

A Cross-Sectional Survey to Investigate the Willingness, Confidence, and Feasibility of Pharmacists Prescribing Antidiabetic Medicines

Original Research

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ABSTRACT

Background: Pharmacist prescribing is undergoing trials in Australia for acute ailments such as uncomplicated urinary tract infections (UTIs). Australia is experiencing an increase in patients with chronic conditions, placing a substantial burden on the healthcare system. Consequently, there is a need to explore pharmacists' prescribing as a potential solution for managing chronic diseases, such as diabetes.

Aim: This study aims to investigate the willingness, confidence, and feasibility of pharmacists in prescribing antidiabetic medicines.

Methods: A cross-sectional survey was conducted from June to September 2023, targeting pharmacists and intern pharmacists in New South Wales, Australia.

Results: Of 77 candidates who expressed interest in the study, 32 candidates (41.6% response rate) completed the survey. Results revealed that if permitted, 68.8% of participants were willing to prescribe antidiabetic medicines regardless of their rurality of work and years of experience. Most (78.1%) participants were confident in their ability to offer this service, foreseeing benefits for patient health and their careers. While ease of accessibility to diabetes training appeared key for implementation, workload from current commitments emerged as a significant barrier.

Conclusion: Surveyed pharmacists are overall willing and confident to prescribe antidiabetic medicines if implemented. Ensuring access to adequate training and addressing workload concerns will be pivotal in establishing this service's feasibility for pharmacists.

INTRODUCTION

Recent national estimates in Australia suggest that more than 1.3 million, or 1 in 20 Australians are currently living with a form of diabetes.¹ Although these numbers are likely to underestimate the true prevalence of diabetes in Australia. ¹This chronic condition is estimated to cost the Australian health system around 3.1 billion dollars annually.¹ Some

determinants such as the growing General Practitioner (GP) workforce shortages and reduced access to healthcare services have led to worsening health outcomes for people living with diabetes who reside outside major cities. In 2020, diabetes-related death rates were twice as high in remote and very remote areas of Australia, this can be attributed to varying socio-economic determinants.¹ Novel approaches

to diabetes care are essential in light of the growing shortage of GPs and the increasing prevalence of diabetes.^{2,3} Pharmacist intervention in various settings such as hospitals, outpatient clinics, primary health centres, and community pharmacies has been shown to significantly improve diabetic patient outcomes in Australia and globally.^{2,3} Interventions, including medication reviews, patient education, monitoring treatment compliance and complications, as well as lifestyle and self-care education, have demonstrated positive outcomes in terms of clinical, humanistic, and economic benefits for individuals with type 2 diabetes.^{2,3} The friendliness of pharmacists and the convenience of pharmacies, make community pharmacists ideal health providers and community pharmacies an ideal setting for diabetes care.⁴

Pharmacist prescribing is becoming a common practice in many countries and across various settings. It can improve patient access to services, provide an opportunity for team-based care, and most importantly allow for better utilisation of pharmacists' skills and knowledge.⁵ In Australia, prescribing rights for pharmacists were limited to a small range of medicines listed in Schedule Two (Pharmacy Medicine) and Schedule Three (Pharmacist Only Medicine). These medicines are primarily used for self-limiting, minor ailments that generally do not require a medical diagnosis by a GP.⁶

In 2022, Queensland Health trialled pharmacists to prescribe Schedule Four (Prescription Only) antibiotics for uncomplicated urinary tract infections (UTI) in women aged 18–65 years. Throughout the trial, 6531 women accessed the service from over 800 participating community pharmacies, with 87% of the women reporting resolution of UTI symptoms following the treatment prescribed by the pharmacist.⁷ This demonstrates that pharmacist prescribing is a reliable alternative to hospital Emergency Department (ED) and GP visits.⁷ Pharmacist prescribing trials are also being conducted or anticipated in other states and territories for uncomplicated UTIs, renewal of oral contraceptives, and the treatment of minor skin ailments.

Furthermore, studies have explored the benefits of pharmacist prescribing and engagement in prescribing-related activities beyond community pharmacies. For instance, Deeks et al. reported an improvement in asthma control among patients when general practice pharmacists intervened in prescribing activities, such as initiating, adjusting, and discontinuing inhaled and oral asthma treatments.⁸ Similarly, numerous studies investigating

pharmacist prescribing in Australian hospitals have showcased pharmacist competence in interpreting and applying clinical guidance. Pharmacists have demonstrated superior accuracy in prescription generation compared to other medical staff, leading to a measurable impact on potential or actual prescription errors.⁹

In countries such as the United Kingdom (UK), New Zealand (NZ), and Canada, pharmacist prescribing for chronic conditions has been explored through various prescribing models.¹⁰ Being the most accessible healthcare professional, the provision of prescribing authority to pharmacists can optimise healthcare delivery, improve patient access to medicines, and enhance the overall efficiency of the healthcare system. Evidence from a Canadian study reported that pharmacist prescribing resulted in improvements in glucose control for patients with diabetes when compared to current physicians prescribing.¹¹

In light of recent advancements made in the field of pharmacist prescribing within Australia, this study aims to understand the willingness, confidence, and feasibility of pharmacists' prescribing antidiabetic medicines in a primary care setting. Provision of limited or full prescribing rights to allied health practitioners including pharmacists can be a solution to meet the GP workforce shortage. Therefore, pharmacist prescribing should also be investigated in the context of managing chronic diseases such as diabetes. Given the potential benefits pharmacist prescribing can have in regional and rural areas, this study will explore the differing attitudes on scope expansion, to include prescribing antidiabetic medicines among community pharmacists practicing in regional versus metropolitan areas. A similar comparison is also made between years of pharmacy experience and interest in prescribing.

METHOD

Study Design

A cross-sectional survey was conducted from June to September of 2023 among pharmacists and pharmacy interns in New South Wales (NSW, Australia) using an online self-completion questionnaire.

Ethics Approval

Ethics approval for this study was granted by the Human Ethics Research Committee of Charles Sturt University, Australia. Project approval number: H23639.

Recruitment of Participants

Community pharmacies in regional, Western NSW and Sydney metropolitan areas were contacted opportunistically via email, phone calls, or in-person visits. Pharmacists and pharmacy interns were given an introduction detailing the project's objectives and interested participants were provided with the QR code to access the survey. Pharmacists working in other industries such as hospitals were included in this study since the current prescribing trials are based in primary care settings.

Questionnaire Development

The survey published in the outcome report for the Queensland Urinary Tract Infection Pharmacy Pilot was used as a framework for the questionnaire used in this study.⁷ The first page of the online survey provided an introductory statement relating to the study. In addition, it contained consent information and the implications of participating in the study. Those who agreed to participate moved on to the survey which consisted of 16 items. The first two questions of the survey obtained anonymous demographic details of the participants, specifically their location of practice and years of experience. The responses categorised the participants as either a regional or metropolitan pharmacist as well as an early career pharmacist (ECP) or an established career pharmacist (EsCP). An ECP is defined as a pharmacist who has been practising for ≤ 10 years while an EsCP is defined as a pharmacist who has been practising for > 10 years. The remaining fourteen questions in the survey were used to explore the objectives of the study relating to the willingness, confidence, and feasibility of pharmacists prescribing antidiabetic medicines, alongside potential facilitators, and barriers in implementing this service.

Depending on the survey item, participants were required to respond to either multiple-choice questions, open-ended short-answer questions, or rate on a 5-point Likert scale. Participants were also asked to select from a list of common enablers and barriers for successful employment of this service. Respondents could also provide their viewpoints using the "other" option which provided a free text. Due to the smaller sample size, survey items from which the data was obtained using a 5-point Likert scale, were further rescaled into three categories (strongly agree/agree, uncertain, and disagree/strongly disagree).

Data Analysis

Due to the small sample size, Fisher's exact test was used to investigate the association between the willingness and

confidence in prescribing antidiabetic medicines with the respondents' location of work and years of experience. To do this, respondents who showed agreement (e.g. strongly agree/agree or very interested/interested) or disagreement (e.g. strongly disagree/disagree or very uninterested/uninterested) to the survey statements were separated into two groups. Neutral responses were excluded from the analysis. Data was then analysed using the Social Science Statistical calculator available online and p-value < 0.05 was required to establish significance.

RESULTS

Participant Demographics

A total of 77 candidates expressed interest in the study and 32 completed the survey, yielding an overall response rate of 41.6%. Key participant demographic characteristics are summarised in Table 1. Regional pharmacists were the main respondents of the survey (68.8%) compared to metropolitan pharmacists (31.2%). A majority of the respondents were ECPs (68.8%) compared to EsCPs (31.2%).

TABLE 1: Demographic characteristics of respondents (n=32)

Demographic	Number of respondents	Percentage
Years of experience		
Early career pharmacist (n=22; 68.8%)		
Intern pharmacist	7	21.9
1-10 years	15	46.9
Established career pharmacist (n=10; 31.2%)		
11-20 years	9	28.1
21-30 years	0	0
31-40 years	1	3.1
> 40 years	0	0
Area of work		
Regional	22	68.8
Metropolitan	10	31.2

TABLE 2: Willingness to participate in antidiabetic medication prescribing if implemented

How interested would you be to participate in this project if it was implemented?				
	Interested	Uncertain	Uninterested	p
Overall (n=32)	22 (68.8%)	5 (15.6%)	5 (15.6%)	-
Area of practice:	16 (72.7%)	4 (18.2%)	2 (9.1%)	0.295
Regional (n=22)	6 (60.0%)	1 (10.0%)	3 (30.0%)	
Metro (n=10)				
Professional experience:	13 (59.1%)	4 (18.2%)	5 (22.7%)	0.136
ECP (n =22)	9 (90.0%)	1 (10.0%)	0 (0.0%)	
EsCP (n=10)				

TABLE 3: Effect of pharmacist prescribing antidiabetic medications on their career enhancement

Expanding my role to allow prescribing antidiabetic medications will enhance my career				
	Agree	Uncertain	Disagree	p
Overall (n=32)	26 (81.3%)	4 (12.5%)	2 (6.3%)	-
Area of practice:	20 (91.0%)	1 (4.5%)	1 (4.5%)	0.444
Regional (n=22)	6 (60.0%)	3 (30.0%)	1 (10.0%)	
Metro (n=10)				
Professional experience:	18 (81.8%)	2 (9.1%)	2 (9.1%)	1
ECP (n =22)	8 (80.0%)	2 (20.0%)	0 (0.0%)	
EsCP (n=10)				

Respondents Believe That Pharmacists Prescribing Antidiabetic Medicines Will Benefit Patient Health, Especially in Regional and Rural Areas.

Participants were asked to share their views on how pharmacist-prescribing antidiabetic medicines could enhance patient comfort, ensure timely access, and improve the overall quality of care for patients, ultimately contributing to better patient health. As shown in Table 4, the majority of respondents agreed that being able to prescribe antidiabetic medicines would benefit patients especially in terms of timely access (81.3%) and comfort of care received (81.3%). Ongoing challenges of timely access to care were reflected in the results, with 86.4% of regional respondents recognising that potential scope expansion addresses this issue. Respondent 22, a regional pharmacist highlighted that

“[pharmacist prescribing antidiabetic medications] will have an impact not only on the pharmacists’ roles but the delivery of care to the patients. Prescribing diabetes medication by [a] qualified and trained pharmacist will facilitate the access to a health service and consultation whenever the patients need.”

Interestingly, the perceived effect of pharmacists-prescribed antidiabetic medicines on enhancing the quality of care for patients was relatively smaller (68.8% vs. 81.3%) compared to other aspects of patient health benefits (Table 4). Nevertheless, regional pharmacists (72.7%) and EsCPs (90.0%) were the most confident about improvements in the quality of care from the scope expansion.

TABLE 4: The perceived effect of pharmacists prescribing antidiabetic medicines on patient health.

The skills and expertise with further training to provide appropriate care for diabetes treatment would make patients more comfortable				
	Agree	Uncertain	Disagree	p
Overall (n=32)	26 (81.3%)	5 (15.6%)	1 (3.1%)	-
Area of practice:	18 (81.8%)	4 (18.2%)	0 (0.0%)	0.333
Regional (n=22)	8 (80.0%)	1 (10.0%)	1 (10.0%)	
Metro (n=10)				
Professional experience:	16 (72.7%)	5 (22.7%)	1 (4.6%)	1
ECP (n =22)	10 (100.0%)	0 (0.0%)	0 (0.0%)	
EsCP (n=10)				
Patients will have opportunities to seek advice at a reasonable time if pharmacist prescribing antidiabetic medications was implemented				
	Agree	Uncertain	Disagree	p
Overall (n=32)	26 (81.3%)	4 (12.5%)	2 (6.3%)	-
Area of practice:	19 (86.4%)	3 (13.6%)	0 (0.0%)	0.095
Regional (n=22)	7 (70.0%)	1 (10.0%)	2 (20.0%)	
Metro (n=10)				
Professional experience:	16 (72.7%)	4 (18.2%)	2 (9.1%)	0.524
ECP (n =22)	10 (100.0%)	0 (0.0%)	0 (0.0%)	
EsCP (n=10)				
Expanding the role to pharmacist prescribing antidiabetic medications will improve quality of care for diabetic patients				
	Agree	Uncertain	Disagree	p
Overall (n=32)	22 (68.8%)	9 (28.1%)	1 (3.1%)	-
Area of practice:	16 (72.7%)	6 (27.3%)	0 (0.0%)	0.304
Regional (n=22)	6 (60.0%)	3 (30.0%)	1 (10.0%)	
Metro (n=10)				
Professional experience:	13 (59.1%)	8 (36.4%)	1 (4.5%)	1
ECP (n =22)	9 (90.0%)	1 (10.0%)	0 (0.0%)	
EsCP (n=10)				

Respondents Were Confident That They Have The Skills and Knowledge Required to Prescribe Antidiabetic Medicines.

Diagnosis of any medical condition regardless of its nature requires a unique set of skills and expertise. Pharmacists have traditionally been involved in the diagnosis, management, and treatment of numerous minor ailments using over-the-counter medicines. The 5-point Likert scale was used to assess the degree of agreement that the respondents had with the three statements regarding their confidence in their current skills and knowledge to prescribe

antidiabetic medicines.

Regardless of the years of experience or place of work, respondents collectively (84.4%) agreed that they have the confidence and skills for the provision of education and health information to patients in this expanded role. Although less sizeable, a majority of the respondents (68.8%) were also confident that they have the necessary skills and knowledge to provide appropriate care through prescribing services. Regional respondents were comparatively more confident in their skills and knowledge to provide appropriate care compared to the metropolitan respondents (77.2% versus

50.0%). However, statistical significance was not observed between the two cohorts (Table 5). Regarding confidence in assisting patients, once again the majority responded positively (78.1%). EsCPs (86.4%) and regional pharmacists (90%) expressed more agreement with this statement relative

to their ECPs (72.8%) and metropolitan (60.0%) comrades. However, statistical significance was not observed for the variables assessed (Table 5).

TABLE 5: Confidence of respondents in their skills and knowledge to provide an antidiabetic medicine prescribing service.

I feel confident that I would have the skills and knowledge to provide appropriate care to patients within my expanded role of prescribing antidiabetic medications				
	Agree	Uncertain	Disagree	p
Overall (n=32)	22 (68.8%)	5 (15.6%)	5 (15.6%)	-
Area of practice:	17 (77.2%)	3 (13.7%)	2 (9.1%)	0.136
Regional (n=22)	5 (50.0%)	2 (20.0%)	3 (30.0%)	
Metro (n=10)				
Professional experience:	15 (68.2%)	4 (18.2%)	3 (13.6%)	1
ECP (n =22)	7 (70.0%)	1 (10.0%)	2 (20.0%)	
EsCP (n=10)				
I feel confident that I would have the skills and knowledge to provide education and information to patients within my expanded role of prescribing antidiabetic medications				
	Agree	Uncertain	Disagree	P
Overall (n=32)	27 (84.4%)	2 (6.3%)	3 (9.4%)	-
Area of practice:	19 (86.4%)	2 (9.1%)	1 (4.5%)	0.251
Regional (n=22)	8 (80.0%)	0 (0.0%)	2 (20.0%)	
Metro (n=10)				
Professional experience:	19 (86.4%)	1 (4.5%)	2 (9.1%)	1
ECP (n =22)	8 (80.0%)	1 (10.0%)	1 (10.0%)	
EsCP (n=10)				
I feel confident that I would be able to assist patients in my expanded role of prescribing antidiabetic medications				
	Agree	Uncertain	Disagree	P
Overall (n=32)	25 (78.1%)	4 (12.5%)	3 (9.4%)	-
Area of practice:	19 (86.4%)	2 (9.1%)	1 (4.5%)	0.188
Regional (n=22)	6 (60.0%)	2 (20.0%)	2 (20.0%)	
Metro (n=10)				
Professional experience:	16 (72.8%)	4 (18.1%)	2 (9.1%)	1
ECP (n =22)	9 (90.0%)	0 (0.0%)	1 (10.0%)	
EsCP (n=10)				

Easily Accessible Training is a Key Enabler That Facilitates the Implementation of Antidiabetic Medicines Prescribed by Pharmacists.

The introduction and successful delivery of any new service pose numerous challenges. Therefore, to understand factors that facilitate the successful implementation of this service, participants were asked to select from a list of common enablers (Table 6). Participants could also suggest facilitators

that were not listed as an option using the “other” feature.

The results from this study shows that easy access to training is a key factor in the successful implementation of this pharmacist prescribing service. Many respondents also recognised the need for a clear workflow, alongside adequate promotion (both in-store and external) to assist in the successful delivery of the service.

TABLE 6: Enablers to the implementation of antidiabetic medicine prescribing by pharmacists

Enablers	Number of respondents	Percentage
Easily accessible diabetes training	29	90.6
Adequate training provided on the workflow and systems by the workplace	22	68.8
Patients are aware of the service before entering store	19	59.4
Instore promotional materials	14	43.8
Appropriate funding options e.g., MBS billing	1	3.1
Other	0	0

Increased Workload Was a Key Barrier to the delivery of an Antidiabetic Medicine Prescribing Service by Pharmacists.

To understand factors that impeded the prescribing of antidiabetic medicines by pharmacists, participants were asked to select all potential barriers they considered relevant from the list provided (Table 7). Participants could also suggest barriers that were not listed as an option using the “other” feature.

An increase in workload due to current commitments with existing services such as immunisation programs was found to be the main barrier (81.3%). Increased workload was also indirectly implicated through the time taken to train staff (53.1%) and additional work required to implement this new service (56.3%). While ease of access to training was identified as an enabler, the time taken to complete these training modules negatively impacted the uptake of the

prescribing service, with 68.8% of respondents reporting it as a perceived barrier. Respondents also recognised the lack of adequate remuneration (6.2%) and the lack of patient awareness of such services as other barriers (Table 7).

Furthermore, a lack of resources emerged as an additional barrier when respondents were asked to comment on general thoughts and opinions on pharmacists prescribing antidiabetic medicines. In particular, not having access to pathology results, and increased expenses associated with monitoring key parameters such as HbA1C were noted. Respondent 26 commented, *“Whilst the idea is great, pharmacy resources are stretched quite thin, and without a full blood record and test I do not feel like it would be appropriate to initiate diabetic medication in a pharmacy consult setting. Much more equipment, time, training, and staff would need to be implemented to enable successful incorporation of this program.”*

TABLE 7: Barriers to the implementation of antidiabetic medicine prescribing by pharmacists.

Barriers	Number of respondents	Percentage
Busy with delivering other services e.g., vaccination	26	81.3
Time taken to complete diabetes training	22	68.8
Difficulty in getting things operational	18	56.3
Time taken to train staff	17	53.1
In adequate communication of workflow	8	25
Patient is able to easily access service through non-pharmacist providers	7	21.9
Do not have consultation rooms	5	15.6
No patients have presented with diabetes symptoms	2	6.3
Other:	2	6.2
[lack of] adequate remuneration	1	3.1
[lack of] patient awareness		

DISCUSSION

Overall, respondents were willing to prescribe antidiabetic medicines (68.8%) (Table 2), with a significant proportion of respondents recognising this as an opportunity to further enhance their careers (81.3%) (Table 3). This aligns with the existing research in this space where pharmacists have shown increased support towards granting prescribing authority to the profession.^{10,12} No statistically significant differences in the level of interest and confidence in prescribing antidiabetic medicines were observed between the regional and metropolitan pharmacists or ECPs and EsCPs. However, the small sample size may mask the true effect of these variables.

Respondents agreed that being able to prescribe antidiabetic medicines would benefit their patient’s health, particularly regarding timely access and comfort of care received. A review of the literature also indicates that timely access to health services from pharmacist prescribing is well recognised by both the profession and the patients.^{5,13} Pharmacist prescribing has been proposed as a potential solution to addressing the break in the continuity of care in rural and regional communities due to GP shortages.¹⁴ This is also supported by our results where regional respondents

highly recognised the potential this expansion of scope could have on their patient care (86.4%) (Table 4), especially in addressing the issue of timely accessibility to care.

The majority of respondents agreed they possess the confidence and skills to provide key education and health information to patients if they were allowed to prescribe antidiabetic medicines. Patient education has always been a major component of pharmacy services with most pharmacists already possessing the necessary skills to provide appropriate care if this service was implemented. However, concerning the delivery of patient care, respondents from regional areas expressed greater confidence compared to their counterparts in metropolitan areas. Although, due to the limited sample size, there was no statistically significant difference between the two groups. Nevertheless, a lack of accessible health services in regional communities makes regional pharmacists more likely to implement services as it would benefit their community, and thus are more confident in their abilities to provide those services.¹⁵

When addressing confidence in prescribing, it should be noted that there are various types of prescribing such as independent prescribing, collaborative prescribing, and

supplementary prescribing, with a different degree of acceptance for each model amongst pharmacists. Earlier studies explored the attitudes and opinions of Australian pharmacists towards prescribing.^{6,16} They reported greater support towards supplementary and collaborative prescribing, where an independent prescriber still takes the lead role in the diagnosis and the creation of a clinical management plan.^{6,16} Since the aim of this study was to explore the general overview of pharmacists' willingness and confidence in prescribing antidiabetic medicines, the survey instruments purposefully did not specify any particular model of prescribing. Future research specifying the type of prescribing may yield a different response regarding confidence in prescribing.

Easy access to diabetes training as well as the time taken to complete training was recognised as a key facilitator for pharmacist prescribing services. Providing accessible education and training would enable pharmacists to efficiently expand their scope of practice, aiding in offering these services to their community.¹⁷ However, extended training can have a negative effect on the uptake of the prescribing role. The inverse relationship between the intensity and logistical difficulty in training and acceptance of prescribing roles is evident in reports from the UK and NZ. In the UK, pharmacist prescribers are required to complete a 6-month course and an additional 90-days of supervised practice before prescribing.¹⁸ Since the introduction of independent prescribing for pharmacists in 2003, only 25% of pharmacists in the UK are engaged in independent prescribing. Similarly in NZ, a postgraduate diploma of nine months duration is mandatory for pharmacist prescribers.¹⁹ Consequently, the 2021 Pharmacy Council report indicates that only 37 registered pharmacist prescribers are actively practicing in NZ, constituting less than 1% of the total workforce.^{18,20} A study that investigated the community pharmacist's preference for prescribing services in NZ found an overwhelming preference for flexible learning options such as accredited learning modules.²¹ Currently in NSW, to participate in prescribing trials, pharmacists are required to complete an accredited online module before prescribing.^{22, 23} However, if the pharmacist prescribing scope is to expand to include prescribing for chronic conditions, more extensive training will be required due to the complexity of managing chronic diseases versus minor acute illnesses. Results from this study and others highlight the importance of providing flexibility in learning for successful uptake of prescribing roles by pharmacists.²¹

Respondents also acknowledged the need for an effective workflow to manage both existing and new responsibilities resulting from prescribing. It was noted that implementing the prescribing of antidiabetic medicines would increase pharmacists' workload, potentially leading to overworking and stress. Therefore, in addition to adequate clinical training, appropriate guidance in workflow and resource management, workload distribution and staff training should also be considered. Additionally, the identification of a more efficient system for sharing key patient medical records, including pathology results and medical records, is deemed crucial for the successful implementation of this service.²⁵

Appropriate promotion of the service is also essential to ensure that patients recognise pharmacists' expanded healthcare role beyond medication dispensing. Although community pharmacists undertake numerous clinical and non-clinical roles, these are often overshadowed by their primary medicine dispensing role. Studies that investigated the patient perspectives on pharmacist prescribing have identified a lack of awareness about the full scope of pharmacy services as a common barrier to pharmacist prescribing which can be addressed through appropriate promotion.^{25, 26}

Several potential limitations of this study must be acknowledged. The small sample size makes it difficult to generalise the findings to the wider pharmacist groups. As previously mentioned, the small sample size also affected the data analysis, making it difficult to find the true impact of variables such as years of experience and rurality of practice on confidence and willingness to prescribe. Similarly, the participants were recruited opportunistically by the researchers either directly approaching the pharmacy, through direct phone calls or email. This form of convenience sampling can introduce selection bias since it is possible that the respondents opting to participate already had a positive view about prescribing. Furthermore, although the survey items were internally validated by the researchers, it did not undergo face validity or piloting with the target participants, and therefore the results obtained relied primarily on the respondent's interpretation of the survey items. Future research that addresses these limitations is required before the implementation of such service. However, despite these limitations, the result from this study provides good insight into the attitudes of community pharmacists in NSW regarding antidiabetic medicine prescribing.

CONCLUSION

Overall, the majority of the pharmacists that participated in this survey are positive about the benefits and feasibility of prescribing antidiabetic medicines. Pharmacists are generally confident that they possess the skills to be competent when educating and assisting patients with this expanded role. They have also recognised the potential barriers that could hinder the implementation of pharmacists prescribing antidiabetic medicines, notably the increase in workload due to existing commitments with other pharmacy services. The majority of pharmacists have recognised that easily accessible diabetes training is a key enabler that can facilitate the implementation of pharmacists prescribing antidiabetic medicines.

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