



the Translator

Canadian Pharmacy ▶ Research ▶ Health Policy ▶ Practice ▶ Better Health

The Role of Pharmacists in Improving Community Mental Health

According to the Mental Health Commission of Canada, one in five Canadians will experience a mental health problem or illness every year, with a cost of well over \$50 billion to our economy.¹ In 2012, Canada released its first mental health strategy *Changing Directions, Changing Lives* to increase mental health awareness throughout the country. The Strategy uses experiences and knowledge from people across Canada to bring about change in the awareness of mental health, the care and treatment of people living with mental illness and the provision of accessible services to those who need them.² Medication is often a key element of treatment for people with mental illnesses, making pharmacists an important resource for assessing people for mental illnesses and ensuring that their medications are safe and effective.¹ By providing services such as screening clinics and medication reviews, pharmacists can have a meaningful impact on mental health care in the community.

This issue of *The Translator* looks at four different examples of how pharmacists can improve care for people who have a mental illness :

- Educating Pharmacists on Mental Illness Improved Telephone-based Assessment and Counselling
- Feasibility of Performing Depression Screening Services in Community Pharmacies
- Pharmacist-led Comprehensive Medication Management Improves Care for Patients with Psychiatric Disorders
- Early Detection of Alzheimer’s Disease through Memory Screening Clinics in Community Pharmacies

1. Mental Health Commission of Canada. *Changing Directions Changing Lives: The Mental Health Strategy for Canada*. http://www.mentalhealthcommission.ca/English/system/files/private/MHStrategy_Strategy_ENG_0.pdf. Published 2012. Accessed November 17, 2015.
 2. The Mental Health Strategy for Canada. Mental Health Commission of Canada. <http://www.mentalhealthcommission.ca/English/initiatives-and-projects/mental-health-strategy-canada>. Accessed November 17, 2015.

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Date/Time
 Wednesday
 January 13, 2016
 1 pm (EST)

Educating Pharmacists on Mental Illness Improved Telephone-based Assessment and Counselling

Murphy AL, Martin-Misener R, Kutcher SP, Gardner DM. Pharmacists' performance in a telephone-based simulated patient study after a mental health capacity-building program. *Int J Clin Pharm*. 2015;37(6):1009-13. doi:10.1007/s11096-015-0171-7.

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Issue: Mental illness is a leading burden on Canada's health care system and, as a result, community pharmacists are being looked to as a resource to provide mental health care.¹ Within their current scope of practice, pharmacists are able to provide patient-centred and community-sensitive services for patients with mental illness.² Pharmacists are able to assess patients with mental illness for medication-related issues and provide much needed clinical care and support. However, not all pharmacists feel confident that they can provide these services consistently or comprehensively.³ Some indicate that they need more information on caring for patients with mental illness to provide better care and increase access to services for patients in the community.

The More Than Meds program was developed in Nova Scotia to enhance community pharmacists' care and support of people with mental illness. While illness and therapeutics education made up part of the program, the focus was on strengthening the role of the community pharmacist by pairing each pharmacist with individuals from their community who live with mental illness. The idea was to build new knowledge about patient needs and develop stronger community links to facilitate an expanded impact of the pharmacist's role locally.⁴ Additional evidence is required to determine if this program increased pharmacists' knowledge, changed attitudes and, most importantly, altered behaviours to determine if a program such as More Than Meds should be implemented more broadly.

Solution: Pharmacists in Nova Scotia who were involved in the More Than Meds program participated in an education program that involved required readings, live training, an online community of practice, the provision of a comprehensive list of community resources and health services and other tools and pre- and post-training quizzes. The education day was attended by both pharmacists and people who live with mental illness and included several simulated patient cases with debriefings, group discussion on



After completing an education program, pharmacists provided better care to patients with mental illness.

the pharmacist's role and the community's needs, tools and resources in the community and in support of the More Than Meds program, materials for providing local training to other pharmacists by the pharmacist who attended the education day and support for planning community outreach events. Each trained pharmacist-patient pair was asked to return to their local area and provide similar training to five or more additional pharmacists, employing a train-the-trainer model of dissemination. In total, six pharmacists participated in the More Than Meds education and training day and 29 pharmacists were secondarily trained, for a total of 35 pharmacists in the intervention group. Control pharmacies, selected by similar geographic location to the trained pharmacists, were those who did not participate in the More Than Meds program (n=34). Pharmacists' skills were tested on how well they responded to a simulated patient telephone inquiry that focused on insomnia. The simulated patient was a trained actor who completed real-time assessments and scoring of the pharmacists. Of the 35 intervention pharmacists and 34 control group pharmacists, 29 were contacted by the simulated patient. The mean telephone call duration was 4.9 minutes (SD 2.3) for intervention group pharmacists versus 4.0 (SD 1.8) for control ($p=0.07$) and ranged from 2-11 minutes. Medications were recommended by 76% (22) in the intervention versus 100% (34) of the control group ($p=0.002$) and intervention group pharmacists promoted more non-medicine resources to the patient ($p=0.039$). More intervention group pharmacists asked for the patient's name ($p=0.038$), symptom duration ($p=0.037$) and triggers

or causes for the sleep problem ($p=0.004$). Intervention group pharmacists discussed dose, frequency, expected onset of effect and other product information more often with the patient, although these differences in rates were not statistically significant. Of the 12 categories for pharmacist communication, related attributes and overall quality, intervention pharmacists performed better in 10, including overall quality ($p=0.007$).

Implications: Community pharmacists who participated in the More Than Meds program were rated higher during a telephone-based simulated patient scenario for insomnia than those who did not receive any additional training. Initial results from this study indicate that programs like More Than Meds, which use community members as a critical component of the training and roll-out process in mental health education for pharmacists, should be implemented broadly to provide pharmacists with a better understanding and ability to respond to mental health needs.

There is room for improvement in telephone-based consultations and further research should explore the impact of these consultations on aspects of pharmacy practice (e.g., workflow, quality, safety). The sample size of this study was small for multiple comparisons and information regarding the intervention and control groups, such as store type, prescription volume, staffing and other factors potentially affecting performance, was not collected and therefore the extent to which these factors influence the results cannot be recognized.

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Educating Pharmacists on Mental Illness Improved Telephone-based Assessment and Counselling (cont.)

Background and Methods: Insomnia was selected for the simulated scenario based on the prevalence of insomnia and co-occurrence with mental disorders, use of the insomnia-suicidality case in the More Than Meds education day and the ability to conduct the scenario by telephone. The scenario included a trained actor playing a 22-year old female who was having recent sleep problems 7-10 days in duration. Pharmacists'

assessments and communications were rated with eleven 7-point Likert scale items and overall interaction quality was evaluated using a single 10-point Likert scale. Six of the intervention group pharmacists were not contacted due to employment changes that prevented them from participating. Data were collected on paper sheets, which the actor transferred into an Excel database, 10% (7) of paper recordings were audited against

the Excel file to check for accuracy and no errors were found. Data were analyzed with IBM SPSS (version 21) statistical software. Descriptive statistics were used to calculate rates per evaluative item for the number of 'yes' responses. Independent samples *t* tests were used to compare means while Chi square tests were used to compare dichotomous outcomes for group comparisons.

Feasibility of Performing Depression Screening Services in Community Pharmacies

O'Reilly CL, Wong E, Chen TF. A feasibility study of community pharmacists performing depression screening services. *Res Social Adm Pharm*. 2015;11(3):364-81. doi:<http://dx.doi.org/10.1016/j.sapharm.2014.08.013>.

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Issue: Depression is a mood disorder that affects both the mind and the body. According to Statistics Canada, in 2012 depression affected 5.4% of the Canadian population over the age of 15.¹ Screening for depression has been proven to be a simple and cost-effective way to increase early identification.² Pharmacists are highly regarded and trusted health care professionals and are in the unique position to provide depression screening clinics to patients in community pharmacies.³ Evidence has shown that pharmacists improve the use of medications in patients with mental health disorders, but there is a lack of evidence showing the feasibility of providing depression screening services in a community pharmacy setting.⁴

Solution: Depression screening services help identify patients at risk for depression, allowing them to receive treatment earlier and prevent a worsening of symptoms.² In New South Wales, Australia, 12 community pharmacies participated in a study to determine if depression screening services were feasible in community pharmacies. Participating pharmacists (n=20) completed a two-hour interactive training program on depression screening and were provided with a Pharmacist Depression Screening Checklist to assist them with the process. Pharmacists were given 3 different depression screening tools, the *Beyondblue* Depression Checklist, the Patient Health Questionnaire-9 (PHQ-9) and the World Health Organization Well-being index 5 (WHO-5). After the eight-week intervention period, pharmacists were invited to participate in a semi-structured interview to investigate any observed barriers and facilitators to the screening services. A total of



Pharmacists are able to assess and appropriately refer patients with depression.

41 screening and risk assessments were conducted with over 75 consumers. Over 70% of consumers screened were female with the majority between the ages of 18-40 and 10 consumers were screened by a pharmacist on their first time visiting the pharmacy. Of the 3 screening tools, the PHQ-9 was the most commonly used tool (n=22), followed by the WHO-5 (15) and then the *Beyondblue* Depression Checklist (8). Pharmacists

felt the PHQ-9 was more comprehensive than other screening tools, but used more complicated language. The WHO-5 was found to have more positive wording and both the *Beyondblue* Depression Checklist and the WHO-5 were shorter, making them more practical to use in a busy community pharmacy. Pharmacists made 25 referrals to a general practitioner (GP) and 3 to a psychologist. After the interventions, 17 interviews were conducted with the participating pharmacists. The most common barriers to providing a depression screening clinic in a community pharmacy noted by pharmacists were time restraints and stigma. Pharmacists also observed that consumers felt they did not have access to mental health care or were unaware of services provided. The majority of pharmacists stated that mental health resources on display, accessibility of pharmacists in the community, private consultation areas and the rise of awareness campaigns were great facilitators to the services. The majority of pharmacists felt that further training and education in counselling skills would enhance their ability to perform depression screening services.

Implications: This study demonstrated that pharmacists are capable of performing screening and risk assessment services for depression in primary care and that depression screening in community pharmacies is feasible. However most of the pharmacists felt that these services would be difficult to implement due to the barriers mentioned above, especially time constraints. Pharmacists who received relevant training were able to identify consumers at risk of depression and refer them on to appropriate health care

Feasibility of Performing Depression Screening Services in Community Pharmacies (cont.)

professionals when required. The sample size of community pharmacists used in this study was small and may have led to findings that cannot be generalized to the broader community pharmacy network. There was also a

wide variation in the numbers of consumers recruited to the study in each pharmacy and therefore the results may not be generalized to all community pharmacy settings. Follow-up clinical data was not collected and there-

fore it is unknown how many consumers were diagnosed with depression following the pharmacist interventions and is an area for future research.

Background and Methods: The study sample was a purposive sample of pharmacies to ensure a variety in the style, location and services provided. The majority of the participating pharmacies were independent pharmacies in the metropolitan area of Sydney. The six-step Pharmacist Depression Screening Checklist was developed using evidence-based guidelines, literature on depression screening and input of stakeholders, health professionals and consumers. All three depression screening tools assess symptoms of depression over the previous

two weeks and were chosen because they have demonstrated reliability and validity for use in depression screening. *Beyond-blue* Depression Checklist consists of nine items with yes or no responses; the PHQ-9 also has nine items rated on a 4-point Likert scale while the WHO-5 consists of five items rated on a 6-point Likert scale. Each tool could be self-administered by the consumer or assisted by the pharmacist. A purpose designed semi-structured interview guide was developed based on the literature and the research team's experience in

the area. A mixed method approach was used to analyze data from the two stages of the study. The descriptions of the screening assessments were thematically content analyzed. A database in SPSS was constructed to examine pharmacy, pharmacist and consumer demographic variables as well as the variables of the screening and risk assessments performed. All semi-structured interviews were digitally audio-recorded and transcribed verbatim.

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December 21,
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Pharmacist-led Comprehensive Medication Management Improves Care for Patients with Psychiatric Disorders

Cobb, CD. Optimizing medication use with a pharmacist-provided comprehensive medication management service for patients with psychiatric disorders. *Pharmacotherapy*. 2014;34(12):1336-40. doi:10.1002/phar.1503.

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Issue: Patients with psychiatric disorders have been shown to have shorter lifespans than the general population.¹ This difference can be attributed to increased rates of nutritional and metabolic diseases, cardiovascular diseases, infectious diseases and other adverse health conditions common among patients with psychiatric disorders, along with the fact that many of these patients are less likely to receive standard levels of care for these conditions.¹ In addition, patients with psychiatric disorders often take multiple medications, which can lead to adverse drug effects, poor adherence and drug interactions.² Medication reviews have been established as a way for pharmacists to improve the safety and health of patients taking one or more medications through a one-on-one discussion with the patient.^{3,4} Although medication reviews have been proven to be efficacious for various conditions, there is a lack of research on the efficacy of medication reviews for patients with psychiatric disorders.

Solution: In 2011, a retrospective review was performed at an independent private practice setting in Montana to evaluate the use of pharmacist-provided comprehensive medication management (CMM) in patients with psychiatric disorders. CMM enables pharmacists to ensure that patients' medications are appropriate, effective and safe. Pharmacists with additional training in CMM saw 154 patients (a total of 256 encounters) between April 2011 and July 2013. The pharmacist-provided CMM consisted of reviewing the patient's medications, restating goals of therapy, requesting lifestyle information, vital signs, laboratory studies and assessing the patient's condition based on appropriate psychiatric rate scales. All conditions were assigned a clinical status (stable, improved, partial improvement, unimproved, worsened



Comprehensive medication management identified and prevented drug therapy problems leading to cost savings.

or failure) at every encounter. After the medication review, pharmacists developed care plans that identified and resolved any drug therapy problems (DTPs) and sent the plans out to the patient and all physicians within one week. In addition, a satisfaction survey was mailed to patients after their visits and was requested to be returned anonymously. Overall, 76% (117) patients were female, 99% (152) were white and the average age of patients was 58 years. The most common psychiatric disorders seen in patients were depression, insomnia, anxiety disorders and bipolar disorders. Patients were taking a mean of 13.7 (SD 6.6, range 2-33) medications, with a mean of 10.1 (SD 4.2, range 1-21) conditions evaluated for each patient. Patients had a mean of 5.6 (SD 3.2, range 1-20) DTPs identified and resolved. The most common DTPs observed were adverse drug reactions (27%), unnecessary medications (20%), dose too

high (13%) and poor adherence (12%). Of the clinical conditions, 52% had an improvement, 33% remained the same and 14% declined in clinical status. The net cost avoidance was estimated at \$90,484 for the total patient population or \$586.55 per patient. A cost savings of \$30,467 was determined as a net result of avoiding two hospitalizations and two emergency department visits. The remaining \$60,017 was due to estimated net drug cost savings. The total cost for providing care was estimated to be \$32,185.93 making the return on investment to be 2.8, meaning for every dollar spent on providing the service, \$2.80 was estimated to be saved. Of the 46 patients who completed the satisfaction survey, 91.3% (42) found the service to be extremely helpful and 63% (29) said that the review resulted in changes to their medications. Patients reported CMM helped them learn more about their medications and reduced the number of medications they were taking and 89.1% (41) of respondents said they would refer a friend or family member for the medication review.

Implications: CMM has been shown to identify medication related issues in patients with psychiatric disorders and can prevent potentially harmful adverse effects leading to cost savings. By performing medication reviews, pharmacists may improve clinical outcomes for patients while reducing health care costs. In addition, patients find this service as a helpful tool to review their medications. This study was conducted in an independent private practice setting, not integrated into an existing health care setting. Future research should focus on the benefits of CMM in an integrated health care setting as part of a team approach to care.

Pharmacist-led Comprehensive Medication Management Improves Care for Patients with Psychiatric Disorders (cont.)

Background and Methods: All pharmacists participated in training on the use of the software system. One pharmacist was a board-certified psychiatric pharmacist and served as the practice manager and resource for the other pharmacists. The non-specialist pharmacists completed a continuing education program on the treatment of psychiatric disorders. Pharmacists did not have authority to change any prescription medications and therefore only recommendations were

given. Patients were asked to bring all medications to their appointments, including prescription, over-the-counter and nutritional supplement products. Pharmacists provided recommendations regarding OTCs or supplements directly to the patient and followed-up in 4-6 weeks. No specific treatment protocols were used for any chronic conditions assessed. Patient data were documented in and analyzed by Assurance software. The cost of providing CMM was

estimated by using a resource-based relative value fee scale. Cost or cost avoidance was calculated based on estimating the cost or savings of a medication change using the average wholesale price for the following 90 days. Health care events savings were estimated based on U.S. averages from the Agency for Healthcare Research and Quality. Whenever possible objective values were used but for some conditions only subjective values could be reported.

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Early Detection of Alzheimer's Disease through Memory Screening Clinics in Community Pharmacies

Rickles NM, Skelton JB, Davis J, Hopson J. Cognitive memory screening and referral program in community pharmacies in the United States. *Int J Clin Pharm*. 2014;36(2):360-7. doi:10.1007/s11096-013-9904-7.

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Issue: Memory loss is a common issue in aging adults and causes can range from normal aging to dementia, including Alzheimer's disease (AD). In 2011, 14.9% of Canadians over 65 were living with AD and other dementias, at an estimated cost of \$33 billion per year for direct and indirect costs.¹ Although there is no cure for AD, there are benefits to early detection including early initiation of drug treatment, engagement in support services and making lifestyle changes before the disease progresses.² The benefits of early detection through community pharmacy screening clinics have been identified in a number of studies for diseases such as cardiovascular disease,³ osteoporosis⁴ and diabetes,⁵ but there is a lack of evidence regarding the benefits of pharmacist-led memory clinics and their feasibility.

Solution: Elderly patients often use multiple medications and visit pharmacies on a regular basis, putting pharmacists in the prime position to assess these patients for memory loss and AD. In 2008, 12 chain community pharmacies in Oregon (10) and North Carolina (2) initiated a cognitive memory screening and referral program (CMSRP). Patients were offered screening services by a pharmacist if they self-identified as having at least one warning sign for AD or if the pharmacist felt the patient could benefit from the service. The validated instruments



Pharmacists can identify patients at risk of Alzheimer's disease through memory screening clinics.

used for patient screening were the Three-Word Recall, the Clock Draw Test and the Animal Fluency Test. Patients qualified for referral if they had a Clock Draw Test score of 0-3 and a Three-Word Recall Test score of 0-3, or if they had a Clock Draw Test score of 4 and a Three-Word Recall Test score of 0.

Following the administration of the cognitive memory screening assessments, pharmacists provided customized counselling and disease education to patients and caregivers. Patient satisfaction with the service was evaluated through the completion of a voluntary participant satisfaction survey and follow-up phone calls from the pharmacist. In total, 161 patients with more than one warning sign for AD were screened. Of those, 73.8% (118) were female with a mean age of 65 years. The majority, 77.1% (124), of patients screened had a high school or college education and 91.8% (146) were living at home. Of the 112 patients that had no family history of AD, 58.9% (66) had risk factors for memory loss and 69.6% (46) of those were not being treated for memory loss. The most frequently reported warning signs for AD included trouble remembering names (52.8%), needing reminders to do things (48.4%) and misplacing car keys and other items (37.3%). Overall, 118 patients (73.2%) received an appropriate referral recommendation. Based on the three screening assessments, 71 patients required referral to a physician. Pharmacists referred 54 patients who showed cognitive deficiencies as well as 8 patients who did not, based on the pharmacists' professional judgement. Follow up research found that 69.7% (23) of patients who were appropriately referred by the pharmacist indicated that they planned

Early Detection of Alzheimer's Disease through Memory Screening Clinics in Community Pharmacies (cont.)

to go see the physician but only 21% (10) followed through within 60 days. A total of 72.2% (39) of patients who were referred completed the follow-up phone survey with 56.4% (22) saying they would pay out-of-pocket for these services. Of the patients screened, 46% (74) completed the voluntary participant satisfaction survey with respondents reporting they were very satisfied or satisfied with the program (98.4%) and with the information provided (97.2%). The majority of respondents (98.6%) indicated that the pharmacy should continue to offer a cognitive memory-screening program and

would recommend this program to family or friends.

Implications: In most cases, several physician assessments and tests are necessary for AD to be diagnosed.⁶ Pharmacists can help close the "patient identification gap" by performing memory screening assessments to patients with risks factors of AD. Patients who completed the satisfaction survey were very satisfied with the memory screening program and would recommend it to their friends or family. The majority of survey respondents also felt that the service should

continue to be provided showing good evidence that memory screening assessments performed in community pharmacies are well accepted among patients and result in beneficial outcomes. Almost 79% of patients referred in this study did not follow-up with the physician within 60 days, which indicates that a more effective physician communication strategy is needed. Since only 46% of patients participated in the satisfaction survey, the results of the survey might be biased to those who are more satisfied with the service.

Background and Methods: Participating pharmacists from each study were trained via a two-hour live webinar training program developed and delivered by the American Pharmacists Association (APhA). Patients were required to complete a consent form and health risk assessment (HRA) prior to obtaining a cognitive memory screening from the pharmacist. Assessment tools were cho-

sen based on their ability to provide meaningful results to patients and physicians, ease of implementation and small time commitment. If assessment scores demonstrated a cognitive deficiency in any of the three tests, patients could be referred to the physician. Patients who did not demonstrate deficiencies were not referred. Patient satisfaction surveys were measured on a five-point Likert

scale ranging from very satisfied to very dissatisfied. Follow-up phone calls were performed 45–90 days after the initial assessment to allow sufficient time for patients to follow-up with their physician. The pharmacist did not refer 19 (11.8%) of patients whose tests indicated a need for referral due to the interaction with the patients or their refusal of a referral.

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