

Bridging the Gap between Physical and Mental Illness in Community Pharmacy (*PharMIbridge*) Project

Public Summary

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This report was prepared by members of the *PharMIbridge* research team and project partners:

- Prof Amanda Wheeler, Co-lead, Griffith University
- Dr Claire O'Reilly, Co-lead, The University of Sydney
- Dr Sara McMillan, Co-investigator, Griffith University
- Dr Sarira El-Den, Co-investigator, The University of Sydney
- Dr Jie Hu, Postdoctoral Research Fellow, Griffith University
- Dr Jack Collins, Postdoctoral Research Associate, The University of Sydney
- A/Prof Joshua Byrnes, Health Economist, Griffith University
- Prof Robert Ware, Statistician, Griffith University
- Ms Helena Roennfeldt, Lived Experience Researcher and Mentor, Griffith University
- Ms Victoria Stewart, PhD Candidate, Griffith University
- Ms Ricki Ng, PhD Candidate, The University of Sydney
- Ms Hannah Loller, Senior Pharmacist - Consulting, Pharmaceutical Society of Australia
- Ms Rebecca Segrott, Program Manager, The Pharmacy Guild of Australia

Correspondence:

For further information, please get in touch with us at pharmibridge@griffith.edu.au.

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Overview

In the Bridging the Gap Between Physical and Mental Illness in Community Pharmacy (*PharMIbridge*) project, pharmacists worked with people living with severe and persistent mental health conditions (such as schizophrenia and bipolar disorder), over 6 months to review medicines and health concerns. By working with each person, problems with physical and mental wellbeing, lifestyle, nutrition, and other health-related issues were identified. Goals were set, and strategies were discussed to try and address these health and lifestyle concerns.

The project demonstrated that community pharmacists providing a person-centred, flexible, and goal-oriented support service significantly reduced psychological distress and improved the quality of life for people living with mental health conditions. Additionally, people used their medicines to better manage their long-term physical health conditions (such as diabetes and blood pressure). The service was found to be good value for money, demonstrating that trained community pharmacists can play an important role in improving the mental health and overall wellbeing of people living with severe and persistent mental health conditions in the community.

Background

People diagnosed with severe and persistent mental health conditions die at a younger age than people who do not experience mental health conditions. This is partly due to higher smoking rates, physical inactivity or poor nutrition.¹ Additionally, the side effects of some medicines people take to manage their mental health conditions can lead to weight gain and high blood sugar and cholesterol levels, putting people at risk of developing a number of chronic physical illnesses.² Improving people's physical health can improve their mental health and quality of life, and previous research has identified that community pharmacists are able to help people with this.³

The *PharMIbridge* project explored if training community pharmacists to provide an individualised support service for people living with severe and persistent mental health conditions would improve their physical and psychological health and their use of medicines. Medicines are important treatments for both physical and mental health conditions, and as such, many people visit community pharmacies regularly. The *PharMIbridge* service was provided to people experiencing severe and persistent mental health conditions, working with their pharmacist to identify areas of concern, set goals, and develop plans to achieve them.⁴ The project looked at the following outcomes:

- Health and wellbeing outcomes, including quality of life, physical health and psychological wellbeing;
- Adherence to medicines (whether people regularly took their medicines regularly as prescribed);
- Community pharmacists' confidence and knowledge to help people with severe and persistent mental health conditions manage their medicines and physical health needs;
- If consumers and pharmacists liked the *PharMIbridge* service; and
- Other health service use (such as visits to their doctor or hospital) and the cost-effectiveness of the service.

Project governance

The *PharMIbridge* project was conducted through a partnership between two Universities (Griffith University and The University of Sydney) and two professional pharmacy organisations (The Pharmacy Guild of Australia and The Pharmaceutical Society of Australia). Additionally, input from a range of people living with mental health conditions and key external organisations was sought as part of an Expert Panel.

Methodology

The *PharMIbridge* project was a randomised controlled trial (Australian and New Zealand Clinical Trials Registry: ANZCTR12620000577910) comparing a group of consumers receiving the *PharMIbridge* service and a group of consumers receiving a MedsCheck service. A MedsCheck is an existing service enabling a consumer to go to a community pharmacy and discuss their medicines with a pharmacist, who advises on what the medicines do, how to use and store them, as well as address any problems.⁵ Pharmacies were randomly allocated to provide only one of the two services. In the project, outcomes related to health (such as quality of life and psychological distress), medicine adherence rates, and healthcare service use were compared across these two groups. An economic evaluation was undertaken to understand whether the *PharMIbridge* service was good value for money.

Pharmacist recruitment

The *PharMIbridge* project involved four Australian regions; Australian Capital Territory (ACT), Hunter New England (NSW), Northern Sydney (NSW), and regional Victoria (VIC). Community pharmacies from urban and regional areas were invited to participate if they had a private meeting room, routinely provided MedsChecks, regularly provided medicines to people experiencing severe and persistent mental health conditions, and were able to send a pharmacist and one other staff member to the training so they could deliver the service. Pharmacies also had to be Quality Care Pharmacy Program accredited (qcpp.com); this is a quality assurance program that demonstrates high levels of professional practice within community pharmacies.

Pharmacist training

Health educators, practitioners, mental health consumers and researchers worked together to develop a training program for the pharmacy staff involved in the project.⁶ The pharmacists randomised to both the *PharMIbridge* and MedsCheck groups received Mental Health First Aid training through a combination of online learning plus face-to-face training. Mental First Aid training is an Australian accredited training course⁷ and was included to improve pharmacist knowledge of mental health conditions and their treatment, increase confidence in providing support and help to people experiencing distress, and reduce stigma and negative attitudes towards people experiencing mental health concerns. Pharmacists who were to provide the *PharMIbridge* service also received additional support to practice their Mental Health First Aid skills through role plays with mental health consumer educators.

The *PharMIbridge* pharmacists then received an additional full day of training covering four topics:

- i) interactions between our mind and body,
- ii) complex issues regarding the use of medicines for managing severe and persistent mental health conditions,
- iii) supporting physical wellbeing and using medicines as prescribed, and
- iv) communication, motivation and goal setting.

All of this training was delivered by people with expertise in these areas alongside people with a lived experience of mental health conditions and included personal stories, role plays and practical examples. *PharMIbridge* pharmacists were also given access to various resources to help provide

appropriate support to consumer participants. This included mentoring support by an experienced pharmacist and mental health consumer who helped to deliver the training and provided regular support to the pharmacists to provide the *PharMIbridge* service.

Participant recruitment

Once the training was completed, information about the project was displayed in participating pharmacies, and pharmacy staff individually approached people to see if they were interested in participating in the research. People were able to participate if they were aged 16 years and over, used a prescribed medicine for at least 6 months to manage their mental health conditions, identified some areas of need (such as concerns with their medicines or their physical health), and gave consent for the research team to access their health, medicine and hospitalisation records. Potential participants were given information about the project and provided written consent before receiving either the *PharMIbridge* or MedsCheck service. Participants were able to leave the project at any time.

PharMIbridge service

PharMIbridge was a comprehensive support service delivered over 6 months that was goal-oriented, and individualised. It was a service that went beyond standard pharmacist medication or MedsCheck services, looking at issues in many different areas of a person's life. *PharMIbridge* particularly focused on consumers' use of medicines and physical health concerns.

During an initial meeting with their community pharmacist, consumers had their medicines reviewed and completed health surveys and checklists. The pharmacist and consumer then worked together to identify potential issues (such as medicine use, physical wellbeing, mental wellbeing, lifestyle, and nutrition) and developed goals to address some or all of these issues. A personalised support plan was created, and the pharmacist worked with the consumer over the next 6 months, supporting them in working towards, or achieving, their goals. Consumers received follow-up appointments, and during these meetings, the support plans and goals were discussed and reviewed, and any new issues were identified and added. The pharmacist also contacted each consumer's healthcare practitioners (such as their doctor or support worker) and referred them to other treating professionals if needed.

COVID-19 pandemic impacts

This project started in 2020 and was completed in 2022, a time impacted by lockdowns and health challenges due to the COVID--19 pandemic. Community pharmacies across Australia continued to stay open, providing their usual care and assisting people who were unable to access other health providers due to restrictions. They were also important places to visit to obtain masks, rapid antigen tests and vaccinations. Both consumers and pharmacists were impacted by illness and anxiety regarding the pandemic. This potentially influenced the number of people wanting to participate in the project, as well as the time pharmacists had available to meet with consumer participants. Telephone or telehealth support was used to provide ongoing support for participants when preferred or when face-to-face appointments were not possible.

Results

A total of 51 community pharmacies were recruited, with 25 randomised to the *PharMIbridge* group and 26 to the MedsCheck group (Table 1).

Table 1: Pharmacy details

Pharmacy characteristics	<i>PharMIbridge</i> group	MedsCheck group
Number of pharmacies	25	26
Region		
Australian Capital Territory	8	8
Hunter New England (NSW)	8	5
Northern Sydney (NSW)	3	5
Regional Victoria	6	8
Location		
City/Urban	16	18
Regional, rural or remote	9	8

Of the 326 consumer participants recruited (166 *PharMIbridge* participants and 160 MedsCheck participants), 156 *PharMIbridge* and 159 MedsCheck participants worked together with their pharmacists to complete the first appointment. Most people continued to the end of the 6-month project, with 82.5% of *PharMIbridge* participants and 90.6% of MedsCheck participants completing

the final appointment. Before starting the project, no significant differences in characteristics were noted between the *PharMIbridge* and *MedsCheck* participants (Table 2).

Table 2: Characteristics of *PharMIbridge* consumer participants

	IG participants Number (%)	CG participants Number (%)
Average age in years (Mean)	47.9	47.8
Gender		
Male	75 (45.7%)	70 (45.2%)
Female	89 (54.3%)	85 (54.8%)
Born in Australia	153 (92.2%)	145 (90.6%)
Aboriginal or Torres Strait Islander identity	8 (5.2%)	9 (6.0%)
Education level		
High School	83 (50.3%)	68 (42.8%)
Certificate or Diploma	43 (26.1%)	50 (31.4%)
University	39 (23.9%)	41 (25.8%)
Employment status		
Employed (full/part-time or casual)	51 (30.9%)	57 (36.3%)
Unemployed (e.g., retired, pension)	114 (69.1%)	100 (63.7%)

PharMIbridge participants had an average of 2.75 follow-up appointments each (ranging between one and seven appointments). Participants, together with their pharmacist, identified 644 health-related issues, for example, concerns regarding physical wellbeing (n=200), medications (n=170), lifestyle and nutrition (n=152), and mental wellbeing (n=110). Fewer problems (n=385) were identified for those in the *MedsCheck* group, and they were mainly focused on medication issues (n=181). This was expected given the specific focus on physical health and general wellbeing concerns in the *PharMIbridge* service. Additionally, the *PharMIbridge* participants set 512 health and wellbeing goals (see Table 3), with 65% being achieved/partially achieved by the end of the project.

Table 3: Overview of goals set during the *PharMIbridge* service

Types of goals	Number (%)
Lifestyle and wellbeing (e.g., sleep, exercise, weight, diet, bowel management, smoking, alcohol, sexual health)	276 (53.9%)
Manage physical health conditions (e.g., using strategies to maintain health, better use of medicines, review health, referral to health practitioner)	77 (15.0%)
Use of medicines (e.g., education/knowledge, side effects, adherence strategies, reducing doses)	62 (12.1%)
Manage mental health conditions (education/knowledge, review current treatment, referral to health practitioner)	50 (9.8%)
Satisfaction with life (e.g., improving relationships, support for carer role, energy levels, work, leisure, housing)	47 (9.2%)
Total	512 (100%)

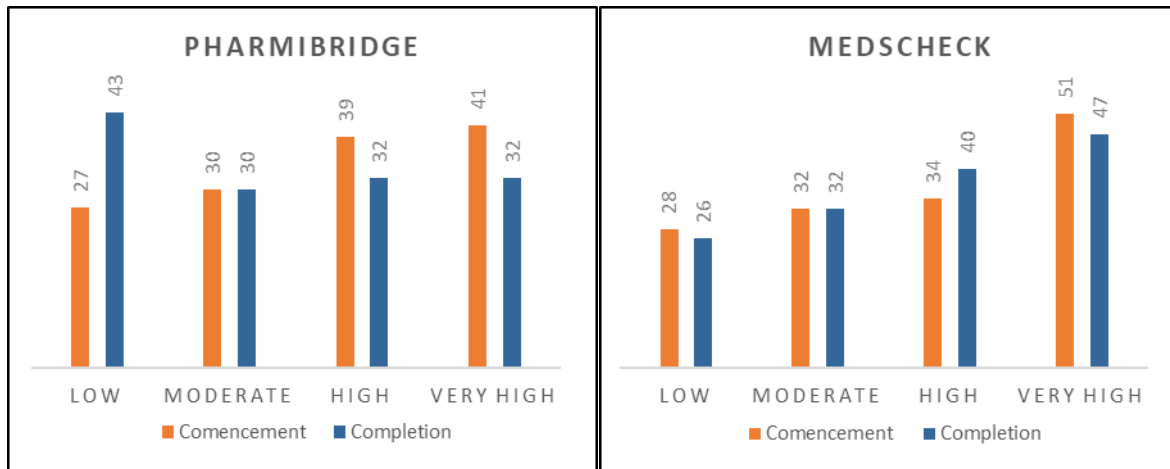
To understand if the *PharMIbridge* service was effective in achieving its aims, the outcomes were compared with those from the MedsCheck group. These findings are discussed below.

Health outcomes

Psychological distress

Measurement of psychological distress (using the Kessler-6 scale⁸) was taken at the start and end of the service (at 6 months). Distress scores were out of 30 and grouped into low distress (6-9), moderate distress (10-13), high distress (14-18), and very high distress (19-30). Both groups had similar distress scores at the commencement of the project, but there were significant differences between the *PharMIbridge* group and the MedsCheck group's total distress scores and the number of people in each distress category at completion. Figure 1 shows that after completing the *PharMIbridge* service, participants had a lower risk of high psychological distress. High levels of psychological distress have been associated with worsening mental health and an increased likelihood of dying,⁹ demonstrating that the *PharMIbridge* service may have longer-term impacts for people. This project also found that people with lower levels of psychological distress had better quality of life scores.

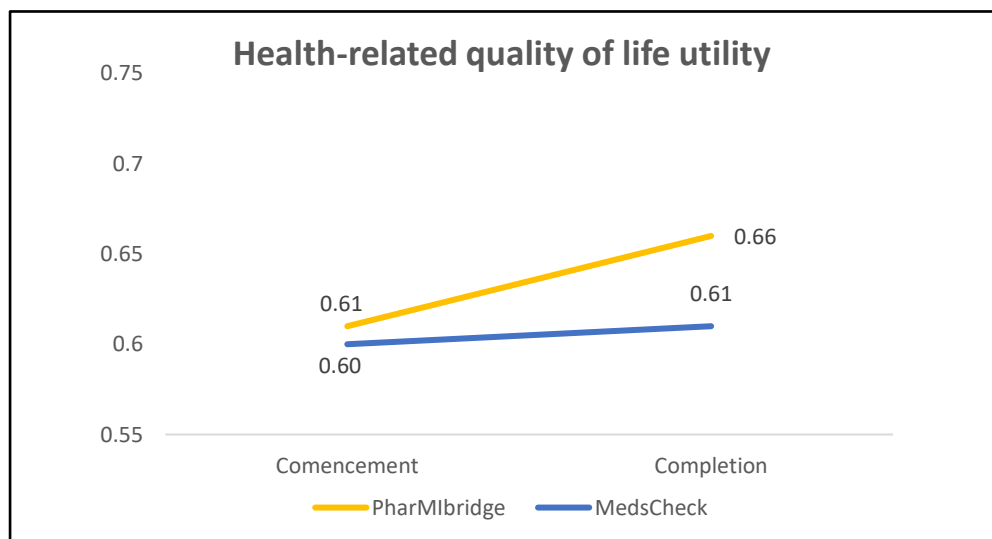
Figure 1: Psychological distress levels at commencement and completion for *PharMIbridge* and MedsCheck participants



Quality of life

Participants also completed a survey (the Assessment of Quality of Life¹⁰) to measure their health-related quality of life. Figure 2 shows that after the service, the *PharMIbridge* participants had significantly better (higher) total quality of life utility scores than the MedsCheck participants and showed more significant improvements in health-related quality of life.

Figure 2: Quality of life utility scores at commencement and completion for *PharMIbridge* and MedsCheck participants



Use of medicines

At the start of the project, more than 80% of *PharMIbridge* and MedsCheck participants took their mental health medicines regularly, adhering to their medicines as prescribed. Previous studies have found much lower rates of medicine adherence for people living with mental health conditions, so this finding was surprising. This may be due to the types of people interested in participating in the project, with those already taking their medicines regularly more likely to volunteer to participate. As a result, there was little change in mental health medication adherence during the project. However, after the service, *PharMIbridge* participants were taking medicines for long-term physical health conditions (such as diabetes, asthma, and high blood pressure) more regularly than the MedsCheck participants. In fact, after the service, *PharMIbridge* participants were 2.5 times more likely to be taking these medicines regularly when compared to MedsCheck participants.

Pharmacist knowledge and confidence to work with people living with mental health conditions

Pharmacists were asked to complete surveys before and after attending project training. Both the *PharMIbridge* and MedsCheck groups received Mental Health First Aid training, significantly reducing stigmatising attitudes and increasing self-reported confidence in providing mental health crisis support. In addition, the *PharMIbridge* training significantly improved knowledge and confidence in assessing and addressing the physical health concerns of people living with mental health conditions. Pharmacists reported valuing the training format, particularly the benefits of hearing from people with a lived experience of mental health conditions and the opportunity to practice their skills during role plays.

Experiences of the PharMIbridge service

Interviews with 16 *PharMIbridge* pharmacists and 26 consumers who completed the *PharMIbridge* project indicated that the service was well-liked, with many reporting positive experiences. Consumer participants liked being able to think about their health more broadly and work on a range of issues with support from their pharmacists. Some people had not previously spoken to healthcare providers about these issues. This was particularly useful in rural areas with few alternative health supports or services available. Setting goals was essential in providing structure and motivation to help people achieve, or work towards, positive outcomes. Consumer participants described a sense of achievement due to health behaviour changes and resulting positive effects: '*A bit of motivation with, say, things like my smoking, possible employment...I just thought it would benefit my mental health*' and '*I've lost almost eight kilos...I've dropped 12 centimetres off my waist.*'

Both the pharmacists and consumer participants valued getting to know each other and developing supportive relationships. One participant described the importance of this relationship: '*The support I received was overwhelming...He [pharmacist] was there as a listening ear for me when I didn't have anyone else to talk to.*' Pharmacists talked about how listening to consumers helped them better understand what it is like to live with a mental health condition and how this can impact different areas of someone's life: '*it changed the way I look at things. I guess I really, really learnt a lot on how these people are living their lives ... you can get a real insight into what's happening in their life.*' In addition, a better understanding of mental health concerns allowed pharmacists to use their skills to support others who were not participating in the project. There was overwhelming support from *PharMIbridge* consumer participants for the service to be available for more people in the future.

Healthcare service use and cost-effectiveness

The project looked at how consumer participants used other healthcare services during the 6 months of follow-up, and no difference was found between the *PharMIbridge* or MedsCheck participants. However, despite no difference in healthcare service use, the *PharMIbridge* service was more effective in reducing psychological distress and improving the quality of life for people living with severe and persistent mental health conditions. Economic modelling compared the additional costs of the *PharMIbridge* service (including a fee paid to pharmacists for meeting with consumers, training the pharmacists and providing mentor support) with the health outcomes (such as reducing psychological distress and improving quality of life), suggesting that the *PharMIbridge* service could be considered good value for money. It is anticipated that consumers regularly receiving the *PharMIbridge* service could potentially save costs across the whole healthcare system.

Discussion

The *PharMIbridge* project was a unique pharmacist-led service for people living with severe and persistent mental health conditions. A strength of this project was that it provided an evaluation of a large randomised controlled trial involving 326 consumers living with severe and persistent mental health conditions recruited from 51 community pharmacies in four regions across Australia. Whilst there was no significant change in the use of mental health medicines between groups, this was somewhat expected given the high rate of adherence by participants at the beginning of the project. However, at the end of 6 months, *PharMIbridge* participants were taking medicines for long-term physical health conditions (such as diabetes, asthma, and high blood pressure) more regularly than MedsCheck participants. Additionally, the *PharMIbridge* service allowed pharmacists to better

understand what it is like to live with a mental health condition and increased their confidence and knowledge to help people manage their physical health concerns.

The project's success is significant, particularly given that it occurred during the very challenging COVID-19 pandemic. More broadly, the project highlighted the role and support community pharmacists could have in helping people who access their pharmacy for mental health-related medicines. Both consumers and pharmacists valued being involved with the *PharMIbridge* service. Consumers appreciated being seen and heard by pharmacists and supported to work towards health and wellbeing-related goals that were important to them. Pharmacists had increased awareness of consumers and their "story behind the script" and gained greater confidence in supporting people living with mental health conditions.

Conclusion and recommendations

The *PharMIbridge* project tested the effectiveness of an individualised, flexible, goal-orientated pharmacist-led support service for people living with severe and persistent mental health conditions. The *PharMIbridge* service enabled pharmacists to identify areas of need for participants and to work collaboratively with them to identify a broad range of achievable, individualised goals. The service gave pharmacists an increased understanding of participants' lived experiences of mental health conditions and supported them to use their skills to work towards their goals. There was overwhelming support from pharmacists and participants for the *PharMIbridge* service to be available to all people living with severe and persistent mental health conditions. It is anticipated that funding the *PharMIbridge* service in the future will improve the mental and physical wellbeing of people living with severe and persistent mental health conditions in Australia.

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