An evaluation of Alberta pharmacists' practices, views and confidence regarding prescription drug abuse and addiction within their practice setting

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Given the opioid crisis and prevalence of addiction across Canada, I was interested in exploring how active a role pharmacists are taking to help their patients in this area, as well as what barriers stand in their way so that we can work towards systems-level changes.

Compte tenu de la crise des opioïdes et de la prévalence de la dépendance au Canada, je me suis intéressé à la mesure dans laquelle les pharmaciens s'investissent auprès de leurs patients pour les aider dans ce domaine, ainsi qu'aux obstacles auxquels ils sont confrontés, le tout dans le but d'aller vers des changements systémiques.

ABSTRACT

Background: Pharmacists play an important role in managing patients with prescription drug abuse and addiction (PDAA). The objective of this study was to explore Alberta pharmacists' practices, views and confidence in the management of patients at risk of or living with PDAA in their practice setting.

Methods: A 26-question online questionnaire was distributed to 4261 pharmacists across Alberta, of whom 656 (15%) participated. The questionnaire consisted of 17 multiple-choice, 6 multipart and 3 free-response questions. Questionnaire responses were collected and analyzed in Qualtrics.

Results: Sixty-six percent ($n = 408$) of pharmacists indicated that PDAA was prevalent in their practice setting, with 55% ($n = 340$) of respon-

dents encountering more than 6 patients with suspected or known PDAA a month. Thirty-five percent ($n = 198$) of pharmacists indicated they were moderately confident at identifying patients with potential PDAA. However, 41% ($n = 235$) of the pharmacists indicated that they only discuss PDAA with identified patients less than half of the time. Pharmacists lacked confidence in their ability to discuss PDAA treatment options with their patients as well as collaborate with addiction treatment facilities. Lack of training or knowledge in PDAA (48%) and uncertainty of how to initiate discussion or effectively communicate with patients about PDAA (39%) were identified as barriers that significantly or very significantly hindered respondents from managing PDAA in their practice.

Conclusions: Although many pharmacists are moderately confident in identifying patients with potential PDAA, several barriers hinder intervention. Providing pharmacists with additional training and resources may better equip them to manage PDAA within their practice settings. *Can Pharm J (Ott)* 2019;152:376-387.

Introduction

Prescription drug abuse and addiction (PDAA) is defined as misusing a prescription medication by intentionally taking it another way than prescribed; it is associated with significant morbidity and mortality and is considered a growing public health crisis.^{1,2} Commonly abused

prescription drugs include opioids, stimulants, benzodiazepines and other sedatives.² It is now estimated that as many as 200,000 Canadians are addicted to opioids.³ In 2016, 21.5 million opioid prescriptions were dispensed in Canada.⁴ Harms such as opioid poisoning resulted in more than 13 hospitalizations in Canada each

day from 2014 to 2015.⁵ There were 2861 opioid-related deaths in Canada in 2016; 82% of these deaths also involved 1 or more nonopioid substances, including benzodiazepines.⁴ Alberta experienced the third highest number of opioid-related deaths in Canada in 2016.⁴ Additionally, approximately 1% of Canadians are addicted to stimulants, such as methylphenidate, dextroamphetamine and amphetamine.⁶ From 2003 to 2006, stimulant-related adverse effects were the most common reason for hospital visits related to prescription drugs in Alberta.⁶ Indeed, PDAA poses risks to society in the form of productivity losses, injuries to others and through added costs of law enforcement and health care.^{7,8}

Pharmacists are ideally situated to identify patients at risk of PDAA, as they dispense these medications and typically review patient medication records more often than other health care providers, given their specialized training in pharmaceutical drugs. Pharmacists play a critical role in the dispensing process and the “check and balance” of the prescribing process.⁹ Additionally, pharmacists interact with patients often due to their accessibility to the public, particularly in the community setting. The Canadian Pharmacists Association (CPhA) has noted its concern for the growing opioid misuse across Canada and recognizes that pharmacists are considered the front line of opioid stewardship.¹ To our knowledge, no study within Canada has explored pharmacists’ confidence in identifying PDAA, their likelihood to intervene in a situation where PDAA is suspected and what potential barriers may be preventing them from talking to patients and other health care professionals about their concerns. Indeed, it is important to explore these gaps in knowledge to understand how PDAA is being managed in pharmacy practice within the Canadian landscape in order to direct future initiatives targeted at increasing the pharmacist’s role in the stewardship of commonly abused prescription drugs to improve this important public health crisis.

The objective of this study was to describe Alberta pharmacists’ practices, views and confidence in the management of patients at risk of or living with PDAA and identify barriers to supporting patients struggling with PDAA. This study aimed to provide insight on common issues related to PDAA that pharmacists encounter to inform future training and research initiatives.

KNOWLEDGE INTO PRACTICE

- Pharmacists are ideally situated to identify patients at risk of or living with prescription drug abuse and addiction (PDAA), given their medication expertise and wide accessibility to the public, and have been recognized by the Canadian Pharmacists Association (CPhA) as the front line of opioid stewardship.
- This study is the first to collectively explore pharmacists’ practices, confidence and beliefs about managing patients at risk of or living with PDAA in the Canadian setting.
- Pharmacists are able to identify patients at risk of or living with PDAA but lack the confidence to discuss PDAA and treatment options with them or their primary care provider, which is translating into practice where few of these discussions are occurring.
- Future work to aid pharmacists in this area should focus on the development of practical strategies that will enable attainable changes around PDAA management in pharmacy practice, including training for both undergraduate students and practising pharmacists on how to effectively communicate with patients at risk of or living with PDAA since this was identified as a barrier for a majority of pharmacists.

Methods

A cross-sectional survey design was used to generate the data used to describe Alberta pharmacists’ experience with PDAA. Participants were recruited from the Alberta College of Pharmacists registry of licensed pharmacists who agree to be contacted for approved research studies. A total of 4261 pharmacists were invited to participate in January 2016. After eliminating failed emails, the total sample size was reduced to 4257. Each participant was provided a letter of invitation describing the proposed study and consent process. The survey was closed late March 2016. The study received approval from the University of Alberta Human Research and Ethics Board.

Measures

The PDAA questionnaire contained questions to 1) characterize PDAA in their practice (e.g., How prevalent do you feel PDAA is within your practice setting? (1 = not at all prevalent; 5 = very prevalent); 2) measure confidence with PDAA-related practice (e.g., Please indicate your level of confidence with each of the follow activities: Discussing PDAA with patients [1 = not at all confident, 5 = very confident]); 3) measure beliefs about pharmacist PDAA practice (e.g., Please indicate how strongly you agree or disagree with each of the following statements:

MISE EN PRATIQUE DES CONNAISSANCES

- Les pharmaciens sont idéalement positionnés pour déterminer quels patients abusent de médicaments sur ordonnance et sont pharmacodépendants ou risquent d'être dans une telle situation, compte tenu de leur expertise des médicaments et de leurs interactions importantes avec le public. Ils ont été reconnus par l'Association des pharmaciens du Canada comme la première ligne de gestion des opioïdes.
- Cette étude est la première à examiner de manière collective les pratiques, la confiance et les croyances des pharmaciens concernant la prise en charge des patients abusant de médicaments sur ordonnance et pharmacodépendants ou risquant d'être dans une telle situation au Canada.
- Les pharmaciens sont capables de déterminer quels patients abusent de médicaments sur ordonnance et sont pharmacodépendants ou risquent d'être dans une telle situation, mais ne sont pas suffisamment confiants pour en parler avec ces derniers ou avec leur fournisseur de soins primaires et évoquer les traitements disponibles. Dans la pratique, cela se traduit par un faible nombre de discussions à ce sujet.
- Les travaux supplémentaires visant à aider les pharmaciens dans ce domaine devraient se concentrer sur la mise en place de stratégies pratiques permettant dans la pratique pharmaceutique d'apporter des changements réalisables quant à la prise en charge des patients abusant de médicaments sur ordonnance et pharmacodépendants ou risquant d'être dans une telle situation : il pourrait s'agir notamment de former les étudiants de premier cycle et les pharmaciens en exercice quant à la manière de communiquer efficacement avec de tels patients, puisque ce point a été déterminé comme un obstacle pour la plupart des pharmaciens.

As a pharmacist, I have an ethical responsibility to identify patients living with PDAA [1 = strongly disagree, 6 = strongly agree]; 4) measure the perceived impact of barriers on the ability to engage in pharmacist PDAA practice (e.g., Please indicate how each of the following potential barriers has impacted, or could impact, your ability to discuss PDAA in your practice: Patient has previously disregarded your concerns and refused discussion [1 = no impact, 5 = very significant impact]); 5) measure beliefs about education to support pharmacist PDAA practice (e.g., Please indicate how strongly you agree or disagree with the following statements: The amount of education about how to discuss PDAA with physicians in my undergraduate pharmacy degree was adequate [1 = strongly disagree, 6 = strongly agree]); and 6) identify any additional experience or education (e.g.,

professional development offered by an external source) supporting their PDAA practice.

The survey also contained open-ended questions to allow participants the opportunity to elaborate on their responses to some of the close-ended questions (e.g., Please take the opportunity to provide any professional concerns or comments regarding this topic that you may have in the box below).¹⁰ A copy of the questionnaire is provided in Appendix 1, available at www.cpjournal.ca.

The questionnaire was circulated to 5 experts in survey design and PDAA, and their feedback was further incorporated to ensure face validity and reliability of the tool.

Results

A total of 656 pharmacists participated in the survey (response rate 15.4%), which is approximately 13% of the total licensed clinical pharmacists in Alberta as of December 31, 2015. Basic descriptive statistics of the data collected in the survey are reported to characterize pharmacists' PDAA practice experience. Table 1 shows the descriptive statistics of the pharmacist demographics and practice setting characteristics.

Respondents had a mean age of 41 years, with about 61% reporting being female. Approximately 31% of respondents indicated the location of their practice setting to be in Edmonton, followed by Calgary at 27%. Thirty-five percent of respondents reported practising pharmacy for more than 20 years and 26% fewer than 5 years. The majority of respondents (79%) reported a community pharmacy practice, 52% of respondents provide direct patient care for more than 32 hours per week and 8% indicated employment in a rural setting. In Alberta, the average age of practising pharmacists in 2012 was 41.9 years, 63% were female, more than 40% of pharmacists worked 40 hours or more per week and 13.9% were employed in a rural or remote setting.¹¹ Our study population is markedly similar in terms of demographics to the overall Alberta pharmacy population. The pharmacists in our study are also quite similar to the rest of Canada, where the average age of pharmacists is 43.5 years, 60% are female and 75% of pharmacists work in a community setting while 20% work in hospital or another facility.¹²

About 84% indicated a bachelor's degree as their highest level of education, with 34% reporting having additional prescribing authority

TABLE 1 Descriptive statistics of pharmacist and practice setting demographic variables

	Total* (n = 541)
Age, mean (SD), y^a	40.9 (11.7)
Sex, %^b	
Male	39
Female	61
Years practising, %^c	
Fewer than 5 years	27
5 to 10 years	19
11 to 15 years	11
16 to 20 years	9
More than 20 years	35
Highest level of education, %^d	
Bachelor's degree	84
Master's degree	6
PhD	2
Entry-level PharmD	1
Postbaccalaureate PharmD	3
Hospital residency	4
Other (please specify)	1
Hours spent on PDAA education in the past 2 years, %^d	
None	46
1 to 3 hours	35
4 to 6 hours	9
7 to 10 hours	3
More than 10 hours	7
Practice setting location, %^e	
Rural area	8
Small population centre (population: 1000-29,999)	20
Medium population centre (population: 30,000-99,999)	15
Large urban population centre (population: 100,000 or more, not including Calgary or Edmonton)	10
Metropolitan Calgary	22
Metropolitan Edmonton	26
Area of practice you spend most of your time on, %^d	
Community pharmacy (retail, primary care network, etc.)	79
Institutional pharmacy	13
Ambulatory care	3
Compounding pharmacy	1
Academia	1

TABLE 1 (continued)

	Total* (n = 541)
Government	1
Other (please specify)	4
Type of community setting, %^f	
Franchise or chain	43
Grocery or department	21
Independent	32
Primary care network	3
Other (please specify):	1
Type of institutional setting, %^g	
Inpatient	75
Outpatient	3
Continuing or long-term care	13
Other (please specify)	9
Hours per week providing direct patient care, %^e	
8 hours or less	9
Between 8 and 16 hours	10
Between 17 and 24 hours	12
Between 25 and 32 hours	17
More than 32 hours	52

PDAA, prescription drug abuse and addiction.

*Incomplete questionnaires resulted in minor differences in the number of pharmacists responding to each question according to the following notes: a. $n = 517$, b. $n = 537$, c. $n = 538$, d. $n = 540$, e. $n = 539$, f. $n = 423$, g. $n = 69$.

(APA). A slightly higher proportion of pharmacists who participated in our study had APA compared to the provincial rate of 24.6% as of February 29, 2016.¹³

In addition to measuring basic demographics and practice characteristics, participants were asked how many hours they had spent in accredited or nonaccredited PDAA education in the past 2 years. Responses indicate that 35% of pharmacists had between 1 and 3 hours of education, while 46% had none.

The results characterizing the prevalence of PDAA in pharmacist practice are presented in Table 2 and show that only 4% of respondents reported PDAA as not at all prevalent or seeing no PDAA patients in a month. About 63% of respondents reported seeing between 1 and 10 PDAA patients per month.

Participants were also asked to respond to an open-ended question regarding factors that

influence the presence of PDAA in their practice. The main themes identified in the responses, along with the number of respondents who addressed each theme, included 1) inappropriate prescribing practice ($n = 58$), 2) demographics of patient population ($n = 48$), 3) socioeconomic status of patients ($n = 30$) and 4) Indigent patient population ($n = 22$). The degree to which pharmacists report engaging with certain PDAA activities is presented in Table 3.

About 90% of respondents discuss PDAA with their patients at least some of the time, with the most highly reported category being less than half the time at 41%. Ten percent of respondents reported never discussing PDAA with their patients.

Results reporting pharmacists' confidence with PDAA patient care are shown in Table 4. The confidence results reveal that on average, pharmacists report being between only

TABLE 2 Prevalence of PDAA in pharmacist practice

	Total (n = 541), %
Prevalence of PDAA in practice^a	
Not at all prevalent	4
Only somewhat prevalent	29
Moderately prevalent	34
Fairly prevalent	20
Very prevalent	14
Number of PDAA patients in a typical month^b	
None	4
1 to 5	29
6 to 10	34
11 to 15	20
Greater than 15	14

PDAA, prescription drug abuse and addiction. Incomplete questionnaires resulted in minor differences in the number of pharmacists responding to each question according to the following notes: a. n = 540, b. n = 539.

TABLE 3 Pharmacist PDAA practice

	Total* (n = 541), %
How often you discuss PDAA with patients?^a	
Never	10
Less than half of the time	42
Half of the time	21
More than half the time	17
Always	10
How often do you discuss treatment options for PDAA with patients?^b	
Never	17
Less than half of the time	48
Half of the time	17
More than half of the time	13
Always	5
How often do you discuss your concerns with the patient's primary care provider?^a	
Never	10
Less than half of the time	43
Half of the time	21
More than half of the time	18
Always	8

PDAA, prescription drug abuse and addiction.

Incomplete questionnaires resulted in minor differences in the number of pharmacists responding to each question according to the following notes: a. n = 511, b. n = 479.

TABLE 4 Pharmacist confidence with PDAA patient care activities

Patient care activity	Total (n = 541), mean (SD)
Identifying patients with potential PDAA ^a	3.25 (0.97)
Discussing PDAA with patients ^b	2.76 (1.12)
Discussing treatment options for PDAA with patients ^c	2.54 (1.11)
Discussing PDAA treatment facilities with patients, when applicable ^a	2.10 (1.11)
Discussing opioid dependency programs with patients, when applicable ^d	2.30 (1.13)
Communicating and collaborating with addiction treatment facilities ^d	2.44 (1.19)
Communicating and collaborating with opioid dependency programs ^e	2.58 (1.23)
Communicating and collaborating with a mutual patient's primary physician regarding PDAA concerns ^b	3.06 (1.11)

PDAA, prescription drug abuse and addiction. 1 = not at all confident, 2 = only somewhat confident, 3 = moderately confident, 4 = mostly confident, 5 = very confident. Incomplete questionnaires resulted in minor differences in the number of pharmacists responding to each question according to the following notes: a. n = 539, b. n = 536, c. n = 534, d. n = 538, e. n = 537.

TABLE 5 Pharmacist beliefs about PDAA pharmacy practice

Patient care activity	Total (n = 541), mean (SD)
As a pharmacist, I have an ethical responsibility to identify patients living with PDAA. ^a	4.93 (0.82)
As a pharmacist, I have an ethical responsibility to treat patients living with PDAA. ^b	4.61 (1.00)
Physicians are more responsible than pharmacists for initiating discussions about PDAA with patients. ^b	4.00 (1.40)
It is the responsibility of the patient living with PDAA to seek help for their illness. ^a	3.60 (1.23)
I spend adequate time discussing PDAA with patients. ^a	3.20 (1.24)
Pharmacists spend adequate time discussing PDAA with patients. ^c	2.88 (1.15)
The amount of education about how to discuss PDAA with patients in my undergraduate pharmacy degree was adequate. ^d	2.23 (1.26)
The amount of education about how to discuss PDAA with physicians in my undergraduate pharmacy degree was adequate. ^b	2.30 (1.27)
There are adequate continuing education programs available to increase my confidence in PDAA management. ^b	2.83 (1.22)
There are adequate resources and tools available to develop my ability to manage PDAA. ^a	2.96 (1.20)

PDAA, prescription drug abuse and addiction. 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree. Incomplete questionnaires resulted in minor differences in the number of pharmacists responding to each question according to the following notes: a. n = 538, b. n = 539, c. n = 537, d. n = 540.

somewhat confident and moderately confident with the PDAA patient care activities. Pharmacists gave discussing treatment facilities and

opioid dependency programs with patients the lowest rating. Alternatively, pharmacists gave being able to identify PDAA patients and

TABLE 6 Potential barriers to practising PDAA patient care (percent significant or very significant impact)

Potential barrier	Total (n = 541), %
Work load, resources or time pressures	58
Patient has previously disregarded your concerns and refused discussion	49
Lack of training or knowledge in PDAA	48
Concern regarding a negative patient response	45
Unsure of how to initiate conversation or how to effectively communicate with patients about PDAA	40
There are other health care professionals better equipped to initiate discussions about PDAA	32
Lack of experience and encounters with patients with PDAA	32
Concern that attempted discussion with patient could damage the patient-pharmacist relationship	29
Unsure of how to initiate conversation or how to effectively communicate with physicians about PDAA	24
Safety concerns for self	22
Concern that discussion with physician regarding a patient's suspected PDAA could damage physician-pharmacist relationship	16

PDAA, prescription drug abuse and addiction.

collaborating with primary physicians the highest rating.

Previous research has demonstrated increased practice-related activities for other chronic diseases¹⁴ by pharmacists with additional prescribing authorization (APA)—a professional designation unique to Alberta that allows pharmacists approved by the Alberta College of Pharmacy to act as independent prescribers and initiate drug therapy for any condition, as long as it is within their area of expertise.¹¹ A sensitivity analysis was used to explore if any differences in practices and confidence around PDAA existed between pharmacists with and without APA. Based on chi-squared tests of association, there are no differences in the distributions of responses between those with APA and those without for both engagement in and confidence of practices related to PDAA.

Pharmacists most strongly disagree that they receive an adequate amount of education on how to discuss PDAA with patients and with physicians (Table 5). Pharmacists generally reported most strongly agreeing that they have an ethical responsibility to identify and treat patients with PDAA.

Respondents indicated that workload, resources and time pressures are the most

impactful barrier to engaging in PDAA patient care (58%) (Table 6). Patient disregard and lack of training or knowledge are listed as the next strongest barriers at 49% and 48%, respectively. Uncertainty around how to initiate conversation or how to effectively communicate with patients about PDAA was reported by 40% of participants. The lowest-rated barrier was concern over the pharmacist-physician relationship (16%).

Pharmacists were also asked about the sufficiency of their undergraduate pharmacy training in relation to how to discuss PDAA with patients and how to discuss PDAA with physicians and, overall, 81% and 82% pharmacists, respectively, disagreed that the amount of education they received was adequate. In addition, about 69% also disagreed or strongly disagreed that there are adequate continuing education programs available to increase their confidence in PDAA management, while 67% felt that there were inadequate resources and tools available to develop their ability to manage PDAA.

Pharmacists were then provided with a list of factors and asked to indicate which of the following factors further informed their ability to manage PDAA (see Appendix 1 for the study questionnaire). The following 4 factors were

identified most commonly: employment experiences due to patient population you typically provide care for (33%), employment experiences due to collaborative opportunities within practice setting (23%), personal or family experience (10.6%) and professional development offered by an external source (10%).

Finally, at the end of the questionnaire, pharmacists were provided with an open-ended question to elaborate on any topic related to the survey or that was not captured in the quantitative and qualitative questions included. In total, 161 pharmacists contributed to this section and multiple themes were identified, including 1) additional training/resources required ($n = 52$), 2) inappropriate prescribing ($n = 30$), 3) demographics of patient population ($n = 48$), 4) need for collaboration between health care professionals ($n = 19$) and 5) reluctant patients ($n = 17$).

Discussion

Key study findings

This is the first study to explore pharmacists' practices, confidence and beliefs about managing patients at risk of or living with PDAA in the Canadian setting. Over one-third of pharmacists in Alberta report PDAA as being "fairly" to "very" prevalent in their practice setting; over half of pharmacists in Alberta report seeing more than 6 patients a month with PDAA and one-fifth of pharmacists seeing more than 15 patients with PDAA a month. Overall, pharmacists in Alberta lack confidence in managing PDAA despite its demonstrated prevalence in practice; this is translating to their practice, as less than half of pharmacists identifying patients with PDAA are addressing it with the patient or patient's primary care provider. More specifically, more than half of the pharmacists reported discussing PDAA with identified patients less than half the time (41%) or never (10%), and nearly one-fifth of the pharmacists reported never discussing treatment options for PDAA with these patients.

Indeed, most of our study participants provide patient care in a community setting and therefore are ideally situated to identify patients with known or suspected PDAA due to their accessibility and opportunity for frequent patient contact. Recent research has found that a total of 294 Albertans died of accidental toxicity due to an opioid other than fentanyl from January 2016 to June 2017, and a total of 757 died

of accidental toxicity due to fentanyl; between January and June 2017, 66% ($n = 54$) and 23% ($n = 59$) of those patients, respectively, had an opioid dispensed from a community pharmacy in the 30 days prior to their death.¹⁵ Nearly 40% of pharmacists reported that their uncertainty of how to effectively communicate about PDAA with patients is a significant barrier in their practice. Of particular interest is that pharmacists in our study with APA did not differ significantly in terms of their confidence or practices surrounding PDAA compared to those without APA; in fact, while the differences were not statistically significant, pharmacists with APA tended to report lower confidence and practice interventions overall compared to those without APA. This result is somewhat unexpected, given that APA has been shown to improve practices related to other chronic diseases such as diabetes.¹⁴ It is important to note that while there were no apparent differences in confidence based on APA status, there could be other factors that predict pharmacist confidence that should be explored further. For example, years of experience and practice setting are potential variables that might predict confidence that could be considered in further analyses.

Comparison to previous literature

Little research has been completed to date exploring the practices and confidence of pharmacists in managing patients at risk of or living with PDAA. Hagemeyer et al.¹⁶ explored a similar topic in both pharmacists and physicians in Tennessee, United States, but focused less on reported practice behaviours. Alberta pharmacists reported similar results to pharmacists in the United States, who strongly agreed that PDAA was present in their practice settings and agreed that they felt confident in their ability to identify patients living with PDAA; similar to pharmacists in Alberta, pharmacists in the United States were less confident in discussing drug abuse issues with these patients. Interestingly, pharmacists in Alberta felt on average that physicians were more responsible than pharmacists for initiating discussions about PDAA with patients. This is of interest, given that Hagemeyer et al.¹⁶ reported that only 25% of prescribers felt confident in their abilities to discuss PDAA with their patients; placing the responsibility of this discussion on physicians likely results in a gap in patient care around PDAA. As well, in the

aforementioned study, physicians were much less likely than pharmacists to perceive PDAA as an issue and less likely to suspect opioid abuse in their patients.¹⁶ Such data confirm the vital role that pharmacists must play in initiating discussions around PDAA, as well as effectively collaborating with the patient's physician. Previous research has found that a majority of both physicians and pharmacists strongly agree that there is a need for improved communication between the 2 professions regarding PDAA, however, at this point pharmacists in Alberta are only moderately confident at collaborating with the mutual patient's primary physician regarding PDAA.¹⁶

Strengths and limitations

Given the current opioid crisis and public health concerns about commonly abused prescription drugs across Canada, it is imperative to understand how pharmacists are dealing with PDAA in their practice setting to inform critical steps necessary to improve the care of such patients. A combination of open- and closed-ended questions was used in our survey, which allowed respondents to further elaborate on their perspectives surrounding PDAA. Our sample included pharmacists across different practice settings, and the demographics of the pharmacists in our study are highly representative of the total pharmacist population in Alberta and across Canada, which increases the generalizability of our study results.¹² The questions synthesized on the questionnaire explored many aspects of PDAA within the practice setting, including the identification of barriers that hinder pharmacists from managing PDAA, which are important in influencing next steps in this area.

Our study has some limitations. The survey design we used is susceptible to response bias and since it was measured at one point of time, an additional limitation is the likelihood that participants might provide different results at different points in time.¹⁷ While the sample size elicited in our study was not large, our results appear consistent with other research completed to date out of the United States. The results of our study may even be a slightly inflated estimate of pharmacist confidence and beliefs than you might expect to see across other provinces in Canada, given that pharmacists in Alberta practise to an advanced scope compared to any other province and still identify a number of significant gaps in managing patients with PDAA.

Clinical and policy implications

Overall, this study provides significant insights into the confidence, beliefs and practices of Alberta pharmacists around PDAA and should help stimulate and guide changes in both clinical settings and related policies. Inappropriate prescribing, identified as an issue by our study participants, has received a great deal of attention in the past few years, and a number of steps have been put in place to reduce this, especially for opioids. For example, both the Alberta College of Pharmacists (ACP) and the College of Physicians and Surgeons (ACPS) now have guidelines in place to improve appropriate and safe opioid use.^{18,19} From a national level, in May 2017, the Canadian Centre on Substance Use and Addiction released a Progress Report on the Joint Statement of Action to Address the Opioid Crisis in Canada²⁰; the primary strategy of this initiative was to improve the prevention, treatment and harm reduction associated with problematic opioid use and contribute to the evidence base and national information sharing. It is hoped that these strategies will translate to perceived changes in pharmacy practice as well. Further guidelines and research targeted at other common drugs of abuse will also be important moving forward. As well, Alberta pharmacists lack confidence in discussing PDAA treatment facilities and opioid dependency programs with patients when applicable and collaborating with addiction treatment facilities; this is also consistent with previous research in the United States.¹⁶ This shows the need for further exploration into the role of pharmacists in being able to refer patients to treatment facilities and to collaborate with such facilities as needed for improved continuity of care for the patient.

If pharmacists are indeed lacking the confidence to engage in PDAA-related practice activities, it is a professional imperative that they take the responsibility upon themselves to further gain the knowledge and skills in order to best help their patients. However, pharmacists in our study felt that there are inadequate continuing education programs and resources available to increase their abilities in PDAA management. Future tactics should focus on the development of practical strategies that will enable attainable changes around PDAA management in pharmacy practice. The most effective factor identified by pharmacists in furthering their ability to manage PDAA was employment experience.

Increasing exposure to PDAA in undergraduate training, including increasing specialty rotation sites, clinical rotations in demographic areas with high PDAA and advanced pharmacy residency programs, would likely be a valuable initiative. For practising pharmacists, this may translate to hands-on training opportunities, such as patient simulation training, or job shadowing opportunities in locations with high PDAA. Given that a third of our respondents have APA and nonsignificant differences were identified in the confidence and practices related to PDAA in those with APA, it is clear that more is required to equip pharmacists with the confidence to tackle this clinical area other than just advanced scope of practice. For example, training should focus on how to effectively communicate with patients at risk of or living with PDAA since this was identified as a barrier for a majority of pharmacists. Further research and clinical tools need to guide pharmacists to replace potential negative attitudes around PDAA with evidence-based treatment strategies. Targeted research to explore specific initiatives developed to improve the confidence and abilities of pharmacists to manage PDAA in their practice setting should be implemented as they occur.

Future research would also benefit from exploring PDAA practices by pharmacists across

Canada and at a global level. PDAA is not a phenomenon unique to any one country, and it is important to explore the role of pharmacists as frontline health professionals in helping to curb and manage this important public health issue.

Conclusion

Pharmacists perceive PDAA to be prevalent in practice settings across Alberta. Although pharmacists in Alberta express confidence identifying patients with potential PDAA, many barriers are present that hinder pharmacist intervention. It is necessary to provide pharmacists with additional training opportunities and resources to manage PDAA in their practice setting in order to narrow this gap in care. It is also critical to provide strategies to both prescribers and pharmacists to improve collaboration around PDAA in order to better care for patients at risk of or living with PDAA. Pharmacists play a vital role in patient care and have the potential to significantly affect the growing public health issues associated with PDAA. Pharmacists need to take ownership of their role in the PDAA crisis we are facing around the world—management of individuals living with PDAA cannot be left to other health care professionals alone, as a collaborative effort is the only reasonable and realistic step forward. ■

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Declaration of Conflicting Interests: The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding: The authors received no financial support for the research, authorship and/or publication of this article.

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