Service Quality in Community Pharmacy: an Exploration of Determinants[1]

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ABSTRACT

BACKGROUND: Although various instruments have been developed to measure customer satisfaction with community pharmacy services, there is limited research regarding pharmacy staffs' understanding of service quality and its determinants.

OBJECTIVES: This study aimed to explore the perceptions of pharmacy staff regarding the factors which constitute a high level of service quality using the service quality determinants proposed by the *Conceptual Model of Service Quality*.

METHODS: Structured interviews were conducted with 27 pharmacy assistants and 6 pharmacists in three community pharmacies in Sydney. The interview questions focused on the participants' perceptions of consumer expectations, the translation of these perceptions into service quality specifications, the actual service delivery and the communication to customers.

RESULTS: From the pharmacy staff perspective, service quality is significantly limited by insufficient organisation-internal communication and control processes which impede role clarity and the resolution of conflicting role expectations among customer service staff. Participants indicated that these problems could be alleviated through the implementation of more transparent, realistic, measurable and accepted quality specifications by pharmacy management.

CONCLUSIONS: The study indicates that the extent and quality to which pharmacy management sets, maintains and communicates service quality specifications to staff directly affects role clarity, role conflict and organisational commitment among customer service staff, which in turn directly influence the level of service quality provided to customers.

INTRODUCTION

Although pharmacy services are an integral part of the Australian health care system, there is limited research regarding service quality in this field. Traditionally, health care professionals -

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including community pharmacists –have been regarded by the public as delivering unquestioned services. In recent decades, this situation has shifted towards a more critical use of health services by increasingly informed patients. A growing number of pharmacies and the consumer desire for 'best value for money' have contributed to increasing competitiveness and strategic business orientation in community pharmacy.[1] This has forced managers to focus on maximising customer satisfaction in order to be competitive and successful,[2] whilst at the same time fulfilling their role as providers of vital medicine services. The dual role of community pharmacy, as a retail business on the one hand and a health care provider on the other, poses challenges to the evaluation of its service quality. This becomes obvious when reviewing the variety of methods which have been used to measure pharmacy customer service. One such method has focused on the reasons that customers choose a particular pharmacy over another. In Japan, Kamei, Teshima, & Nakamura [3] found that the attitude of the pharmacy/pharmacist, convenient opening hours, short prescription waiting times and good information management were the most important factors. Tam& Lim [4] discovered in a Singaporean study that customer perception of good service quality was based on short prescription waiting times, medicines being dispensed accurately and reasonable pricing of medicines. In contrast, a study that divided customer service into technical and functional components indicated that pharmacy clients were less concerned with *what* they received (e.g. medicines, counselling; technical aspects) than with *how* the services were delivered (e.g. fast, friendly; functional aspects) even when the technical quality was low.[5] Whitehead, Atkin, Krass & Benrimoj [6] indicated that, given equal accessibility of pharmacies, consumers preferred to purchase prescriptions in pharmacies that provided high levels of drug information. U.S. consumers in a 1997study were found to be overall more satisfied with independent community pharmacies than with chain pharmacies.[7] However, a study by Xu [8] revealed that elderly American consumers placed a high satisfaction value on close patient-pharmacist relationships found in single community pharmacies, yet were prepared to relinquish this benefit, particularly when purchasing larger numbers of prescription drugs, in favour of multiple chain pharmacies due to price concerns and insurance diversification. The potential new service most wanted by veteran pharmacy customers in the U.S. was the availability of a pharmacist to talk with patients by telephone.[9]

Although a variety of instruments have been developed to measure customer satisfaction with pharmacies/pharmacists (see [10,11-13]), these instruments do not provide an understanding of customer expectations *in relation to* the actual services provided.[14] An analysis of the pharmacy staffs' perspective could shed light on this issue if we consider that the difference between consumer expectations of what constitutes good service quality and the pharmacy staffs' understanding of these expectations or their preparedness and ability to meet them determines the pharmacy's actual service quality.[15]

In the marketing literature, one of the key models that has endeavoured to explain the discrepancy between consumer expectations and perceptions of service quality is the 'Conceptual Model of Service Quality' developed by Zeithaml, Berry, & Parasuraman.[15] The model proposes that four gaps on the service provider side determine the difference between the consumers' expected and perceived service quality (gap 5). The four service provider gaps consist of the differences between:

- consumer expectations and management perceptions of consumer expectations (gap 1),
- management perceptions of consumer expectations and the translation of these into service quality specifications (gap 2),
- service quality specifications and actual service delivery (gap 3), and
- service delivery and external communication to customers (gap 4).

There has been academic criticism (see [16-19]) of this model and its precursor, (the 'Service Quality Scale' [20,21] known as 'ServQual' on which the gap model is based), which has centred on theoretical and operational concerns. Buttle [22] summarizes the key issues regarding

ServQual to be paradigmatic objections regarding the disconfirmation basis of ServQual; the use of the expectation/perception scales, the process versus an outcome orientation; the use of five dimensions; the item composition; the use of reversed polarity; the nomenclature of the scale points; and the variance extracted. After an extensive discussion of each of these issues, Buttle [22] however concludes "Despite these issues, ServQual seems to be moving rapidly towards institutionalized status. As Rust and Zahorik [23] have observed, "the general ServQual dimensions […] should probably be put on any first pass as a list of attributes of service (p. 200)". It is relevant to note also that there has been no widely accepted replacement and both tools are frequently used in managerially and academically focused research in a wide range of service industries(see [24-28]). Whilst a study by Villako & Raal [1] compared customer preferences with perceptions of pharmacists concluding that pharmacists overestimated the importance of quick service and wide choice of products and underestimated the customers' need for help choosing the right medicine, for professional consulting and privacy, to our knowledge, no previous research has used Zeithaml et al's model to measure service quality in community pharmacy. With this study, we have aimed to explore the pharmacy staffs' perceptions of service quality using the service quality determinants suggested by the gap model by Zeithaml et al.[15]

METHODS

Study design and participants

An exploratory approach was taken to understand the factors occurring in community pharmacy that might impede the provision of high service quality from the perspective of pharmacy staff, using Zeithaml et al's Service Quality Gap Model.[15] Based on a convenience sample, three community pharmacies in the Sydney metropolitan area were chosen that were considered to provide information-rich data and lead to a diversity of demographics regarding size and location.[29] Two of the pharmacies are large (more than 30 staff employed) and the third was a mid-sized pharmacy (approximately 10 staff employed). The two large pharmacies are located in shopping centres and the mid-sized one is in a strip shopping centre. All three are in suburban Sydney in areas of middle to lower socio-demographic status.

Within these pharmacies, structured one-on-one interviews were conducted with a total of 6 pharmacists and 27 front-of-shop/dispensary assistants[2]. The interviewees were full-time or part-time, non-casual staff. Details of the participating pharmacy and interviewee characteristics are depicted in table 1. Ethics approval was obtained from the University's Ethics Committee prior to commencing research.

Table 1: Pharmacy and Interviewee Characteristics

	Pharmacy A	Pharmacy B	Pharmacy C	Totals	Totals in %
Pharmacy size/location	Medium Suburban	Small Inner city	Large Suburban		
Organisational structure	Each of the pharmacies belongs to one of two multi-store groups, owned by private individuals who do not work in the pharmacy, but are actively involved in managing the business, through staff selection and determination of Human				

[2] This reflects the number of available staff at the time when the research was conducted, excluding those staff members who were on holidays or sick leave. None of the available staff refused to participate.

		Resource policies, purchasing, pricing and promotional strategies.				
Number of Interviewees		11	6	16	33	100%
Position of Interviewee*	Pharmacist	3	2	1	6	18%
	Pharmacy Assistant	8	4	15	27	82%
Time worked in pharmacy	Less than 1 year	1	-	3	4	12%
	1-2 years	2	1	1	4	12%
	2-5 years	1	1	3	5	15%
	5-10 years	2	1	2	5	15%
	Over 10 years	5	3	7	15	45%
Time worked in *this* pharmacy	Less than 1 year	2	-	7	9	27%
	1-2 years	3	1	5	9	27%
	2-5 years	2	2	4	8	24%
	5-10 years	-	1	-	1	3%
	Over 10 years	4	2	-	6	18%
Gender	Female	11	4	16	31	94%
	Male	-	2	-	2	6%
Age	Under 20 years old	-	-	1	1	3%
	20-30	6	2	4	12	36%
	31-40	2	2	6	10	30%
	41-50	1	-	3	4	12%
	Over 50	2	2	2	6	18%

* As explained in row 3 (Organisational Structure), in all three pharmacies, the owners (who set the service specifications) do not work in the pharmacy and were not interviewed for this study. Thus pharmacy managers were interviewed here in their role as employees. This study was not designed to differentiate between the perceptions of employed pharmacist managers and other staff (e.g. dispensary technicians, check out operators, front of shop pharmacy assistants), but only to capture the views of all pharmacy employees, who actually *deliver* customer service as opposed to the owners who *determine* the service quality specifications through organisational goals, policies and procedures.

Data collection

Interviews, each lasting between 20 and 45 minutes, were held during business hours in a private area in each pharmacy. Participants were asked to answer the questions to the best of their knowledge, without soliciting assistance from colleagues. All participants were asked the same questions regardless their roles and responsibilities in the pharmacy. The respondents' ability to answer the interview questions depended on the individual employee's length of time worked at this pharmacy and level of familiarity with, and insight into the organisation. None of the participants refused to answer a question. The interview guide is provided as Appendix 1. The interview questions were directly derived from Zeithaml et al's Conceptual Model of Service Quality (see interview schedule attached) and centred on four service quality parameters, (1) management perceptions of consumer expectations, (2) translation of perceptions into service quality specifications, (3) actual service delivery and (4) communication to customers. Due to the highly structured nature of the interviews, these were not audio-taped/transcribed. The researcher who conducted the interviews based her data analysis on her 'live' interview notes and on her extensive field notes, which were taken immediately after each interview and included the researcher-interviewer's impressions on non-verbal cues of respondents such as mood, openness and honesty, as well as her overall impression of the interview.

Data analysis

The interview responses were critically examined for each of the four service quality parameters. Pharmacy-specific analyses were prepared, highlighting areas where, according to the participants' accounts, the pharmacy was achieving their goals and areas where there was an obvious gap between expected and perceived service delivery. The individual pharmacy results were synthesised into an overall analysis. The core data analysis was carried out by the same researcher who also conducted the interviews. This analysis process was supervised by the first author of this article, a highly experienced senior researcher, who probed the analyst for accuracy, gaps and inconsistencies in the data analysis, and assisted with interpreting and expressing difficult issues. Participating pharmacies were given a pharmacy-specific summary of the study findings for information and checking purposes. None of the pharmacies suggested any amendments to the results.

RESULTS

The following findings are described in the order of Zeithaml et al's four service quality gaps.

Gap 1: Management perceptions of customer expectations

The first service quality gap examines how well pharmacy managers/owners understand what their customers want[3]. The size of the gap depends on the pharmacy's marketing research orientation, the extent and quality of upward (i.e. employee-to-manager) communication, and the number of management levels.

Marketing research orientation

Whilst marketing research was conducted in all three pharmacies and results were used by owners and managers in decision-making, the majority of staff of the two large pharmacies was unaware of this. In comparison, most employees of the smaller pharmacy knew that marketing research was conducted. However, none of the staff across all three pharmacies could tell how the marketing research was used or whether it addressed customer service quality. All participating staff acknowledged that the managers interacted frequently with customers, thus having the potential to undertake informal market research. However, this occurred in one large pharmacy only during quieter times of the day or when the manager was directly approached by customers.

Upward communication

Communication between staff and management (upward communication) predominantly took place informally, in ad-hoc meetings. Whilst staff felt comfortable approaching management during quieter business hours with issues relating to service quality, they reported difficulties doing so when the store was busy, which was when service quality issues usually arose. Overall, staff felt that their input was sought and appreciated, but more regular and more in-depth discussions with management were desired. In addition to the group discussions, one employee suggested that occasional one-on-one meetings, especially with casual and weekend staff, would be beneficial. The employee-to-management feedback book that one of the larger pharmacies had implemented was valued and used regularly by staff. However, participants considered the response times of management to their written comments to be too slow.

[3] Because this study focused on the pharmacy *staff's* perceptions, this gap should read "how pharmacy staff perceives their management's understanding of what their customers want".

Levels of management

Although the store policies described clear lines of reporting (i.e. from junior to senior staff to managers/pharmacist to owners), most staff felt at ease discussing important issues directly and informally with the store manager as the need arose. In the largest of the three pharmacies, where the owner was located off-site, a few employees were unsure if their questions or concerns ever reached head office.

Gap 2: Translation of management perceptions into service quality specifications

Zeithaml et al. [15] state that the extent to which management perceptions of customer expectations are translated into service quality specifications depends on four distinct factors: management commitment to service quality, goal-setting, task standardisation and perception of feasibility.

Management commitment to service quality

In the two larger pharmacies, managements' commitment to service quality was perceived to be limited by insufficient numbers of pharmacists being available during peak hours with the additional problem that 'busy periods' were difficult to predict. One staff member however pointed out that inadequate customer service was due to a lack of employee product knowledge rather than a lack of sufficient pharmacists. The availability of proper store equipment, such as step ladders, was often cited to be an existing but easily mitigated problem. Several employees of one of the large pharmacies were dissatisfied with the management guideline to hand out supplier contact details to customers for products that the pharmacy did not stock, such as wheelchairs and crutches.

All participants acknowledged the existence of some form of internal quality control programs, but provided inconsistent answers and uncertainty regarding frequency, process and content of such programs, within and across the pharmacies. A few employees of Pharmacy C speculated about the use of 'mystery shoppers' and mentioned the existence of a 'Quality Care Book', whose assessment and follow-up procedures were however unclear to staff. The participating manager of this pharmacy noted being aware that their quality care program was due for updating.

All participants reported having regular staff meetings to discuss issues of recognition for quality commitment. Staff consistently regarded informal encouragement and congratulations from store managers and impromptu awarding of prizes for outstanding commitment as appropriate means of motivation and recognition of good service delivery.

Goal setting

Pharmacies A and B used individual budget targets as a method of motivating staff. There was however discrepancy among employees regarding the probability of achieving these targets as well as differing perceptions regarding the associated reward system.

Task standardisation

Retail pharmacy constitutes a business environment where services are customised for individual consumers and it is therefore considered to be difficult or impracticable to establish specific task standards. [15] Nevertheless, some participants (pharmacy assistants) perceived the available induction training, including reading and signing off on a policy and procedure book, as insufficient and desired to have more formalised task descriptions at each work area

(dispensary, shop floor, checkout counter) arguing that it was often either not possible or appropriate to repeatedly ask colleagues for help.

Managements' perception of feasibility

All participating pharmacists strongly believed in the feasibility of meeting the expectations of most customers most of the time. When customer expectations were considered to be unrealistic, the managers reported that they attempted to help the customer to understand the situation of the pharmacy whilst also acknowledging the customer's position. Pharmacists of the smaller pharmacy (B) additionally raised the difficulty of consistently meeting their customers' price expectations but attempted to maintain a loyal customer base by consistently providing good levels of customer service in areas such as consulting, friendliness, accuracy and speed.

Gap 3: Actual service delivery

Gap 3, also called 'service performance gap', occurs "when employees are unable and/or unwilling to perform the service at the desired level".[15, p. 587] The factors that account for the size of the service performance gap are teamwork, employee-job fit, technology-job fit, perceived control, supervisory control systems, role conflict and role ambiguity.

Teamwork

All of the customer contact staff of Pharmacies A and B felt genuinely cared for by upper management, but only half of those of Pharmacy C shared this perception. The other half felt that profit was more important to management than care for staff. Some employees of Pharmacy C believed that the physical distance between the owners and staff impedes rapport building and complicates the effective maintenance of personal relationships.

Staff of all three pharmacies felt that they were cooperating with each other well, except for one employee from Pharmacy C who mentioned that occasional competition among staff occurred in order to impress management.

Whilst all Pharmacy A and B staff felt whole-heartedly committed to their pharmacy, approximately half of the Pharmacy C staff felt committed to either their customers and/or their job but not to the pharmacy as an organisation, citing recent management changes which they consider to have eliminated the 'family-like' feeling within the pharmacy.

Employee-job fit

Participants unanimously found that staff had the capabilities and skills to perform well in their jobs, with the only exception of some newly employed staff who were perceived to have not yet reached their full potential. The help seeking behaviour of those relatively unexperienced employees was however seen as conducive and promising.

The majority of participants believed that, overall, the staff selection processes at each pharmacy were effective in that the 'right' people were hired for the 'right' job and that the occasional employee who did not fit the job tended to leave the organisation early and of their own volition.

Technology-job fit

All participants regarded the available technology as appropriate to allow them to perform their jobs, however mentioned that some elderly staff had difficulties learning how to use new technologies. In Pharmacy C, some dispensary staff found familiarising themselves with a new automatic dispensing machine challenging.

Perceived control

All except some newly hired staff, who still felt insecure about the scope of their duties, believed that they were in control of their jobs and comfortable with their tasks. Without exception, participants reported that they have some flexibility to cater for individual customer needs and that their managers supported them in doing so.

Whilst the majority of participants found that the customer demand on most 'busy' periods such as Saturdays, Mondays, most mornings and Christmas could be predicted, only half of the interviewed staff agreed that management allocated an increased number of front-line staff and/or re-arranged staff breaks to cope with these periods of high-demand. For other business periods such as the evenings, customer demand was reported to be extremely difficult to predict.

Supervisory control systems

Except for irregular performance reviews that were conducted in Pharmacy A, none of the participants knew whether their management employed any specific systems to measure staff performance relating to the provision of quality customer service, but it was speculated that owners or managers simply "watched and listened". Although most participants conceded that such informal behavioural control was acceptable for a small organisation like a pharmacy, they expressed at the same time their disappointment about the lack of regular and predictable feedback from their employer on how they are performing.

Role conflict

Role conflict occurs when employees perceive that management and customers have incompatible or excessively demanding expectations of them [15]. Whilst participants across the three pharmacies reported that their managers supported them in meeting their customers' needs, several issues were raised that suggested the interviewees' discomfort with conflicting expectations. Specifically, referring customers to the pharmacist when the customer needed assistance or advice beyond the assistant's legal competency was seen as "annoying but understandable". Likewise, checking customer bags on exiting the store was regarded as "embarrassing", particularly in relation to regular customers. Other management guidelines that shop floor assistants perceived as conflicting with customer expectations were not being allowed to spend enough time with customers to build rapport, to give medication discounts if customers were unable to produce their authorisation card, or to refund returned items.

Role ambiguity

Role ambiguity occurs when employees do not have the information necessary to perform their jobs adequately. [15, p. 590] Management usually provides this information through ongoing downward communication, training and performance reviews. Although the majority of participants reported to "know exactly" what was expected from them, this certainty came in some cases with on-the-job experience rather than the information being communicated to them directly by management. Once again, a lack of, but desire for, regular constructive performance feedback was noted. One participant tried to make up for the missed feedback by "trying to read [her] manager's body language to gauge how [she] was doing".

Whilst sufficient training to increase product knowledge was perceived to be offered (except in Pharmacy C where casual and weekend staff was believed to miss out on adequate product training), participants' opinions were divided regarding communication skills training, with approximately half of the interviewed employees expressing a desire to be trained in this area beyond "what [they] were told on [their] first day".

Gap 4: Communication to customers

Discrepancies between the services that an organisation promises to deliver to customers and the services that it actually delivers form the size of gap 4. According to Zeithaml et al [15], two factors affect the size of this gap: an organisation's internal and external lateral communications(i.e. information flows within and between departments) and its propensity to overpromise.

Horizontal communications

With the exception of some weekend staff, the majority of participants were aware of their pharmacy's advertising material before it reached the customers. However, the degree of knowledge staff had of this material varied markedly between staff roles as well as length of time worked in the pharmacy. A significant proportion of participants felt that the advertising material was not communicated to them in sufficient detail and/or in a suitable manner. They considered the staff's version of the sales catalogues as difficult to read and time-consuming to retrieve information about specific items. A desire to be consulted in the design process of the company's advertising material to prevent customers from developing unreasonable expectations was not specifically mentioned by participants.

Propensity to overpromise

There was consensus among participants across the three pharmacies that the promises made in the external communications to customers were consistently kept on the shop floor. The only exception from this was an occasional discrepancy between demand and the amount of stock ordered. In these cases participants (customer service staff) felt some relief being able to refer to the "while stock lasts" comment on the advertising brochure. Other participants mentioned appreciatively that management supported them in such situations by negotiating a solution to the out-of-stock problem with customers which usually re-established the customer's satisfaction and ensured their continued loyalty to the pharmacy.

DISCUSSION

The results of our study show that service quality in pharmacy is mainly affected by insufficient communication and control processes and, resulting from that, issues related to role clarity and role conflict among customer service staff. Pharmacy employees reported a lack of regular, specific, comprehensive and timely communication from management to staff, which affected not only the employees' role clarity but also their organisational commitment. Specifically, staff desired to be able to:

- better judge their level and quality of performance through specific and regular performance feedback,
- obtain feedback on their comments and suggestions and an opportunity to discuss these with management,
- become more actively involved in internal quality control programs,
- understand the management's goals and staff reward systems better,
- build and maintain rapport with upper management particularly if head office is located off-site,
- handle advertising material more efficiently, and
- integrate casual and weekend staff more effectively into the organisational processes

Whilst participants related missing or insufficient communication in the above areas to feelings of being less personally connected and committed to the organisation, they conceded that achieving a more appropriate level of information sharing was difficult during peak business hours and felt that an otherwise supportive management style (e.g. giving staff the flexibility to meet individual customer needs and supporting staff with negotiating out-of-stock issues with customers) compensated to some extent for a lack of communication. However, when considering the employees' perceived level of role conflict, it becomes evident that improved management-staff communication would help staff to better understand the management's rationale for setting expectations, thus relieve the employees' discomfort with having to justify organisational policies that conflicted with customer expectations (e.g. bag checks, no-refund for returned items). Improved downward communication in the above-cited areas is also likely to provide staff with enhanced clarity about their level of performance, thus improving their ability to deliver established service quality standards.

Closing the 'service performance gap' (gap 3) in this way however presupposes that management has established realistic, measurable and accepted quality specifications (gap 2), including transparent internal quality control programs and regular staff performance appraisal and reward systems. Improved service quality specifications would also enable pharmacy managers to address potential staff shortages during peak business hours as well as their employees' struggles with new technology or their ability to deal with difficult customers more effectively.

CONCLUSION AND LIMITATIONS

Despite the acknowledged limitations regarding the use of the Gap Model, it has proven to be valuable for this exploratory investigation of the determinants of service quality as perceived by employees in community pharmacy. Each of the gaps and their subcomponents were considered relevant by most of the respondents and the model was found to be a valuable format by which to structure the interviews.

This study shows that, from the pharmacy staff's perspective, service quality in a community pharmacy context is limited by the extent and quality to which pharmacy management sets, maintains and communicates quality specifications to staff as this directly affects role clarity, role conflict and organisational commitment among customer service staff.

The limitations of the study are the relatively small number of pharmacies included and their collocation in one city in Australia. Further research should therefore be conducted in a greater number of pharmacies that represent a broader demographic spread including remote and rural areas, various income distribution areas and cultural differences. A larger sample would also allow for a comparison of the perceptions of pharmacy management versus those of pharmacy staff.

Further research steps that would build upon these findings include measuring pharmacy customers' expectations with the same research instrument as measuring the pharmacy management perceptions (e.g. using the expectations section of the SERVQUAL scale by Parasuraman et al. [27,28]) and comparing the differences between the two. There are relatively few service quality models suitable for use in research with service providers (in contrast to the numerous options for research with customers). Possibilities would include the Nordic Model [30] of technical and functional quality, Rust and Oliver's [31] three component model of service product, delivery and environment and Brady and Cronin's [32] hierarchical model of service quality; and further research in the context of community pharmacy using these models would be of interest.

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REFERENCES

1. Villako P, Raal A. A survey of Estonian consumer expectations from the pharmacy service and a comparison with the opinions of pharmacists. *Pharm World Sci* 2007;29:546-550.

2. Homburg C, Hoyer W, Fassnacht M. Service orientation of a retailer's business strategy: dimensions, antecedents, and performance outcomes. *J Mark* 2002:86-101.

3. Kamei M, Teshima K, Nakamura T. Comparative analysis of pharmacy services based on newly developed evaluation index. *Yakugaku zasshi* 2000;120:1185.

4. Tam V, Lim M. Patients' perceptions and expectations of outpatient pharmacy services in a teaching hospital. *Int J Pharm Prac* 1997;5:128-132.

5. Holdford D, Schulz R. Effect of Technical and Functional Quality on Patient Perceptions of Pharmaceutical Service Quality. *Pharm Res* 1999;16:1344.

6. Whitehead P, Atkin P, Krass I, Benrimoj S. Patient drug information and consumer choice of pharmacy. *Int J Pharm Prac* 1999;7:71-79.

7. Briesacher B, Corey R. Patient satisfaction with pharmaceutical services at independent and chain pharmacies. *Am J Health Syst Pharm* 1997;54:531.

8. Xu T. Choice of and overall satisfaction with pharmacies among a community-dwelling elderly population. *Med Care* 2002;40:1283.

9. Larson J. Patient satisfaction with delivery of products and information by an ambulatory care pharmacy. *Am J Health Syst Pharm* 1998;55:1025.

10. Hernández L, Chang C, Cella D, Corona M, Shiomoto G, McGuire D. Development and validation of the satisfaction with pharmacist scale. *Pharmacother* 2000;20:837-843.

11. Traverso M, MacKeigan L. Instruments for measuring patient satisfaction with pharmacy services in the spanish language. *Pharm World Sci* 2005;27:281-284.

12. Williams S, Bond C, Menzies C. A pharmaceutical needs assessment in a primary care setting. *Br J Gen Prac* 2000;50:95.

13. Armando P, Martínez Pérez S, Martí Pallarés M, Solá Uthurry N, Faus Dáder M. Development and validation of a Spanish language patient satisfaction questionnaire with drug dispensing. *Pharm World Sci* 2008;30:169-174.

14. Panvelkar N, Pradnya, Saini B, Armour C. Measurement of patient satisfaction with community pharmacy services: a review. *Pharm World Sci* 2009;31:525-537.

15. Zeithaml V, Berry L, Parasuraman A. Communication and control processes in the delivery of service quality. *J Mark* 1988;52:35-48.

16. Dabholkar P, Thorpe D, Rentz J. A measure of service quality for retail stores: scale development and validation. *J Acad Mark Sci* 1996;24:3-16.

17. Gaur S, Agrawal R. Service Quality Measurement in Retail Store Context: A Review of Advances Made Using SERVQUAL and RSQS. *Mark Rev* 2006;6:317-330.

18. Brown T, Churchill Jr G, Peter J. Improving the measurement of service quality. *J Retail* 1993;69:127-139.

19. Finn D, Lamb C. An evaluation of the SERVQUAL scales in a retailing setting. *Adv Consum Res* 1991;18:483-490.

20. Parasuraman A, Zeithaml VA, Berry LL. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *J Retail* Spring88 1988;64:12-40.

21. Parasuraman A, Zeithaml VA, Berry LL. A Conceptual Model of Service Quality and Its Implications for Future Research. *J Mark* 1985;49:41-50.

22. Buttle F. SERVQUAL: review, critique, research agenda. *Eur J Mark* 1996;30:8-32.

23. Rust RT, Zahorik Anthony J. Customer Satisfaction, Customer Retention and Market Share. *J Retail* 1993;69 (Summer):193-215.

24. Zhao X, Bai C, Hui YV. An empirical assessment and application of SERVQUAL in a Mainland Chinese department store. *Total Qual Manage* 2002;13:241-254.

25. Brown SW, Swartz TA. A Gap Analysis of Professional Service Quality. *J Mark* 1989;53:92-98.

26. Parasuraman A, Berry L, Zeithaml V. More on improving service quality measurement. *J Retail* 1993;69:140-147.

27. Parasuraman A, Zeithaml V, Berry L. SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Retail Crit Concepts Bk2* 2004;64:140.

28. Parasuraman A, Zeithaml V, Berry L. Refinement and reassessment of the SERVQUAL scale. *Retail Crit Concepts Bk2* 2004;67:114.

29. Higginbottom GMA. Sampling issues in qualitative research. *Nurse Res* 2004;12:7.

30. Gronroos C. A service quality model and its marketing implications. *Eur J Mark* 1984;18:36-44.

31. Rust R., Oliver R. Service quality: insights and managerial implications from the frontier In: Oliver Ra, ed. *Service Quality: new directions in theory and practice*. Thousand Oaks CA: Sage Publications; 1994.

32. Brady M., Cronin J. Some new thoughts on conceptualising perceived service quality: a hierarchical approach. *J Mark* 2001;65:34-49.

Appendix 1: Interview Guide

I. How well do your managers/pharmacy owners understand what customers want?

A. Marketing research

1. Is it done? Formally and/or informally?
2. How are the results used?
3. Does it focus on service quality issues?
4. Do managers interact directly with customers?
5. Do owners interact directly with customers?

B. Upward communication

1. How often do you discuss issues relating to the pharmacy service quality (customer needs, facilities, staff availability, performance etc.) with management?
2. Should this be done more frequently?
3. Do you have enough time to discuss the issues in detail?
4. Does management seek out your input?

C. Levels of management

How many levels of management are there between you and the pharmacy owner?

II. How well are management's perceptions of customer needs translated into service quality specifications and processes?

A. Management commitment to service quality

1. Are the resources available to deliver the level of service quality which would meet the customers' needs?
    - Sufficient staff
    - Equipment
    - Other
2. Do internal quality programs exist?
3. Are staff recognition and reward programs in place?

B. Goal setting

1. Are goals or objectives set regarding service quality?
2. Is there a formal process for setting these?
3. Who sets these?

C. Task standardisation

Are there processes in place to standardise operations? Describe them.

D. Perception of feasibility (managers only)

Do you believe that consumer expectations can be met?

III. Service delivery

A. Teamwork

1. Do you think that management genuinely cares for front-line staff?
2. Do you feel that you are cooperating or competing with other staff?
3. Do you feel involved and committed to the organisation?

B. Employee-job fit

1. Do you think the employees of this pharmacy have the capabilities and skills necessary to satisfactorily do their job?
2. Do you think that the right people are hired?

C. Technology-job fit

Does the technology available here assist or hinder you in doing your job?

D. Perceived control

1. Do you think that you are in control of your job?
2. Do you have sufficient flexibility when dealing with customers?
3. Do you think that busy periods can be predicted?
4. If so, are resources in place to deal with these busy periods?

E. Supervisory control systems

1. How is your performance measured?
2. Do you think this is appropriate?

F. Role conflict

1. Do you think that the management and/or owners assist you in meeting the expectations of customers?
2. Are there any rules or processes that prevent you from meeting the needs of the customers?

G. Role ambiguity

1. Do you understand exactly what the managers and/or owners expect you to do?
2. Do they provide regular feedback about your performance?
3. Is it constructive?
4. Do you think that you have sufficient product knowledge?
5. Do your colleagues have sufficient product knowledge?
6. Is sufficient product training offered to staff?
7. Is training regarding communication skills provided to you?

IV. Communication to customers

A. External communications

1. Are offers or promises made in external communications (e.g. advertising)?
2. Are you aware of these before the customers are being made aware?
3. Is there sufficient communication and explanation regarding these?
4. Do these reflect reality e.g. time promises?

B. Propensity to over-promise

1. Is this an issue? Do you have examples of that?
2. Why do you think it occurs?

V. Demographics

A. Your role:

- Pharmacist
- Front of Shop Assistant
- Dispensary Assistant
- Manager

B. Length of time working in pharmacy overall?

C. Length of time working in this pharmacy?

D. Your gender:

- Female
- Male

E. Your age:

- Under 20 years
- 20-30
- 31-40
- 41-50
- Over 50 years