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Exploring the role of community pharmacy in supporting mental health consumers and carers

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Research & Development

FINAL REPORT

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Acronyms

ADE	Adverse drug event
C	Consumer participant (identification of participant role used in the study)
CPI	Community pharmacy staff participating in interviews (identification of participant role)
CPS	Community pharmacy staff participating in survey (identification of participant role)
CR	Carer participant (identification of participant role used in the study)
C & CR	Consumer and Carer participant (identification of participant role used in the study)
CALD	Culturally and Linguistically Diverse
CHO	Consumer Health Organisation
CMI	Consumer Medicines Information
CPA	Community Pharmacy Agreement
CPD	Continuing Professional Development
CTG	Closing the Gap
DAA	Dose Administration Aid
GP	General Practitioner
HMR	Home Medicines Review
MMIP	*Managing Mental Illness and Promoting and Sustaining Recovery Project*
NCTP	*National Trial to Test Strategies to Improve Medication Compliance in a Community Pharmacy Setting Project*
NSW	New South Wales
OI	Health professionals or support workers participating in interviews
OS	Health professionals or support workers participating in surveys
PBS	Pharmaceutical Benefits Scheme
PCC	Patient Centred Care
PhARIA	Pharmacy Accessibility and Remoteness Index of Australia
PPI	Pharmacy Practice Incentives
PSA	Pharmaceutical Society of Australia
QLD	Queensland
QCPP	Quality Care in Pharmacy Program
RCT	Randomised controlled trial
WA	Western Australia

Definitions

Consumer	Person with a lived experience of mental illness.
Carer	Person who provides care and support to someone living with mental illness.
Over-the-counter medication	Medication available for purchase in a pharmacy without a prescription.
Pharmacy support staff	Non-professional pharmacy workforce including pharmacy assistants, dispensary assistants, technicians and other staff involved in retail aspects of pharmacy business.

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Publications

The work in this report has been presented in the following manner:

Peer-reviewed publications

1) Mey A, Hattingh L, Davey A, Knox K, Fejzic J, Wheeler AJ. Preparing community pharmacists for a role in mental health: an evaluation of accredited Australian pharmacy programs. *Currents in Pharmacy Teaching and Learning* (in press, accepted 30.12.14).

2) Hattingh HL, Knox K, Fejzic J, McConnell D, Fowler JL, Mey A, Kelly F, Wheeler AJ. Privacy and confidentiality: perspectives of mental health consumers and carers in pharmacy settings. *International Journal of Pharmacy Practice* DOI:10.1111/ijpp.12114 (published on-line 25.04.14).

3) Knox K, Kelly F, Mey A, Hattingh LH, Fowler J, Wheeler AJ. Australian mental health consumers' and carers' experiences of community pharmacy service. *Health Expectations* DOI:10.1111/hex.12179 (published on-line 11.03.2014).

4) Wheeler AJ, Mey A, Kelly F, Hattingh L, Davey AK. Education and training for community pharmacists in mental health practice: how to equip this workforce for the future. *Journal of Mental Health Training, Education and Practice* 2014; 9(3):133-144. DOI: 10.1108/JMHTEP-09-2013-0030.

5) Mey A, Knox K, Kelly F, Davey AK, Fowler J, Hattingh L, Fejzic J, McConnell D, Wheeler AJ. Trust and safe spaces: mental health consumers' and carers' relationships with community pharmacy staff. *The Patient* 2013:6(4):281-9. DOI:10.1007/s40271-013-0032-1.

6) Wheeler AJ, Fowler J, Hattingh L. Using intervention mapping to develop an on-line mental health continuing education programme for pharmacy staff: a case example. *Journal of Continuing Education in the Health Professions* 2013; 33(4):258-266.

7) Knox K, Fejzic J, Mey A, Fowler JL, Kelly F, McConnell D, Hattingh L, Wheeler AJ. Mental health consumers and caregiver perceptions of stigma in Australian community pharmacies. *International Journal of Social Psychiatry* 2014;60(6):533-43. DOI:10.1177/0020764013503149

8) Mey A, Fowler JL, Knox K, Shum D, Fejzic J, Hattingh L, McConnell D, Wheeler A. Review of community pharmacy needs for supporting mental health consumers and carers. *Community Mental Health Journal* 2014; 50(1):59-67. DOI: 10.1007/s10597-012-9580-4.

1 Introduction

Mental illness

An estimated 45% of Australians aged 16–85 years (7.3 million people) will experience a mental illness such as depression or anxiety during their lifetime (1, 2). This places significant burden on individual consumers, families, carers, and society. Over the past three decades, global promotion of deinstitutionalisation has shifted mental health care away from hospital settings and a large proportion of the burden of mental illness is now managed in the community (3, 4). Between 2011 and 2012, about 15 million general practitioner (GP) visits were related to mental health and the proportion of mental health-related visits has increased (2).

Optimal treatment of mental illness focuses on symptom and functional recovery and encompasses a range of pharmacological, psychosocial and psychological interventions (5). Appropriate medication use is integral to effective treatment, yet numerous medication issues have been identified such as suboptimal medication use and treatment adherence (3, 6-15). Mental health consumers (hereafter referred to as *consumers*) wish to have greater autonomy in managing their health, including larger involvement in the decision-making process and increased disclosure about their medication (16-19). Consumers are highly sensitive to judgement and stigma and require respectful, individualised, and empowering care (20-22). A sound clinical knowledge, interpersonal communication skills, and confidence are needed to meet the needs of these consumers and their carers.

Role of community pharmacy

As accessible health professionals, pharmacists are in a strong position to educate and assist consumers with medication-related issues (23, 24). In 2014, the former Health Minister Peter Dutton highlighted the role of the national pharmacy network for providing transparent support that benefits consumers as part of primary health care, particularly in rural areas. He highlighted the 6th Community Pharmacy Agreement as the vehicle to establish this and thereby better support pharmacy and consumers. Notably, consumers rank community pharmacists highly as a medication information resource, perceiving them as available and respectful health providers (25). However, mental health consumers have low expectations as to the available range of pharmacy services, which include monitoring for adverse effects and resolution of medication-related problems (25, 26).

There are also concerns over the adequacy of pharmacists' mental health knowledge, confidence and competence (27-32). This is compounded by reportedly mixed views towards mental illness that may affect the way they deliver care to consumers and carers (27-31). Pharmacy support staff are an integral part of the community pharmacy team (33), however, their training and qualifications can vary widely. Research suggests that current mental health training is inadequate for pharmacy staff (27, 34-36). In light of the National Mental Health Strategy (37) promoting the mental health of Australians to reduce the impact of mental illness, there is a clear need to further develop mental health training for pharmacy staff.

Previous studies evaluating the impact of medication support interventions and pharmacy services for consumers have shown improved treatment outcomes including adherence, particularly for multifaceted interventions (38-44). However, the literature is limited in some respects. First, the majority of studies in mental health medication management were conducted overseas where health systems, culture and pharmacy services are likely to differ. Second, although consumer experience and satisfaction are important predictors of adherence and health outcome, they were not routinely examined.

Two projects completed as part of the 4th Community Pharmacy Agreement demonstrated that increased contact between consumers with mental health issues and community pharmacists provided an opportunity for medication support, and that a pharmacist-led medication support intervention could improve consumers' medication adherence (28, 45). The research presented in this report builds on the work conducted in those projects: *Managing Mental Illness and Promoting and Sustaining Recovery Project* (MMIP), as well as the *National Trial to Test Strategies to Improve Medication Compliance in a Community Pharmacy Setting Project* (NCTP).

1.1 Project purpose and outline

This project explored the role of community pharmacy in supporting consumers with common mental illnesses such as depression and anxiety to better manage their medication.

The overall **project objectives** were to:

1) develop, pilot and refine a comprehensive educational package for both pharmacists and pharmacy support staff that:
   (i) builds on the findings from the MMIP (28);
   (ii) increases pharmacists' skills in supporting consumers with mental illness;
   (iii) addresses issues of stigma relating to mental illness in the pharmacy setting; and
   (iv) aligns with the National Mental Health Strategy commitment to improve the lives of consumers with a mental illness;
2) develop and trial strategies that improve and assist consumers with mental illness to manage their medication requirements, therefore building on the findings of the NCTP (45).

The **specific aims** were to:

- assess the needs and expectations of consumers and carers and mental health consumer organisations with respect to medication requirements and community pharmacy;
- assess the learning needs, skills, knowledge, attitudes and behaviour of pharmacists and support staff for providing medication support to consumers and their carers;
- develop an educational program that provides community pharmacy staff with the skills and knowledge to support consumers with a common mental illness in the community;
- assess the effectiveness of the educational program by evaluating change in knowledge, skills, attitudes and behaviour of pharmacy staff;
- assess satisfaction with the educational program and refine it accordingly;
- develop a medication support intervention that trains community pharmacists to effectively assist consumers to manage their medication requirements; and
- evaluate the effectiveness of a medication support intervention in a naturalistic trial.

Project design

Commencing in November 2011, this three-year project involved consumers, carers and community pharmacies in three regions (Queensland, Northern New South Wales and Western Australia). Ethical approval was obtained from Griffith University. The project involved three key stages (Figure 1.1):

- **Stage One**: *a needs assessment*. This informed the development of the comprehensive educational package and involved: a literature review, stakeholder interviews and focus groups, exit interviews with consumers and carers, and a pre-training assessment for pharmacy staff.
- **Stage Two:** *pharmacy training*. Pharmacies were randomised (intervention and control groups) to access training at two different timepoints; eight training modules were completed by pharmacists and four were completed by support staff. Training effectiveness was evaluated, and repeat exit interviews explored consumer and carer experiences and perceptions of pharmacy after each group completed the training. This information enabled refinement of the training package.
- **Stage Three:** *trial and evaluation of a pharmacy-delivered medication support service*. The impact of the intervention was assessed using a pre-post design examining the views, beliefs, and acceptance of this strategy with all participants. Achievement of goals and improvements in treatment satisfaction and health outcomes were also evaluated for consumers and carers.

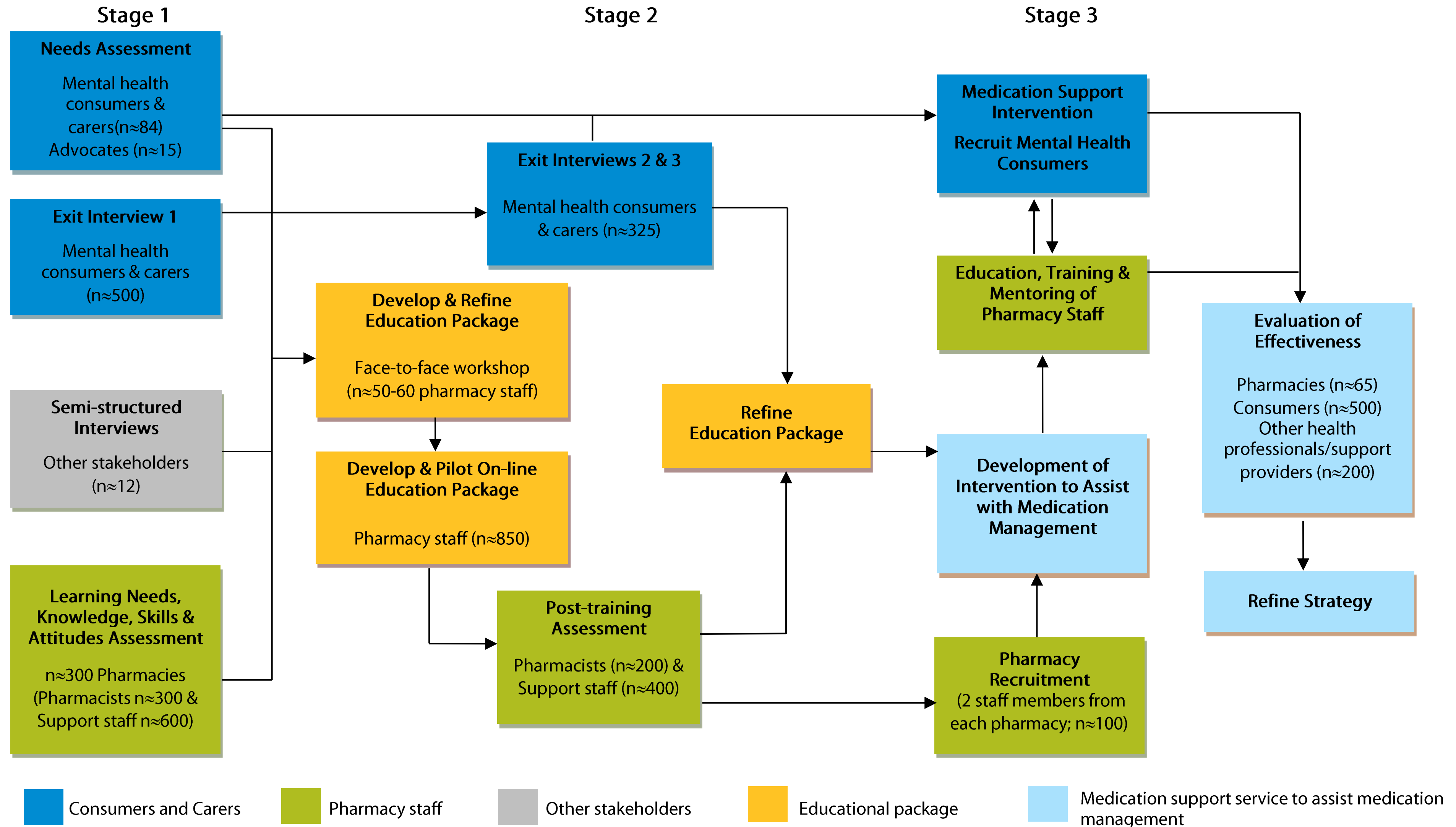


Figure 1.1: Project outline (2011)
Stage 1
Stage 2
Stage 3
Needs Assessment
Mental health consumers & carers(n≈84)
Advocates (n≈15)
Exit Interview 1
Mental health consumers & carers (n≈500)
Semi-structured Interviews
Other stakeholders (n≈12)
Learning Needs, Knowledge, Skills & Attitudes Assessment
n≈300 Pharmacies (Pharmacists n≈300 & Support staff n≈600)
Exit Interviews 2 & 3
Mental health consumers & carers (n≈325)
Develop & Refine Education Package
Face-to-face workshop (n≈50-60 pharmacy staff)
Develop & Pilot On-line Education Package
Pharmacy staff (n≈850)
Post-training Assessment
Pharmacists (n≈200) & Support staff (n≈400)
Refine Education Package
Medication Support Intervention
Recruit Mental Health Consumers
Education, Training & Mentoring of Pharmacy Staff
Development of Intervention to Assist with Medication Management
Pharmacy Recruitment
(2 staff members from each pharmacy; n≈100)
Evaluation of Effectiveness
Pharmacies (n≈65)
Consumers (n≈500)
Other health professionals/support providers (n≈200)
Refine Strategy
Consumers and Carers
Pharmacy staff
Other stakeholders
Educational package
Medication support service to assist medication management

1.2 Recruitment of participants

Pharmacies, consumers and carers interested in participating were invited to contact the research team via the website http://www.mentalhealthproject.com.au, email mentalhealth@griffith.edu.au, or a toll-free number.

Recruitment and retention strategies

Promotional material was distributed throughout the project duration, involving several forms of media, e.g., interviews with local and national radio stations, newspaper articles, professional and university newsletters, and attendance at professional meetings and conferences. Project promotion (via marketing packs, postcards, poster, information sheets) was supported by consumer and carer organisations and mental health services, e.g., *beyondblue*, Footprints; professional organisations, e.g. Medicare Locals, Queensland Health; pharmacy banner groups, e.g. Pharmacy 777, Discount Drug Stores. Consumer and carer participants were also recruited via participating community pharmacies. At the completion of Stage Two, consumers and carers were mailed a summary of exit interview findings and invited to participate in Stage Three. A clinical audit was developed and accredited for GPs as another strategy to promote referral of consumers into Stage Three. To promote engagement, regular newsletters including resources and updates were emailed to participating pharmacies. Mentors were employed for each project region to ensure pharmacy staff had the necessary support. Follow-up by email or telephone was undertaken by project staff when required.

Participant incentives

Stage One stakeholders were provided with a letter of thanks and a small gift for their participation. Consumers and carers were offered reimbursement for their time in the form of a $10 supermarket voucher for each interview (Stages One and Two). Financial reimbursement ($200 for pharmacists; $100 for support staff) and travel subsidies (up to $300) were offered to pharmacy staff to attend Stage Two training. Stage Three reimbursement for pharmacies comprised of certificates of completion, eligibility to claim for CPD credits, $200 for pharmacists and $100 for support staff in the intervention group, and $250 for pharmacists and $125 for support staff in the control group. Reimbursement for consumer and carer recruitment included $50 for the first five consumers, $75 per consumer from 6–10 consumers, and $100 for each additional consumer. Every pharmacy that recruited ≥five consumers was entered into a draw for $1000 worth of registered training. GPs that completed the clinical audit and referred a consumer to a pharmacy were offered $140 reimbursement, and provided with gift vouchers to the value of $50 for an exit interview or $30 for an exit survey. Pharmacy staff completing an exit survey went into the draw to win one of three $30 gift vouchers.

Participants

Stage One consultation was undertaken with 98 stakeholders (74 consumers and carers, 11 representatives from consumer and carer organisations and 13 mental health specialists). Stage Two involved a face-to-face workshop with 25 participants to trial the educational package; 357 pharmacists and 209 support staff from 230 pharmacies then completed the on-line training modules. A total of 210 consumers and carers participated in an exit interview prior to staff training, 167 participated in a second and 163 in a third exit interview. A follow-up questionnaire to explore the impact of training in practice was undertaken by 36/357 pharmacists. In Stage Three, 100 community pharmacies consented to participate, with 163 staff undertaking the face-to-face training (142 pharmacists and 21 support staff). Overall, 570 consumers expressed interest in Stage Three with 72 of the trained pharmacies. Four hundred and eighteen consumers (73.3% response) participated with pharmacy staff from 60 of the trained pharmacies; 295 consumers completed the intervention. Evaluation interviews were undertaken with 30 pharmacy staff and five other health/support providers, and surveys with 29 pharmacy staff and seven GPs.

2 Stage One: Literature review and stakeholder consultation

The following information is a summary of Stage One; further detail is available in Appendices 3.1-3.5. This Stage comprised two sections:

a) a narrative literature review to identify current research on the educational needs of community pharmacy staff for supporting consumers and carers; and

a) stakeholder consultation with consumers and carers, representatives from consumer and carer organisations, and health professionals to explore the role of community pharmacy in supporting consumers and carers in the Australian context. Stakeholders' perceptions of mental health medication-taking, adherence, therapeutic alliance, and treatment outcomes were also explored.

2.1 Literature review

Limited knowledge on mental illness, stigmatising attitudes and negative beliefs can affect mental health service delivery and contribute to the ongoing difficulties faced by people with mental illness, such as medication adherence. Mental health training (Box 2.1) should include all pharmacy staff, including support staff as they can be the first point of contact for consumers.

Box 2.1: Key findings for pharmacy staff mental health training needs

- Consumers view pharmacists as trustworthy 'medicine experts' yet there are clear opportunities to better support them through consumer-focused services that improve adherence;
- The Australian community pharmacy network is viewed by government as integral to provision of support services that benefit consumers, ideally via the 6th Community Pharmacy Agreement.
- An educational program that addresses identified areas of training needs is reliant on:
  - assessment of knowledge, attitudes and beliefs for all pharmacy staff;
  - strategies that enhance knowledge and skills;
  - strategies that improve confidence and communication;
  - education that targets stigma and discrimination;
- For pharmacists to participate effectively as part of a collaborative care team, several conditions should exist, including:
  - a collaborative practice environment;
  - a defined level of education, training, knowledge, skills and abilities;
  - documentation of clinical activities;
  - appropriate remuneration to pharmacists for professional services.

2.2 Stakeholder consultation

Method

Ninety-eight participants attended a focus group (n=66 consumers and carers; n=24 mental health service providers) or a semi-structured interview (n=8 consumers and carers) between November 2011 – March 2012. Consultations were undertaken via telephone (n=25) or face-to-face (n=73), recorded and transcribed verbatim. Three researchers conducted thematic analysis of the data, primarily using the general inductive approach (46).

Results

Five main themes emerged: the importance of consumer and carer-community pharmacy *relationships*, *stigma, managing mental health*, consumer and carer *needs*, and the *role of community pharmacy*.

a. Relationships

Trusting relationships between consumers, carers and pharmacy staff underpinned the perception of pharmacy as a safe health space where consumers felt comfortable sharing personal information: *I told him that I tried to commit suicide … He was more than happy to … just to give what I needed for the week* [at a time] *so there was no chance to overdose* (Consumer/Carer Focus Group 120121). Relationships were nurtured by a patient centred approach to mental health care: *He seems to take into consideration the reality of what your life is and*

what sort of things are that you have to face (Consumer/Carer Focus Group 120121). Factors that were considered to negatively affect these relationships included perceptions of mental illness, stigma, consumers' lack of knowledge about pharmacy services, and lack of knowledge about mental disorders by pharmacy staff.

b. Stigma

The majority of consumers and carers described self-stigma or social stigma, encountered through negative interactions with pharmacy staff. Self-stigma existed on a continuum from embarrassment to shame, and consumers recognised that it could act as a barrier to medication adherence or accessing pharmacies. Social stigma can be perceived and experienced in very subtle ways, such as a heightened awareness of judgemental behaviours. Solutions proposed to reduce stigma in the pharmacy setting included training that improves pharmacy staff awareness of its impact on consumers and carers, increases knowledge of the specific needs of consumers, and develops skills for pharmacy staff to have tactful discussions.

c. Managing mental health

Consumers and carers recognised the importance and benefits of medication in the management of their mental health. However, consumers and carers also reported concerns related to treatment side effects, medication cost, and fears of medication dependency, thereby influencing adherence. Predominantly, the role of pharmacy should be to educate, empower, and engage consumers and carers. Stakeholders proposed that community pharmacy would benefit from staff training, with a particular emphasis on the provision of timely information and discussions about the role of medication, side effects and pathways to wellness.

d. Needs

All participants perceived consumers and carers as having multifaceted needs in relation to community pharmacy, such as information provided in a sensitive manner. Protection of consumers' privacy and confidentiality was paramount and extended beyond the context of mental health. In addition, needs were identified around the wellbeing of staff and carers. However, in order for staff to adequately meet consumer needs, consumers should first be aware of the range of services and supports available in the pharmacy.

e. Role of community pharmacy

While a large proportion of participants viewed the pharmacist's primary role to be a medication supplier, information was particularly important with new treatment and as a means of encouraging medication adherence. Pharmacists were perceived as an alternative information source to GPs, especially once rapport was developed. However, barriers to achieving support for consumers and carers were identified (Box 2.2).

Box 2.2: Barriers to achieving effective support for mental health consumers

- Physical and environmental barriers to relationship formation: barriers to privacy and confidentiality, absence of private consultation space, limited accessibility of pharmacists;
- Deficits in knowledge, communication skills and staff confidence;
- Lack of education that promotes: awareness of the impact of stigma, knowledge of specific consumer and carer needs, practical skill building and confidence.

3 Stage Two: Development and evaluation of an on-line mental health continuing education program for pharmacy staff

The following information is a summary of Stage Two; further detail is available in Appendices 4.1-4.17. This Stage comprised two sections:

a) a literature review to identify potential approaches to training delivery for pharmacy staff to equip them to support consumers and carers; and
b) a study to develop, pilot and evaluate the impact of the on-line education programme for pharmacy staff, including follow-up questionnaires for pharmacy staff and consumer and carer exit-interviews.

3.1 Literature review

Results

A mental health education program for community pharmacy should target specific gaps in knowledge and skills, and contain practical and relevant information to support current and future practice needs. Careful consideration should be given to the training format and delivery mode to maximise staff uptake (Box 3.1).

Box 3.1: Summary of approaches to delivering continuing education for pharmacy staff

- Narratives and role-plays (from the perspective of consumers, carers and health professionals) are effective in promoting more positive attitudes. Education content should therefore include social contact with consumers and carers through narratives of their lived experience, and role-plays of real-life scenarios in the community pharmacy setting;
- To maximise uptake, educational modules should be concise and able to be completed in a reasonable time, target different learning styles (visual, auditory, reading/writing and kinaesthetic/tactile), provide all necessary links to resources and be accessible and flexible in time and location, e.g. hard copy/DVD format may be favoured in cases of limited on-line access;
- The education package should be assessed with before and after evaluation methods as well as feedback from users, with any necessary changes made to optimise its effectiveness.

3.2 Development and evaluation of the continuing education program

a. On-line education program

Method

Registered pharmacy staff members were randomised into immediate training (G1) or delayed training groups (G2) according to the pharmacy where they were employed. All participants completed a pre-training needs assessment (T1a; n=791). The training was piloted in mid-July 2012 as a face-to-face one-day workshop in Brisbane, involving 25 participants. For feedback purposes, participants were invited to participate in a focus group and a post-training questionnaire.

G1 pharmacy staff commenced the on-line education (September–November 2012) and completed a post-training questionnaire (T2) after completing the final module. G2 pharmacy staff repeated the pre-training questionnaire (T1b; n=144) prior to commencing their delayed training (February–May 2013) and completed T2. All pharmacists were invited to complete a second post-training questionnaire (T3) at 6–12 months after training.

The impact of the on-line education was assessed by comparing pre- (T1) and post-training (T2 and T3) responses to questions relating to practice behaviour, knowledge, attitudes and beliefs, confidence and skills, motivations and barriers. Changes between pre- and post-training were tested with paired *t*-tests and chi-square tests. Statistical analysis was conducted using SPSS™. The probability level required to demonstrate significance was set at 0.01 because of multiple comparisons.

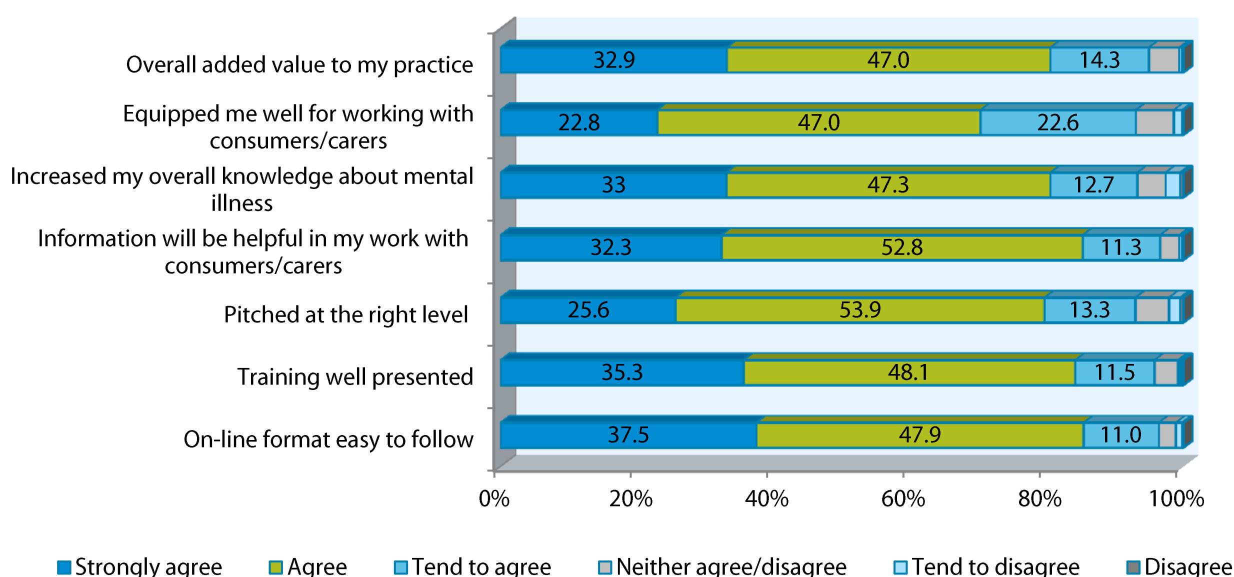
Results

A total of 791 pharmacy staff (465 pharmacists and 326 support staff) completed T1a. Of this group, 566 participants (357 pharmacists and 209 support staff) completed the on-line education and T2 questionnaire (71.6% training completion rate). The majority of participants were female and had a mean age of 35 years (median=31 years; range=18–68 years). Most participants identified as Caucasian Australian (67.2%) and almost all participants were trained in Australia. Pharmacists and support staff had a similar duration of work experience, with two-thirds (65.6%) working for six or more years in community pharmacy.

Feedback and satisfaction with the training experience

The training received very positive feedback (Figure 3.1, Box 3.2) with 96.0% of participants giving an overall rating of excellent/very good/good and a median score of 6 on a scale of 1–7 (1=*very poor* and 7=*excellent*).

Figure 3.1: Training feedback



Box 3.2: Key participant feedback

In Module 1 clarifying the features of depression and anxiety and the awareness that anyone is susceptible. In Module 4 the role-plays were a very effective tool to demonstrate how to greet and deal with all clients; but in particular those who are anxious and/or depressed. (Support staff #894)

Hearing from people who suffer mental illness about things that affect them. It inspired me to be more proactive in offering follow-up to patients recently commenced on medications. (Pharmacist #420)

Expand the development of treatment plan - go over other mental health issues in the same way e.g. for OCD [Obsessive Compulsive Disorder] *and PTSD* [Post Traumatic Stress Disorder]. (Pharmacist #940)

Perhaps more case studies to emphasise real-life situations. More info[rmation] *regarding support available, i.e., websites; support groups, etc.* (Pharmacist #487)

Participants reported that their primary learning benefit was increased knowledge in the management of mental illness, followed closely by improved confidence working with consumers and carers, and improved communication skills. The top three most useful aspects of the training were: *being able to complete the modules in their own time, the easy to understand modules and the variety of presentation and delivery styles used*. In contrast, the three least useful aspects were reported to be*: the length of time it took to complete modules, not enough modules and lack of direction provided by the training resources for pursuing further information.*

Impact of training on participants' practice, attitudes, skills and knowledge

Practice behaviour: Overall, the training had a positive impact on the practice behaviour of pharmacy staff (Table 3.1). Pharmacists were more likely to: speak with consumers as they dispensed their antidepressant medication (p=0.006), speak either with the consumer (p<0.001) or another health professional (p=0.001) if they were concerned about someone's mental health, and participate in primary health care areas for mental health conditions as part of the PPI program (p<0.001). The direction of change was also positive for support staff.

Attitudes, beliefs, confidence and skills: Responses to the *Depression Attitudes Questionnaire (*DAQ), *Mental Illness Attitude* (MIA) and a set of *confidence and skills* (CAS) statements *before* training indicated that staff lacked confidence in their ability to provide care. The training was effective in improving positive attitudes and reducing negative attitudes and beliefs, more so for pharmacists. Furthermore, the training significantly improved confidence levels amongst pharmacists to interact with consumers, carers, and other health professionals (p<0.001), to address medication-related problems within their current role (p<0.001) and improved their ability to access resources to support their practice needs (p<0.001). Support staff remained less confident than pharmacists in skills after training (p<0.001).

Knowledge: Pharmacy staff members were able to identify the underlying serious mental health problem in two case vignettes. The training consolidated staff knowledge and confidence in their choice of appropriate options/first-line course of action for anxiety, as well as a bio-psychosocial approach to holistic treatment for depression, e.g. the effectiveness of non-pharmacological options alongside anti-depressants. After training, significant improvements (p<0.001) were observed in pharmacists' knowledge for first-time counselling for a selective serotonin reuptake inhibitor (SSRI). Levels of comfort when working with consumers also positively changed for pharmacists and support staff (p=0.001).

Motivations and barriers: Pharmacists showed significant improvements after training in 9 of 11 motivational statements and all 12 barrier statements, whilst support staff showed significant improvements in 6 of 11 motivational statements and all barrier statements.

Table 3.1: Summary of impact of training for pharmacy staff

After training, self-reported *practice behaviour* indicated staff were more:	involved when interacting with consumers:	• routinely talking to more consumers
		• asking questions more often when dispensing antidepressants
	confident and knowledgeable:	• more likely to speak informally with consumer if concerned
		• more likely to discuss concerns with another mental health professional
After training, *attitudes, beliefs* and *confidence* scales showed:	improved attitudes to mental illness:	• decrease in previously held negative attitudes/beliefs
		• increase in positive attitudes/beliefs towards depression
	increased levels of confidence and skills:	• Needed for pharmacists to talk with consumers about mental health and providing care
		• increase in confidence amongst support staff as to their knowledge of mental illness
After training, changes in *knowledge* were observed:	symptom recognition for anxiety and depression were high:	• appropriate choice of case management options improved
	pharmacists' pharmacotherapeutic knowledge was more accurate in terms of:	• time until expected benefit of treatment
		• duration and side effects of treatment
		• anticipated future course of action in helping a consumer manage a medication change
	increased confidence and comfort in providing medication support:	• increased likelihood of inter-professional collaboration

Impact of on-line training on pharmacists' practice at six to twelve months after completion

Only 36/357 pharmacists responded to the T3 (10.1% response rate). Participants rated that the training on a scale of 1 (*very poor*) to 7 (*excellent*): added value to their practice (mean score of 6.19), increased their knowledge and skills (mean score of 6.14), and equipped them well for interacting with consumers (mean score of 5.94). The top benefit to their practice was identified as improving communication skills with consumers and carers (86.1%). Confidence and skills at 6–12 months after training (T1–T3) showed either no difference or greater change (Table 3.2). Significant improvement (p<0.001) was seen for the final statement: *'Overall I find it rewarding to work with people with mental health problems'*. Motivations for working with consumers at 6–12 months after training (T1– T3) showed either no difference or continued to improve.

Twenty-eight pharmacists reported a practice change activity, which broadly encompassed six key areas: consumer follow-up, targeted advice or pharmacy services, collaboration, changing attitudes or communication, consumer support or resources, and staff training. This is best described by the following pharmacist quote:

'…All antidepressant medication prescriptions are flagged. The goal is to interact with every antidepressant medication-taking customer. On every possible occasion, the customer is approached directly by the pharmacist to initiative a conversation regarding their medication and treatment…The ease and confidence approaching and engaging in meaningful conversations with these patients has improved drastically, primarily regarding the medication treatment, compliance, effectiveness and side effects and secondly regarding their overall health condition. It is surprising how many times a significant clinical intervention arises.' [Pharmacist 38].

Table 3.2: Pre- (T1) and post-training (T2 and T3) scores for Confidence and Skills (CAS)

	Pharmacists (n=36)				
	T1 Score (mean)	T2 Score (mean)	*p* value	T3 Score (mean)	*p* value
I feel able to talk to people about their mental health medications	5.8	5.8	0.900	6.0	0.324
I feel confident when addressing their mental health problems	4.7	5.5	0.008	5.9	<0.001
I feel able to advise people about their mental health medications	5.6	5.8	0.361	5.7	0.608
I feel confident discussing a consumer's medication issues with their GP or psychiatrist	5.2	5.5	0.309	5.7	0.098
I feel able to talk with people about their medication adherence	5.7	5.8	0.635	5.9	0.242
I feel confident working with people to improve their adherence with mental health medications	5.4	5.8	0.160	5.9	0.055
I know how to use a motivational approach when working with people with medication problems	5.0	5.6	0.033	5.5	0.033
I know where to access good resources for people with mental illness (e.g. written information and websites)	4.7	5.8	0.002	5.8	<0.001
I feel I know enough about mental illness to carry out my role when working with people with mental health problems	4.4	5.5	0.002	5.7	<0.001
Overall I find it rewarding to work with people with mental health problems	5.1	5.6	0.034	5.9	<0.001*

*NB: Paired sample t-tests, p<0.01 indicates statistical significance; higher scores indicate higher levels of confidence; * indicates where change between T1-T3 is different to that between T1-T2.*

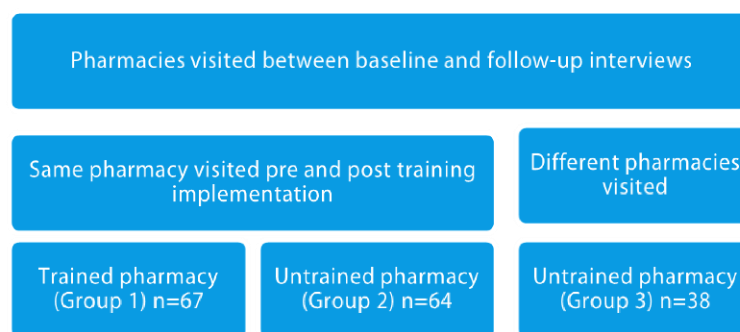
The majority of pharmacists reported increased confidence and knowledge, and improved interactions with consumers, attributing this to greater insight into the consumer perspective and enhanced communication strategies: *'It* [training] *helped me understand the medical condition from the sufferer's perspective. I am now more willing and more confident to discuss mental health in a more personal approach. I felt that it helped me to establish trust through better understanding'* [Pharmacist 8]. Time constraints were a key barrier to practice change, particularly when the pharmacy was busy or only one pharmacist was working. Pharmacists described a range of ongoing learning needs, including more in-depth/refresher training and practice, e.g., mental health first aid; specific clinical training, e.g., strategies to manage psychosis; additional case studies, e.g., adherence; information on referral pathways, e.g., mental health services; workshops with local mental health workers.

b. Consumer and carer interviews

Method

The impact of the on-line education was also evaluated through consumer and carer exit interviews within 72 hours of a pharmacy visit (Figure 3.1). To explore participants' experience and expectations of pharmacy service alongside aspects of the service that they valued, interviews were conducted at baseline (T1 December 2011–September 2012) and at follow-up (T2 December 2012–March 2013, and T3 June–July 2013). This aligned with pre-training and post-training timepoints. Interview participants were allocated to groups for analysis according to two factors: whether they had attended the same pharmacy for multiple interviews, and if the pharmacy employed staff who completed the training (trained) (Figure 3.4). Consumer self-reports of their experiences, expectations and perceived service quality were conceptualised as *technical quality,* e.g., 'what' services were provided, and *functional quality,* e.g., 'how' a service was delivered. Functional data were coded according to the four elements of patient centred care: individualised, holistic, empowering, and respectful. Descriptive data analyses provide an overview of baseline experiences and expectations. Change was analysed using chi-square, *t*-tests and analyses of variance (ANOVA). Analysis involved SPSS21 software, and *p* values smaller than 0.05 were indicative of statistical significance.

Figure 3.4: Consumer and carer exit interviews



Results

A total of 210 people participated in T1 and were invited to participate further. At baseline, approximately 80% were consumers; 20% were carers or identified as being both a consumer and carer. The mean age of participants was 47.3 years (range 19–80 years). More than three-quarters of participants were female and English was the first language for 87.1%. Overall, 169 people participated in two or more interviews, reflecting high retention (77.6%) over the 19-month study period. Participants were asked whether anything had changed in their mental health management between interviews; 51.5% reported a change between T1–T2, while 36.7% reported a change between T2–T3. Three of the top five changes related to medication management, such as changing medication regimen or altering a dose.

Consumer and carer utilisation of pharmacy

More than 90% of consumers and carers visited a pharmacy monthly or more frequently and almost two-thirds reported a similar frequency in visits to their GP or specialist. Weekly visits to the pharmacy were reported by 20.9% of participants at baseline, and by 14.4% and 14.7% at T2 and T3, respectively. Typical reasons for visiting

the pharmacy included fulfilment of a prescription or the purchase of an over-the-counter medication. Two-thirds of participants reported using one regular pharmacy (T1 n=135; T2 n=108; T3 n=108) and about a quarter patronised pharmacies based on convenience (T1 n=52; T2 n=40; T3 n=32). Price was less of a consideration in pharmacy choice than service factors such as friendly, familiar staff, and receiving good advice. Convenience was more important to Group 3 participants who visited different pharmacies at each timepoint.

Medication collected

The average numbers of medication collected were: 2.3 at T1; 2.1 at T2; and 2.4 at T3. At baseline, 14.8% of participants collected at least one newly prescribed medication, 11.4% at T2, and 12.3% at T3. Antidepressants were the most common medication collected. More than half of participants interviewed collected one or two medications, and about 10% collected five or more medications at each visit. However, of the people collecting five or more medications only four had ever received an HMR at T1, none at T2 and one at T3. Fifty-six people reported having their medication reviewed by a pharmacist.

Consumer and carer experiences and expectations

Verbal advice and written information

Table 3.4: Frequency participants spoke to staff, received written information, or asked about side effects

	Baseline score Mean (CI)	Follow-up score Mean (CI)	*p*-value
Spoke to pharmacist about how to use the medication (1=*never* to 5=*always*)			
Group 1	n=65; 2.8 (2.5-3.1)	n=65; 2.8 (2.5-3.1)	1.000
Group 2	n=63; 2.8 (2.6-3.1)	n=63; 2.8 (2.5-3.0)	0.709
Group 3	n=37; 2.6 (2.3-3.0)	n=37; 2.8 (2.4-3.1)	0.405
Received written information (1=*never* to 5=*always*)			
Group 1	n=65; 2.5 (2.3-2.8)	n=65; 2.6 (2.4-2.9)	0.591
Group 2	n=63; 2.6 (2.3-2.9)	n=63; 2.4 (2.1-2.6)	0.055
Group 3	n=37; 2.4 (2.1-2.8)	n=37; 2.4 (2.1-2.6)	0.773
Pharmacist asked about side effects (1=*never* to 5=*always*)			
Group 1	n=65; 1.8 (1.6-2.1)	n=65; 2.1 (1.9-2.5)	0.066
Group 2	n=63; 2.1 (1.7-2.4)	n=63; 2.3 (2.0-2.6)	0.047*
Group 3	n=37; 2.0 (1.5-2.4)	n=37; 2.2 (1.8-2.6)	0.257

CI = 95% confidence interval of the mean; Paired sample t-tests; p<0.05 indicates statistical significance; higher scores indicate activity occurred more frequently; difference between baseline and follow-up reached statistical significance*

Approximately 30% of consumers and carers spoke to a staff member specifically about their medication or a related health issue during their baseline visit (29.8% Group 1, 34.4% Group 2 and 31.6% Group 3). The comparable percentages at subsequent follow-up visits were 32.8% Group 1, 32.8% Group 2 and 36.8% Group 3. There were no significant changes across time within Group 1 (p=0.371), Group 2 (p=0.848) or Group 3 (p=0.504). Almost 80% of the consumers or carers collecting continuing medications reported that a pharmacist never or rarely asked them about side effects. Table 3.4 shows on average how often participants spoke to staff, received written information, or were asked about side effects for medication on a scale from 1 (*never*) to 5 (*always*). At baseline, 60% of consumers and carers reported that they had never or rarely received written information. Across time, there were no significant differences between groups or within groups for almost all variables. On average, Group 1 and Group 2 participants were asked about side effects more often over time, although this change was only significant for Group 2 (p=0.047).

Changes in the consumer experience of pharmacy service

Pharmacy experience ratings were compared between groups pre- and post-training, and across time within each group. At baseline, the overall rating of pharmacy experience was similar in Groups 1 and 2, and significantly higher for Group 1 than Group 3 (p=0.025). There was no difference in overall rating with pharmacy experience across time within any group. However, a between-group comparison revealed that Group 1 consumers gave significantly higher average ratings for their overall experience than Group 3 (p<0.001), as did

Group 2 (p=0.040). Over time, the prevailing expectation remained medication supply with 'no fuss.' Subtle changes in expectations of functional service qualities were observed in those who visited trained pharmacies over time, including a desire for pharmacists to ask about medication-related problems and provide relevant reassurance. When asked whether overall expectations of pharmacy service were changed through their participation, consumers and carers who perceived they already received good service reported no change. Over half of those patronising trained pharmacies (Groups 1) reported increased knowledge and higher expectations of pharmacy services.

What participants liked

Much of what consumers and carers '*liked*' about their pharmacy visits reflect a patient centred approach to service. Individualised and respectful care were highly valued, particularly in relation to not feeling judged, as was having a relationship with trustworthy pharmacy staff, receiving greater levels of support, and feeling safe and well looked after. Consumer descriptions of high-quality service in community pharmacies also featured holistic and empowering care and promoted pharmacy as a safe health space. This was associated with staff that took the time to listen and know them, thereby 'protecting' them from harm. Participants' descriptions of the features of functional quality that they valued provide insight into the potential for an expanded role for pharmacists in supporting consumers and carers (Table 3.5). It is noteworthy that those consumers and carers who visited the untrained pharmacies (both matched and random) stated more often that they liked nothing about their pharmacy visit or emphasised convenience over functional service quality in contrast to the consumers who visited trained pharmacies.

Table 3.5: Functional quality described by participants visiting trained pharmacies

Aspect of functional quality	Supporting quotes
Friendly service	*I am always greeted in a very warm friendly manner, not just treated as a customer, but more as a visitor or guest.*
Pharmacy atmosphere	*Comfortable place to go to, can be difficult to go out when you have a mental health problem.*
Interested in well-being	*They're always friendly and ask how you are.*
Getting to know you	*I like the personal touch as they have come to know my family and I, and understand our health issues.*
Take time to inform you	*Very friendly, really interested, explain really well; take time to explain different medicines.*
Going the extra mile	*I feel I can ask any thing and they would always be able to help be and there's no drama.*
Positive impact of service	*I was made to feel normal and not like there was something wrong with me.*

Suggested service improvements

Recommendations related mainly to technical service, such as greater information provision or improved dispensing efficiency. Reports of limited provision of written information provide further evidence of the need to improve these technical aspects of service. Some participants recommended environmental changes to improve privacy and comfort when waiting for prescriptions, and others emphasised the importance of reducing stigma.

4 Stage Three: Development and evaluation of a medication support intervention for mental health consumers

The following information is a summary of Stage Three; further detail is available in Appendices 5.1–5.17. The specific objectives of this Stage were to:

a) conduct key stakeholder consultations with Australian researchers involved in pharmacy intervention studies, alongside a literature review to explore professional pharmacy service delivery for mental health and other chronic conditions;
b) develop an intervention that can be delivered by trained community pharmacists to assist consumers with their medication management; and
c) evaluate the effectiveness of the medication support intervention in a naturalistic study setting.

4.1 Literature review and consultation

Results

Table 4.1: Recommendations from literature review and consultation

	Source of recommendation		
	Mental health RCTs	Medicines management literature	Pharmacy consultation
There is a role for pharmacists in mental health	X	X	X
Intervention design and training			
Multi-faceted interventions are more effective	X	X	X
Goal-setting to promote self-management		X	
Broaden focus beyond adherence to MRP	X	X	X
Expanding eligibility criteria recommended	X		X
Clear entry, exit and referral points needed		X	X
Incorporate existing workflow and services		X	X
Aligned to professional frameworks and funding		X	X
Multidisciplinary approach is important	X	X	X
Importance of training should not be underestimated		X	X
Key insights into change management in pharmacy		X	X
Train champion pharmacists in change management		X	X
Intervention evaluation			
Often focused on adherence and health outcomes	X	X	
No or limited assessment of pharmacist attitudes, knowledge, skills and confidence (self-efficacy)	X	X	
No or limited assessment of consumer satisfaction	X	X	
Scarce assessment of implementation processes	X	X	X
Minimal evaluation of intervention impact on pharmacy staff or other health professionals	X	X	

4.2 Development and evaluation of a medication support service

This section describes the development, implementation and evaluation of the medication support service to assist consumers with depression and anxiety to better manage their medications. The evaluation explored: 1)

the impact of the pharmacy staff training, 2) feedback from mentors who supported pharmacy staff, 3) the impact of the intervention for consumers and carers, and 4) feedback from pharmacy staff and other health and support providers about the intervention.

Method

a. Pharmacy staff training and support

Workshop

Building on the Stage Two on-line mental health education, Stage Three training specifically focussed on the knowledge and skills required to implement the service. Skills focused on identifying and working with stages of change, communicating and engaging with consumers, motivational interviewing, problem-solving and goal-setting. Training was piloted with two participant groups in mid-October 2013; a total of 11 workshops (163 pharmacy staff from 100 community pharmacies) were facilitated by mentors. Workshop participants were provided with resources to assist in training other staff members.

The impact of training was assessed by comparing pre- (T1) and post- (T2) training responses to statements about abilities, confidence, skills, knowledge, motivations, and barriers related to working with, and supporting, consumers. Changes in questionnaire data between pre- and post-training were tested with paired t-tests, using SPSS™. The probability level required to demonstrate statistical significance was set at 0.01 because of multiple comparisons.

Ongoing support

Six trained mentors were employed to provide ongoing training and support to participating pharmacy staff. These mentors formed three pairs for each of the project regions and each pair comprised one pharmacist (with experience in training and mental health) and one consumer and/or carer (with lived experience of mental illness). Evaluation involved an analysis of detailed mentor diaries and a one-hour focus group conducted at the end of the intervention. Data were thematically analysed, by two independent researchers, for themes around the mentoring experience. Descriptive statistics were also used to analyse mentor diaries.

b. Development and implementation of the medication support service

Trained pharmacy staff were asked to recruit 10 mental health consumer (between October 2013–November 2014), and upon obtaining consent (Step 1), work with them over a 3–6 month period to deliver the intervention (Box 4.1).

Box 4.1: Medication support service overview

- Step 2 (*My Health Status*): baseline information, demographics, use of pharmacy services;
- Step 3 (*Initial Health Review*): insights into the impact of mental illness on the consumer's daily life, perceptions of medication management, how well the consumer was managing their medication and their expectations of community pharmacy. Scales included: BIPQ, SF-12, MMAS-8, BMQ and TSQM;
- Step 4 (*Medication Support Plan*) – difficulties identified, goals set and strategies developed to achieve goals. Consumers rated their confidence towards, and importance of, achieving goals.
- Step 5 (*Ongoing Support, Maintenance and Monitoring*) – follow-up interactions related to Step 4.
- Step 6 (*Final Health Review and Evaluation*) – assessment of goal achievement, post-intervention *Health Review* and satisfaction with intervention.

The impact of the intervention on consumers' medication management and quality of life was measured through: 1) an evaluation of the consumer interaction and intervention records and 2) comparing pre- (T1) and post (T2) intervention responses from the *Initial Health Review* and *Final Health Review and Evaluation*. Data analysis was performed using SPSS21 and Stata 12.1. Hypothesis testing (null hypothesis: no difference in responses at two timepoints) was completed using chi-squared and Fisher's exact tests on categorical variables,

and paired *t*-tests on ordinal (e.g., Likert scale) and continuous variables. A *p* value <0.01 was used to declare a statistically significant difference.

Pharmacy staff from 16 completer pharmacies (CP) and 14 non-completer pharmacies (NCP) qualitatively described their experiences and impact on practice. Interviews (ranging between 12–67 minutes in duration) were audiotaped and transcribed before coding the data into themes related to implementation barriers, and experiences recruiting and working with consumers. Other pharmacy staff members (n=69) involved in the intervention were invited to participate via an on-line survey. Other health professionals (n=177), including GPs, were invited to participate in a final evaluation of the intervention via open-ended telephone interviews or a survey. All interviews were transcribed verbatim and thematic analysis of the data involved coding to identify themes. Descriptive statistics were used to analyse survey data.

Results

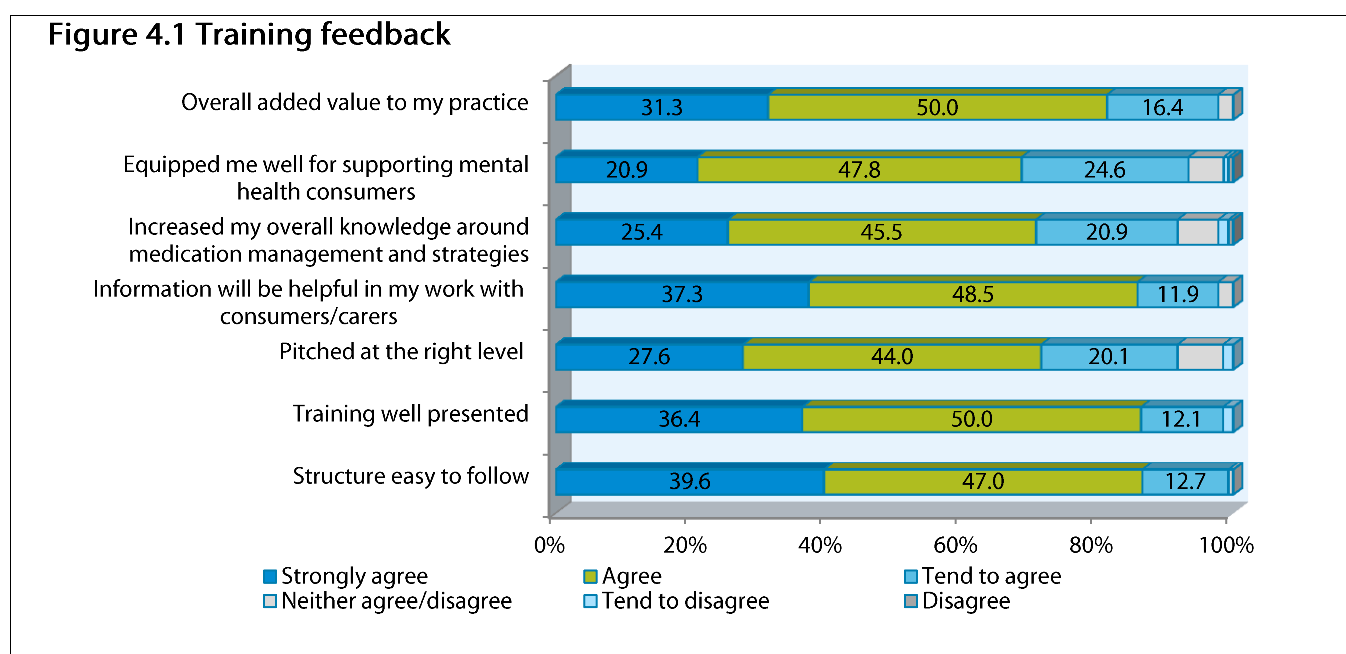
a. Medication support service training workshop

A total of 163 pharmacy staff attended training (142 pharmacists and 21 support staff); 137 participants completed T1 and 134 completed T2 questionnaires. The primary motivators for participation included: *'I want to improve mental health consumer outcomes'* (44.9%), and their pharmacy has *'a high proportion of mental health consumers and careers'* (31.5%). *'Financial remuneration'* was the least motivating factor.

Feedback and satisfaction with the training experience

On a scale of 1-7 (*strongly disagree* to *strongly agree*) the median was 6 for each of the seven feedback statements (Figure 4.1); 97% of participants recommended that the training be made available to other pharmacy staff. The top three benefits of the training were: *improved skills in motivational interviewing and goal-setting techniques*, *increased confidence in supporting consumers and carers with medication-related problems*, and *improved communications skills* (Box 4.2). When asked for comments on training areas that could be expanded, changed, or improved upon in future, 35% of participants did not enter a response and 13% replied 'nothing'. The primary suggestion for change was to include more information about mental health issues and how to deal with them, including mental health first aid (13%). Forty-one percent of participants considered that they needed further training; 22% of them identified mental health first aid as the most important area.

Figure 4.1 Training feedback



Box 4.2: Key participant feedback

I found the module on motivating the consumer very interesting, tying in with how to empower people to make their own plans for positive change. (Pharmacist #26)

Developing support plan with an individual and monitoring their progress. Developing strategies to help each individual. (Pharmacist #120)

An implemented mental health 1st aid component/training. (Pharmacist #5)

Probably more case reviews or role plays with different scenarios, also what to do if no actual goals, and what to discuss. (Role Not Specified#92)

Impact of training on participants' confidence, skills and knowledge

Overall, the training had a positive impact on the confidence, skills, and knowledge required for community pharmacy staff to support consumers and their carers with medication-related problems. For example, there were positive changes in skills and confidence around communication, medication counselling, consumer engagement, motivational interviewing, goal-setting, and plan development (Table 4.1).

Table 4.1: Pre- and post-training scores for Confidence and Skills (CAS)

Statement	T1 Score mean	T2 Score mean	*p* value
I feel able to talk to people about their mental health problems	5.3	6.1	<0.001
I feel able to talk to people about their mental health medications	5.6	6.0	<0.001
I feel confident when addressing mental health medication-related problems	5.0	6.0	<0.001
I feel able to advise people about their mental health medications	5.4	5.9	<0.001
I feel confident discussing a consumer's medication issues with their GP or psychiatrist	5.0	5.6	<0.001
I feel able to talk with people about their medication adherence	5.6	6.1	<0.001
I feel confident working with people to improve their adherence with mental health medications	5.3	6.1	<0.001
I have the skills to engage with a diverse range of consumers on an individual level	5.2	6.0	<0.001
I know how to use a motivational approach when working with people with medication problems	4.6	5.9	<0.001
I know where to access good resources for people with mental illness (e.g. written information and websites)	4.7	5.8	<0.001
I know how to develop a medication support plan including goal-setting with mental health consumers	3.7	5.8	<0.001
Overall I feel I can make a positive difference for people with mental health problems	5.2	6.2	<0.001

NB: Paired sample t-tests, $p<0.01$ indicates statistical significance; higher scores indicative of increased likeliness to select item.

Participants had a clearer understanding of the positive (e.g., change talk) and negative (e.g. advice provision) components of motivational interviewing, a higher level of motivation and perceived fewer barriers for working with consumers after completing training. Significantly, participants reported intended change to their practice behaviour by providing deeper and more specific descriptions about the way they would interact with consumers (i.e. beyond asking how the consumer is going, to offering assistance and using specific techniques such as motivational interviewing) and an increased level of comfort in undertaking those actions (T1 mean=4.23; T2 mean=4.73; $p<0.001$).

b. Implementation of the medication support service intervention

Trained staff in 55 CP recruited and worked with at least one consumer to complete the intervention. An additional 24 NCP withdrew from the study, nine did not recruit any consumers, seven did not deliver the intervention and five delivered a partial intervention. Further information were obtained from pharmacist champions; semi-structured interviews were undertaken with champions from 16 CP and 14 NCP.

Pharmacy characteristics

About a third of NCP (36.8%; n=14/38) reported that only one pharmacist was typically present in the pharmacy and 20.4% (n=11/54) of CP. CP also reported lower numbers of support staff in the pharmacy team. Similar numbers of general and mental health prescriptions were dispensed each week by pharmacies in both groups. Almost all pharmacists reported that their pharmacy participated in the PPI program, and blood pressure monitoring and DAAs were the services most frequently offered. Higher level professional services, (e.g., diabetes or asthma management) were offered more frequently by CP.

Challenges, barriers and experiences of service implementation

Service implementation was influenced by attitudes of colleagues, pharmacy environment and workflow, and data collection. Flexibility was recognised as key to success, and simple, innovative strategies were employed to provide consumers with flexible options, e.g., telephone or on-line follow-up. Key challenges and barriers to service provision included resistance from pharmacy owners or other staff, changing focus for the pharmacy (i.e. emphasis on other services), limited privacy in the pharmacy, workflow, e.g., only one pharmacist working, project paperwork and time constraints for pharmacy staff and consumers (Box 4.3). A key factor for success was considered to be the support for staff during implementation.

Box 4.3: Key participant quotes

The owner was not on board and one of the other pharmacists that is here full time was actively against doing anything with regard to mental health. (NCP003)

We realised we really didn't have enough staff to be spending that much time with one person….That person missing the whole time was draining on the rest of us…the time consuming nature of it. (NCP026)

Then when you give them all those forms to fill in, it's just too much for them [consumers], *and most of them say oh, no too much.* (NCP006)

Appointment in pharmacies people still have to get used to it, it's very hard to get them to come on particular day particular time… (NCP005)

c. Impact of the medication support intervention

The majority of consumers and carers were: female (61.5%); had a mean age of 50.1 years. Fewer than half of the participants were in some form of paid employment (42.9%). Most participants visited their GP to have their mental health medication prescribed (87.1%) and only 7.6% of participants reported having a carer. Overall, participants were relatively high users of pharmacy services, with 93.4% visiting a community pharmacy at least every four weeks and 35.3% visiting at least weekly. The main reason cited by participant for visiting their pharmacy was to have a prescription filled (n=354; 89.6%).

Delivery of medication support intervention with consumers

Initial health review: Mental illness was described as having a major impact on lifestyle and quality of life, particularly when symptoms were not relieved. Medication management issues focused on adherence and consumer information. There was tension between perceiving medications as necessary to improve quality of life or prevent relapse, and concerns over dependence or side effects through prolonged use. Adherence was variable and influenced by dissatisfaction with medication due to limited efficacy or side effects, symptom resolution, polypharmacy, family commitments and inconvenience. Consumers wanted pharmacy to be a safe health space where staff would support them and provide medication in an empathetic way.

Goal-setting: Overall, 359 participants completed the goal-setting stage; most identified three goals (n=142; 39.6%), followed by two (n=126; 35.1%), one (n=82; 22.8%), and one person identified four goals. Ninety percent of consumer goals related to six main areas: *lifestyle change,* e.g. diet modification and meditation*; symptom management*, e.g. to be less anxious [C086-02]; *adherence*, e.g. MedsCheck and DAAs*; medication management,* e.g. reduction/cessation of antidepressants; medication information, e.g. available treatment options, and improved sleep. Agreed plans between pharmacists and consumers were aligned to medication,

e.g. prescription reminders; lifestyle change, e.g. weight loss targets; and source of support, e.g. mental health networks. Approximately 60% of participants indicated at least one source of support to assist with achieving their goals, e.g. pharmacists, GPs, family members. Participants rated their confidence in achieving their goals (1=not at all confident, 10=very confident), with a mean score of 7.9 (SD=1.5).

Consumer follow-up: The majority of consumers (51.2%) had two or more follow-up contacts as part of the intervention (mean=1.9; median=2.0), which were primarily face-to-face (82.3%; n=640). The primary purpose recorded for the follow-up contact was either to have a prescription refilled or to check their progress.

Impact of the medication support service on consumer outcomes

Illness perceptions: Overall, 54.3% of consumers rated their health as good/very good/excellent at T1; this increased to 62.8% at T2. With respect to the following measures:

(i) *Brief Illness Questionnaire*: All eleven statements changed significantly. In terms of the total score, participants perceptions of their illness reduced significantly by the end of the intervention period ($p<0.001$); and

(ii) *SF-12 Health Survey*: There was a significant improvement ($p<0.001$) in the mental health composite score after participation in the intervention. However, there was no change in the physical health score between T1 and T2.

Medication management:

(i) *Morisky Medication Adherence Scale (MMAS-8):* Overall, there was a significant change (p=0.005) between T1 and T2 with a reduction in the number of participants with low adherence and a corresponding increase in the number reporting medium adherence. All participants' reports of their adherence had changed significantly by the end of the intervention period ($p<0.001$); only one question (taking all doses of medication yesterday) did not change in a positive direction;

(ii) *Beliefs about Medicines Questionnaire:* participants were significantly less concerned about adverse effects at the end of the intervention ($p<0.001$). There was no change in consumer beliefs about the necessity of medication to manage their mental illness; however consumers held strong beliefs about the important role of medication at baseline; and

(iii) *Treatment Satisfaction Questionnaire for Medication (TSQM):* There was a significant improvement in participants' satisfaction with their medication in terms of effectiveness and global satisfaction at the end of the intervention (p<0.001). Scores did not change for side effects and convenience.

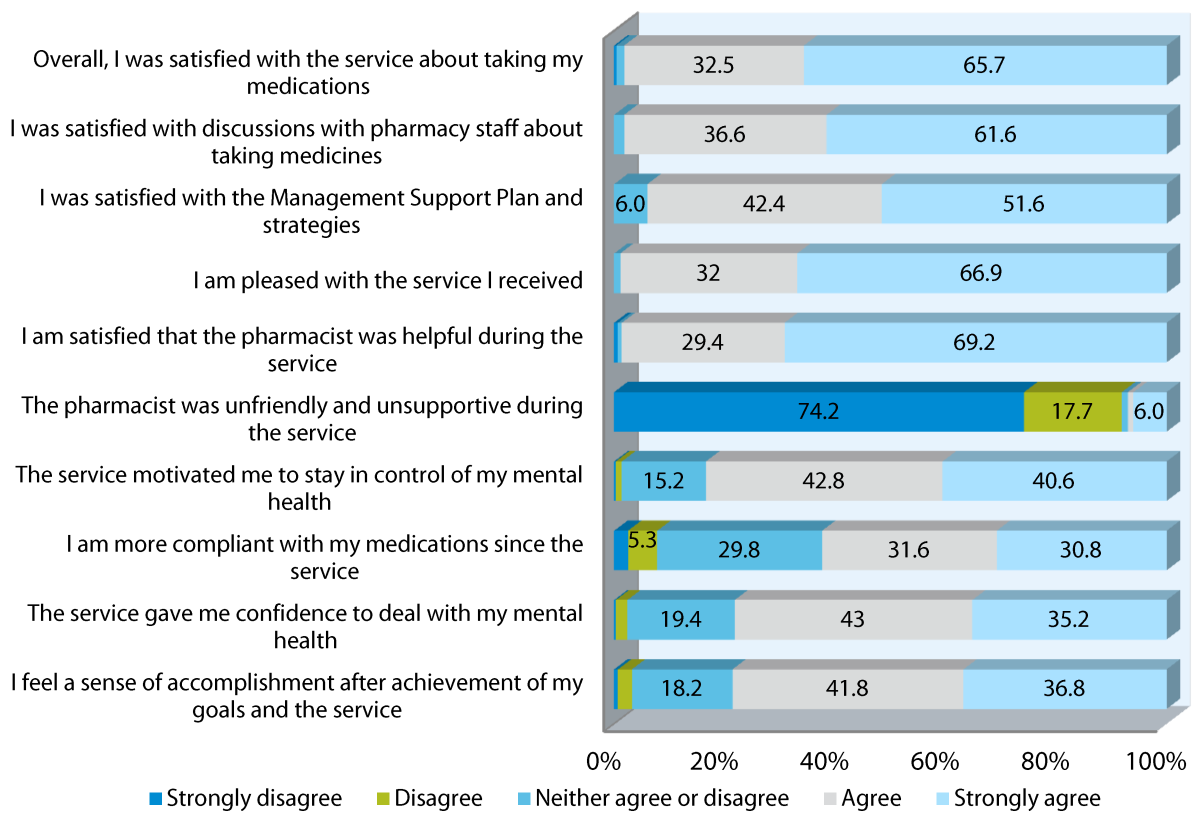
Expectations of community pharmacy: Ten of the 18 statements showed a significant change ($p<0.001$) at the end of the intervention. These were particularly related to raised expectations of aspects of patient-centred care or functional service quality, (e.g., staff attitudes, expertise, empathy and politeness, feeling understood and addressing individual needs). The only aspect of technical service that increased significantly after participation in the intervention was the expectation to be provided with medication advice.

Goal achievement: From a total of 600 goals, 278 (46.3%) were achieved, 331 (38.5%) were partly achieved and 91 (15.2%) were not achieved. Sixty-five consumers reported that their original goals had changed, while 72 consumers added further goals over the period.

Consumer evaluation of the medication support service

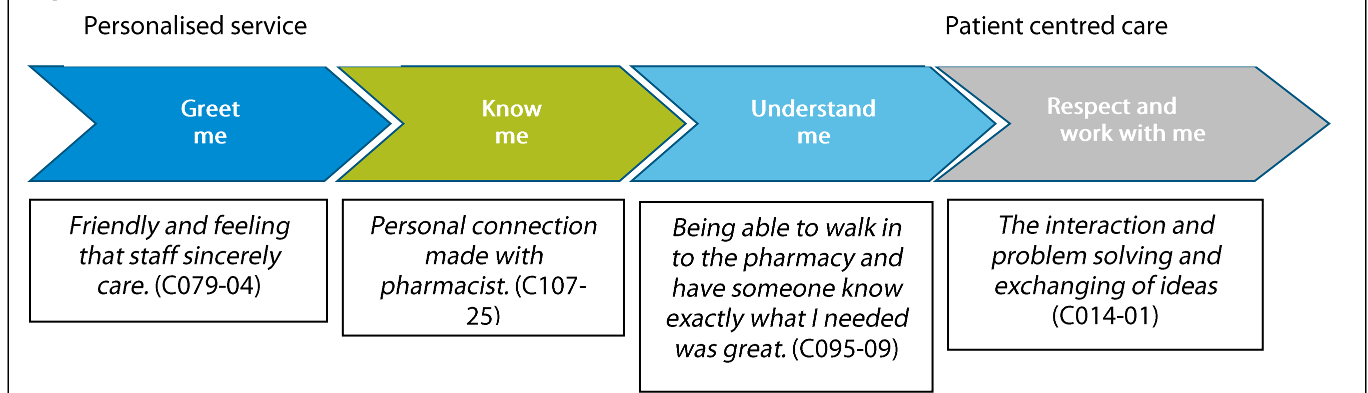
The service received very positive feedback from consumers; 98.6% of participants strongly agreed/agreed that they were satisfied with the intervention (Figure 4.2): *'It helped me to realise what wonderful service I am getting. I truly feel CARED ABOUT when I walk through your doors. I enjoy being addressed by name – sorry I forget yours frequently!! I realised just HOW MUCH you offer or CAN offer as a pharmacy. I now expect much more from a pharmacy than ever before because of YOU. And feel ENTITLED to it almost.'* (C074-03; capitalisation is natural emphasis from consumer).

Figure 4.2: Consumer evaluation of the intervention



Consumers' descriptions of what they hoped to *gain* from the intervention encompassed: symptom relief, improved mental health knowledge, pharmacy support or relationships, managing medications, and a desire to *be of service* or *assist in establishing an ongoing program for mental health support* (C008-03). Much of what the consumers and carers *liked most* about the service reflected multiple elements of patient centred care (Figure 4.3).

Figure 4.3: Spectrum of what consumers liked most about their experiences of the service



A third of consumers indicated that no improvements were needed for the service. There was a consensus amongst others that study documentation should be reduced. Suggestions related to service included: greater promotion of service availability amongst consumers and increased intensity in consumer support or follow-up and length of the service to allow long-term progress with goals.

Pharmacy and other health professional/support service providers' evaluation

Sixteen pharmacy staff members (13 pharmacists and 3 support staff) and five other health professionals/service providers were interviewed; 29 pharmacy staff members and seven GPs completed the on-line evaluation survey.

Evaluation by pharmacy staff

Application of training knowledge and skills: Interview participants confirmed that the workshop training improved their competence and confidence in working with consumers and carers. The opportunity to practise the intervention steps, and advice given by pharmacists providing best-practice for consumers and carers, was helpful: *'Hearing from people who had already done it before, sort of had the same job as me and have done it was probably the best, sort of gives a real-world example and they could give tips on how to implement it and that sort of thing.'* (Pharmacist Interview #056)

Implementation: Pharmacies providing other professional services were comfortable overall with implementing the intervention and were able to recruit consumers fairly soon after training. Pharmacy staff reported the use of a range of professional services throughout the intervention, including clinical interventions, staged supply and medication review services: *'It has raised the bar with professional intervention with mental health consumers and carers and incorporated well into the PPI's* (Pharmacist Survey 004). Keeping consumers actively involved throughout the intervention was more complicated. However, staff agreed that the flexibility of the intervention allowed them to tailor it to an individual consumer, and almost all survey participants (26/28) either agreed or strongly agreed that the intervention was practical.

Strategies and approaches used: The importance of making all staff aware of the intervention and how it was going to be implemented in the pharmacy, i.e., a whole-of-pharmacy approach, was mentioned by most interview participants. Specific changes within the pharmacy included setting up dispensing software to identify or flag consumers, as well as documentation procedures. Ensuring that the pharmacy had a suitable private space was particularly important for the success of the intervention: *'… we've changed the way of where we counsel as well because we've got a counselling bench made up but what happens is they* [staff] *tend to get into the habit of taking the scripts down to the register and counselling down there so we actually changed that…we weren't doing it as well as what we could have... It's just a matter of getting into that mindset of going against something that you always did…'* (Pharmacist Interview#027)

Outcomes: These related to indirect, (e.g., improved communication) and direct patient outcomes, (e.g., medication management and improved mental health). Various comments from the pharmacy staff interviews and surveys related to patient centred care, and there was overall agreement that involvement with the intervention improved the professional image of pharmacists and the pharmacy:

'I had one customer who has moved mountains and I'm so proud of him … I'm talking from a guy that wanted to run in front of a train or go and jump off a cliff and I'm not exaggerating [he] *was a the lowest of low and I honestly thought that if I didn't pin him down and hold him down and really have a big firm chat with him he wouldn't be here today…'* (Pharmacist Interview #065);

'I have become much more alert to the 'silence' of a patient suffering with mental health issues' (Pharmacist Survey 023); *'Obviously it gave us a high status in our customers' view, just probably more involvement in their treatment...rather than just filling the script and saying "this is how you take it, see you later.'* (Pharmacist Interview#004)

Survey responses indicated that the intervention was particularly effective in helping consumers to manage their medication-related issues and in improving consumers' medication management (26/29). Three-quarters of respondents indicted it assisted carers to work with consumers (22/29) and two-thirds considered to promoted relationships with GPs or other health professionals (18/29). These results indicate that improved collaboration with GPs will require multiple strategies and the involvement of GP organisations to facilitate partnerships, and there is scope for improved involvement with carers. The majority of the pharmacy survey respondents (23/29) indicated that they would continue to provide the intervention in their pharmacies. Interview participants also indicated this intention, however, they commented that payment for the service would be required to make it financially viable.

Challenges experienced in delivering the intervention: One of the main challenges identified by pharmacy staff was the time required for consumers to participate in the intervention: it was '*hard to actually get people to*

come back' (C051). Other challenges included: *lack of pharmacy resources,* e.g., pharmacist workload; *unavailability of trained pharmacists,* e.g., consumer rapport developed with one pharmacist; *lack of privacy,* e.g., no quiet area; *dual diagnoses,* e.g., other conditions impacting on mental health; *poor understanding of the role of community pharmacy,* e.g., consultations being a relatively new idea to some consumers; *and mental health stigma*, e.g., uncomfortable for some consumers to discuss their mental health openly.

Evaluation by other health professionals and support service providers

A limited number of GPs were actively involved in collaboration with pharmacists as part of the medication support service. There were elements of support for pharmacist delivery of the medication support service as *a good adjunct support to medication or GP support* (GP Survey 07) and as *alternative support to the patient as well as GP support* (GP Survey 07). One GP was positive about the fact that research was being conducted in this area. There was some resistance to the support service when GPs viewed it as another service that they needed to complete paperwork for with no perceived benefit, an attempt by *pharmacists to usurp the profitable roles of GPs* or feeling limited by time constraints. Encouragingly, selected GPs appreciated the complementary roles of pharmacists, particularly when identifying medication interactions and side effects, and consumer education:

... with medication reviews looking after interactions, looking out for any other burdens or any other side effects that can be caused that a pharmacist, that would be very useful I think. (GP Interview 01)

Furthermore, GPs supported collaboration between themselves and pharmacists. One of the GPs commented on the need for pharmacies to have private consultation areas.

The psychiatrist interviewed indicated that the pharmacists notify them if the consumers were late in picking up their repeat prescriptions, as well as visit the psychiatry clinic regularly to deliver depots and use the opportunity to discuss consumer progress with them: *'… they do spend time with the consumers … the pharmacists can give further details* [about medication] *as we are short for time*' (Psychiatrist Interview 02).

Pharmacists referred consumers to a range of health professionals and community resources, reinforcing their value as a point of connection to support services and revealing significant opportunities for the future. A staff member from a community mental health service for culturally diverse communities was positive about the potential for pharmacists to support their clients and the organisation. In addition, the support staff member who provided physical health services, i.e., exercise facilities and training, free of charge to consumers for a specified time period on referral from a health professional indicated that this was the first time the service had received referrals from pharmacists. This was an exciting development with scope for further collaboration with pharmacists in the future: *'… for him* [the pharmacist] *to be referring people to our program, he's investing time in them, enough time for them to explain what's it's about and he send the referral onto me and then I contact them, I was absolutely amazed when I started getting referrals from a pharmacist. It was fantastic'* (Physical Trainer Interview 04).

5 Key Findings and Recommendations

This section provides the:

a) Key findings regarding the perspectives of mental health consumers and their carers on their experiences and expectations of community pharmacy, and the effectiveness of continuing education and training for pharmacy staff implementing a medication support service; and

b) Key recommendations regarding the role that community pharmacy can play in supporting consumers (and their carers) with their mental health conditions and medication-related problems.

The findings of this research should be widely disseminated to professional and consumer and carer organisations, pharmacists and support staff to promote awareness of the role of community pharmacy and pharmacy services that support and promote wellbeing among people with mental illness.

1. Consumers with mental health problems and their carers want a pharmacy to be a safe health space that respects their privacy, minimises stigma and promotes trusting relationships with all pharmacy staff.

The importance of a patient centred care approach in meeting the needs of mental health consumers and carers was emphasised by stakeholders, consumers in exit interviews and medication support service recipients. Development of trusting relationships with the pharmacy team was fundamental to pharmacy being considered a safe healthcare space by stakeholders (47). A potential *protector* role for pharmacists emerged particularly when consumers and carers reported trusting pharmacists to monitor their wellbeing and intervene if necessary (47). When consumers evaluated the medication support service, the majority emphasised the value of a more patient centred approach by pharmacy staff.

Effective relationships with consumers and carers rely on skilled and engaged pharmacy staff. Prior to training, pharmacy staff indicated that they did not feel confident about working with mental health consumers and carers, reporting limited knowledge about the nature and treatment of mental illness and its impact on people's lives. The Stage Two literature review recommended that mental health training for community pharmacy should target specific areas of knowledge and skill gaps to support current and future practice needs.

Recommendations

1a. The on-line mental health education program developed through this project should be made available, free of charge, to all community pharmacy staff in Australia. The availability of this CPD accredited programme should be widely promoted as a matter of priority by The Pharmacy Guild. Consideration should be given to maintaining the pre-and post-training questionnaires, to recognise the changing learning needs of the profession and build evidence of shifting knowledge and attitudes (e.g. stigma). However, the benefits of data collection should be weighed against the potential participant burden.

1b. To assist pharmacies in developing patient centred services, an implementation support unit should be established. The support unit should develop understanding of the continuum of patient centred services and insight into how the different domains of patient centred care can support and meet the needs of mental health consumers. It should assist pharmacies to progress to the highest level possible within the constraints of their settings. Examples of support strategies could include: site visits and mentoring; telephone coaching; on-line resources and support; training opportunities for pharmacists and pharmacy support staff; consumer and carer stories of success through patient centred services; advocacy for inclusion of patient centred training in tertiary curricula; advice on methods for facilitating privacy, confidentiality and respect within pharmacy contexts (beyond implementing a separate consultation area); case studies of new innovative patient centred services from the profession; and economic analyses and business models to support pharmacy in adopting new services.

1c. Research exploring the application of patient centred care within a pharmacy context is limited. Evaluation of consumer and carer experiences and benefits of pharmacy staff in training should be undertaken on a longitudinal basis to build on these preliminary findings.

2. Pharmacy staff need to have positive attitudes, knowledge, skills and confidence to support and work with consumers and their carers in a proactive way via patient centred services.

On-line training improved knowledge, skills, attitudes and confidence for working with people with a mental illness, inspiring them to become more proactive. Moreover, these positive results were repeated when tested 6–12 months after training. A smaller impact was observed for support staff compared to pharmacists. Stage Three training improved pharmacy staff confidence and skills to further promote and support engagement and collaboration with consumers. Pharmacists reported increased motivation to work with consumers and fewer perceived barriers. Participants identified increased knowledge of mental illness management as the primary learning benefit immediately following training; improved communication skills was identified as the most beneficial aspect at 6–12months follow-up.

Recommendations

2a. The on-line mental health education program developed through this project should be made available, free of charge, to all community pharmacy staff in Australia. The format and content of the education program should be reviewed on a biennial basis to ensure currency, relevance, and anchorage in contemporary evidence. This review should be undertaken in association with relevant consumer and carer organisations based on an assessment of pharmacy staff current practice and learning needs.

2b. Additional education modules need to be developed and accredited for pharmacist CPD credits or annually required training (refresher points) for support staff (as part of QCPP). For pharmacists this needs to include: Other mental health conditions beyond depression and anxiety such as schizophrenia and bipolar disorder; Clinical application of evidence-based treatment in real-world practice; Side effect management and support strategies; and Short refresher modules. Support staff require additional modules that build on communication strategies already addressed in the current program to further develop confidence and skills.

2c. Future education should involve relevant consumer and carer educators as partners in all stages including design, development, delivery and evaluation.

3. Pharmacy staff members are in an ideal position to promote pharmacy as a health hub to empower consumers and their carers through regular contact, information provision on medicines and health support services.

The Stage One literature review identified that community pharmacists are viewed as ‘medicine experts’ and reliable advisors on health, and highlighted mental health consumers’ need for increased medication information. The potential for pharmacy staff to address these information needs was reinforced in stakeholder consultation and Stage Two exit interviews, where consumers expressed a wish for information that improved their understanding of medicines or pharmacy services. The Stage Three literature review provided further evidence to support the notion that pharmacy staff are ideally situated to empower consumers, by addressing their information needs in a safe health space.

Mental health consumers cited increased knowledge of symptoms, medications, management strategies and additional resources and support services as a key expectation of the medication support service. The goals and action plans that were agreed upon between pharmacists and consumers in the service incorporated medication-related and lifestyle issues, highlighting the potential for pharmacy to act as a health hub. The service significantly improved consumer illness perception, medication adherence and quality of life. Pharmacists supported significant lifestyle change for consumers, through information delivery and referral to relevant support services. Consumer expectation to receive medication advice in a pharmacy increased significantly after participation. Consumers highly valued empowering care that incorporated information provision, collaborative goal-setting and referral to other support; this was associated with positive changes and prevention of negative outcomes.

Recommendations

3a. Information provision should incorporate individualised and practical strategies targeting medication adherence and lifestyle change. These empowering strategies could extend to collaborative goal-setting. An example could include adherence support through dose administration aids.

3b. Community pharmacy's ability to signpost and connect consumers and carers to other health professionals or support services should be widely promoted and formalised as a remunerated service.

3c. Pharmacy organisations should work with health professional organisations, particularly general practice, to agree on structures that promote and model collaborative practice such as memoranda of understanding. At the grass-roots level, exploration of strategies to engage and collaborate with other health professionals is needed, and should include a review of previously successful models, e.g. HMRs. Evidence of individual practitioners engaging in collaborative practice should inform future initiatives.

3d. Research that trials a range of alternative models of developing and implementing a flexible health hub service that could be tailored to individual pharmacies and their consumer population is recommended. As a concept the health hub reflects a spectrum of services including information about medications, symptoms, services, referrals and sign-posting to other support, tools and resources to support self-management (e.g., audiovisual displays, free telephone points to contact other professionals and referral letters).

4. Tailored training and ongoing support equips pharmacy staff with high-level communication skills and effective intervention strategies to meet the emerging needs of complex service provision (e.g., disease state management) to vulnerable populations.

Successful implementation of pharmacy services, particularly those that extend usual care for consumers, entails practice change, training and tools to support that change (48). Training should target relevant knowledge and skills development, and incorporate change management, practical materials, experiential learning (e.g., opportunity for 'hands-on' skills practice via role-plays). Stage Three workshop participants highly valued content on high-level communication skills (i.e., motivational interviewing) and the opportunity to interact and practice with other pharmacists (some of whom had implemented similar support services). Workshop participants improved their knowledge, skills, abilities, and confidence for working with consumers in the medication support service. In particular, they showed increased understanding and appreciation of the high-level communication skills required. Participants indicated that they were more motivated and comfortable working with mental health consumers and carers post-training, and perceived fewer barriers to this. They demonstrated application of new skills through improved responses to case studies.

Ongoing access to peer champions or mentors is important for service implementation. A unique combination of a *consumer or carer* with lived experience of mental health issues and a *pharmacy educator* provided formalised support and was considered essential to implementation. This project has demonstrated the importance of, and ongoing access to, these unique mentor teams for effective implementation of new services in specific consumer populations.

Recommendations

4a. Multifaceted training is essential to build high-level communication skills and effective intervention strategies. Building on the recommendation above (Recommendation 2d), to work with consumer and carer educators, training should include: Face-to-face workshops to introduce new skills, problem-solve with colleagues and the opportunity for practising hands-on skills (e.g., role-plays and exposure to role model practitioners already demonstrating best practice); and ongoing training and support such as mentoring to introduce support service processes and strategies at the individual pharmacy level.

4b. Mentoring teams comprising a consumer or carer with contextual knowledge, experience and networks, and a pharmacy educator with experience in change management and service implementation, with an understanding of the pharmacy practice context are the ideal combination for supporting pharmacy staff. The mentors will provide coaching, advice, guidance and practical resources in a regular and flexible way that may include: face-to-face visits, telephone, email, Skype consultations.

4c. Future research is needed to investigate whether the same positive mentoring outcomes will occur in a larger roll-out of a mental health medication support service across Australia involving a multitude of mentors, and to closely examine the mentoring experience from both mentors' and mentees' perspectives.

5. A mental health medication support service that is ongoing, goal-oriented, flexible and individualised improves consumer outcomes such as illness perception, satisfaction with treatment, and positive lifestyle change.

The pharmacist and consumer agreed upon goals and associated action plans and sources of consumer support. Up to 23 follow-up contacts were undertaken in the pharmacy, indicating a potential need for a two-tiered approach to pharmacy services for mental health consumer and carers. Consumers achieved or partly achieved 85% of the goals agreed between them and pharmacists. Illness perception improved significantly after the service, and the proportion of consumers rating their health as good/very good/excellent increased. There was significant improvement in the mental health aspect of quality of life, possibly reflecting the predominance of consumer goals focused on mental wellbeing rather than physical functioning. Adherence to medication also increased and this is supported by qualitative data related to goal achievement. Participants were significantly less concerned about adverse consequences of their medicines, and there was a significant improvement in satisfaction with their medication in terms of effectiveness and global satisfaction at the end of the medication support service. Almost all consumers were satisfied with the medication support service and the majority agreed or strongly agreed that the service motivated them to stay in control of their mental health, gave them more confidence to deal with mental health and that they felt a sense of accomplishment after participating in the service.

Recommendations

5a. A two-tiered mental health medication support service needs to be introduced to meet consumer needs. The first tier comprises an assessment of consumer needs, information provision and goal-setting (if relevant). This service could align with current structures such as MedsCheck. The second tier involves an in-depth ongoing medication support service that is goal-oriented, flexible and individualised. Serious consideration needs to be given to conducting a needs assessment, developing and piloting a service for carers of mental health consumers.

5b. Financial remuneration for the mental health medication support service should be informed by different levels of current services such as MedsCheck and HMR. Remuneration should be commensurate with the time required to deliver the service based on these findings; the first tier takes 30 minutes and the second tier a total of 90 minutes including follow-ups.

5c. In-depth qualitative exploration of medication support service implementation is needed. This should focus on the collaborative work identified in this project between the early-adopter pharmacists and consumers in goal-setting, follow-up and goal attainment (e.g. what worked, how it was achieved, magnitude of outcomes that are achievable). Case studies could then be developed as exemplars for pharmacy curricula, and to support training and wider service implementation and translation to real-world practice.

6. Effective implementation of a mental health medication support service relies on a whole-of-pharmacy approach (incorporating everyone from support staff through to owners and managers) that is practical and appropriately resourced.

Medication management services that benefit consumers are perceived positively by government and Australia's network of 5000 pharmacies is considered essential to effective and transparent provision of these services, ideally via the Sixth Community Pharmacy Agreement. Successful delivery of mental health services relies on pharmacies having service champions, an adequate number of skilled pharmacy staff members, a suitable pharmacy environment and integrated workflow. Availability of a private area, adequate staff levels and efficient workflow (e.g. flagging consumers on dispensary software) were considered essential to service implementation and lack of any of these introduced barriers to service delivery. Connections with other local

service providers are important and completer pharmacies more commonly had connections with community mental health teams than non-completer pharmacies.

Effective implementation of the medication support service relied on a whole-of-pharmacy approach. Completer pharmacies used multiple strategies to motivate uptake involving both pharmacists and support staff and for pharmacy banner groups, top-down support from pharmacy owners, managers and head office staff. A key barrier for non-completer pharmacies was a lack of managerial support. The majority of respondents indicated that they would continue to provide the service in their pharmacies and almost all considered that they could adapt the services to other chronic conditions. However, it was noted that remuneration was required to make this financially viable.

Recommendations

6a. It is strongly recommended that a mental health support service, as mentioned above, be considered and added to the next community pharmacy agreement. The next step requires a large-scale implementation study to explore and promote effective roll-out, uptake and sustainability in community pharmacy across Australia. As a first step data collection tools should be refined to balance research burden with relevance and utility for consumers and pharmacy staff. The refinement process should incorporate the views of a sample of consumer and pharmacy participants from this project. Data collection tools should then be tested with end-users.

6b. Implementation of the medication support service should allow for flexibility for pharmacy staff while providing individualised support that improves health outcomes specific to each consumer. Therefore, the implementation of this service should be considered using the two-tiered model as mentioned above, allowing pharmacies to deliver tailored services that meet their consumers' needs within the capabilities of the pharmacy environment. Remuneration for these services should be based on quality assurance and consumer outcomes as a means of auditing for claimed services.

6c. Commitment from pharmacy management is vital for the successful implementation of mental health professional services, specifically the delivery of second tier services. These additional services require a whole-of-pharmacy approach with advanced staff training but may also require changes to pharmacy layout, workflows or processes and procedures. Buy-in from executive management is therefore vital, and formal agreement and commitment to service provision from pharmacy owners and/or managers needs to be considered prior to providing staff training and resources to deliver professional services.

5.1 Strengths and limitations

The size and diversity of the samples and combined qualitative and quantitative approach are research strengths. The samples reflected large numbers of consumers, carers and pharmacy staff dispersed across three diverse project regions. On-going discussions with a Reference Group, consumer and carer consultants ensured the validity and reliability of the findings and education, and mentoring reflected partnerships between health professionals and consumers, as well as carers. Each stage of the research informed the next, enabling a convincing and triangulated argument to be developed. Limitations include low response rates from GPs, reliance on self-reported data, and a research focus on common mental illnesses. A number of consumer and pharmacy participants expressed concern about the time burden imposed by the data collection tools used in the service. This practical barrier may in some cases have negatively impacted on recruitment.

5.2 Conclusion

This research has adopted a consumer- and carer-driven approach to explore their needs in the context of potential roles for community pharmacy in mental health care. The research provides evidence at a number of different levels of the significant value of community pharmacy as an integral part of the team of mental health providers and describes pathways to achieve this. The evidence supports the complementary role of pharmacists (and support staff) when interacting with mental health consumers and carers, health professional colleagues and community support organisations to meet consumer needs. Opportunities for pharmacists to better support consumers and carers and improve health outcomes were revealed in comprehensive literature

reviews, stakeholder consultation including extensive consumer and carer feedback) and learning needs assessment with pharmacy staff. These activities informed the development of targeted on-line education that improved pharmacy staff attitudes, knowledge and skills; increased motivation to work with mental health consumers and carers and reduced barriers to doing this. The importance of patient centred care to consumers was reinforced through exploratory research and consumer responses to service in trained pharmacies. Following on-line training pharmacies and mental health consumers and carers reported greater engagement, relationship building and positive impacts on medication adherence and service satisfaction. Ultimately, participating pharmacies were viewed as more welcoming and safe health spaces encouraging sharing of health information and loyal patronage. The accessibility of the on-line program means that Australian pharmacy has the opportunity to extend this beyond the 229 participating community pharmacies and promote pharmacy as a safe health space nationwide.

Staff from 100 Australian community pharmacies went on and engaged with and supported more than 400 consumers in a collaborative and flexible mental health medication support service. The benefits for consumers were apparent in improved attitudes towards mental illness, medication adherence, health outcomes, and treatment satisfaction, and rising expectations of pharmacy service. Insight into consumer goals and the collaborative approach adopted by pharmacists revealed outstanding examples of patient centred care, particularly of individualised and empowering care. During service follow-up, pharmacists referred consumers to or collaborated with a broad range of other health professionals and community support organisations. Feedback from these sources has provided examples of newly established collaborative arrangements and strategies to sustain these professional relationships. These findings provide further evidence of the significant potential and value of community pharmacy as an accessible, inexpensive and safe health space that empowers consumers through information and connection to relevant support services. These findings provide pathways to different service models and insights into service execution that could inform more widespread implementation of a patient centred service model for mental health consumers.

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