school groups. Data collection: questionnaires / surveys. Measure/s: 6-scale questionnaire on activeness, support, and safety in on- and offline LGBTQ communities.	LGBTQ participants would connect with LGBTQ community online (88%) compared to offline (69%). LGBTQ participants compared to offline were more engaged ( $t(4008) = 10.12, p \leq .000$ ), supported ( $t(4008) = 26.28, p \leq .000$ ), and safer ( $t(4008) = 35.78, p \leq 0.000$ ) online. LGBTQ social media or blogs were used by 87% of participants, and identity specific web or YouTube series by 79%.	LGBTQ young people were likely to participate online with other LGBTQ people including social media. Social media was reported to be a safer, more supportive, and more active option compared to offline.
Pellicane, M.J., Cooks, J.A., & Ciesla, J.A. (2020) US (Midwest)	Examine relationships of social media acceptance and hostility, and its effects on mental health.	M = 19.87  n = 387	Heterosexual (n = 326); bisexual (n = 40); homosexual (n = 7); other (n = 5)	Recruitment: undergraduate psychology students from electronic database. Data collection: questionnaires / surveys. Measure/s: Center of Epidemiological Studies - Depression Scale, State-Trait Anxiety Inventory and Social Media Experiences Questionnaire.	There were significant association between acceptance via social media and reduced symptoms of depression ( $\beta = -0.453, p < 0.001$ ). Higher social media acceptance was also significantly associated with reduced anxiety symptoms ( $\beta = -0.343, p < 0.001$ ). Conversely, hostility on social media was associated with increased symptoms of depression ( $\beta = 0.120, p < 0.019$ ).	Social media has the benefit of acceptance and support for LGBTQ individuals and can help prevent or reduce anxiety and depression. This pattern was not reflected among the non-LGBTQ population in this study.
Twist, M.L.C., Bergdall, M.K., Belous, C.K., Maier, C.A. (2017) US (Southwest)	Explore LGB experiences of monitoring online visibility and relationships.	18 - 41 (M = 24.67)  n = 61	Bisexual (n = 33); same-sex orientated (n = 28)	Recruitment: undergraduate students. Data collection: questionnaires / surveys. Measure/s: Lesbian, Gay, Bisexual Identity Scale, Ecological Elements Questionnaire, Family Adaptability and Cohesion Scale-IV and Same-Sexting Practices and Questionnaire.	Facebook had high levels of visibility regarding LGB identity; relationship disclosure (32%), gender identity (30%) and sexuality (31%). Almost half (49%) of participants felt that partner outness online was immaterial. Most (70%) reported infrequent negative responses to online identity disclosure.	Most participants reported their sexual identity via social media primarily on Facebook. Most participants did not report negative interactions due to their identity disclosure on social media.

NB: Mean (M), standard deviation (SD).

**Table 3**  
Quality assessment of included studies

Author	CASP score	NOS score	Comments / Limitations
Bates, A., Hobman, T., & Bell B.T. (2020)	8 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Participants predominately Caucasian and openly LGBTQ.</li> <li>- All recruited from one university.</li> </ul>
Bond, B.J., & Figueroa-Caballero, A. (2016)	N/A	8 / 10 stars	<i>Cross-sectional study</i> Generalisability <ul style="list-style-type: none"> <li>- Data collected from gay-straight alliances.</li> </ul>
Byron, P.B., Robards, B., Hanckel, B., Vivienne, S., & Churchill, B. (2019) *	8 / 10 criteria	5 / 10 stars	Generalisability <ul style="list-style-type: none"> <li>- Race/ethnicity not well described.</li> </ul> Internal validity <ul style="list-style-type: none"> <li>- Possible risk of interviewer bias not described.</li> </ul>
Ceglarek, P.J.D., & Ward, L. M. (2016)	N/A	9 / 10 stars	<i>Cross-sectional study</i> Internal validity <ul style="list-style-type: none"> <li>- Data was self-reported which may be prone to social desirability and/or recall bias.</li> <li>- Inadequately validated measure/s.</li> </ul>
Chong, E.S.K., Zhang, Y., Mak, W.W.S., & Pang, I.H.Y. (2015)	N/A	7 / 10 stars	<i>Cross-sectional study</i> Generalisability <ul style="list-style-type: none"> <li>- Small Hong Kong based LGB population.</li> </ul>
Craig, S.L., McInroy, L. (2014)	9 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Most participants were from progressive, well-educated, and affluent backgrounds.</li> </ul>
Craig, S.L., Eaton, A.D., McInroy, L.B., Leung, V.W.Y., & Krishnan, S. (2021)	N/A	6 / 10 stars	<i>Cross-sectional study</i> Internal validity <ul style="list-style-type: none"> <li>- Inadequately validated measure/s.</li> <li>- Sample characteristics not described (covariates).</li> </ul>
Duguay, S. (2016)	8 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Small gender diverse population within the sample.</li> <li>- All participants are university students.</li> </ul>
Fox, J., & Ralston, R. (2016)	9 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Participants predominately Caucasian.</li> <li>- From one city in the US with most being college students.</li> </ul> Internal validity <ul style="list-style-type: none"> <li>- Possible risk of interviewer bias not described.</li> </ul>
Hanckel, B., Vivienne, S., Byron, P., Robards, B., & Churchill, B. (2019)	7 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Suboptimal description of race/ethnicity but indicating a lack of diversity.</li> </ul> Internal validity <ul style="list-style-type: none"> <li>- Selection and recruitment not described.</li> <li>- Analytical method unclear.</li> </ul>
Harper, G.W., Serrano, P.A., Bruce, D. & Bauermeister, J.A. (2016)	10 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Data was collected from 2004 to 2006 thus may not represent current use and past perceptions of LGBTQ identities.</li> <li>- Only recruited from two metropolitan US cities.</li> <li>- Limited ethnic backgrounds due to parent study aims.</li> </ul>
Herrera, A.P. (2018)	8 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- No participant characteristics described.</li> <li>- Limited to lesbian or queer identifying women.</li> <li>- Limited to Instagram use.</li> </ul> Internal validity <ul style="list-style-type: none"> <li>- Concern of selection and interviewer bias as investigator/s invited participants to interviews by commenting on Instagram posts.</li> </ul>
Hillier, L., Mitchell, K.J., & Ybarra, M.L. (2012)	9 / 10 criteria	N/A	Generalisability <ul style="list-style-type: none"> <li>- Participants predominately Caucasian.</li> </ul>
Lucero, L. (2017) *	8 / 10 criteria	5 / 10 stars	Generalisability

				<ul style="list-style-type: none"> <li>- Small sample of Ukrainian young people that may not be representative of the Ukrainian population.</li> <li>- Investigators reported their results as LGBTQ although there were no transgender participants.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Significantly small sample size for quantitative analysis.</li> <li>- Inadequately validated measure/s.</li> </ul>
McConnell, E., Néray, B., Hogan, B., Korpak, A., Clifford, A., & Birkett, M. (2018) *	10 / 10 criteria	6 / 10 stars	Generalisability	<ul style="list-style-type: none"> <li>- From a single metropolitan US city.</li> <li>- The disclosed LGBTQ identity cohort are likely over-represented due to significantly higher sample size compared to non-disclosed cohorts.</li> <li>- Participants predominately African American.</li> </ul>
McConnell, E.A., Clifford, A., Korpak, A.K., Phillips, G., & Birkett, M. (2017)	N/A	6 / 10 stars	<i>Prospective cohort study</i> Generalisability	<ul style="list-style-type: none"> <li>- Participants predominately African American.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Loss to follow-up not described.</li> </ul>
McInroy, L.B., McCloskey, R.J., Craig, S.L., Eaton, A.D. (2019)	N/A	7 / 10 stars	<i>Cross-sectional study</i> Internal validity	<ul style="list-style-type: none"> <li>- Possible selection bias as study aimed to compare on- and offline however recruited primarily online.</li> </ul>
McInroy, L.B., & Craig, S.L. (2015)	8 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- From a single metropolitan Canadian city.</li> <li>- Small transgender subpopulation.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Most had high motivation/knowledge of media and may be associated with volunteer bias.</li> </ul>
Paceley, M.S., Goffnett, J., Sanders, L., & Gadd-Nelson, J. (2020)	9 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- From small towns or rural areas in one US state.</li> <li>- Although they purposefully recruited diverse participants there was limited intersectional analyses.</li> <li>- Under representative of transgender population.</li> </ul>
Pellicane, M.J., Cooks, J.A., & Ciesla, J.A. (2020)	N/A	5 / 10 stars	<i>Prospective cohort study</i> Generalisability	<ul style="list-style-type: none"> <li>- Undergraduate psychology students from one university.</li> <li>- Participants predominately female.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Strong risk for volunteer bias due to selection.</li> <li>- Loss to follow-up not described.</li> </ul>
Rubin, J.D., & McClelland, S.I. (2015)	9 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- Most from a single metropolitan US city.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Small sample size.</li> </ul>
Selkie, E., Adkins, V., Masters, E., Bajpai, A., & Shumer, D. (2020)	9 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- From one gender services clinic in Midwestern US.</li> <li>- All had supportive parents due to recruitment from the clinic.</li> </ul> <p>Internal validity</p> <ul style="list-style-type: none"> <li>- Participants' locality not collected (e.g., rural, or metropolitan).</li> </ul>
Singh, A.A. (2013)	9 / 10 criteria	N/A	Internal validity	<ul style="list-style-type: none"> <li>- Relatively small sample size.</li> <li>- Risk of bias from telephone interviews.</li> </ul>
Taylor, Y., Falconer, E., & Snowdon, R. (2014)	10 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- Under representative of transgender population.</li> </ul>
Twist, M.L.C., Bergdall, M.K., Belous, C.K., Maier, C.A. (2017)	N/A	4 / 10 stars	<i>Cross-sectional study</i> Generalisability	<ul style="list-style-type: none"> <li>- Undergraduate students minoring in family studies in from one university.</li> </ul> <p>Internal validity</p>

				<ul style="list-style-type: none"> <li>- Strong risk for volunteer bias due to selection.</li> <li>- Small sample size.</li> <li>- Data was self-reported which may be prone to social desirability and/or recall bias.</li> </ul>
Varjas, K., Meyers, J., Kiperman, S., & Howard, A. (2013)	9 / 10 criteria	N/A	Generalisability	<ul style="list-style-type: none"> <li>- Due to age, parental permission was required and likely included only those whose parents knew and were supportive.</li> </ul>

NB: \* Mixed methods studies.

## 2.3 Discussion

To our knowledge this systematic review explored how LGBTQ young people utilise social media and how it affects their peer connections, identity exploration, and social support. We found 26 studies of which 15 were qualitative, 8 quantitative, and 3 mixed methods. Overall, the quality of research was moderate and limited to observational studies. Most studies were limited by lack of follow-up and confounding assessment descriptions, restrictive sample eligibility limiting generalisability, and selection biases. There was generally limited evidence due to the study designs and thus causality cannot be inferred from associations. With these limitations in mind, the description of how LGBTQ young people use social media for connectivity and identity have been well explored. Our understanding of the prevalence of LGBTQ identity in the general population of young people is limited by the fact that most countries do not collect population level data of these identities (i.e., questions capturing LGBTQ identity are mostly not included in censuses or large population surveys) (Carman et al., 2020; Stephenson & Hayes, 2021).

Developing networks and expressing LGBTQ identity safely leads to reduced mental health problems including anxiety, depression, addictive behaviours, and suicidal ideation (Collier, van Beusekom, Bos, & Sandfort, 2013; Russell & Fish, 2016). Microaggression in the form of heteronormative expectations and language can affect mental health of LGBTQ young people (Nadal et al., 2011). Stress alleviation among LGBTQ young people is associated with reduced risk of poor mental health including depression and suicidal ideation (Bond & Figueroa-Caballero, 2016). Social media was a setting where young people could control the

expression of their sexual and gender identities (Bates et al., 2020; Craig & McInroy, 2014; Duguay, 2016; Fox & Ralston, 2016; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; Hillier et al., 2012; McInroy & Craig, 2015; Pacey et al., 2020; Rubin & McClelland, 2015; Singh, 2013; Varjas et al., 2013). LGBTQ young people could negotiate how they express identity via censoring content, share with safe audiences or use platform settings to actively disclose their identity (Bates et al., 2020; Byron et al., 2019; Craig & McInroy, 2014; Duguay, 2016; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; McConnell et al., 2018). These strategies were adopted by LGBTQ young people to prevent/reduce exposure to stigma and discrimination (Hanckel et al., 2019).

Acceptance particularly from family and friends was related to improved mental health outcomes (McConnell et al., 2015; Russell & Fish, 2016; Snapp, Watson, et al., 2015). Social media was found to be a significant source of social support for LGBTQ young people (Harper et al., 2016; Hillier et al., 2012; Pacey et al., 2020; Selkie et al., 2020). Several articles examined the effects on mental health and wellbeing noting that in most circumstances positive effects occur (Ceglarek & Ward, 2016; Hillier et al., 2012; Pellicane et al., 2021; Rubin & McClelland, 2015). This was identified by reduction in mental health complaints including: anxiety, depression, and paranoia (Ceglarek & Ward, 2016; Chong et al., 2015; Pellicane et al., 2021; Rubin & McClelland, 2015; Varjas et al., 2013). Participant narratives identified decreased feelings of isolation and increased wellbeing when engaging in social media (Harper et al., 2016; Pacey et al., 2020; Selkie et al., 2020; Varjas et al., 2013). Social media could be used as a method to escape heteronormativity and feel safe thus improving wellbeing (Craig & McInroy, 2014; Hanckel et al., 2019; McConnell et al., 2018; McInroy & Craig, 2015; Selkie et al., 2020; Singh, 2013).

Negative outcomes of social media use were also identified. Heavy social media use among LGBTQ young people was associated with increased feelings of loneliness and sensitivity (Ceglarek & Ward, 2016). Social media dependency was also linked to poorer academic performance, sleep deprivation and mental health conditions (Tsitsika et al., 2014; Wolniczak et al., 2013). Although social media could limit discrimination and stigma, LGBTQ young people are still at higher risk of online victimisation (Abreu & Kenny, 2018). Mental health and wellbeing were negatively affected by social media structures and policies that were unaccommodating of changed identities (Hanckel et al., 2019). Some platforms are limited as they offer only binary genders, and only offer a choice of interest in men and/or women (Albury, Dietzel, Pym, Vivienne, & Cook, 2021; Duguay, 2016). Other platforms (e.g., Grindr and Tinder) offer users non-binary options but, displaying this may lead to safety issues (Albury et al., 2021).

Social media allowed LGBTQ young people to actively manage their identity but, non-LGBTQ do not demonstrate the same use of social media and did not need to explicitly express their identity as they are in the majority (Bates et al., 2020; Herrera, 2018; McConnell et al., 2018; Rubin & McClelland, 2015; Taylor et al., 2014). LGBTQ young people would actively manage their audiences by friending those of similar ages, limiting some via privacy settings or removing friends (Bates et al., 2020; Duguay, 2016). Friending older individuals was associated with fear of intolerance and authoritative older adults (e.g., prospective employers, family friends, etc.) (Duguay, 2016). Social media was considered a highly advantageous tool for identity exploration and social support (Bond & Figueroa-Caballero, 2016). These platforms made it possible for LGBTQ young people to connect with numerous other LGBTQ people and disclose identity regardless of physical location (Gray, 2009; Harper et al., 2016; Pacey et al., 2020). Extending online connections offline was associated with increased comfort with LGBTQ identity (Harper et al., 2016). LGB connectivity via social media improved mental health and wellbeing (Chong et al., 2015). On

the other hand, non-LGBTQ individuals reported sufficient support offline and did not add strangers to their social media (Hillier et al., 2012). Technology and specifically social media has had significant effects on how LGBTQ young people negotiate connectivity, identity management, and social support (Twist et al., 2017).

Facebook and Twitter had higher identity disclosure than other platforms and sexuality specific dating apps (Twist et al., 2017). Online sexual encounters usually occur via geosocial networking applications that allow location sharing among LGBTQ and non-LGBTQ individuals (e.g., Grindr, Tinder, Bumble) (Macapagal et al., 2018; Pacey et al., 2020; Sumter & Vandenbosch, 2019). Other social media such as Facebook were also used for this purpose but, less commonly (Krishnan et al., 2018). Social media also facilitated romantic relationships encompassing negative and positive outcomes (Utz & Beukeboom, 2011). Connections among LGBTQ individuals/communities can lead to romantic relationships thus reducing barriers LGBTQ young people face including fewer potential romantic partners and societal restrictions (Russell & Fish, 2016). Dating same-sex partners was associated with improved mental health, self-esteem and reduced internalised homophobia (Russell & Fish, 2016). Negative aspects include jealousy (e.g., images of partner with other people), or inaccurate social media depictions of relationships (Taba et al., 2020; Utz & Beukeboom, 2011). LGBTQ relationship portrayals and community engagement on social media may also affirm one's identity (Harper et al., 2016; Herrera, 2018; Hillier et al., 2012; McConnell et al., 2018; McInroy & Craig, 2015; Selkie et al., 2020; Singh, 2013). Positive aspects entailed relationship happiness which was associated with lower need for popularity (Utz & Beukeboom, 2011).

Social media use may have potential to decrease instances of mood disorders, addictive behaviours, and suicidal ideation in LGBTQ young people, but more evidence is needed.



This information may be useful for professionals working with LGBTQ young people such as educators, clinicians, and policy makers, as it provides an evidence base for the role of social media in the lives of LGBTQ young people. Further research is required (i.e., case-control studies or cohort studies) to provide stronger evidence of how social is used for connectivity, identity, and support and determine causal links to mental health outcomes.

### *2.3.1 Limitations*

Only published peer-reviewed data and no grey literature were included. This systematic review was also limited because of the sensitive nature of sexual health and mental health meant that individual studies were at risk of reporting bias. There were also very few studies that investigated the effect of social media use for connectivity, identity, and social support and its association with LGBTQ young people's mental health. Secondly, there was no uniform measure to assess mental health outcomes as some studies were limited in investigating this topic. Lastly, due to the ever-changing nature of social media, these concepts may not capture current experiences.

### *2.3.2 Conclusion*

This review highlighted LGBTQ young people's uses of social media to connect with like-minded peers, manage identity, and seek support. The use of social media for LGBTQ networking, identity management and social support appeared to be beneficial to LGBTQ mental health and wellbeing (Ceglarek & Ward, 2016; Pellicane et al., 2021; Rubin & McClelland, 2015; Russell & Fish, 2016; Varjas et al., 2013). Being able to access social media spaces that normalise LGBTQ identities appear to play a significant role in protecting mental health and wellbeing (Ceglarek & Ward, 2016; Pellicane et al., 2021; Rubin & McClelland, 2015; Russell & Fish, 2016; Varjas et al., 2013). However, social media could also be associated with negative mental health outcomes if overused (Ceglarek & Ward,

2016). Young people use strategies to prevent exposure to conflict using privacy settings to restrict audiences and censor content (Bates et al., 2020; Duguay, 2016; Hanckel et al., 2019). In this systematic review we identified the various important beneficial roles of social media, but the findings were limited by weaknesses in the evidence base. We recommend larger, representative, and prospective research, including intervention evaluation to better understand the potential of social media to support health and wellbeing of marginalized LGBTQ young people. It is imperative that social media is understood, and beneficial use is supported to ensure improved outcomes.

## Chapter 3: Research Methods

### 3.1 Introduction

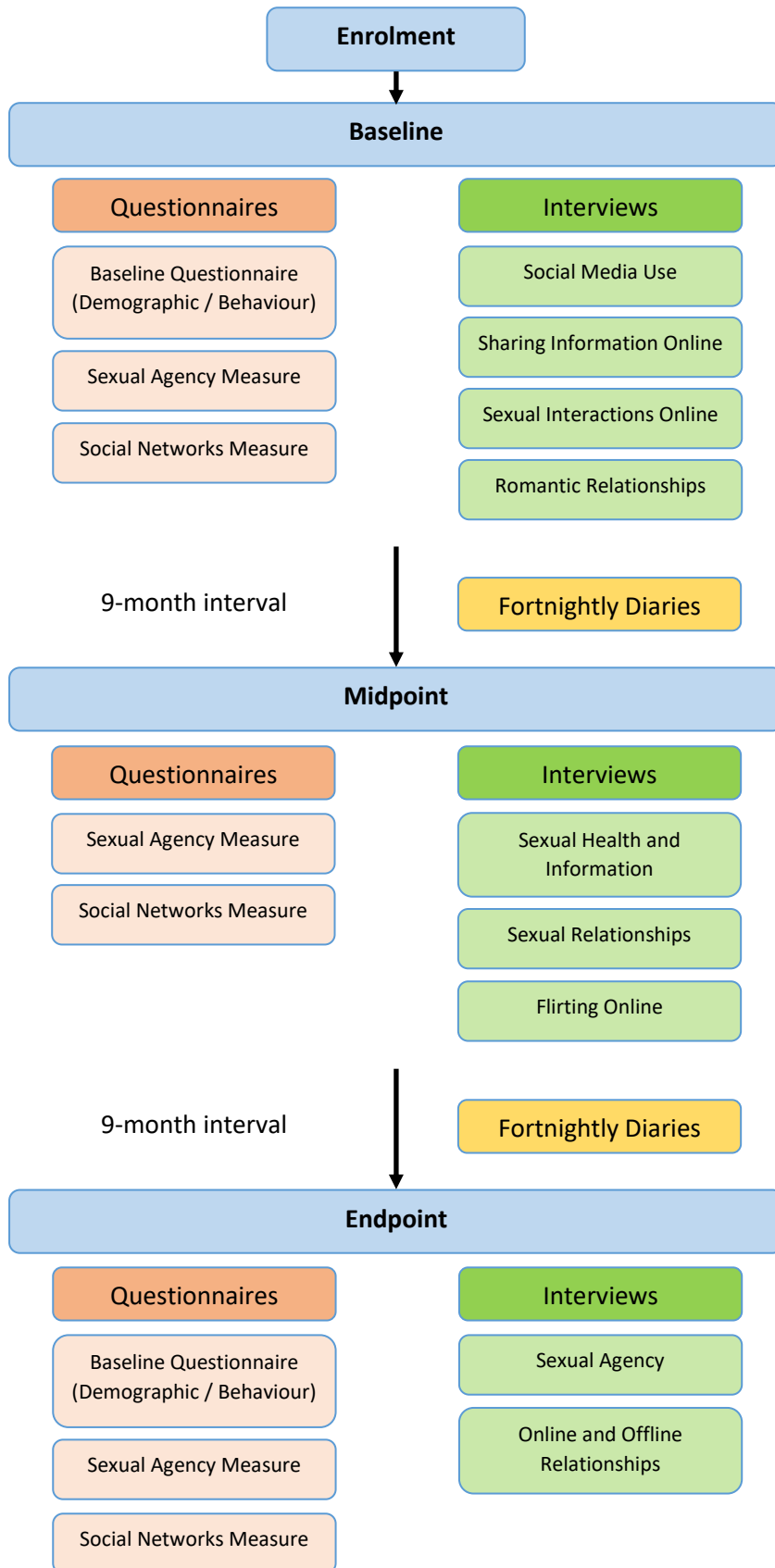
This study was a secondary analysis of data from three sets of semi-structured interviews conducted as part of a larger study – Social Networks and Agency Project (SNAP) (Lim et al., 2019). SNAP was a mixed-methods study of online and offline social networks and sexual agency (Lim et al., 2019). The aim of the SNAP was to examine the relationships between the development of sexual agency among adolescents and how on- and offline networks shape the development of sexual agency (Lim et al., 2019). Sexual agency is defined as:

*“Sexual agency is the ability to communicate and negotiate about one’s sexuality, while having empathy for a partner’s wants and needs. To have sexual agency means making informed and ethical choices for themselves and accepting the responsibility of those choices”* (Lim et al., 2019, p. 2).

There is limited research or literature on sexual development and its relationship with social media use. Thus, a mixed methods design can encompass extensive data to address the research questions adequately. This design can also help to ensure the rigour of project findings (Creswell & Creswell, 2018). At baseline (0 months), midpoint (9 months) and endpoint (18 months), participants completed background questionnaires, social network tools and sexual agency measures. Interviews were incorporated at each timepoint. The primary outcome of this study (*Chapters 4 and 5*) is the relationship between social media use, sexual behaviours, and social support. The sexual behaviours explored specifically within this study were sexting, dating app use and flirting. Participants were followed up for 18 months with data collected from 2015 to 2018. This design is illustrated in figure 2. Adolescents’ experiences and preferences helped inform the design and development of the study. Study measures were piloted and finalised with adolescents’ involvement.

*Chapters 4 and 5* present secondary analyses of the SNAP data which, conceived following data collection. These secondary analyses used qualitative data from the interviews conducted in the SNAP and demographic information collected in questionnaires. These data collection tools are described in sections 3.2.2 and 3.2.3 below. SNAP collected data on social media and adolescents' utilisation of social support and sexual interactions. The aims of this thesis were explored using interview data, where questions were asked relating to the nature of social media use.

Figure 2  
Study design flow chart over an 18-month period (Lim et al., 2019).



## 3.2 Contributions Statement

Contributions are listed below as per the contributor role taxonomy (CRediT) author statement outlined by Brand, Allen, Altman, Hlava, and Scott (2015).

**Matthew Neil Berger:** conceptualisation, methodology, formal analysis, investigation, data curation, writing – original draft, and visualisation.

**Melody Taba:** formal analysis, investigation, data curation, and writing – review and editing.

**Professor Rachel Skinner:** conceptualisation, methodology, writing – review and editing, and supervision.

**Dr Jennifer Marino:** conceptualisation, methodology, writing – review and editing, and supervision.

**Associate Professor Megan Lim:** conceptualisation, methodology, writing – review and editing, and supervision.

**Professor Kath Albury:** methodology, writing – review and editing.

**Associate Professor Spring Cooper:** methodology, writing – review and editing.

**Dr Kenneth Chung:** methodology, writing – review and editing.

**Dr Deborah Bateson:** methodology, writing – review and editing.

**Larissa Lewis:** methodology, writing – review and editing.

## 3.3 Data collection

### 3.3.1 *Participants and recruitment*

The SNAP study recruited 84 participants aged 14 to 17 years at enrolment. Adolescents were recruited primarily from social media platforms through paid targeted advertisements, and by peer referral on Facebook and Instagram with a focus on the state of New South

Wales (NSW), Australia. Flyers were also made available at an independent secondary school and at several Family Planning clinics in NSW. Study promotional materials were distributed to Ashfield, Newcastle, and Penrith Family Planning clinics. These settings were targeted due to convenience and the researchers' established relationships. These recruitment strategies were selected primarily to appropriately target diverse adolescents (e.g., different localities, gender identities, sexualities, etc.) allowed for extensive exploration of the topics. To promote retention over the study period, participants were offered monetary incentives. Following participation in baseline, midpoint, and endpoint questionnaires and interviews, participants would be provided a \$20 gift card. Additionally, \$20 gift cards were also given after completion of every five fortnightly diaries. This regular incentive was incorporated to keep participants engaged in the study. The research team maintained regular contact with participants through text messaging or email also allowing the participants access to the team.

### *3.3.2 Questionnaires and fortnightly diaries*

Participants completed questionnaires regarding sexual attraction and sexual identity at baseline (n = 84) and endpoint (n = 53), and a social network tool and sexual agency measure at all timepoints. All questionnaires and diaries were stored securely through REDCap (Research Electronic Data Capture); participants were directed to complete their questionnaires and diaries on Redcap by email. The baseline and endpoint demographic and behaviour questionnaire ([appendix 3](#)) was adapted from Mitchell, Patrick, Heywood, Blackman, and Pitts (2014) 5<sup>th</sup> national survey of Australian secondary students and sexual health. These questionnaires asked questions related to age, country of birth, spoken language, relationships, sexual behaviours, perceptions about sex, gender presumed at birth, gender identity, sexual attraction, race, internet access, locality, school attendance, academic progression, employment, family composition, and parents' education and employment.

Electronic diaries were completed by participants bi-weekly on REDCap. The aim of the diaries was to capture sexual behaviours and social networks interactions. This measure was adapted from a validated scale measuring online risks (Vannier & O'Sullivan, 2010). Participants were asked to nominate five people they had interacted with the most over the past two weeks and what percentage of interaction was in-person and online. In addition, participants also provided the percentage of their interaction that was flirtatious. Questions on sexual behaviours included: number of sexual partners, type of partner (i.e., casual, friend with benefits, boyfriend, girlfriend, or other), partner's gender, frequency of sex, and condom use. For those who indicated they were sexually active, additional questions on initiation of sexual activity, desire, enjoyment, types of sexual activities engaged in, whether the activity was planned or spontaneous, if they felt pressured, and who was perceived as in control.

### *3.3.3 Interviews*

Participants (n = 61) were enrolled for interviews and were interviewed by Kath Albury, Melody Taba, Larissa Lewis and Spring Cooper during the SNAP study period (Lim et al., 2019). Up to three semi-structured interviews per participant were conducted over 18 months (baseline, midpoint, and endpoint) for a total of 147 interviews. Of these, 50 completed the baseline interviews, 50 for the midpoint, and 47 for the endpoint. Participants were offered face-to-face or online interviews via Skype. Baseline interviews explored information sharing, online sexual interactions, and sexual health information. Midpoint interviews explored: flirting, sexual health information and relationships. Lastly, endpoint interviews explored: changes to friendships, sexual interactions, and sexual agency. Please see [appendix 5](#) for the interview guides used at the three timepoints. Information on specific social media and dating applications used by participants were collected during the baseline and midpoint interviews.



Baseline interviews which explored four domains: (1) social media use, (2) sharing information online, (3) sexual interactions online, and (4) romantic relationships. The first domain explored the types of social media platforms used and how the participants used them. Specifically, this identified what devices they used and what activities were considered appropriate for the specific platforms. The second domain investigated what types of information are shared, whom it is shared with and the rationale for sharing. Thirdly, participants were asked their opinion about online sexual communication, online sexual information, and sharing sexually explicit content. The fourth domain explored how adolescents develop in-person and online relationships and how they differ and interacting online with people they are interested in (including flirting).

Midpoint interviews investigated three domains: (1) sexual health and information, (2) sexual relationships, and (3) flirting online. Firstly, participants were asked where they find sexual health information (e.g., school, parents, friends or online), when people feel they are ready for sex, definition of safe sex, and negotiating sex. Domain two explored the perception of an ideal relationship and if social media influences their views on relationships. Lastly, online flirting was explored by asking participants what the intent for flirting online is, their experiences with dating apps, and opinions on flirting with people other than their partner.

Finally, endpoint interviews were administered among 47 participants and covered two domains: (1) sexual agency, and (2) online and offline relationships. To understand sexual agency, participants were asked what sexual agency means to them and if they find it a helpful concept. In addition, the relationship between being involved in the SNAP study and adolescent views on sex and sexual agency was explored. Next, participants were asked a series of questions on distinctions between in-person and online communication, how their

relationships have changed over the 18-months, and how they would communicate sexual agency to others. Questions within the interviews did not directly ask participants about their use of social media for social support but this emerged as a common theme from participant responses when asked about their social media use. Social support through social media was strongly represented in the baseline interviews but also arose within midpoint and endpoint interviews.

### **3.4 Thematic analysis**

Thematic analysis was used to capture perceptions and experiences for the studies detailed in *Chapter 4 and 5* (Braun & Clarke, 2006). Thematic analysis is an analytical method of qualitative research which is used among health disciplines and beyond (Roulston, 2001). Thematic analysis is used to identify and analyse patterns (known as themes) in various types of data (Holloway & Todres, 2003). Braun and Clarke (2006) described a set of stages to utilise thematic analysis in a manner that can be repeatable. Thematic analysis is a non-complex analytical method that is flexible, understandable to the educated public, useful for illuminating key features and discovering unanticipated outcomes, and suitable for informing policy (Braun & Clarke, 2006). *Chapters 4 and 5* were developed from themes that were derived from coding of the interviews. Themes incorporated in *Chapter 4* was primarily from data collected in the baseline interviews. Whereas *Chapter 5* was derived from all three timepoints however, midpoint and endpoint were most prevalent.

Interviews were recorded digitally, transcribed verbatim, and coded according to timepoint and data entered into NVivo 12 (QSR International, 2020). Due to the size of data, NVivo was necessary although use of codebook approaches should be avoided with thematic analysis (Clarke & Braun, 2013). Two researchers (Matthew Neil Berger and Melody Taba) double coded the data to ensure consistency; inconsistencies were discussed between the

authors leading to shared interpretation. Interviews were coded and analysed following the six steps recommended by Braun and Clarke (2006): (1) transcripts were read and reread noting ideas, (2) researchers coded, (3) data was gathered into potential themes, (4) themes were reviewed to ensure themes were distinct and meaningful, (5) ongoing analysis occurred ensuring clear definitions, and (6) a final report relating to the research question (Braun & Clarke, 2006). Quotes are presented verbatim with pseudonyms, age, gender identity, sexual identity or attraction, and interview phase.

### **3.5 Ethics**

Ethical approval was obtained from the Ethics Committees at University of Sydney (project number 2015/489) and NSW Family Planning (project number R2015-10) with the procedures adhering to the Declaration of Helsinki. Written and verbal consent was provided by all participants before data collection occurred. Participants were given the opportunity to ask for parental permission, otherwise were assessed as mature minors. Consent forms clarified that participants were informed about the study, that confidentiality would be maintained and that they could withdraw at any time. Confidentiality was ensured by deidentifying participants and any identifying factors (e.g., Facebook group names) and assigning pseudonyms. Upon request, participants will be provided copies of publications and tailored results.

### **3.6 Theoretical framework**

The SNAP study was guided by a multidisciplinary research framework for healthy sexual development established by McKee et al. (2010). This framework encompasses 15 domains around healthy sexual development: freedom from unwanted activity, an understanding of consent and ethical conduct more generally; an understanding of safety, agency, resilience, open communication, self-acceptance, awareness and acceptance that sex is pleasurable,

and competence in mediated sexuality (McKee et al., 2010). The SNAP study incorporated a multidisciplinary approach regarding sexual health from social sciences, media and communication, social networks and adolescent health reflected in the researchers' backgrounds. This approach is used to promote understanding of complex issues in adolescent sexual agency and development.

Freedom from unwanted activity is described as contexts promoting healthy sexual development, where children and adolescents are protected from unwanted sexual activity (McKee et al., 2010). Furthermore, "healthy sexuality is not coercive", adolescents need to understand consent including their own and other's (McKee et al., 2010, p. 16). Safety is fundamental to healthy sexual development to promote safe practice in the broadest sense (i.e., physical safety from STIs, and ability to experiment) (McKee et al., 2010). Relationships skills allow those to communicate what they want with their partner/s including sexual practices (McKee et al., 2010). Agency is another important skill that promotes the ability to control their own sexuality and sexual pleasure (McKee et al., 2010). This includes the ability to resist peer pressure and be responsible for their own decisions (McKee et al., 2010).

Lifelong learning about sex and one's body is part of healthy sexual development which starts from childhood and continues through adulthood (McKee et al., 2010). Healthy agency development promotes resilience; an important skill to interpret and learn from bad sexual experiences (McKee et al., 2010). Healthy sexual development should be considered enjoyable and pleasurable free from aggression or coercion (McKee et al., 2010). Self-acceptance facilitates a positive attitude towards a young person's own sexual identity and body (McKee et al., 2010). Lastly, public and private boundaries need to be understood, which allows management of one's own privacy (McKee et al., 2010).

## Chapter 4: Social Media's Role in Support Networks among LGBTQ Adolescents

### 4.1 Introduction

Adolescents aged 15 to 17 years are the most frequent users of internet services, particularly social media (Australian Bureau of Statistics, 2018a). A survey of secondary school students in Australia found that 66% accessed social media at least five times a day (Fisher et al., 2019). LGBTQ youth use social media for entertainment, identity development, LGBTQ information and social support (Craig et al., 2021). The most common social media platforms used by LGBTQ youth are Instagram, Facebook, Twitter, TikTok and Snapchat (Hanckel & Chandra, 2021). Social media platforms such as Facebook create a fun and easy way to connect to LGBTQ communities, explore identity and access emotional support (Lucero, 2017). Social media possesses potential positive effects on sense of belonging, self-realisation, and self-esteem (Berry, Emsley, Lobban, & Bucci, 2018; Q. Liu, Shao, & Fan, 2018). However, social media has also been associated with negative experiences including confidentiality risks, cyberbullying, exposure to risky material, and non-consensual sexting (Garett, Lord, & Young, 2016; Vitak & Ellison, 2013).

Social media provides an online space in which individuals can communicate privately or within groups, which is perceived as less risky than meeting in-person (Cover, 2012). Young people can explore and develop their identities via interaction and self-presentation on social media (Barker, 2012; Cover, 2012). Older LGBTQ adolescents and young adults develop on- and offline peer support networks to overcome adversity and enhance psychological health and well-being in the face of social isolation, stigma, and discrimination (Harper et al., 2015; Selkie et al., 2020). In contrast, social media is not always a safe environment for gender diverse adolescents as harmful and exclusionary behaviours online have been regularly reported by these young people (Selkie et al., 2020). Peer support has been noted

as an important protective factor against poor mental health especially among LGBTQ communities (Hatzenbuehler, 2011; Russell & Fish, 2016). LGBTQ individuals are at higher risk of alcohol and substance abuse, mood disorders (e.g., anxiety and depression), PTSD, psychiatric comorbidities, self-harm, and suicidal ideation (Hatzenbuehler, 2011; Russell & Fish, 2016).

Some LGBTQ youth are uncomfortable seeking help from friends and family and prefer to seek help online (McDermott, 2015). Thus, LGBTQ youth may use social media to explore and develop their sense of identity and connection with LGBTQ networks (Byron et al., 2019; Hanckel & Morris, 2014). Limited partner options may also be a reason LGBTQ youth prefer approaching people online (Hillier et al., 2012). LGBTQ youth can also access information and support via these social networks (Byron et al., 2017; Byron et al., 2019). For example, transgender youth can view vlogs documenting medical gender affirmation processes, or seek emotional support from peers (Byron et al., 2019). LGBTQ youth make use of these networks to reduce feelings of isolation and stigmatisation due to the pervasive impacts of a cisgenderist and heteronormative social environment (Hanckel & Morris, 2014). Social media can also help connect LGBTQ individuals living outside of metropolitan locations (Gray, 2009). Although social media may be safer now than in the past for exploring diverse sexualities and genders, it is still common for LGBTQ people to report negative experiences online including discrimination, abuse, racism, and coercion (Aggleton, Cover, Leahy, & Rasmussen, 2018; Albury, McCosker, Pym, & Byron, 2020; Lucero, 2017).

Little is known about LGBTQ support networks on social media, including the benefits and motivations for LGBTQ adolescents using social media, although positive impacts have been identified (Hanckel et al., 2019). This study builds on this limited amount of previous research by seeking to better understand LGBTQ young people's relationships in their online

and offline networks (Lim et al., 2019). The analysis reported in this paper focuses on the ways LGBTQ adolescents made use of social media for exploring identity and seeking support from other LGBTQ peers.

## **4.2 Results**

### *4.2.1 Demographics*

The sixty-one participants who completed baseline interviews were aged between 14 and 17 years at enrolment with a mean age (M) of 16.18 (standard deviation (SD) = 0.87). At midpoint ages ranged between 15 and 18 years (M(SD) = 17(0.92), and endpoint ages ranged from 17 to 19 years (M(SD) = 17.9 (0.95) Fourteen were presumed male at birth and 47 presumed female at birth. At the time of entry into the study, 13 identified as cisgender male, 41 as cisgender female, 4 as non-binary and 3 as transgender men. Most (n = 56) were still enrolled in school with 26 attending private/independent schools, 24 public/government schools and 6 Catholic schools. Almost half (n = 25) identified as sexuality diverse (3 lesbian, 2 gay and 20 bisexual). Table 4 provides characteristics of participants. Sexual attraction descriptions were collected at endpoint, after 11 participants had opted out of the study, and attraction statuses had changed among some. Facebook was the most used platform among participants in seeking social support, followed by Tumblr.

Table 4  
Demographics of participants

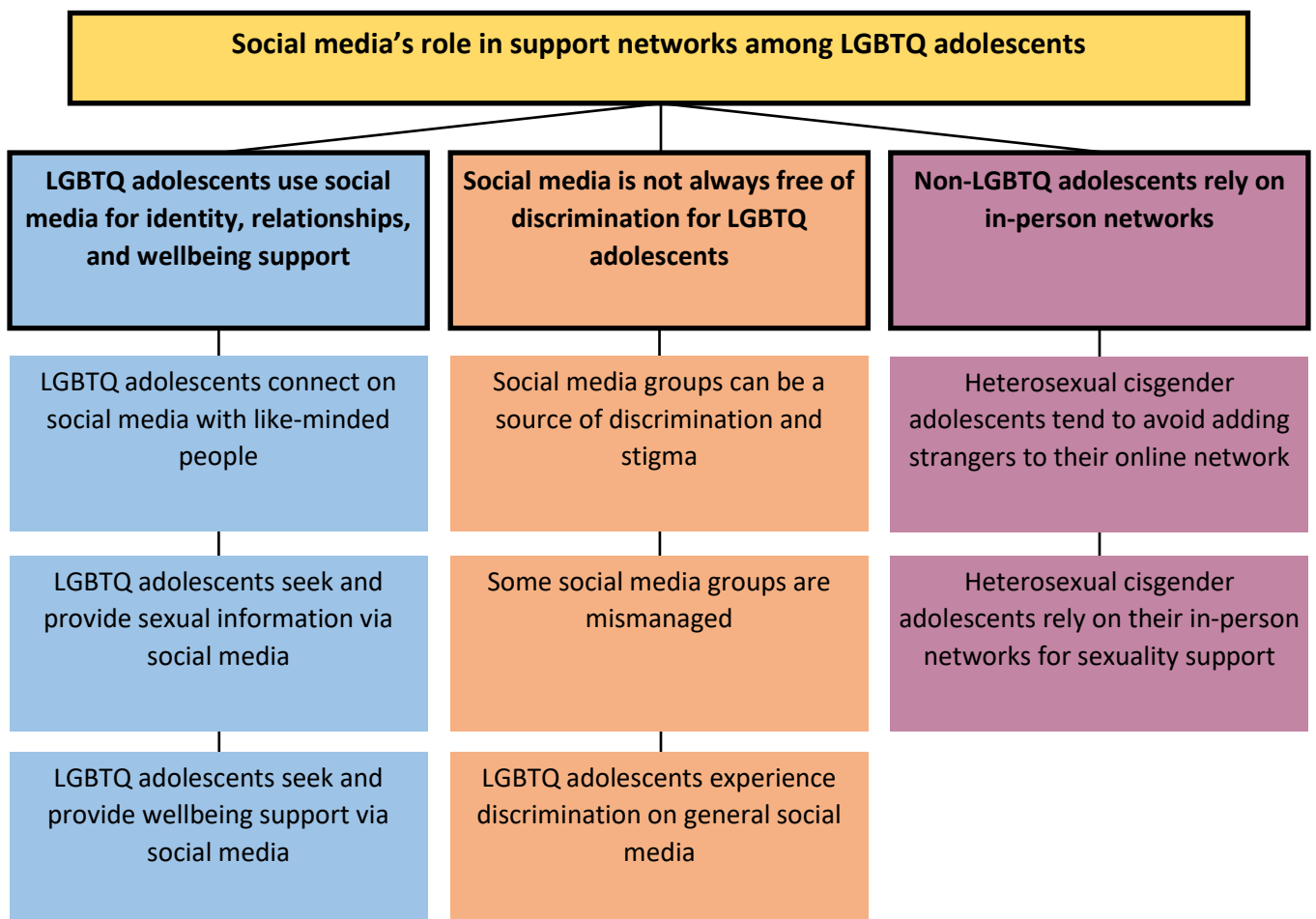
	<b>N (%)</b>
<b>Age</b>	
Count (n)	61
Mean (SD)	16.18 (0.87)
Range	14 – 17
<b>Race</b>	
Aboriginal or Torres Strait Islander	2 (3%)
Neither	59 (97%)
<b>Gender Presumed at Birth</b>	
Male	14 (23%)
Female	47 (77%)
<b>Gender Identity</b>	
Male (Cisgender)	13 (21%)
Female (Cisgender)	41 (67%)
Transgender men	3 (5%)
Non-binary	4 (7%)
<b>Attraction</b>	
Attracted to Different Gender Only	34 (56%)
Attracted to Same Gender Only	5 (8%)
Attracted to More than One Gender	19 (31%)
Questioning	3 (5%)
<b>School Type</b>	
Attending	56 (92%)
Not Attending	5 (8%)
Public / Government School	27 (44%)
Private / Independent School	28 (46%)
Catholic Non-Government School	6 (10%)
<b>State/Territory</b>	
Australian Capital Territory	2 (3%)
New South Wales	45 (74%)
Queensland	3 (5%)
South Australia	3 (5%)
Victoria	4 (7%)
Western Australia	4 (7%)
<b>Metropolitan or Rural</b>	
Those living in metropolitan areas	39 (64%)
Those living in rural areas	21 (34%)
Those living in split areas	1 (2%)

Note: Percentages have been rounded to whole numbers.



Three themes and eight subthemes were identified from qualitative interviews which describe participants' experiences, see figure 3. The overarching themes were LGBTQ adolescents use social media for identity, relationships, and wellbeing support, social media is not always free of discrimination for LGBTQ adolescents, and non-LGBTQ adolescent rely on in-person networks. LGBTQ use of Facebook groups was not specifically asked as part of the interviews but was voluntarily discussed by many participants.

Figure 3  
Thematic map of overarching themes and subthemes.



#### 4.2.2 LGBTQ adolescents use social media for identity, relationships, and wellbeing support

##### *LGBTQ adolescents connect on social media with like-minded people*

LGBTQ adolescents used social media, in particular Facebook, to form groups to make connections. Facebook allows its members to create online spaces where users can join and interact with each other; these can be private groups or open to anyone on the platform. LGBTQ Facebook groups varied in size, with some up to approximately 1,000 members. Alternatively, there were Facebook subgroups around an interest or a particular gender identity; “specifically for transgender people and a lot of random ones like gardening” (Alex, 17, transgender man, attracted to different gender only, baseline). Some groups are location-specific, facilitating in-person meetings or events such as rallies.

*“One of them is called [group name] which started at the end of last year, it has thousands of queer kids from [the city], or all of Australia.”* (Beth, 17, female, attracted to same gender only, baseline)

The ability to message other group members directly facilitated the formation of friendships online. Members also had the opportunity to create friendships offline through group events or one-on-one meet ups. Individual “meet ups” were conducted “in very public spaces so that it is safe” as Alex (17, transgender man, attracted to different gender only, baseline) mentioned, demonstrating their awareness for safety. For some, friendships were made through these groups with people who identified with a similar sexuality and/or gender.

*“On this group, it’s really good because everyone has been able to make friends within that community because of that group.”* (Alex, 17, transgender man, attracted to different gender only, baseline)

*“My friendships have doubled ever since I joined [group], I try to at least meet them in real life.”* (Pat, 15, non-binary, baseline)

Some participants described the difficulties they experienced in finding peers with shared experiences in their offline groups for this purpose. In-person networks of cisgender and heterosexual individuals could be alienating for LGBTQ participants; they were not able to discuss topics of unique relevance to LGBTQ populations and so would avoid discussions. Social isolation and stigmatisation were described as a cause for poor mental health. As Michael (16, transgender man, attracted to different gender only, baseline) noted *“it [poor LGBTQ mental health] is because people go to Catholic school or they live in communities that aren’t LGBTQ tolerant”*. To combat social isolation, adolescents described turning to social media to connect to the LGBTQ community. Michael (16, transgender man, attracted to different gender only, baseline) described social media as *“a really good tool for socially awkward people to not feel isolated”* which could allow LGBTQ adolescents feel relatable. Many friendships from these groups were maintained over time, *“I am still friends with a lot of people that were in it [LGBTQ group] and everyone still know each other”* Alex (18, transgender man, attracted to different gender only, endpoint). An example of how adolescents feel disconnected and relate more to those on LGBTQ Facebook groups:

*“It [school] is mostly middle class snobby private school people who I don’t really relate to. Who aren’t great on queer issues, but I guess with this new group of people we have similar interests and we are more likely to connect.”* (Michael, 16, transgender man, attracted to different gender only, baseline)

Social media was also perceived as creating an environment conducive to discussing sensitive topics, including mental health concerns, sexual experiences, or relationships. Some described feeling less open or comfortable discussing these topics in-person.

*“Without social media probably would not be so open, social media means that you’re open to a whole lot of conversations that you weren’t going to have face-to-face.”* (Dakota, 16, female, attracted to more than one gender, baseline)

Romantic relationships can also be formed in LGBTQ online groups. Micah (17, non-binary, questioning, baseline) explained that *“there are 2 or 3 couples within that group”* and Alex (17, transgender man, attracted to different gender only, baseline) mentioned that relationships *“happen a lot in the group”*. Alex (17, transgender man, attracted to different gender only, baseline) further explained that *“people would be forming relationships through these groups then being able to meet up”*. Being connected to other adolescents who share sexual preferences will allow them to initiate contact, develop a connection and meet in-person. Online friendships developed through virtual interactions and could be strengthened by having similar interests or experiences. LGBTQ adolescents appeared more comfortable compared to non-LGBTQ making online connections with people they had not met, for example:

*“I met quite a few people online actually, I was like ‘cool, yeah strangers, that’s fine.”*  
(Tessa, 17, female, attracted to more than one genders, baseline)

#### *LGBTQ adolescents seek and provide information via social media*

Some LGBTQ adolescents prefer receiving sexual health information from internet sources including social media. This is due to its accessibility and due to feeling uncomfortable approaching parents or their offline network. Some reported feeling that it is not safe to approach their parents and potentially alert them to a stigmatised sexual or gender identity. Additionally, participants may have felt more informed when asking questions of those who possess information relevant to the sexuality and/or gender. Below are examples of rationales for sexual information from social media:

*“I think it’s a bit nicer because sometimes it’s not safe for you to go to your parents, it just makes it more accessible for everyone.”* (Beth, 17, female, attracted to more than one genders, baseline)

*“I did not get very good sex education in school; it came from friends, and everyone was bisexual. It allowed me to think maybe I am not straight either.”* (Ellie, 17, non-binary, baseline)

Social media sources of sexual health information included group communications (e.g., commenting on posts) and sharing and/or creating websites and videos through Facebook, Instagram, Tumblr, and YouTube. Sydney (15, female, attracted to more than one genders, baseline) stated *“from Tumblr, I learned a lot about sexuality and gender”*. In at least one instance, to share information regarding sexually explicit content; Ellie (17, non-binary, baseline) used Tumblr to share pornography *“it’s BDSM [bondage, discipline, sadism, and masochism] and lesbian stuff, I don’t post my own stuff, just other people’s”*. YouTube was less commonly used for sexual information as users would have to intentionally search for relevant videos. Mobile dating applications and alternative sexuality forums were used for peer support and learning; Ellie (17, non-binary, baseline) stated *“FetLife, that’s where I get a lot more information ... [it] is a better place to meet people who know what they are talking about”*.

*“I like that there are so many platforms of learning stuff, there are people that have come into the [group] not knowing anything, and within a couple of weeks have been brought up to speed.”* (Beth, 17, female, attracted to same gender only, baseline)

*“I was very self-taught; I watched a lot of YouTube videos. It taught me a lot about the myth about popping the cherry and the violence behind virginity, I learned most of my safe sex practices through there.”* (Zara, 17, female, attracted to same gender only, baseline)

### *LGBTQ adolescents seek and provide wellbeing support via social media*

LGBTQ adolescents engaged with others and gained knowledge or support from these peers. LGBTQ participants demonstrated that social media can be a powerful tool in constructing a support network; *“our community is more vulnerable in the world so we’re going to turn to social media for support with one another”* Lee (16, transgender man, questioning, baseline). Most LGBTQ participants who had been in these groups noted that people within the community suffered from mental health issues. This included depression and suicidal ideation; as Michael (16, transgender man, attracted to different gender only, baseline) mentioned *“almost all of my friends are suicidal, it is not funny”*. Some participants became accustomed to helping LGBTQ peers; *“I am really adapted at helping them through their problems as we do not see each other often, social media is a really helpful platform”* (Michael, 16, transgender man, attracted to different gender only, baseline). Users can post their concerns into the group where all members can view or be notified; this allowed quicker responses.

*“[There are] smaller groups that are interest specified, so for reading, mental health support, it’s a very loving and supportive community.”* (Sunny, 16, non-binary, baseline)

Social media groups were perceived as safe for LGBTQ participants to escape discrimination. Users engaged and interacted with like-minded peers where they felt accepted and supported. Group members sought support if they feel upset by exposure to stigma. These ‘loving environments’ appear to be useful in supporting mental health.

*“It is sort of like a little hub where you can go to get away from people who are intolerant.”* (Michael, 16, transgender man, attracted to different gender only, baseline)

*“We gravitate towards each other, and the group is set up to be a safer space for everyone, it’s a really nice space and you can talk about anything.”* (Micah, 17, non-binary, questioning, baseline)

Social media was convenient for LGBTQ participants to connect promptly. It could be tailored and followed up with other methods including phone calls or meeting in-person. As Lee (16, transgender man, questioning, baseline) pointed out *“it’s more convenient as we are all spread out – we have our place to congregate even if it’s not a physical setting. If someone is struggling with something, they will put it in there and it’s just easier to support them”*. Being online is an important factor in these groups to reach a larger number, as Micah (17, non-binary, questioning, baseline) noted *“if it was face-to-face, it might exist, there might be fewer people”*.

#### *4.2.3 Social media is not always free of discrimination for LGBTQ adolescents*

##### *Social media groups can be a source of discrimination and stigma*

Concerns were expressed by participants about the fact that stigma and discrimination also existed within the LGBTQ groups. For example, Beth (17, female, attracted to same gender only) described some other social media users expressing *“elitism”* within the group: *“there have been people thinking they are better than others, and others saying, ‘you cannot be in here, you are not gay enough’”*. Racism and transphobia were also mentioned; *“I get racist comments”* (Michael, 16, transgender man, attracted to different gender only); *“there was a lot of racism and transphobia within the group”* (Micah, 17, non-binary, questioning). Some users would engage in arguments within the group about sensitive topics such as *“body positivity and gender,”* as mentioned by Beth (17, female, attracted to same gender only). Asexuality and sexual ‘kinks’ could be stigmatised, adding to feelings of social isolation for

some people. Below are examples of these issues coming up in the LGBTQ Facebook groups:

*“There was recently ‘beef’ about whether asexual belongs to the LGBT community and a lot of people got angry towards the person who posted that, and that person retaliated, and it just got really messy.”* (Michael, 16, transgender man, attracted to different gender only)

*“There is a subgroup for kinks, but I have had to deal with quite a bit of kink shaming.”* (Beth, 17, female, attracted to same gender only)

Many participants who had experienced stigma in social media groups reported leaving and joining a smaller or more geographically specific group. Michael (16, transgender man, attracted to different gender only) mentioned that *“people left that group and started another group with nice people, and so did I”*. This was described as an effective measure to prevent further negative interactions among participants.

#### *Some social media groups are mismanaged*

One of the highlighted issues in Facebook groups was that they were often created and moderated by other adolescents. As Alex (17, transgender man, attracted to different gender only) explained:

*“it’s not good for teenagers to have this much authority ... sometimes lines are crossed ... the admin [group administrators] are still just teenagers like the rest of us, they usually just see it and go ‘gosh, I don’t know what to do’. It just gets swept aside”* (Alex, 17, transgender man, attracted to different gender only).



Participants believed some of these groups were consistently problematic, describing some as “*infamous*” and with users who “*wanted to stir things up*” (Michael, 16, transgender man, attracted to different gender only). These larger groups were commonly associated with experiences of discrimination, including racism. Smaller groups appeared to combat these kinds of issues by implementing strict rules regarding how you can join groups and increasing the number of administrators. Administrators are those in charge of groups and can also act as moderators (Ellison, Steinfield, & Lampe, 2007). Micah (17, non-binary, questioning) explained that one group had:

*“Three administrators and it is a secret group, if we want to add anyone, we have to talk about it with every other member. People who are not sensitive about other people’s feelings or have a tendency to bully other people are just not allowed in at all”.*

#### *LGBTQ adolescents can experience discrimination on general social media*

Social media was noted to be the source of discriminatory communication targeting LGBTQ individuals. “[*People*] give opinions that attack me personally as an LGBTQ person” (Ellie, 17, non-binary, baseline). Anti-LGBTQ sentiment can come in the form of posts or comments from individuals, groups, or organisations. Exposure to negative material on social media was perceived as contributing to poor mental health of LGBTQ adolescents. As Beth (17, female, attracted to same gender only, baseline) described, some people are “*sad and mad*” and have a “*f\*\*k the world*” view. Participants noted that anti-LGBTQ comments would be more prevalent online compared to in-person as, Ellie (17, non-binary, baseline) stated “*people would not dare say some of that stuff face-to-face*”. Beth (17, female, attracted to same gender only, baseline) experienced abuse using a mobile dating application as those identifying as heterosexual could see her account and that she was seeking women. Beth (17, female, attracted to same gender only, baseline) received a

message “if you are not interested in boys, why can I see you, obviously you are one of those people that think it is hot to be that”. Other abuse included comments on weight and body appearance. Anti-LGBTQ material on social media does not only affect LGBTQ adolescents:

*“I have a friend on Facebook, he is horrible. He will share things [anti-LGBTQ page] about transgender people; this photo of a creepy looking person identifying as a woman wanting to come to the bathroom with your child with comments like ‘haha’. If I was transgender, I would be really offended.”* (Nerida, 17, female, attracted to different gender only, baseline)

Some users developed coping strategies to counter the negative effects of viewing discriminatory social media posts. Strategies raised by participants included unfollowing the source or focusing on alternative activities such as watching television or exercising to distract oneself. Beth (17, female, attracted to same gender only, baseline) described some strategies to distract herself including “*binge watching a show, turning off the internet and immersing in the real world*”. These avoidance strategies can be useful in reducing frustration and avoid conflicts as noted here:

*“There are still situations where I have to think about what I am getting myself involved with. I have to stop and admit defeat because it is just too much. You do not want to be having to go to school the next day and receive death threats from some random person at night.”* (Beth, 17, female, attracted to same gender only, baseline)

#### *4.2.4 Non-LGBTQ adolescents rely on in-person networks*

*Heterosexual cisgender adolescents tend to avoid adding strangers to their online network*

Most non-LGBTQ adolescents were apprehensive about adding people to their social media network unless they had mutual friends on social media or if they had met in-person. Adding strangers was seen as potentially dangerous.

*“I get a lot of people from other countries that friend request me, and I have no idea how they even come across my profile because we have no mutual friends and that kind of scares me. I obviously would decline those requests because that is a bit creepy.”* (Josie, 15, female, attracted to different gender only, baseline)

Compared to non-LGBTQ participants, LGBTQ participants were more likely to connect with strangers online. Many participants discussed how online communication was less genuine due to the lack of seeing a face and hearing a voice. This was especially true for sensitive topics (e.g., sexual information) as *“that sort of stuff is just awkward to talk about on Messenger [Facebook]”* (Daphne, 17, female, attracted to different gender only, baseline). Some appreciate the effort of organising a meeting as *“it is very easy for everyone to send a message and not as easy to go and talk to someone”* (Jade, 15, female, attracted to different gender only, baseline). The most significant issue with online messaging was misunderstandings and the risk of offending someone particularly with sarcasm or jokes. One method that was discussed in-depth was the use of emojis, voice calling/messaging and video chats.

*“People are becoming more careful with what they write and then obviously now we have emojis, they are a little picture add to help you interpret the way it is meant to be said.”* (Tatiana, 16, female, attracted to different gender only, baseline)

*Heterosexual cisgender adolescents rely on their in-person networks for sexuality support*

Non-LGBTQ adolescents did not discuss social media as a support network, but instead for its primary use of connecting with (offline) friends. Non-LGBTQ adolescents did not mention feeling isolated or relying on online support networks for sexuality and sexual information. Some adolescents were comfortable talking with their parents or other family members but most preferred talking to friends or searching the internet. Friend groups were commonly offline, and discussions of sex were based on experiences or online information.

Heterosexual cisgender adolescents expressed higher satisfaction with sexual health education than LGBTQ peers:

*“Our PDHPE [personal development, health, and physical education] department is really supportive and like the best faculty where you can just go and talk to them if you need to, and it is really good.”* (Ysabelle, 16, female, attracted to different gender only, baseline)

#### **4.3 Discussion**

This analysis found that social media networks are perceived as an effective method for securing social support among LGBTQ adolescents. Our findings indicate that LGBTQ adolescents view social media as protective against commonly experienced mental health issues. However, LGBTQ participants also reported experiences of discrimination, including homophobia, transphobia, and racism in larger LGBTQ Facebook groups, indicating that these virtual ‘safe spaces’ are not immune to facilitating negative interactions. This study described the many ways that social media is utilised by LGBTQ adolescents for prosocial activities. LGBTQ participants use social media to find friends and romantic partners and to facilitate in-person connections. LGBTQ participants tended to be more dissatisfied with the information on sex, relationships, and sexual health they could secure through online sources, including through social media.

As Tiidenberg and colleagues (in press, 42) note, most popular social media platforms (including Facebook and Tumblr) offer a range of similar affordances, or ‘possibilities for action’ – including the capacity to easily share, archive and search for multi-modal posts (i.e., written text, photographs, screenshots, and video) (Tiidenberg, Hendry, & Abidin, 2021). In terms of peer-support for LGBTQ+ young people, there are some key differences between Facebook’s affordances, and those of Tumblr (Tiidenberg et al., 2021). While public Facebook profiles are easily accessible and searchable, Facebook’s ‘real name’ policy, and policy of facilitating connection through automated recommendations (i.e., ‘People You May Know’) can compromise LGBTQ+ young people’s privacy and security (Hanckel et al., 2019; Tiidenberg et al., 2021). In contrast, Tumblr facilitates anonymity, but does not offer the same capacity for young people to easily search for specific local communities (Hanckel et al., 2019). Hanckel and colleagues (2019) have observed that these diverse platform affordances require young people to carefully curate their online accounts in order to meet their specific contextual needs (Hanckel et al., 2019).

Social media is associated with increased connectivity and social capital with benefits for wellbeing (Chong et al., 2015; Nabi, Prestin, & So, 2013; Vitak & Ellison, 2013). The findings of this study support previous research that has found social media can offer a safe environment for LGBTQ adolescents (Byron et al., 2017; Chong et al., 2015; Hanckel & Morris, 2014; Lucero, 2017). Research has shown that LGBTQ adolescents are at risk for mood disorders, PTSD, other mental illnesses, and alcohol and substance abuse (Hatzenbuehler, 2011; Russell & Fish, 2016). Online platforms are associated with reduced stigmatisation compared with offline alternatives, thus improving the potential for positive mental health benefits for users (Ceglarek & Ward, 2016; Chong et al., 2015). Online representations of LGBTQ individuals and communities can validate these identities and experiences, as we see in the popularity of YouTube and Instagram accounts documenting medical gender affirmation processes) (Gomillion & Giuliano, 2011; Selkie et al., 2020).

Although LGBTQ representation is becoming more common in media platforms of all kinds, these sexual and/or romantic journeys are less commonly portrayed, and negative representations of transgender people remain common (Hughto et al., 2021).

Our findings demonstrate the potential positive effects of social support through social media on LGBTQ adolescents which may result in improved mental health outcomes. Adolescents who do not access online groups are at risk of social isolation unless they have an in-person support network (Escobar-Viera et al., 2018). Social isolation is compounded by a lack of belonging and heightened by contributing factors (stigma, heterosexual norms, or rejection) (Garcia et al., 2020). Social and/or physical isolation, and lack of mental health support, can be particular risks for mental health issues among LGBTQ people who are living in regional and remote locations (Farmer, Blosnich, Jabson, & Matthews, 2016; Garcia et al., 2020; Gray, 2009; Horvath, Iantaffi, Swinburne-Romine, & Bockting, 2014). Social media or online groups are not geographically restricted and have the ability to cater to those in rural and remote areas (Babbage, van Kessel, Terraschke, Drown, & Elder, 2020; Gray, 2009). This is especially pertinent in times when physical isolation is more pronounced, such as during periods of restrictions on movement due to the COVID-19 pandemic (Fish et al., 2020). Young people have felt more isolated, alone, and overwhelmed due to COVID-19 restrictions (Byron, Robinson, Davies, & D'Souza, 2021; Lim, 2021). Attention to maintaining the mental health of LGBTQ adolescents whilst in isolation should be a priority due to their vulnerable state (Byron et al., 2017; Fish et al., 2020).

In line with previous research, we found that LGBTQ youth use social media to connect with others and seek romantic partners more than non-LGBTQ peers (Hillier et al., 2012). Participants described how connections are initiated by exploring shared experiences or interests. This is likely due to the reduced number of romantic options and social risks

associated with disclosures, as LGBTQ youth are a stigmatised minority (Hillier et al., 2012). Our findings reflect similar patterns with LGBTQ adolescents using Facebook groups to communicate and organise individual meetings or group events. Ethical and privacy concerns were also motivating some participants to leave Facebook and use alternative social media platforms (Whitehead, 2020). This suggests that this study may not capture all of the ways in which young people use current forms of LGBTQ social media, including Facebook.

Anti-LGBTQ attitudes are often expressed by communities, families, religious groups, and schools (Higa et al., 2014; Russell & Fish, 2016). This has been shown to impact LGBTQ community involvement, networks, and identity development (Higa et al., 2014; Russell & Fish, 2016). Strategies to eliminate or at least reduce prejudice in individual attitudes and institutions can lead to a strengthened sense of identity, community, belonging, and mental health (Higa et al., 2014; Russell & Fish, 2016). Legislation may prove useful in preventing or reducing mental health issues (Berger, Reupert, & Allen, 2020). Within our study, negative attitudes were present on social media such as in news articles or in friends' posts with discriminatory comments. Popular Facebook groups within this study were also not immune to discriminatory views being expressed. In combatting these negative experiences, participants would join other groups which were often smaller and with stricter rules. Our study also described how some inexperienced peer group moderators were unsuccessful in preventing negative LGBTQ sentiments.

#### *4.3.1 Strengths and limitations*

This study has a number of strengths. Even though the SNAP study did not specifically seek to recruit this group, a high proportion of participants identified as LGBTQ (51%). To our knowledge, this study is the first to address specific issues relating to the experience of

participating in LGBTQ social media groups. Some LGBTQ participants shared the study advertisement within their LGBTQ networks. The longitudinal nature of the study allows for maturation of social media experience, reflections across time and further exploration of key areas as they emerged. Limitations included that recruitment was primarily via Facebook and Instagram, and so users of other social media and non-users may not have been captured. Those adolescents not comfortable discussing sexual topics would likely also not have participated. Lastly, baseline questionnaires only asked about attraction rather than sexuality, and although subsequently this was rectified in the endpoint questionnaires, participation had dropped by 15%.

#### *4.3.2 Implications*

These findings help to expand our understanding of how LGBTQ adolescents connect and support peers, and potential issues associated with participation in social media platforms. It is vital that professionals working with LGBTQ adolescents, including clinicians, support workers, teachers (i.e., sex education) and policy makers, be made aware of the advantages and disadvantages of social media groups for this group of young people. Professionals should be aware of the effect adults have in online adolescent groups. Rather than having adult moderators, support could be offered to those peers already acting as group administrators (e.g., mental health first aid and mental health hotlines). Inexperienced peers currently managing groups may benefit from this support. Professionals may be willing to refer adolescents to more reputable and well managed groups run by adolescents to avoid negative interactions. This would help in avoiding the mismanagement and potentially hostile nature of some groups. Adolescents appreciate spaces where adults are not present, to engage openly with their peers (Steinfeld, Pentland, Ackerman, & Contractor, 2007).



### *4.3.3 Conclusion*

Social media is fundamental to supporting adolescents as they learn to socialise, develop identities, and experience their world. Our study showed that LGBTQ adolescents use social media in ways that can provide positive influences on wellbeing. Awareness of LGBTQ use of social media highlights areas for support that can be addressed by professionals. It is important to support wellbeing and improve mental health in this vulnerable population.

## Chapter 5: “Everyone Pretty Much Does It” – Adolescents’ Attitudes Towards Flirting and Dating Apps

### 5.1 Introduction

Sharing sexually explicit content of oneself is often described as ‘sexting’ and can be presented in an image or video format (Van Ouytsel, Walrave, Ponnet, & Heirman, 2015). There are various interpretations of the definition of sexting but, there is a consensus that it involves the sending or receiving of sexually explicit content through text or the internet (Barrense-Dias et al., 2017; Klettke, Hallford, & Mellor, 2014). Sexting activities can involve nudity or partial nudity of an individual, couples, or groups which may include performing a sexual activity such as intercourse or masturbation (Walker, Sanci, & Temple-Smith, 2013). Adolescents may engage in sexting for a number of reasons including boredom, entertainment, long-distance relationships, and sexual experimentation (Walker et al., 2013). Some are also motivated due to the risk involved and the appeal of possible illegality; “I feel like a badass if I do it because it’s illegal” (Walker et al., 2013, p. 699).

Participating in sexting is generally viewed more positively among males compared to females among adolescents (Lippman & Campbell, 2014). For females sexting is associated with poorer reputation, creating a double standard as sexting among males is seen as status (Del Rey, Ojeda, Casas, Mora-Merchán, & Elipe, 2019; Walker et al., 2013). Females have a higher possibility of negative outcomes including description as “whores”, “sluts” or “skanks” (Walker et al., 2013, p. 699). Some will blame the sexting female suggesting she deserve the negative fallout (Walker et al., 2013). Some young people have described sexting as offensive and an issue that needs to cease (Walker et al., 2013). Some have been noted to share sexts of others non-consensually with friends, online sites, or publicly as revenge (Walker et al., 2013). Male coercion of females to send sexts occurs, with threat of violence in some circumstances (Lippman & Campbell, 2014). Some who feel pressured send sexts

as proof of their commitment or to reciprocate by returning a sext (Lippman & Campbell, 2014).

Sexting may occur commonly among adolescents as it is a period of curiosity about new experiences (Del Rey et al., 2019). Sexting can be associated with negative experiences and have effects on an individual's mental health and wellbeing (Gassó, Klettke, Agustina, & Montiel, 2019; Mori, Temple, Browne, & Madigan, 2019). Some negative experiences of sexting include non-consensual use of images for cyberbullying, dating violence, or revenge pornography (Gassó et al., 2019; Mori et al., 2019). Sexting is more commonly reported by those with multiple sexual partners, who smoke, use substances, and in younger adolescents – those who have emotional issues (Mori et al., 2019). The primary mental health concerns that occur more commonly with sexting include anxiety, depression, and suicidal ideation (Gassó et al., 2019). Higher self-esteem is associated with reduced reporting of concerning sexting practices such as non-consensual sharing of sexts (Scholes-Balog, Francke, & Hemphill, 2016). Furthermore, high sensation seeking in young people was associated with higher odds for creating and sharing sexts (Scholes-Balog et al., 2016).

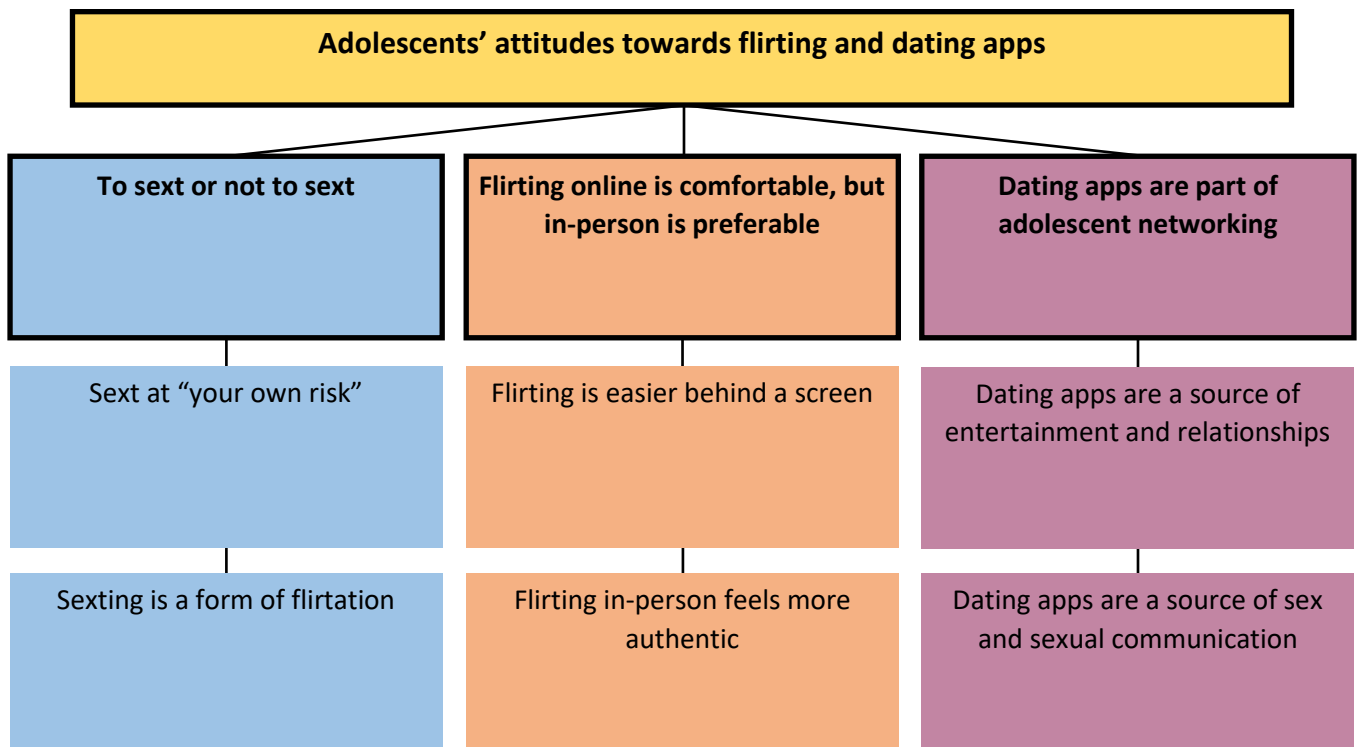
There is limited research on flirting and dating app use in adolescents, possibly due to the taboo nature. Flirting has been defined as amorous behaviour and communication for entertainment, sexual urges, or invitation to sexual activity (Koeppel, Montagne-Miller, O'Hair, & Cody, 1993; Wade, 2018). There are limited studies with many studies restricted to those aged  $\geq 18$  years and a lack of qualitative research on sexting in adolescence (Gassó et al., 2019; Van Ouytsel, Walrave, & Ponnet, 2018). Many studies of sexting fail to distinguish consensual from non-consensual sexting and do not measure mental health (Gassó et al., 2019). This study aims to explore adolescents' experiences and perceptions of sexting, flirting online versus in-person, and dating app use. It aims to explore the positive

and negative aspects of these practices and their potential impact on mental health and wellbeing. Participant data was collected as part of the SNAP study, and with analytical methods described in *Chapter 4* (4.2.1)

## 5.2 Results

This section is separated into three overarching themes linking flirting, sexting, and dating app use, illustrated in figure 4. The first overarching theme, ‘to sext or not to sext’ explores the experiences and perceptions of participants regarding the risks and potential benefits of sexting. Next, in ‘adolescents prefer flirting online’ we explore preferences and perceptions of flirting online and offline. Lastly, ‘dating apps are a part of adolescent networking’ looks at the influence of dating apps in connecting with others for friendships, romantic partners, or casual sex.

Figure 4  
Thematic map of overarching themes and subthemes.



### 5.2.1 To sext or not to sext

#### *Sext at “your own risk”*

Several participants indicated that sexting was common practice among their networks for various reasons. Participants, particularly females felt there was peer pressure to engage in sexting from males. Several female participants reported being pressured by males to reciprocate their sexts. Typically, users encounter sexts from strangers or intoxicated partners and will either ignore or block the user’s account. Sexting was also commonly reported on gay dating apps like Grindr, *“with Grindr it’s bam, picture of my genitals”* (Micah, 17, non-binary, questioning, baseline). Some participants were offended by the way other users would communicate or send unsolicited sexts. Amelia (17, female, attracted to different gender only, baseline) reported that she received *“a notification ‘I want to f\*\*k you up the bum’ ... that is disgusting... you would never talk to someone like that in real life without expecting to be slapped”*. Below are a couple of extracts of unsolicited sexual interactions:

*“People send nudes all the time, they can go from being nude to just a sexy picture, and everyone pretty much does it”* (Denise, 17, female, attracted to different gender only, baseline).

*“They sent dick pics and say, ‘give me something back’ and it is like ‘I never asked, go away’. We are very familiar with the block button”* (Tania, 17, female, attracted to more than one gender, baseline).

Participants often referred to Snapchat as a social media platform preferred for sexting or alternatively dating apps; *“I would say it [sexting] is common, especially Snapchat”* (Carlee, 17, female, attracted to different gender only, midpoint). Snapchat was preferred as images can be time limited and the app will notify the sender if the receiving party screenshots their image. Participants thought that there was an unspoken agreement that screenshotting on Snapchat is not acceptable. Unsolicited sexts were received by many female participants on social media platforms and commonly described this act as *“gross”* and *“disgusting”*. In some

instances, users would act friendly and flirt with an individual with the long-term goal of obtaining sexts. Several participants described their experiences of their friends sending sexts which were shared without consent around school with police being involved. Sharing sexts without consent was not limited to their school, as one stated *“guys would take naked pictures from girls and send it all around Australia”* (Sunny, 16, non-binary, baseline). Additionally, some noted a lack of knowledge regarding the legality of sharing images of young people who are under the age of consent.

*“Some boys at my old school had some folders full of a hundred girls’ nudes and they were so proud”* (Tessa, 15, female, attracted to more than one gender, baseline).

*“One person sent it [sext] to heaps of people and police had to come and he got expelled”* (Miles, 16, male, attracted to different gender only, baseline).

*“When I was younger, I got into a bit of trouble because I didn’t understand that there was a rule against sexting, I didn’t know that it was a law”* (Beth, 17, female, attracted to more than one gender, baseline).

Sharing sexts without the sender’s consent was a regularly discussed issue among participants from friends’ or their own experiences. Josie stated that *“they [schoolmates] go ‘he or she could use this and show it to their friends’, and they go ‘no that wouldn’t happen’ although it does all the time”*. Many participants recalled professionals (e.g., police) attending their schools to provide information on the risk of sexting and other risk-taking behaviours. Some participants also mentioned that younger adolescents *“haven’t learned about the danger of it [sexting]”* (Nicole, 17, female, attracted to more than one gender, baseline). One participant explained that they started sexting at *“probably 14 [years old]”* (Tessa, 15, female, attracted to more than one gender, baseline).

*Sexting is a form of flirtation*

Sexting can be a method for flirting; for example, Josie (15, female, attracted to different gender only, baseline) noted that *“this girl at school who did that [sexted] with someone she was trying to get with”*. Sexting may be considered a type of flirting online as Ivanna (15, female, attracted to different gender only, baseline) mentioned *“they want to take things further and start getting explicit pictures online”*. One participant pointed out the different rules for behaviour between sexting and its direct in-person translation by criticising behaviours of others using dating apps:

*“Can you imagine doing this at a bar? ‘Hey, you seem attractive, here is my penis’, it doesn’t work whereas on Tinder it is possible for hundreds of guys to send photos of their genitals”* (James, 18, male, attracted to different gender only, endpoint).

Sexting was not always perceived as a negative practice and often was used particularly among those in distance relationships. Romantic partners in distance relationships used sexts as a method to stay intimately connected. Alternatively, sexting with your romantic partner could be a form of entertainment. For example, James (16, male, attracted to different gender only, baseline) stated *“it [sexting] can be a joke if you are doing it with your partner – it can be a fun thing”*. Trust and comfort were considered important factors in safe sexting practice as Alexis (17, female, attracted to different gender only, baseline) *“if you trust them, I don’t see an issue with it [sexting], if you are comfortable and they are comfortable, and you trust them it is fine”*.

*“If I am about to have a shower, I might randomly send [partner] a picture of myself”* (Ellie, 17, non-binary, baseline).

*“I send them [sexts] just because they are fun and I like them, but he wouldn’t be fussed if I sent them or not”* (Tessa, 15, female, attracted to more than one gender, baseline).

### 5.2.2 Flirting online is comfortable, but in-person is preferable

#### *Flirting is easier behind a screen*

Approaching and flirting with people participants were interested in was considered significantly easier through social media; *“it [flirting] is a lot easier online”* (Alma, 16, female, attracted to different gender only, midpoint). Social media was a useful tool for initiating a flirtatious interaction with potential partners possibly reducing anxiety. Another benefit brought up by many participants is the ability to take your time and contemplate your messages and responses. Flirting with someone through social media meant that *“you don’t have to deal with the consequences of them reacting negatively”* (Ellie, 18, non-binary, midpoint). Some participants noted that “social media was where much of the flirting occurred with themselves and their friends

*“Social media can be a lot better when you are talking to your crush at first and you would be a bit shy around them ... and it is so much easier with a relationship to get to know them better online”* (Bella, 17, female, attracted to different gender only, baseline).

A considerable issue discussed by most participants was the potential to confuse being friendly with being flirtatious or vice versa. However, depending on the level of communication flirting was particularly *“obvious because it is just innuendos”* (Ysabelle, 16, female, attracted to different gender only, baseline). Normally emojis are used to set the tone and an equivalent to facial expressions to help interpret messages correctly. Some common emojis mentioned by participants included “winky faces”, “love hearts”, or “kissy faces”. This is evident as Bruno (16, male, attracted to different gender only, baseline) stated *“an emoji on the end and it just changes the context completely ... it has gone from friendly to flirty”*. Some people describe themselves as an affectionate person and often found that their messages were misinterpreted as flirtatious.



*“I’m a really affectionate person and sometimes I’ll just send like really loving messages and then realise like oh I’m not even that close to this person, sometimes that’s interpreted in the wrong way”* (Caroline, 15, female, attracted to more than one gender, baseline).

#### *Flirting in-person feels more authentic*

Although flirting was easier online, many describe that the feeling of authenticity was absent or limited. Flirting in-person was seen as a true depiction of how truly interested someone is, it *“tells them how much you love them and how much you appreciate them”* (Caroline, 15, female, attracted to more than one gender, baseline). The level of authenticity appeared limited due to the lack of emotional expression that can be delivered via messaging even with the use of emojis.

*“With social media ... I feel like it has taken a bit away from romance”* (Ysabelle, 16, female, attracted to different gender only, baseline).

*“there’s certain emotions that you can’t get through a text message as opposed to like a nice comment like a face to face like people just complimenting you it’s not the same as when it’s online”* (Caroline, 15, female, attracted to more than one gender, baseline).

The main limitation of flirting in-person was the feelings of anxiety or shyness in approaching someone as noted by Amelia – (17, female, attracted to different gender only, baseline) *“he always got really nervous ... and I noticed him staring at me quite a bit”*. Although there were discussions on how “awkward” and anxiety provoking flirting in-person can be, many participants still prefer to flirt in-person.

*“We didn’t talk to each other for like a year ... because he is very shy, and I was quite shy and we just became friends and then in year 10 we got together”* (Bianca, 16, female, attracted to different gender only, baseline).

### *5.2.3 Dating apps are part of adolescent networking*

#### *Dating apps are a source of entertainment and relationships*

Examples of dating apps used by participants include Tinder, Grindr, Bumble, and OkCupid. Participants, particularly earlier in the study, used dating apps to entertain themselves and their friends. Several participants would use Tinder when they were bored sometimes manufacturing fake profiles. For example, Miles (16, male, attracted to different gender only, baseline) and his friend created a profile of a *“wind surfer dude to see how many matches we got during a really boring English lesson”*. Some would download Tinder temporarily due to being bored; *“I am bored, I will download it [Tinder] for 10 minutes and then delete it again”* (Amelia, 17, female, attracted to different gender only, baseline). For some dating apps like Tinder were used as a *“confidence boost, you get loads and loads of matches”* (Dakota, 16, female, attracted to more than one gender, baseline).

Alternatively, dating apps were another method of making friends. For Brody (17, male, attracted to different gender only, baseline) *“Tinder was a way of making friends because I go to work and come home, and I’m not really exposed to anywhere I can make friends”*. For some, dating apps appeared to be a way to expand on their offline networks for making friends. Some LGBTQ participants mentioned that Tinder was an effective place to connect with other LGBTQ individuals. *“Tinder was good because you could find LGBT+ people”* (Pat, 16, non-binary, midpoint). According to Beth (18, female, attracted to same gender only, midpoint) *“it [Tinder] was the first app that made it easy for people who didn’t identify as just straight to connect”*. Several participants made connections on dating apps and would

meet in-person. For some participants, dating apps were used to form romantic relationships. Participants who formed romantic relationships often disguised how they met and fabricated stories due to the stigma of dating app use. Odessa (17, female, attracted to more than one gender, baseline) and her boyfriend *“always tell [their mothers] that they met through a friend ... at school”*. The need to fabricate a story is likely due to the age restrictions and safety considerations parents may have. One participant indicated they felt more comfortable as *“[Tinder] is linked to Facebook and it comes up with your mutual friends”* Susan (18, female, attracted to more than one gender, midpoint). Below are example extracts of how participants formed friendships and relationships:

*“I also met a friend on there [Tinder] who I just happened to get along with”* (Odessa, 17, female, attracted to more than one gender, baseline).

*“I’ve only made four friends through there [Tinder] but I don’t really keep in touch with them anymore”* (Tessa, 15, female, attracted to more than one gender, baseline).

*“My second relationship started on Tinder”* (Brody, 18, male, attracted to different gender only, midpoint).

#### *Dating apps are a source of sex and sexual communication*

Patterns of using dating apps for sexual interactions and behaviours were prevalent towards the end of the study. Several participants utilised dating apps to meet individuals for casual sex or hooking up. For Tessa (17, female, attracted to more than one gender, endpoint), Tinder was *“mainly for sex and hanging out”*. Tinder was the most common dating app used for casual sex among all participants. Dating apps allowed some adolescents to better understand and explore their own sexuality as evidenced by Ellie (17, non-binary, baseline) who stated *“through [FetLife], I realised I am also polyamorous ... that was a good thing that came out of it, it helped me identify who I am”*. Tinder was perceived by many as an app for casual sex or hooking up and an easy method of doing so:

*“They [adolescents] want to experience ... sexual activity and [use of] certain apps and deriving technology is an easier way to get that experience” (Jimmy, 17, male, attracted to more than one gender, midpoint).*

Due to the nature of dating apps, flirting was expected as pointed out by Micah (17, non-binary, questioning, baseline) *“If I am on Grindr or Tinder, I pretty much assume people are flirting with me because that is the point of that environment”*. Jade (16, female, questioning, midpoint) stated that *“in your own town then [Tinder] is not for hook ups ... but just in a city like on a trip or something or somewhere where you’re not normally then definitely, it’s usually casual”*. This notes a distinction in how rural adolescents may not be able to use dating apps for casual sex except on trips. Some participants noted that dating apps can be unsafe and were cautious by using Tinder’s function of linking Facebook to see potential partner’s mutual friends. This function may be a technique that gave the feeling of safety, particularly for hooking up. For non-LGBTQ participants, it was more common to consider dating apps as unsafe.

*“[Tinder] is linked to Facebook and it comes up with all your mutual friends ... I met a guy on there and me and my friend went out to a club and met with him. He came back to my place and then we didn’t talk after that. I think it is more of a casual thing”* (Susan, female, attracted to more than one gender, midpoint).

*“I feel like it is a very scary thing to do [meet people from dating apps] because you don’t know who you are meeting or who you are actually talking to. It is scary for me”* (Carlee, 17, female, attracted to different gender only, midpoint).

### **5.3 Discussion**

We found that there were negative attitudes and experiences related to sexting with almost all participants reporting that either they or friends had been victims or perpetrators of non-

consensual sexting. Many had received unsolicited sexts, particularly female participants but did not admit to being a perpetrator. Social media and dating apps were both used in sending/receiving sexts. However, considering consensual sexting some participants believed the practice was acceptable but required trust. Sexting could be used to flirt; for example, sexting between couples may be used to remain intimately connected. In some circumstances, sexting among adolescents may have been beneficial in strengthening and maintaining romantic connections. Consistent with other research (Yeung, Horyniak, Vella, Hellard, & Lim, 2014), some of our participants found sexting exciting. Similarly, our findings supported previous research showing that female adolescents appeared more likely to experience unwanted flirting including sexting (Klettke et al., 2014; Pew Research Center, 2015; Reed, Boyer, Meskunas, Tolman, & Ward, 2020). A US survey noted 35% of female teenagers blocked/unfriended someone who made them feel uncomfortable through unwanted flirting, more than double the proportion of males who did the same (Pew Research Center, 2015).

Flirting online was a common medium for flirting among participants and was facilitated by emojis to prevent misinterpretations. As previous research has found, flirting on dating apps is considered common practice and expected (Mortensen, 2017). Social media rather than dating apps were more prevalent for flirting among participants which is likely due to the age restriction on dating apps (Lykens et al., 2019). This pattern of flirting on social media has been reported in a US survey among teenagers (Pew Research Center, 2015). Following online flirtatious conversations, participants may feel less anxious about transferring to an in-person context. In-person flirting was preferred by participants in our study but many reported downsides, such as anxiety of approaching the individual. Dating apps were not used by many participants in our study; at baseline, when younger, e-dating apps were mostly used for entertainment or networking. The change of use in dating apps from mostly

entertainment to sexual interactions over the study's 18-months may reflect adolescents becoming sexually active (Skinner et al., 2015).

Only a few participants reported concern about not receiving education on the negative consequences of sexting. Interestingly, our results noted circumstances where friends of participants continued to sext following a police incident suggesting risk may be a possible motivator (Walker et al., 2013). Motivations for consensual sexting include sexual expression, socialisation (e.g., popularity), copying peers, and identity construction which may be reinforced through peer approval (Bianchi, Morelli, Nappa, Baiocco, & Chirumbolo, 2021; Del Rey et al., 2019). Conversely, motivations for non-consensual sexting include coercion, or sharing of sexts (e.g., among peers or for revenge pornography) (Bianchi et al., 2021; Del Rey et al., 2019). Sexting, particularly non-consensual sexting has negative effects on mental health and wellbeing (Bianchi et al., 2021; Gassó et al., 2019). Younger adolescents who had pre-existing mental health conditions, used the internet less, or were less sensation seeking were more likely to be adversely affected from unsolicited sexts compared to older adolescents without these factors (Gassó et al., 2019).

In the US, sexting involving minors under 18-years-old may be considered child pornography and carry significant legal and social consequences (Strasburger, Zimmerman, Temple, & Madigan, 2019). Most US states still have laws against sharing of images of those aged under 18 years which includes sexting (Strasburger et al., 2019). Twenty-three US states can prosecute for the production and possession of child pornography, when it involves minors sharing images of themselves and may lead to a 20-year prison sentence and lifetime status of sexual offender (Strasburger et al., 2019). Despite this, approximately 3.3 million 13 to 17-year-old Americans send sexts, which would be an overwhelming number to prosecute (Strasburger et al., 2019). In Australia, some states have implemented exemptions for those aged below 18 years for those of similar ages (eSafety Commissioner,

2017). However, Australia has complex laws on sexting that differ by state/territory and may impose criminal charges to those under 18-years-old and registration as a sexual offender (eSafety Commissioner, 2017).

Previous research noted that adolescents preferred social media for sexting compared to dating apps as the former is considered safer due to familiarity and platform visibility (Lykens et al., 2019). Our participants started seeking/engaging in casual sex on dating apps during the study's midpoint, likely relating to sexuality development (Barrada, Castro, Fernández Del Río, & Ramos-Villagrasa, 2021; Castro & Barrada, 2020). Young people are concerned regarding issues related to safety on dating apps such as catfishing (luring people using a fictional persona) (Byron, Albury, & Pym, 2021; Castro & Barrada, 2020). As one of our participants described, mutual friends can be displayed on Tinder from Facebook data which can impart a sense of security (Byron et al., 2021). Alternatively, displayed mutual friends on Tinder could be seen as a breach of privacy by disclosing their identity (Byron et al., 2021). Safety measures young people can implement to mitigate risk include video calling the potential partner, and informing friends of meet-up details (Byron et al., 2021). Similar to findings reported by participants in our study regarding casual sex encounters, dating apps may not be suitable for young people in rural localities as it would be difficult to maintain privacy (Byron, et al., 2021; Castro & Barrada, 2020).

Our study found that social media is a means to find potential romantic partners in line with other research (Pew Research Center, 2015). In a US report, Facebook was the most common platform used to approach potential partners online (Pew Research Center, 2015). Other platforms included Instagram, Twitter, and Kik but these were considerably less common for meeting potential partners (Pew Research Center, 2015). Social media can be a tool to learn more about prospective partners and friend them through mutual friends suggestions (Pew Research Center, 2015). Using social media provides users a wealth of

information of prospective partners which may include what school they attend, their family, and daily activities (Pew Research Center, 2015). The most common measures adolescents use to let a prospective partner know they are interested in them include flirting/talking to them on- and/or offline, friending on social media, liking or commenting on their content (Pew Research Center, 2015).

This study adds to the limited research on sexting, flirting, and dating app use among adolescents aged <18 years. Previous research has rarely reported on the beneficial impacts of sexting focussing on the effects of non-consensual sexting. This had provided insights to understand the attitudes and experiences of adolescents on sexting, flirting, and dating app use.

### *5.3.1 Strengths and limitations*

Some strengths of this study included its longitudinal design in capturing patterns over time and large LGBTQ sample. There were also several limitations within this study. Due to the widely publicised adverse effects of sexting in adolescents, participants may have been influenced to deny sexting or focus only on negative aspects. As our sample consisted mostly of females, male attitudes and experiences may not have been captured. As with all research conducted on-line, this sample was self-selected therefore likely to consist of participants who were more social media literate. In addition, due to the primary aim of the study – social networks and sexual agency- participants were more likely to be interested in and experienced with this topic. Therefore, the findings cannot be generalised to a representative sample of similar aged adolescents.



### *5.3.2 Implications*

Understanding adolescents' rationale for and experiences of sexting and dating app use provide insights into what is safe use. These findings have implications for professionals such as policy makers, school psychologists, and clinicians. Professionals working with young people in co-design may be able to promote safe social media use and hence support healthy relationships, discourage coercion, and teach safety techniques such as blocking/unfriending those who send unsolicited sexts or harass. Education on safe social media use that includes use for romantic and sexual relationships should start in an age-appropriate way, in early high school. It may serve to manage the pressure of online sexual acts through effective communication and negotiation skills including how to set boundaries within a romantic relationship. As sexting has become common practice, approaches that recognise the possible benefits and a safer sexting rather than an abstinence only approach (Döring, 2014; Madigan, Ly, Rash, Van Ouytsel, & Temple, 2018).

### *5.3.3 Conclusion*

There has always been controversy on the appropriateness of adolescents engaging in sexual activity and has extended to the online social media space where adolescents engage commonly in sexual interactions (Strasburger et al., 2019). These sexting behaviours are unlikely to be amenable to prohibition, and indeed this may be harmful (Döring, 2014). Our approach should focus on supporting young people to use social media in a healthy and safe way. Our research has highlighted the involvement of social media in facilitating adolescents' engagement in sexting and flirting. Understanding of how social media impacts sexting and flirting practices may be used to inform professionals working with young people to address safe facilitation. It is vital to address this area and support healthy development of agentic interactions of a romantic or sexual nature on social media.

## Chapter 6: Integrated Discussion and Conclusion

### 6.1 Aims and Main Findings

*Chapters 2, 4 and 5* have provided detailed discussion of the main findings of each individual study. This chapter summarises the significance of main findings, their strengths, limitations, and directions for future research. The overall aims of this thesis were to explore the effects of social media on social support and sexual behaviours, specifically flirting and dating app use among LGBTQ adolescents. As introduced in *Chapter 1*, social media is commonly used among adolescents to navigate their world (Australian Bureau of Statistics, 2018a; Fisher et al., 2019). LGBTQ adolescents are a vulnerable population with significant risk of mental health conditions (Russell & Fish, 2016; Williams et al., 2021). In *chapters 4 and 5*, this thesis presented relevant distinctions in findings among LGBTQ and non-LGBTQ adolescents. The findings of this thesis are separated below into main themes which all relate to social media use, and conceptual and theoretical frameworks.

#### *6.1.1 Connectivity, identity development and management*

*Chapter 2* was a systematic review which aimed to answer the question how LGBTQ youth connect with LGBTQ communities, navigate their identity development and management, and seek social support using social media. This systematic review also aimed to answer the question of what the effect social media has on LGBTQ youth's mental health and wellbeing. The review identified evidence that LGBTQ youth use social media to connect with LGBTQ individuals or communities and develop and manage their identity (Bates et al., 2020; Byron et al., 2019; Craig & McInroy, 2014; Duguay, 2016; Hanckel et al., 2019; Harper et al., 2016; Herrera, 2018; McConnell et al., 2018).

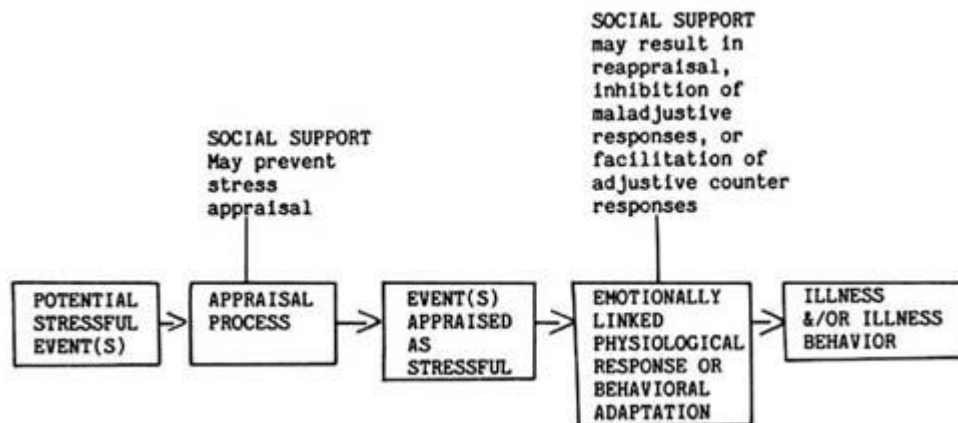
### 6.1.2 Social support

In the systematic review, there was also evidence that social media can be used for social support among LGBTQ youth, but this evidence was more limited (Harper et al., 2016; Hillier et al., 2012; Pacey et al., 2020; Selkie et al., 2020). The studies identified in the review did not explore the complexities of how LGBTQ youth utilised social media for providing and seeking support. Findings from *Chapter 4* indicated that social media was perceived as effective for providing or seeking social support and obtaining LGBTQ-specific information among LGBTQ youth. Our LGBTQ participants commonly used Facebook groups to connect with other LGBTQ individuals. These groups, particularly large groups (e.g., >1,000 members) were prone to racism and discrimination and were often run by inexperienced members. This suggested that LGBTQ social media was not always a 'safe space'. Our non-LGBTQ participants rarely used social media for support or identity, rather relying on offline networks.

This is the first study to explore dynamics of social media groups of LGBTQ adolescents and adds to the limited data on LGBTQ adolescents' use of social media (Berger et al., 2021). The theoretical framework which the SNAP study was guided by did not fit with our findings about social support, so we explored the buffering effect of social support (Buchwald, 2017). Social support including social systems is protective against stressors and can be associated with mental health and wellbeing (Cohen & Wills, 1985; Thoits, 1986). In youth, it is common that social support is manifested from social networks or social capital (Ellonen, Kääriäinen, & Autio, 2008). Social support may be incorporated at two steps in the hypothesised causal relationship between a stressful event and the behaviour and/or illness, namely the appraisal process and the response or adaptation (figure 5) (Cohen & Wills, 1985). Anti-LGBTQ sentiment is an example of a perceived stressful event some of our participants experienced. In most circumstances social support would facilitate reappraisal of

the event and a counter response, noted later in the hypothesised causal pathway (Cohen & Wills, 1985).

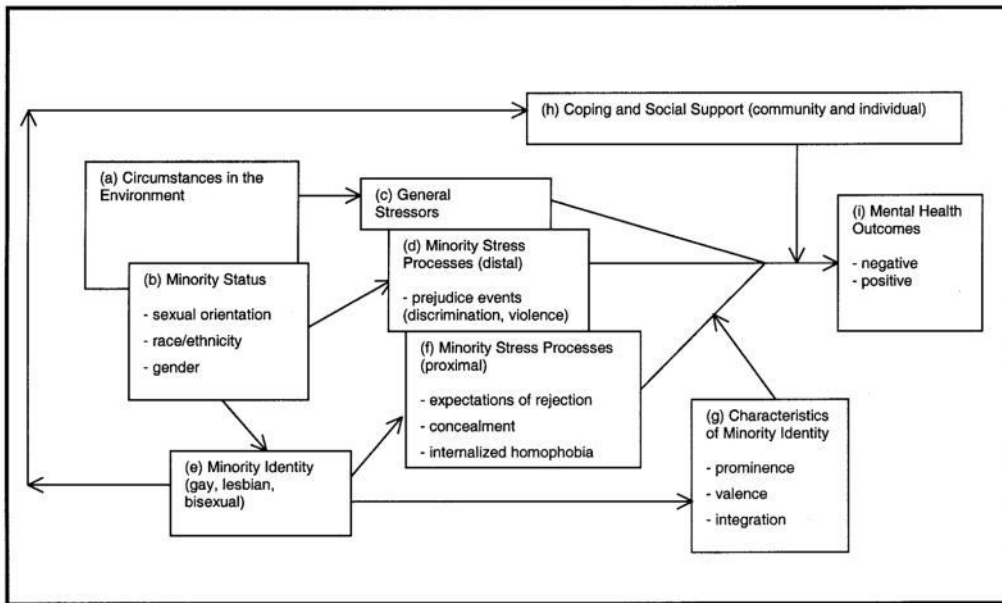
Figure 5  
Points where social support may apply in the hypothesised causal link (Cohen & Wills, 1985).



### 6.1.3 Mental health and wellbeing

The systematic review identified that social media was a safe space for LGBTQ youth to connect and navigate their identity which benefitted mental health and wellbeing (Ceglarek & Ward, 2016; Chong et al., 2015; Pellicane et al., 2021; Rubin & McClelland, 2015; Varjas et al., 2013). Although, heavy use of social media could be associated with feeling loneliness and higher sensitivity (Ceglarek & Ward, 2016). In *Chapter 4*, participants perceived anti-LGBTQ sentiments on social media as being damaging to their mental health. LGBTQ social media groups had specific sub-group options that focussed on mental health support where users could access a 'supportive environment'. Our findings fit in with the minority stress model, in particular coping and social support that can affect the mental health outcome in the causal pathway (figure 6) (Meyer, 2003). LGBTQ identity can be a source of strength when connected with coping and social support that alleviate associated stress (Meyer, 2003).

Figure 6  
 Minority stress model and process in LGBTQ populations (Meyer, 2003).



#### 6.1.4 Flirting, dating app use and sexting

Female participants often experienced coercion particularly when using dating apps to send sexts from males. Many participants received unsolicited sexts on dating apps and social media as a motivator to reciprocate. Participant narratives explored how their friends shared sexts of others without consent, normally among friends, and sometimes as revenge. No participants admitted to being the perpetrator. Sexting appears to be a common form of flirting that relies on the values of trust and comfort. Some used sexting within a relationship to remain intimately connected when apart. Dating apps were commonly used for entertainment during baseline interviews but became more sexual in the midpoint and endpoint interviews. There is a lack of studies that explore sexting especially in LGBTQ adolescents as most are focussed on young adults, usually samples of college students (Van Ouytsel et al., 2018). This study added to the limited research that is mostly using cross-sectional designs by adding qualitative findings using longitudinal data (Van Ouytsel et al., 2018). Our findings suggest there are significant behaviours that may impede healthy sexual development (McKee et al., 2010).

### *6.1.5 Relationship between social support and sexual interactions*

Chapters 4 and 5 explore two concepts, how social support, and sexual interactions were accessed through online networks. These concepts were linked through peer relationships. We found that online networks through social media are particularly useful in supporting LGBTQ adolescents' wellbeing and sexual health. It is evident that on- and offline networks can support young people to not engage in risky sexual behaviours through supportive peer relationships (Bruederle et al., 2019; Majumdar, 2006). This may apply more to some LGBTQ adolescents due to lack of adequate sexual health information. Additionally, dating apps could act as a connection for LGBTQ adolescents to other LGBTQ individuals. This connection role of online networks was beneficial especially when there was limited offline networks for LGBTQ young people to access. Across these studies, we found that LGBTQ adolescents would use LGBTQ social media groups and dating apps to expand their networks and form romantic relationships. Social media was used to maintain or gain peer relationships including romantic relationships through flirtation and consensual sexting. We found that peer relationships in social media could also have a negative effect, when peers discriminated against other members in Facebook LGBTQ groups. Additionally, peers sometimes coerced adolescents to sext and share sexts without consent.

## **6.2 Implications**

These studies provide clinicians (e.g., psychologists, nurses, and adolescent physicians), educators, support workers and policy makers with a deeper understanding of how and why LGBTQ and non-LGBTQ youth use social media and potential benefits and harms for their wellbeing. This understanding may help to identify possible avenues for working with young people to develop relevant and engaging education strategies to promote healthy development, especially among LGBTQ young people. Simply encouraging LGBTQ youth to

use social media to connect with like-minded people may be insufficient or even unhelpful. Professionals could refer adolescents to reputable and well managed groups to avoid negative consequences (i.e., exclusion or discrimination). Experts working with young people may also be able to support local social media group administrators by providing training or additional assistance. Considering the study's finding on sexting and dating app use, we should consider the importance of education from early high school. This may have potential in enabling adolescents to manage pressures of online sexual acts using effective communication and negotiation skills. Adolescents need to be protected from unwanted sexual activity and peer pressure, and explore sexuality in a safe and enjoyable environment (McKee et al., 2010).

### **6.3 Strengths, Limitations, and Future Directions**

A considerable strength of this thesis is the SNAP study's longitudinal design which allowed for maturation of social media experiences and reflections allowing deeper exploration. We had a large sample with almost half being LGBTQ and a low rate of loss to follow-up (15%). These studies have bridged gaps particularly in how social media is used among LGBTQ youth and added to the limited data on sexting and dating app use. As discussed, there were limitations to this thesis. This thesis sought to answer questions which were not included in SNAP's primary research questions. The work of this thesis represents a secondary analysis of SNAP data. Some social media users and non-users may not have been captured as recruitment advertising was used for Facebook and Instagram only. As social media patterns change over time it is likely that these studies do not reflect the current trend. Some adolescents would not have been comfortable in answering questions related to sexual topics hindering their responses or resulting in non-participation. The survey questions at baseline were limited in terms of measuring sexuality and gender identity as participants were only asked about sexual attraction not identity and behaviour. There remains limited data on sexting behaviours among younger adolescents (i.e.,  $\leq 14$  years old). Further

research could strengthen the evidence on uses of social media and online sexual behaviours among LGBTQ adolescents, using stronger study designs (i.e., larger more representative samples, with prospective designs). Cohort studies are particularly helpful to understand the changing pattern of social media use among young people, from late childhood through adolescence to young adulthood and associated benefits and risks at each developmental stage.

## **6.4 Conclusion**

This thesis has presented several perspectives of social media and its role in support networks among LGBTQ adolescents. It demonstrated the importance of social media as a tool for LGBTQ adolescents to connect with like-minded individuals and support one another. It also highlighted a key issue facing adolescent LGBTQ groups on Facebook – exclusion and discrimination. Novel aspects of this thesis include the specific use of how LGBTQ adolescents use social media and issues of participating in social media groups. The thesis also explored how adolescents use social media and dating apps to flirt with each other and engaging in sexting practices. Dating apps served as entertainment and for connection (i.e., casual sex, friendships, and romance). This research highlights the need for stronger understanding into how social media facilitates sexual health, mental health, and wellbeing from adolescence into adulthood.



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# Social media's role in support networks among LGBTQ adolescents: a qualitative study

Matthew N. Berger<sup>A,\*</sup> , Melody Taba<sup>A</sup> , Jennifer L. Marino<sup>B,C,D</sup> , Megan S. C. Lim<sup>C,E,F</sup> ,  
Spring Chenoa Cooper<sup>G</sup>, Larissa Lewis<sup>A,H</sup> , Kath Albury<sup>I</sup> , Kon Shing Kenneth Chung<sup>J</sup> ,  
Deborah Bateson<sup>K,L</sup>  and S. Rachel Skinner<sup>A</sup> 

For full list of author affiliations and declarations see end of paper

**\*Correspondence to:**

Matthew N. Berger  
Speciality of Child and Adolescent Health,  
Faculty of Medicine and Health, Children's  
Hospital Westmead, Corner Hawkesbury  
Road and Hainsworth Street, The University  
of Sydney, Westmead, NSW 2145, Australia  
Email: [matthew.berger@health.nsw.gov.au](mailto:matthew.berger@health.nsw.gov.au)

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## ABSTRACT

**Background.** Adolescents use social media more frequently than other age groups. Social media has been described as a safe environment for lesbian, gay, bisexual, transgender and queer and/or questioning (LGBTQ) adolescents. As part of mixed-methods research investigating the association between social networks and sexual agency, we present qualitative findings on how LGBTQ adolescents connect online to form support networks. **Methods.** We recruited 30 adolescents aged 14–17 years who identified as LGBTQ in terms of their gender or attraction in the longitudinal Social Networks and Agency Project. Semi-structured interviews were conducted online or face-to-face across Australia. Thematic analysis was used to explore perceptions and experiences of participants in relation to social media use and relationships. **Results.** Two overarching themes were identified: LGBTQ adolescents use social media for identity, relationships and wellbeing support. Social media is not always free of discrimination for LGBTQ adolescents. Many LGBTQ participants joined Facebook groups to connect with LGBTQ peers. Facebook was considered a vital support for those with mental health concerns including suicidal ideation. Participants gave and received support from group members, which was considered useful for those feeling isolated or victimised. LGBTQ adolescents formed friendships, romantic relationships and gained information on sex, relationships, and sexual health from these groups. Participants described negative experiences including discrimination within Facebook groups, mismanaged groups and exposure to anti-LGBTQ sentiments. **Conclusion.** Social media is an environment where LGBTQ adolescents can connect, educate and support each other, which may have beneficial effects for this marginalised group. There remain issues with social media including discrimination against and within LGBTQ communities.

**Keywords:** adolescent, internet, LGBTQ, mental health, social media, support, well-being, youth.

## Introduction

Adolescents aged 15–17 years are the most frequent users of internet services, particularly social media.<sup>1</sup> A survey of secondary school students in Australia found that 66% accessed social media at least five times a day.<sup>2</sup> The most common social media platforms used by lesbian, gay, bisexual, transgender, and queer and/or questioning (LGBTQ) youth are Instagram, Facebook, Twitter, TikTok and Snapchat.<sup>3</sup> LGBTQ youth use social media for entertainment, identity development, LGBTQ information and social support.<sup>4</sup> Social media platforms such as Facebook create a fun and easy way to connect to LGBTQ communities, explore identity and access emotional support.<sup>5</sup> Social media possesses potential positive effects on sense of belonging, self-realisation and self-esteem.<sup>6,7</sup> However, social media has also been associated with negative experiences including confidentiality risks, cyberbullying, exposure to risky material and non-consensual sexting.<sup>8,9</sup>

Social media provides an online space where individuals can communicate privately or within groups, which is perceived as less risky than meeting in-person.<sup>10</sup> Young people can

explore and develop their identities via interaction and self-presentation on social media.<sup>10,11</sup> Older LGBTQ adolescents and young adults develop online and offline peer support networks to overcome adversity, and enhance psychological health and well-being in the face of social isolation, stigma and discrimination.<sup>12,13</sup> In contrast, social media is not always a safe environment for gender diverse adolescents as harmful and exclusionary behaviours online have been regularly reported by these young people.<sup>12</sup> Peer support has been noted as an important protective factor against poor mental health especially among LGBTQ communities.<sup>14,15</sup> LGBTQ individuals are at higher risk of alcohol and substance abuse, mood disorders (e.g. anxiety and depression), post-traumatic stress disorder (PTSD), psychiatric comorbidities, self-harm and suicidal ideation.<sup>14,15</sup>

Some LGBTQ youth are uncomfortable seeking help from friends and family and prefer to seek help online.<sup>16</sup> Thus, LGBTQ youth may use social media to explore and develop their sense of identity and connection with LGBTQ networks.<sup>17,18</sup> Limited partner options may also be a reason LGBTQ youth prefer approaching people online.<sup>19</sup> LGBTQ youth can also access information and support via these social networks.<sup>17,20</sup> For example, transgender youth can view vlogs documenting medical gender affirmation processes or seek emotional support from peers.<sup>17</sup> LGBTQ youth make use of these networks to reduce feelings of isolation and stigmatisation due to the pervasive impacts of a cisgenderist and heteronormative social environment.<sup>18</sup> Social media can also help connect LGBTQ individuals living outside of metropolitan locations.<sup>21</sup> Although social media may be safer now than in the past for exploring diverse sexualities and genders, it is still common for LGBTQ people to report negative experiences online including discrimination, abuse, racism, and coercion.<sup>5,22,23</sup>

Little is known about LGBTQ support networks on social media, including the benefits and motivations for LGBTQ adolescents using social media, although positive impacts have been identified.<sup>24</sup> This study builds on this limited amount of previous research by seeking to better understand LGBTQ young people's relationships in their online and offline networks.<sup>25</sup> The analysis reported in this paper focuses on the ways LGBTQ adolescents made use of social media for exploring identity and seeking support from other LGBTQ peers.

## Materials and methods

### Data collection

As part of the Social Networks and Agency Project (SNAP), a longitudinal mixed methods study on online and offline social networks and sexual agency, adolescents aged 14–17 years ( $n = 84$ ) were recruited into a range of research activities.<sup>25,26</sup> Paid targeted advertisements were displayed

on Facebook and Instagram within Australia, and others recruited via peer referral. Flyers were also distributed at Family Planning clinics in New South Wales (NSW) and one Sydney private school. This paper analyses data collected with adolescents who took part in SNAP, were interviewed at baseline, and identified as LGBTQ in some way. Baseline questionnaires and interviews were the core methods of the SNAP longitudinal study with data collected from early 2016 to early 2017.<sup>25</sup> Participants ( $n = 50$ ) were interviewed by KA, LL, and SC during the baseline interviews. Interviews explored the types of information shared online, sexual interactions, romantic relationships and sexual health information (Appendix 1). Participants completed questionnaires at baseline on basic demographics including sexual attraction and gender identity. Ethical approval was obtained from the Ethics Committees at University of Sydney (project number 2015/489) and NSW Family Planning (project number R2015-10) with the procedures adhering to the Declaration of Helsinki. Written and verbal consent was provided by all participants before data collection occurred. Participants were given the opportunity to ask for parental permission, but otherwise were assessed as mature minors.

### Analysis

The six steps that Braun and Clarke argue are important in high quality thematic analysis was followed to capture the perceptions and insights of researchers MNB and MT in analysing the interview data.<sup>27</sup> Interview transcripts were read and re-read noting recurrent patterns. Interviews were double coded to ensure consistency and data entered into NVivo 12; inconsistencies were discussed between the authors leading to shared interpretation.<sup>28</sup> Data were organised into potential themes using thematic maps and iterative discussions between researchers. Themes were reviewed to ensure the themes were distinct and meaningful. Ongoing analysis occurred ensuring clear definitions of the themes and subthemes, and the relevance of the final analysis to the research question, and use of pertinent extracts.<sup>27</sup> Quotes are presented verbatim to illustrate the themes and include pseudonyms, age and their reported gender and attraction to potential partners.

## Results

### Demographics

The 30 LGBTQ participants who completed baseline interviews were aged between 14 and 17 years at enrolment with a mean age of 16.17 years (standard deviation = 0.99). Five were presumed male at birth and 25 presumed female at birth. At the time of entry into the study, four identified as cisgender men, 19 as cisgender women, four as non-binary and three as transgender men. Most ( $n = 27$ ) were still enrolled in

school with 10 attending private/independent schools, 19 public/government schools and one Catholic school. Most ( $n = 24$ ) identified with a diverse sexuality (19 as attracted to more than one gender, five to the same gender, four to a different gender, and two questioning). Participants resided across Australia with 73% in NSW, and the rest in five other states/territories. Table 1 outlines the demographic characteristics of participants. Facebook was the most used platform among participants in seeking social support, followed by Tumblr.

Two themes and six subthemes were identified from qualitative interviews, which describe participants' experiences, see Fig. 1. The overarching themes were LGBTQ adolescents use social media for identity, relationships and support and social media remains a virtual setting for discrimination.

## LGBTQ adolescents use social media for identity, relationships and wellbeing support

### LGBTQ adolescents connect on social media with like-minded people

LGBTQ adolescents used social media, in particular Facebook, to form groups to make connections. Facebook allows its members to create online spaces whereby users can join and interact with each other; either in private groups or in spaces open to anyone on the platform. LGBTQ Facebook groups varied in sizes with some up to around 1000 members. Beth (17 years old, female, attracted to same gender only) stated one of the groups 'has thousands of queer kids from [the city], or all of Australia'. Alternatively, there were Facebook subgroups focused on a particular interest or particular gender identity; Alex (17 years old, transgender man, attracted to different gender only) noticed subgroups 'specifically for transgender people and a lot of random ones like gardening'. Some groups were location specific facilitating in-person meetings or events such as rallies. The ability to message other group members directly facilitated the formation of friendships online. Members also had the opportunity to create friendships offline through group events or one-on-one meet ups. For some, friendships were made through groups with people who identified with a similar sexuality and/or gender.

'My friendships have doubled ever since I joined [group], I try to at least meet them in real life.' (Pat, 15 years old, non-binary, attracted to more than one gender)

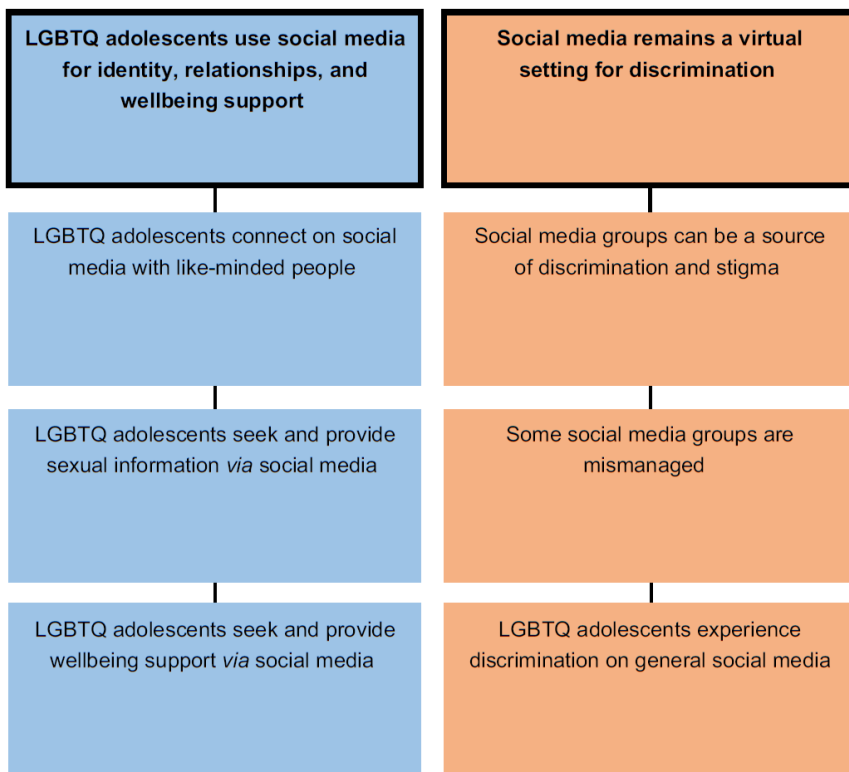
Some participants described the difficulties they had experienced in finding peers with shared experiences in their offline groups. In-person networks of cisgender or heterosexual individuals could be alienating for LGBTQ participants, as they felt they were not able to discuss topics of unique relevance to LGBTQ populations in those groups. Social isolation and stigmatisation were described as a

**Table 1.** Demographic table of LGBTQ participants in baseline interviews.

	<i>n</i> (%)
<b>Age (years)</b>	
<i>n</i>	30
Mean (s.d.)	16.17 (0.99)
Median	16.5
Range	14–17
<b>Race</b>	
Aboriginal or Torres Strait Islander	1 (3%)
Neither	29 (97%)
<b>Gender presumed at birth</b>	
Male	5 (17%)
Female	25 (83%)
<b>Gender identity</b>	
Cisgender man	4 (13%)
Cisgender woman	19 (63%)
Transgender man	3 (10%)
Non-binary	4 (13%)
<b>Attraction</b>	
Attracted to different gender only	4 (13%)
Attracted to same gender only	5 (17%)
Attracted to more than one gender	19 (63%)
Questioning	2 (7%)
<b>School type</b>	
Attending	27 (90%)
Not attending	3 (10%)
Public/government school	19 (63%)
Private/independent school	10 (33%)
Catholic non-government school	1 (3%)
<b>State/Territory</b>	
Australian Capital Territory	2 (7%)
New South Wales	22 (73%)
Queensland	1 (3%)
South Australia	2 (7%)
Victoria	1 (3%)
Western Australia	2 (7%)
<b>Metropolitan or rural</b>	
Those living in metropolitan areas	20 (67%)
Those living in rural areas	10 (33%)

Note: percentages have been rounded to whole numbers.

cause for poor mental health. As Michael (16 years old, transgender man, attracted to different gender only) noted 'it [poor LGBTQ mental health] is because people go to Catholic school or they live in communities that aren't LGBTQ tolerant'. To combat social isolation, adolescents described turning to social media as a way to connect with



**Fig. 1.** Thematic map of overarching themes and subthemes.

the LGBTQ community. Michael (16 years old, transgender man, attracted to different gender only) described social media as ‘a really good tool for socially awkward people to not feel isolated’. As an example of how adolescents may feel disconnected in offline groups, and relate more to those on LGBTQ Facebook groups, Michael said:

‘It [school] is mostly middle class snobby private school people who I don’t really relate to. Who aren’t great on queer issues, but I guess with this new group of people we have similar interests and we are more likely to connect.’ (Michael, 16 years old, transgender man, attracted to different gender only)

Social media was also perceived as an environment conducive to discussing sensitive topics, including mental health concerns, sexual experiences, or relationships. Some described feeling less open or comfortable discussing these topics in person.

‘Without social media, probably would not be so open, social media means that you’re open to a whole lot of conversations that you weren’t going to have face-to-face.’ (Dakota, 16 years old, female, attracted to more than one gender)

Romantic relationships could also be formed in LGBTQ online groups. Micah (17 years old, non-binary, questioning) explained that ‘there are two or three couples within that

group’ and Alex (17 years old, transgender man, attracted to different gender only) mentioned that relationships ‘happen a lot in the group’. Alex further explained that ‘people would be forming relationships through these groups then being able to meet up’. Online friendships also developed through virtual interactions and could be strengthened by having similar interests or experiences. LGBTQ adolescents appeared more comfortable to connect with others who were also LGBTQ-identified, potentially compared with those who were not, for example:

‘I met quite a few people online actually, I was like ‘cool, yeah strangers, that’s fine.’ (Tessa, 17 years old, female, attracted to more than one gender)

**LGBTQ adolescents seek and provide information on sex, relationships and sexual health via social media**

Some LGBTQ adolescents preferred receiving information on sex, relationships and sexual health from internet sources including social media, due to its accessibility and feeling uncomfortable approaching parents or their offline social network. Facebook and Tumblr were platforms participants used often to seek and provide this information. Facebook was commonly used and allowed users to provide and seek information through groups, post, or direct messages. Tumblr was less commonly used and information was mostly shared via posts and comments. Some reported feeling that it was not

safe to approach parents and potentially alert them to a stigmatised sexual or gender identity. Alternatively, participants with supportive in-person networks did have experiences of discussing relevant information with peers offline. This normally included friendship groups and formal sex education, although sex education at school was considered limited; 'I did not get very good sex education in school; it came from friends, it allowed me to think maybe I am not straight either' (Ellie, 17 years old, non-binary, attracted to different gender only). Additionally, participants may have felt more informed when asking questions of those who are believed to possess information relevant to the specific sexuality and/or gender of the participant. Below are examples of rationales for seeking these forms of information from social media:

'I come from a pretty conservative family and I would not feel comfortable asking questions about certain things.' (Tania, 17 years old, female, attracted to more than one gender)

Social media sources of information on sex, relationships and sexual health included group communications (e.g. commenting on posts) and sharing and/or creating websites and videos through social media. Sydney (15 years old, female, attracted to more than one gender) stated 'from Tumblr, I learned a lot about sexuality and gender'. In at least one instance, to share information regarding sexually explicit content; Ellie (17 years old, non-binary, attracted to different gender only) used Tumblr to share pornography: 'it's BDSM [bondage, discipline, sadism, and masochism] and lesbian stuff, I don't post my own stuff, just other people's'. YouTube was less commonly used for securing desired information. Below are examples of how useful participants found social media for learning sexual information:

'I like that there are so many platforms of learning stuff, there are people that have come into the [group] not knowing anything, and within a couple of weeks have been brought up to speed.' (Beth, 17 years old, female, attracted to same gender only)

'I was very self-taught; I watched a lot of YouTube videos. It taught me a lot about the myth about popping the cherry and the violence behind virginity, I learned most of my safe sex practices through there.' (Zara, 17 years old, female, attracted to same gender only)

### **LGBTQ adolescents seek and provide wellbeing support via social media**

LGBTQ adolescents also sought and provided forms of support with the peers they connected with online. LGBTQ participants thus demonstrated that social media can be a powerful tool in constructing a support network; 'our community is more vulnerable in the world so we're going

to turn to social media for support with one another' Lee (16 years old, transgender man, questioning). Most LGBTQ participants who had been members of these groups noted that people within the LGBTQ community had experienced mental health issues. This included depression and suicidal ideation; as Michael (16 years old, transgender man, attracted to different gender only) mentioned 'almost all of my friends are suicidal, it is not funny'. Some participants became accustomed to regularly helping LGBTQ peers; 'I am really adept at helping them through their problems as we do not see each other often, social media is a really helpful platform' (Michael, 16 years old, transgender man, attracted to different gender only). Users could post their concerns into the group allowing quick responses. Some of the subgroup options were specifically for mental health and was described as: 'mental health support, it's a very loving and supportive community' (Sunny, 16 years old, non-binary, attracted to different gender only).

Social media groups were described as safe for LGBTQ participants to access in order to feel protected from discrimination. Users engaged and interacted with like-minded peers where they felt accepted and supported. Group members sought support if they feel upset by exposure to stigma and discrimination in other contexts:

'It is sort of like a little hub where you can go to get away from people who are intolerant.' (Michael, 16 years old, transgender man, attracted to different gender only)

'We gravitate towards each other and the group is set up to be a safer space for everyone, it's a really nice space and you can talk about anything.' (Micah, 17 years old, non-binary, questioning)

Social media was described as convenient for LGBTQ participants to ask for support quickly and easily, and able to be tailored and followed up with other methods of support including phone calls or meeting in-person. As Lee (16 years old, transgender man, questioning) pointed out: 'it's more convenient as we are all spread out – we have our place to congregate even if it's not a physical setting. If someone is struggling with something, they will put it in there and it's just easier to support them'. Being online is an important factor in making it possible for these groups to reach a larger number, as Micah (17 years old, non-binary, questioning) noted 'if it was face-to-face, it might exist, there might be fewer people'.

### **Social media is not always free of discrimination for LGBTQ adolescents**

#### **Social media groups can be a source of discrimination and stigma**

Concerns were expressed by participants about the fact that stigma and discrimination also existed within the LGBTQ

groups. For example, Beth (17 years old, female, attracted to same gender only) described some other social media users expressing 'elitism' within the group: 'there have been people thinking they are better than others, and others saying, 'you cannot be in here, you are not gay enough''. Racism and transphobia were also mentioned; 'I get racist comments' (Michael, 16 years old, transgender man, attracted to different gender only); 'there was a lot of racism and transphobia within the group' (Micah, 17 years old, non-binary, questioning). Some users would engage in arguments within the group about sensitive topics such as 'body positivity and gender,' as mentioned by Beth (17 years old, female, attracted to same gender only). Asexuality and sexual 'kinks' could be stigmatised, adding to feelings of social isolation for some people. Below are examples of these issues coming up in the LGBTQ Facebook groups:

'There was recently 'beef' about whether asexual belongs to the LGBT community and a lot of people got angry towards the person who posted that, and that person retaliated, and it just got really messy.' (Michael, 16 years old, transgender man, attracted to different gender only)

'There is a subgroup for kinks, but I have had to deal with quite a bit of kink shaming.' (Beth, 17 years old, female, attracted to same gender only)

Many participants who had experienced stigma in social media groups reported leaving and joining a smaller or more geographically specific group. Michael (16 years old, transgender man, attracted to different gender only) mentioned that 'people left that group and started another group with nice people, and so did I'. This was described as an effective measure to prevent further negative interactions among participants.

### Some social media groups are mismanaged

One of the highlighted issues in Facebook groups was that they were often created and moderated by other adolescents. As Alex (17 years old, transgender man, attracted to different gender only) explained:

'it's not good for teenagers to have this much authority ... sometimes lines are crossed ... the admin [group administrators] are still just teenagers like the rest of us, they usually just see it and go 'gosh, I don't know what to do'. It just gets swept aside' (Alex, 17 years old, transgender man, attracted to different gender only).

Participants believed some of these groups were consistently problematic, describing some as 'infamous' and with users who 'wanted to stir things up' (Michael, 16 years old, transgender man, attracted to different gender only). These larger groups were commonly associated with experiences of discrimination, including racism. Smaller groups

appeared to combat these kinds of issues by implementing strict rules regarding how you can join groups and increasing the number of administrators. Administrators are those in charge of groups and can also act as moderators.<sup>29</sup> Micah (17 years old, non-binary, questioning) explained that one group had:

'three administrators and it is a secret group, if we want to add anyone, we have to talk about it with every other member. People who are not sensitive about other people's feelings or have a tendency to bully other people are just not allowed in at all'.

### LGBTQ adolescents can experience discrimination on general social media

Social media that was not LGBTQ-specific was also described as an environment likely to be unsafe for LGBTQ individuals. For example, Ellie (17 years old non-binary, attracted to different gender only), said that: '[People] give opinions that attack me personally as an LGBTQ person'. Anti-LGBTQ sentiment can be expressed in the form of posts or comments from individuals, groups, or organisations. Exposure to this kind of negative material on social media was perceived as contributing to the poor mental health of LGBTQ adolescents. As Beth (17 years old, female, attracted to same gender only) put it, some of these young people are 'sad and mad' and have a 'f\*\*k the world' view. Participants noted that anti-LGBTQ comments would be expressed more commonly and easily online compared to in-person. As Ellie (17 years old, non-binary, attracted to different gender only) stated 'people would not dare say some of that stuff face-to-face'.

Some users developed coping strategies to counter the negative effects of viewing discriminatory social media posts, on both LGBTQ groups and general social media. Strategies articulated by participants included unfollowing the source or focusing on alternative activities such as watching television or exercising to distract oneself. Beth (17 years old, female, attracted to same gender only) described strategies she used to distract herself including 'binge watching a show, turning off the internet and immersing in the real world ... You do not want death threats'. These avoidance strategies may be useful in reducing frustration and avoiding conflicts, but also do not help to change the context in which the harmful communications are occurring.

## Discussion

This analysis found that social media networks are perceived as an effective method for securing social support among LGBTQ adolescents. Our findings indicate that LGBTQ adolescents view social media as protective against commonly

experienced mental health issues. However, LGBTQ participants also reported experiences of discrimination, including homophobia, transphobia and racism in larger LGBTQ Facebook groups, indicating that these virtual 'safe spaces' are not immune to facilitating negative interactions. This study described the many ways that social media is utilised by LGBTQ adolescents for prosocial activities. LGBTQ participants use social media to find friends and romantic partners and to facilitate in-person connections. LGBTQ participants tended to be more dissatisfied with the information on sex, relationships and sexual health they could secure through online sources, including through social media.

As Tiidenberg and colleagues<sup>30</sup> note, most popular social media platforms (including Facebook and Tumblr) offer a range of similar affordances, or 'possibilities for action' – including the capacity to easily share, archive and search for multi-modal posts (i.e. written text, photographs, screenshots and video).<sup>30</sup> In terms of peer-support for LGBTQ+ young people, there are some key differences between Facebook's affordances and those of Tumblr.<sup>30</sup> While public Facebook profiles are easily accessible and searchable, Facebook's 'real name' policy, and policy of facilitating connection through automated recommendations (i.e. 'People You May Know') can compromise LGBTQ+ young people's privacy and security.<sup>24,30</sup> In contrast, Tumblr facilitates anonymity, but does not offer the same capacity for young people to easily search for specific local communities.<sup>24</sup> Hanckel and colleagues (2019) have observed that these diverse platform affordances require young people to carefully curate their online accounts in order to meet their specific contextual needs.<sup>24</sup>

Social media is associated with increased connectivity and social capital with benefits for wellbeing.<sup>9,31,32</sup> The findings of this study support previous research that has found social media can offer a safe environment for LGBTQ adolescents.<sup>5,18,20,32</sup> Research has shown that LGBTQ adolescents are at risk for mood disorders, PTSD, other mental illnesses, and alcohol and substance abuse.<sup>14,15</sup> Online platforms are associated with reduced stigmatisation compared with offline alternatives, thus improving the potential for positive mental health benefits for users.<sup>32,33</sup> Online representations of LGBTQ individuals and communities can validate these identities and experiences, as we see in the popularity of YouTube and Instagram accounts documenting medical gender affirmation processes.<sup>12,34</sup> Although LGBTQ representation is becoming more common in media platforms of all kinds, these sexual and/or romantic journeys are less commonly portrayed, and negative representations of transgender people remain common.<sup>35</sup>

Our findings demonstrate the potential positive effects of social support through social media on LGBTQ adolescents, which may result in improved mental health outcomes. Adolescents who do not access online groups are at risk of social isolation unless they have an in-person support network.<sup>36</sup> Social isolation is compounded by a lack of belonging and heightened by contributing factors (stigma,

heterosexual norms or rejection).<sup>37</sup> Social and/or physical isolation and lack of mental health support can be particular risks for mental health issues among LGBTQ people who are living in regional and remote locations.<sup>21,37–39</sup> Social media or online groups are not geographically restricted and have the ability to cater to those in rural and remote areas.<sup>21,40</sup> This is especially pertinent in times when physical isolation is more pronounced, such as during periods of restrictions on movement due to the COVID-19 pandemic.<sup>41</sup> Young people have felt more isolated, alone and overwhelmed due to COVID-19 restrictions.<sup>42,43</sup> Attention to maintaining the mental health of LGBTQ adolescents whilst in isolation should be a priority due to their vulnerable state.<sup>20,41</sup>

In line with previous research, we found that LGBTQ youth use social media to connect with others and seek romantic partners more than non-LGBTQ peers.<sup>19</sup> Participants described how connections are initiated by exploring shared experiences or interests. This is likely due to the reduced number of romantic options and social risks associated with disclosures, as LGBTQ youth are a stigmatised minority.<sup>19</sup> Our findings reflect similar patterns with LGBTQ adolescents using Facebook groups to communicate and organise individual meetings or group events. Ethical and privacy concerns were also motivating some participants to leave Facebook and use alternative social media platforms.<sup>44</sup> This suggests that this study may not capture all of the ways in which young people use current forms of LGBTQ social media, including Facebook.

Anti-LGBTQ attitudes are often expressed by communities, families, religious groups and schools.<sup>15,45</sup> This has been shown to impact LGBTQ community involvement, networks and identity development.<sup>15,45</sup> Strategies to eliminate or at least reduce prejudice in individual attitudes and institutions can lead to a strengthened sense of identity, community, belonging and mental health.<sup>15,45</sup> Legislation may prove useful in preventing or reducing mental health issues.<sup>46</sup> Within our study, negative attitudes were present on social media such as in news articles or in friends' posts with discriminatory comments. Popular Facebook groups within this study were also not immune to discriminatory views being expressed. In combatting these negative experiences, participants would join other groups that were often smaller and with stricter rules. Our study also described how some inexperienced peer group moderators were unsuccessful in preventing negative LGBTQ sentiments.

This study has a number of strengths. Even though the SNAP study did not specifically seek to recruit this group, a high proportion of participants identified as LGBTQ (51%). To our knowledge, this study is the first to address specific issues relating to the experience of participating in LGBTQ social media groups. Limitations included that recruitment was primarily via Facebook and Instagram, and so users of other social media and non-users may not have been captured. Those adolescents not comfortable discussing sexual topics would likely also not have participated. Lastly, baseline questionnaires only asked about attraction rather



than sexuality, and although subsequently this was rectified in the endpoint questionnaires, participation had dropped by 15%.

## Implications

These findings help to expand our understanding of how LGBTQ adolescents connect and support peers, and potential issues associated with participation in social media platforms. It is vital that professionals working with LGBTQ adolescents, including clinicians, support workers, teachers (i.e. sex education) and policy makers be made aware of the advantages and disadvantages of social media groups for this group of young people. Professionals should be aware of the effect adults have in online adolescent groups. Rather than having adult moderators, support could be offered to those peers already acting as group administrators (e.g. mental health first aid and mental health hotlines). Inexperienced peers currently managing groups may benefit from this support. Professionals may be willing to refer adolescents to more reputable and well managed groups run by adolescents to avoid negative interactions. This would help in avoiding the mismanagement and potentially hostile nature of some groups. Adolescents appreciate spaces where adults are not present, to engage openly with their peers.<sup>47</sup>

## Conclusion

Social media is fundamental to supporting adolescents as they learn to socialise, develop identities and experience their world. Our study showed that LGBTQ adolescents use social media in ways that can provide positive influences on wellbeing. Awareness of LGBTQ use of social media highlights areas for support that can be addressed by professionals. It is important to support wellbeing and improve mental health in this vulnerable population.

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## Appendix 2: ASHM Conference Presentation

### Social media and its use in support networks among LGBTQ adolescents

Betzler LMN<sup>1</sup>, Takio M<sup>2</sup>, Morino J<sup>3,4,5</sup>, Lim MSCFA<sup>6</sup>, Lewis L<sup>7</sup>, Albany K<sup>8</sup>, Chang KSK<sup>9</sup>, Cooper S<sup>10</sup>, Bateson B<sup>11</sup>, Skinner SE<sup>12</sup>

<sup>1</sup>Sydney Medical School, Faculty of Medicine and Health, The University of Sydney  
<sup>2</sup>Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne  
<sup>3</sup>Australian Children's Research Institute  
<sup>4</sup>Royal Women's Hospital  
<sup>5</sup>Centre for Population Health, Burnet Institute  
<sup>6</sup>Faculty of Medicine, Nursing and Health Sciences, Monash University  
<sup>7</sup>The Kirby Institute, University of New South Wales  
<sup>8</sup>Paediatrics and Communicable Diseases, Sarawak University of Technology  
<sup>9</sup>School of Project Management, Faculty of Engineering, The University of Sydney  
<sup>10</sup>Columbia School of Public Health and Health Policy, City University of New York  
<sup>11</sup>Faculty of Nursing, New South Wales





### Introduction and Aim

- Common platforms are Instagram, Facebook, Twitter, TikTok and Snapchat
- Lesbian, gay, bisexual, transgender, queer and/or questioning (LGBTQ) individuals are at higher risk of mental health conditions
- Peer support is a protective factor of mental health
- **Study aim: to explore LGBTQ adolescents' use of social media as support networks including friendships, romantic relationships and social support**



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### Research Methods

- This study was part of a larger mixed methods longitudinal project<sup>1</sup>
- Advertisements on Facebook and Instagram, and NSW Family Planning Clinics
- Sixty-one (61) participants were interviewed
- Three sets of semi-structured interviews (baseline, midpoint and endpoint)
- Consent was gained prior to conducting the interviews
- Thematic analysis was utilised

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<sup>1</sup> Lim MSC, Cooper S, Lewis L, Albany K, Cheng QN, Bateson B, Skinner SE. Prospective mixed methods study of uptake and use of social networks and the development of a support agency in adolescents: The Social Networks and Support Project (SNAPS) protocol. BMC Open. 2019;9(1):2019.

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### Participant demographics

Characteristics	N	%
<b>Age</b>		
Mean (SD)	16.18 (0.87)	
<b>Gender</b>		
Male	13	21%
Female	41	67%
Trans male	3	5%
Non-binary	4	7%
<b>Attraction</b>		
Attracted to Opposite Sex Only	34	56%
Attracted to Same Sex Only	5	8%
Attracted to Both Sexes	19	31%
Queering	3	5%
<b>Metropolitan or Rural</b>		
Those living in metropolitan areas	39	64%
Those living in rural areas	21	34%
Those living in split areas	1	2%

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**LGBTQ adolescents connect on social media with like-minded people**

- Social media groups (i.e., Facebook) were popular
- Groups were diverse with many subgroups
- Facebook groups were used for connecting with peers
  - "we have meet ups in very public places so that it's safe and everyone makes friends"
  - "my friendships have doubled since I joined the group"
  - "[romantic relationships] happen a lot in the group"

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**Non-LGBTQ adolescents rely on in-person networks**

- Were more apprehensive connecting with strangers via social media
  - "I get a lot of people from other countries that friend me, I obviously would decline those requests because that is a bit creepy"



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**LGBTQ adolescents seek and provide information via social media**

- Some relied on online sources (incl. social media) for sexual health information
- Concerns arise approaching parents and risks of being outed
  - "sometimes it's not safe for you to go to your parents"
- Parents may not be a helpful source
- School information was unsatisfactory
  - "I did not get very good sex education in school"

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**Non-LGBTQ adolescents rely on in-person networks**

- More likely to be satisfied with offline information sources
  - "I listened in PDHPE and that is enough"
- All participants avoided approaching parents

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**LGBTQ adolescents seek and provide wellbeing support via social media**

- Groups are vital to supporting peers through hardships
- Many had mental health concerns in the groups
  - "almost all of my friends are suicidal, it's not funny"
- Groups were "loving environments"
  - "whenever people post at least 10 people will check up on you"
- Groups were prone to hostile interactions

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**Non-LGBTQ adolescents rely on in-person networks**

- Most did not describe feeling isolated or relying on social networks

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**Social media groups can be a source of discrimination and stigma**

- Sexuality and gender diversity intolerance was prevalent
  - "there was a lot of racism and transphobia within the group"
  - "you cannot be here; you are not gay enough"
- Participants left hostile groups to join smaller groups
  - "people left that group and started another group with nice people"

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### Some social media groups are mismanaged

- Groups were often run by other adolescents
  - *"it's not good for teenagers to have this much authority"*
- Some administrators were inexperienced
  - *"they usually see it and go 'I don't know what to do', it gets swept aside"*
- Smaller groups restricted membership and had multiple administrators

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### LGBTQ adolescents experience discrimination on general social media

- Social media remains a source of discrimination
  - *"people give opinions that personally attack me"*
- Social media facilitates anti-LGBTQ sentiment
  - *"people would not dare say that stuff face-to-face"*
- Anti-LGBTQ material does not solely affect LGBTQ adolescents
- Participants reported several coping strategies
  - *"binge watching a show"*

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### Discussion

- Compared to non-LGBTQ peers, LGBTQ participants:
  - Used social media to find friends and find safe spaces
  - Relied more on online tools for sexual health information
  - Sought/provided support via Facebook groups
- Social media may have positive effects on LGBTQ adolescent mental health
- Not geographically restricted made pertinent due to COVID-19



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### Implications and conclusion

- Professionals should be aware of the advantages of social media
- Referrals to known / reputable groups
- Groups may benefit from professional moderation
- Group administrators may collaborate with professionals
- Obtain additional support, training and resources

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## Appendix 3: Demographic and Behaviour Questionnaire

Confidential

Page 1

### Background Questionnaire

Welcome to the SNAP Study.

Please try to answer every question - the information you give us is really important and we couldn't do this study without you.

Remember that everything you tell us is confidential. Your answers get lumped in with all of the other answers from other people your age involved in the study. We actually can't link your name back to any of your answers.

Thanks again,

The research team

#### This section asks a bit about you.

What is your gender?

- Male
- Female
- Other - please describe below

Please describe your gender

---

How old are you?

- 15 years old
- 16 years old
- 17 years old

What is your date of birth?

\_\_\_\_\_  
(DD/MM/YYYY)

Are you of Aboriginal or Torres Straight Islander origin?

- Yes
- No

Were you born in Australia?

- Yes
- No

Where were you born?

---

---

How many years have you lived in Australia?

\_\_\_\_\_

---

Is English the main language spoken at home?

- Yes
- No

---

What is the main language spoken at home?

\_\_\_\_\_

---

Are you currently enrolled as a student at a secondary school / high school?

- Yes
- No

---

What year are you in at school?

\_\_\_\_\_

---

Which of these categories best describes the school you currently attend?

- Public / Government school
- Catholic non-government school
- Private / Independent school
- Other
- Don't know

---

In general, how happy are you at school?

- Very happy
- Somewhat happy
- Neither happy nor unhappy
- Not so happy
- Very unhappy

---

How would you describe your academic performance in school during the past six months?

- Excellent
- Very good
- Good
- Below average
- Poor

---

Are you happy with the friendships you have at school?

- Always
- Almost always
- Sometimes
- Rarely
- Never

---

Over the past 6 months, how many days of school have you missed? Please give your best estimate if you can't remember.

- I haven't missed any days of school
- Less than 5 days
- Between 5 and 10 days
- Between 10 and 20 days
- Over 20 days

---

In which year did you leave school?

- 2016
- 2015
- 2014
- 2013
- earlier

---

What was the highest year of school you completed?

- Year 12 (or equivalent)
- Year 11 (or equivalent)
- Year 10 (or equivalent)
- Other

---

Which of these categories best describes the school you used to attend?

- Public / Government school
- Catholic non-government school
- Private / Independent school
- Other
- Don't know

---

Do you currently have employment of any kind?

- No, I do not have a job
- Yes, I do work for payment
- Yes, I do unpaid work



---

**Please tell us a bit about your family.**

---

Who lives with you in your home? (Please choose all that apply)  
(Please choose all that apply )

- Mother
- Step-mother
- Father
- Step-father
- Brothers or sisters
- Grandparents/Aunts/Uncles
- Other

---

Who is in your family but doesn't live with you at home? (Please choose all that apply)  
(Please choose all that apply)

- Mother
- Step-mother
- Father
- Step-father
- Brothers or sisters
- Grandparents/Aunts/Uncles
- Other

---

How many brothers do you have?

- 0
- 1
- 2
- 3
- 4 or more

---

How old is your brother?

\_\_\_\_\_

---

How old is your eldest brother?

\_\_\_\_\_

---

How old is your 2nd eldest brother?

\_\_\_\_\_

---

How old is your 3rd eldest brother?

\_\_\_\_\_

---

How old is your 4th eldest brother?

\_\_\_\_\_

---

How many sisters do you have?

- 0
- 1
- 2
- 3
- 4 or more

---

How old is your sister?

---

---

How old is your eldest sister?

---

---

How old is your 2nd eldest sister?

---

---

How old is your 3rd eldest sister?

---

---

How old is your 4th eldest sister?

---

---

What is the highest level of education completed by your father?

- Did Not Complete High School
- High School
- TAFE
- University
- Not Sure

---

What is the highest level of education completed by your step-father?

- Did Not Complete High School
- High School
- TAFE
- University
- Not Sure

---

What is the employment status of your father?

- Working full time
- Working part-time
- Unemployed
- On a disability pension
- Studying
- Does unpaid work inside the home
- Not sure

---

What is the employment status of your step-father?

- Working full time
- Working part-time
- Unemployed
- On a disability pension
- Studying
- Does unpaid work inside the home
- Not sure

---

What is the highest level of education completed by your mother?

- Did Not Complete High School
- High School
- TAFE
- University
- Not Sure

---

What is the highest level of education completed by your step-mother?

- Did Not Complete High School
- High School
- TAFE
- University
- Not Sure

---

What is the employment status of your mother?

- Working full time
- Working part-time
- Unemployed
- On a disability pension
- Studying
- Does unpaid work inside the home
- Not sure

---

What is the employment status of your step-mother?

- Working full time
- Working part-time
- Unemployed
- On a disability pension
- Studying
- Does unpaid work inside the home
- Not sure

**Remember as you complete this next section that all of your answers are completely confidential.**

Which of these statements best describes your sexual feelings at the moment? I am attracted to...

- Only to people of the opposite sex
- People of both sexes
- Only to people of my own sex
- Not sure

What types of sexual activity have you had? (Please choose all that apply)  
(Please choose all that apply)

- Making out/deep kissing
- Touching someone sexually (on their penis/vagina)
- Been touched sexually (on your penis/vagina)
- Giving oral sex
- Receiving oral sex
- Vaginal sex
- Anal sex

How old were you first experienced making out/deep kissing?

\_\_\_\_\_

How old were you when you first touched a partner sexually (on their penis/vagina)?

\_\_\_\_\_

How old were you when a partner first touched you sexually (on your penis/vagina)?

\_\_\_\_\_

How old were you when you first gave oral sex?

\_\_\_\_\_

How old were you when you first received oral sex?

\_\_\_\_\_

How old were you when you first had vaginal sex?

\_\_\_\_\_

How old were you when you first had anal sex?

\_\_\_\_\_

---

Have you ever had sex without a condom?

- Yes
- No

---

How old were you when you first had sex without a condom?

---

---

How many people have you had sex (vaginal or anal) with in the past 6 months?

---

---

Have you ever had sex when you didn't want to?

- Yes
- No

---

Why do you think this happened? (Please choose all that apply)  
(Please choose all that apply)

- I was drunk
- I was high
- My partner thought I should
- My friends thought I should
- I was frightened
- Unsure

---

Do you currently have a boyfriend/girlfriend?

- Yes
- No

---

How old is your boyfriend/girlfriend?

---

---

Are you currently in a sexual relationship?

- Yes
- No

---

How likely are you to have sex (vaginal or anal) in the next 6 months?

Not at all likely Extremely likely



(Place a mark on the scale above)

## Appendix 4: Social Networks Measure

Confidential

Page 1

### Your Social Networks

Please try to answer every question and remember that everything you tell us is confidential.

Thanks,

The research team

**Looking back over the last six months, please list up to 10 people you interacted with the most.**

**List at least 5 and up to a maximum of 10.**

**These could be friends from your school or another school, a boyfriend or girlfriend, people from a sport or a group you are involved in, friends of friends, people you chat with online or other people you just hang out with. They could even be a family member.**

**Please enter their first name and the first initial of their last name, for example - Jane S.**

**Remember that the the names you give will be coded into numbers so they can't be identified.**

Person 1

\_\_\_\_\_  
(For example - Jane S)

Is this person:

- Male  
 Female  
 Other

Person 2

\_\_\_\_\_  
(For example - Jane S)

Is this person:

- Male  
 Female  
 Other

Person 3

\_\_\_\_\_  
(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 4

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 5

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 6

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 7

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 8

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 9

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other

---

Person 10

---

(For example - Jane S)

---

Is this person:

- Male
- Female
- Other



**Now I would like to ask you the same set of questions for each of the people you listed in the previous section.**

What is your relationship with [person\_1]?  
(Choose all that apply)

- Friend
- Boy/girlfriend
- Family/Relative
- Other

What does [person\_1] do?

- High school student
- University student
- TAFE student
- Working (not a student)
- Other

How close are you to [person\_1]?

- Very close
- Close
- Not really close
- Not close at all

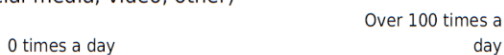
What is the most common way you and [person\_1] interact?

- Face to face
- Text / Messaging
- Social media - Facebook/Twitter/Snapchat
- Video calling
- Other

On average, how often do you interact with [person\_1] face to face?

- Every day
- Several times a week
- Once a week
- Once a month
- Less than once a month
- Never

On average, how many times a day do you interact with [person\_1] in a non face to face way? (text, messaging, social media, video, other)



(Place a mark on the scale above)

Are your interactions with [person\_1] ever flirty?

- Often
- Sometimes
- Rarely
- Never

## Appendix 5: Interview Guides

### BASELINE INTERVIEW GUIDE

#### Social media

1. Can you tell me what interested you about this study? What made you sign up?

2. Tell me a bit about what social media you use.

- What do you use them for?
- How do they differ from each other?
- Which do you use most frequently?
- Do you prefer to use social networks on a mobile, on a desk computer, or something else?
- Why do you prefer the platforms you use the most?
- How is your use of social media influenced by your friends?

\*\* If they are not big users of social media

- Why do you think some young people use social media a lot and others do not?
- How do you think other young people use social media differently than you do? (attention, show off....)

#### Sharing information

3. Tell me a bit about the types of information you share online? Can you give me some examples of this?

- How do you decide to what to share online?
- Do you share different things on different platforms? Why/why not?
- Who do you share information with?
- How do you decide to what to share online?
- Do you share different things on different platforms? Why/why not?

#### Sexual interactions online

4. Have you ever seen something online that bothered you? Can you tell me about it?

- What did you do when you saw it?
- If I used the term sexual online communication, what does that mean to you?
- Are sexual texts or images easily misinterpreted? Can you share an example?
- Some people say that sharing sexual images is a joke or it's funny. Can you talk to me about this?
- How do you think young people learn about sexuality and sex - online?

#### Romantic relationships

5. Tell me about how people use social media in romantic or sexual relationships.

- Have you met someone this way? How did this happen?
- How do you think online and offline relationships different?
- How do you let someone know that you like them when you're online?
- How much time do you spend communicating with your boyfriend/girlfriend or people you are interested in on-line vs to offline?
- Are there things you would say in one space you would not say in another?

- Does the type (e.g., friendship; boyfriend/girlfriend) and quality of relationship (e.g., flirt, sexual, close friends) influence your choice of interaction? How so?

\*\* If they are not in a relationship or flirting online

- How do you think young people use social media when they like someone romantically?
- Do you think romantic relationships form online? Can you tell me about this?
- How do you think flirting works online? Any examples?

**6.** Imagine you live in a world without social media, how would this affect your friendships? Relationships? Sexual attitudes?

## MIDPOINT INTERVIEW GUIDE

### Sexual health/sexuality information

7. Many young people, whether they are having sex or not having sex, have questions about sex, sexual health, or sexuality.
  - a. Where do you think most young people get information about sex, their sexual body, or sexual feelings? (friends/family/school/online)
  - b. Who would you go to if you had similar questions?
  - c. Are there good blogs/ google sites? Where else could you get this kind of information?
8. Do young people always know they are ready for sex?
  - a. How do they know?

**\*\* If they are sexually active**

  - b. What about you?
9. How do young people negotiate what kind of sexual activities they might want if they are having sex?
  - a. Where do you think they learn this from – friends, family school online?
10. What is your definition of safe sex?
  - a. Physical and emotional?

### Sexual relationships

11. Can you describe to me what the ideal sexual relationship is – in your own terms?
  - a. Do you see any relationships sexual or non-sexual around you (friends, family, celebrities) that are the kind of relationship you would like to be in?
  - b. What is it about that relationship that you like?
  - c. Do you think that your friends or family would feel the same way as you do about what a good sexual relationship is? Can you explain why or why not?
12. Do social media play a role in how young people form ideas of what relationships 'should be'? How?
  - a. 'Relationship goals'/Celebrities/Pornography?

### Exploring flirting online and offline

13. When young people flirt online, what does it mean for them? Is it always sexual, and what else can it be? Is the intent to have sex or is it just a fun feel-good activity? Or is it just exploring the relationship – is it real?
  - a. If you got a flirty text would you show your friends and talk about it? Why/why not?
  - b. If you liked someone, how do you think you would let them know? F2F – online

**\*\* If they are not flirting**

  - Why are you not flirty online?
14. Have you ever used "dating" or "hook-up" app?

**\*\* If yes**

  - What apps are out there? What ones have you used?
  - How specifically have you used it? (for fun, to meet a partner, to hook up?)

**\*\* If no**

  - Have you heard about particular apps that people use?
  - Do you know of other people who have used them? Can you tell me a bit about their experience?

**15.** Are you in a relationship now, sexual, or non-sexual?

\*\* If yes

- a. Do you flirt with people other than your partner?
- b. Can you describe this to me?
- c. How is this different than flirting with your partner?
- d. Does partner know? Is this ok? Do they do it too?

\*\* If no

- e. Do you think it's ok for people to flirt with someone other than their partner?  
Why/why not
- f. Do you know of anyone who does this? Can you describe it to me?
- g. Have there been any problems because of it?

## ENDPOINT INTERVIEW GUIDE

### Sexual Agency

1. Sexual agency could be defined differently by different people – now that you've completed the study, can you tell me what sexual agency means to you?
2. If you could tell your parents or teachers anything sexual agency in young people what would you like them to know?
3. Has being part of the study affected your view on sex and relationships anyway?
  - a. Do you think your sexual agency has changed or developed over the course of the study?
4. Do you think it important to study sexual agency in young people?
  - a. Is sexual agency a useful concept?

### Online and offline relationships

5. We've asked a lot about your online and offline relationships - do you think it is useful to draw a distinction between online and offline communications?
  - a. Are there major differences? What are they?
6. How have your friendships/relationships changes over the past 18 months?
  - a. Online and offline
7. If you could tell your parents or teachers anything about how young people communicate what would you like them to know?
  - a. Texting
  - b. Social media
8. Looking back over the course of the study how has your use of social media changed?
  - a. Different platforms, how you use them, etc.