

## Assessment of Community Pharmacists Willingness and Barriers of Medication Therapy Management (MTM) focused on Pain Management and Mental Health

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### Abstract

**Objectives:** To determine the willingness and barriers of community pharmacists to provide pain management and depression MTM services.

**Methods:** An anonymous, self-administered survey was distributed electronically to 350 licensed pharmacists in a supermarket pharmacy chain. The survey consisted of a 40 question, Likert-type scale, where strongly disagree was assigned a value of one and strongly agree a value of seven. Constructs measured included: MTM interest, comfort with MTM, confidence with appropriate medication use and adjustment, educational needs, training required, time constraints, and work-related factors. Demographic data was also collected.

**Results:** A total of 186 (53%) community pharmacists completed the survey. These pharmacists worked in an environment where MTM was currently being provided. Ninety percent of respondents averaged 0-5 MTM sessions per 4 week period. Pharmacists agreed that patients would benefit from MTM focused on pain (median 6 IR[5-7]) and/or depression (median 6 IR[5-7]) and agreed pharmacists can have positive interventions in these situations (pain: median 6 IR[5-7]; depression: median 6 IR[5-7]). Pharmacists surveyed were interested in continuing education and live presentation as preferred methods to improve knowledge of pain management and depression.

**Conclusion:** Pharmacists are interested in and believe patients would benefit from MTM specifically for pain management and depression. Barriers to MTM focused on pain and depression were pharmacist training and workflow issues with the MTM process.

### Introduction

With one in ten Americans now taking an antidepressant medication, there is greater need for pharmacist's interventions.<sup>1</sup> MTM is defined as a distinct service or group of services that optimize therapeutic outcomes for individual patients [that] are independent of, but can occur in conjunction with, the provision of drug product.<sup>2</sup> Currently, pharmacists provide MTM in a variety of settings such as physician offices and community pharmacies. These sessions can be both comprehensive as well as focused on a specific

condition. Regardless, pharmacists that provide these services need to feel confident and adequately trained on many different disease states and medications to provide true comprehensive medication management. It is important to note that other literature has assessed general MTM barriers, but little information is available on specific disease state service implementation aspects.

In addition to depression management becoming a key disease state for pharmacist interventions, pain management initiatives have left a key role for pharmacists. A pilot initiative is currently underway in the state of Ohio with the Bureau of Workers Compensation (BWC) and several pharmacies to provide MTM services focused on pain. If this pilot is successful and similar programs expand statewide or nationwide, it may be helpful for community pharmacists and

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practice leaders to understand the readiness of their pharmacists, as well as how to best train their pharmacists who need additional support. In regards to depression, compliance is key for success and pharmacists can play a crucial role in counseling patients on treatment expectations and importance of therapy.<sup>3</sup>

Few studies have assessed the pharmacists' role in MTM specifically involving pain management and depression. The objective of this study is to determine the willingness and barriers of community pharmacists to provide pain and depression MTM services.

#### Methods

This particular supermarket pharmacy chain consists of 121 stores across central, northwest, and southeast Ohio and 350 licensed pharmacists who currently provide MTM through platforms such as Outcomes®, Mirixa®, and the pharmacy's own clinical platform. Outcomes® and Mirixa® are two of several platforms in existence but are ones that are most familiar to the surveyed pharmacists. Both of these platforms allow for billing and the management of electronic health records.

An anonymous, self-administered, electronic survey containing 60 questions was distributed to all 350 licensed pharmacists in a supermarket pharmacy chain who received basic MTM training. To distribute the survey, each pharmacist received an email containing the link to the survey using the Qualtrics® system. Respondents were asked to complete the survey within two weeks of the survey announcement. A reminder email containing the survey link was distributed three times – at one week before the survey closed, at one day before close, and one to extend the deadline for 3 days (over a weekend) to increase the survey response rate. As the purpose of the survey was to assess existing willingness and barriers to providing pain and depression MTM services, a control group was not selected, and no additional intervention took place.

Survey respondents were asked to rate each statement using a Likert-type scale, where strongly disagree was assigned a value of one, moderately disagree a value of two, slightly disagree a value of three, neither disagree or agree a value of four, slightly agree a value of five, moderately agree a value of six, and strongly agree a value of seven (Table 2). Related literature on MTM barriers was reviewed during survey development.<sup>4,5</sup> Thirteen questions were asked regarding MTM interest and comfort with MTM, seven questions were asked regarding confidence with appropriate medication use and adjustment, six questions were asked regarding educational needs and training requirements, and eight

questions focused on time constraints and work-related factors. At the end of the survey, five questions collected demographic information such as age, gender, years in practice, degree obtained, prescription volume, and average number of MTMs per period. The remainder of the questions were geared towards workflow and job setting issues. To assess survey validity, 10 pharmacists, from a super market pharmacy chain and/or Ohio Northern University, piloted the survey, and changes were made prior to survey release. To analyze survey data, SPSS version 15.0 (SPSS, Chicago) was used. Descriptive statistics and Kruskal-Wallis were used. Alpha was set a-priori at  $p=0.05$ . The Ohio Northern University institutional review board approved this survey.

#### Results

The survey was emailed to all 350 pharmacists of a supermarket pharmacy chain and 186 pharmacists completed the survey (53.1% response rate). Table 1 lists demographic data for survey participants. Pharmacists slightly to moderately agreed that they were interested in providing MTM specifically for pain (median 5 IR[4-6]) and depression (median 6 IR[4-6]). Respondents moderately agreed their patients would benefit from MTM focused on pain (median 6 IR[5-7]) and depression (median 6 IR[5-7]) as well as believed a pharmacist can have positive interventions in pain (median 6 IR[5-7]) and depression (median 6 IR[5-7]). Those surveyed were neutral to slightly agree regarding their knowledge in using patient assessment tools for pain (i.e., numerical ranking, FACES pain rating scale, etc.) (median 5 IR[3-6]) and for depression (i.e., PHQ-9) (median 4 IR[3-5]). In regards to patients diagnosed with depression who also suffer from co-morbid anxiety, pharmacists slightly agreed on whether they felt confident counseling those patients (median 5 IR[3-6]). Pharmacists slightly agreed in regards to confidence counseling patients on the metabolic side effects of medications used in mental health conditions (median 5 IR[4-6]).

Pharmacists surveyed were more confident to provide MTM for diabetes (median 6 IR[6-7]) compared to pain (median 5 IR[4-6]) and depression (median 5 IR[4-6]) management. Respondents indicated that they were more adequately trained to provide MTM focused on diabetes (median 6 IR[5-7]) compared to pain (median 5 IR[3-6]) and depression (median 5 IR[3-6]).

Respondents moderately agreed that their job satisfaction would increase if they conducted more MTM sessions (median 6 IR[4-6]). When asked "with all of my other responsibilities, MTM is too much extra work for me," pharmacists slightly agreed (median 5 IR[3-6]). Respondents were undecided when asked if they feel their current MTM

load is too much (median 4 IR[3-5]). Pharmacists also remained undecided when asked if physicians in their area were open to pharmacists providing MTM services (median 4 IR[3-5]). Pharmacists slightly agreed when asked if they were comfortable recruiting patients for MTM by calling patients from a list ("cold calling") (median 5 IR[3-6]) as well as if they felt they were effective (median 5 IR[3-6]).

Pharmacists slightly disagreed with the statement they were able to provide MTM because Kroger provided adequate technician help (median 3 IR[2-5]) and moderately disagreed that technicians assisted with MTM (i.e., set up appointments, submitting claims, etc.) (median 2 IR[1-3]). Respondents also slightly disagreed that they were able to provide MTM because Kroger provided sufficient pharmacist overlap (median 3 IR[2-5]). Pharmacists that completed the survey also were undecided when asked if they were willing to provide MTM because Kroger provided incentives (median 4 IR[4-6]) and slightly agreed that they enjoyed providing MTM through Kroger's existing model (i.e., Mirixa®, Outcomes®) (median 5 IR[4-6]).

Pharmacists strongly agreed they would benefit from additional training regarding pain (median 7 IR[6-7]) and depression (median 7 IR[6-7]) management MTM. In regards to additional training, respondents were given a list of the following items and asked to rank the forms of additional training based on what they most prefer: Continuing Education (CE), Review Article, Live Presentation, Web Presentation, and Kroger Television (KTV, an internal television network used for training and associate communications). Continuing Education (CE) was ranked as most preferred form of additional training followed by live presentation, web presentation, review article, and KTV. When asked to rank the given disease states in order of their comfort level, pharmacists felt most comfortable with hypertension (37.6% of respondents ranking as most preferred) followed by diabetes, dyslipidemia, pain, and depression.

Additionally, statistically significant differences were observed when respondents with a BSP Pharm degree were compared to those with a PharmD degree. Compared to pharmacists with a BSP Pharm degree, pharmacists with a PharmD degree responded more positively to several statements (Table 2).

#### Discussion

In 2009, a similar study was performed assessing pharmacists' perceptions regarding implementation of medication therapy management reported that pharmacists had a desire for additional disease state training.<sup>5</sup> Many pharmacists within

this supermarket pharmacy chain receive diabetes-specific coaching and training, which may be one reason for the level of comfort with diabetes-related issues. Interestingly, pharmacists did not report feeling strongly confident and/or adequately trained to provide MTM for pain management or depression, but did report feeling strongly confident and/or adequately trained to provide MTM for diabetes. Current literature indicates there is a link between diabetes and depression, thus impacting a diabetic's quality of life.<sup>6</sup> It may be important to identify these areas of weakness and continue to build upon them to strengthen the application of the MTM encounter. Also, the accessibility of community pharmacists puts them in a prime position for these types of interventions as most pharmacists are available after hours and on weekends.

Several differences were found between those pharmacists with a BSP Pharm degree compared to those with a PharmD degree. Interestingly pharmacists with a PharmD degree agreed more strongly with statements related to knowledge with patient assessment tools and adequate training to provide MTM for diabetes. Knowledge of differences in pharmacists based on their training may help employers and leaders to understand what additional training may be helpful to different populations of pharmacists.

Some pharmacists seemed concerned that the dispensing volume may impact the ability to offer MTM. Busier stores (those filling an average of >1500 per week) answered similarly to slower stores (those filling an average of <1500 per week). Although pharmacies with different dispensing volumes may have different challenges when incorporating MTM into the practice workflow, it does not appear that dispensing volume may be a major determinant as to the feasibility of incorporation of MTM.

The strengths of this survey are that the survey participants are involved with MTM at their current practice site, 83% of pharmacists in this supermarket pharmacy chain have conducted at least one MTM encounter in the past year. A potential limitation of this study is that only pharmacists in a certain area were included and this supermarket pharmacy chain may have more emphasis on MTM than other pharmacies. Pharmacists in other regions may have different experience or opinions towards pain and mental health MTM, and may have different scopes of practices based on state law that may be more or less supportive of MTM and direct patient care. The response rate of 53% is also a limitation of this study as it could be higher, but was still thought to provide useful information for follow-up and planning. Also, despite efforts to communicate that answers were confidential, some pharmacists may have felt concern about

possible repercussions of their responses, and may not have answered truthfully. A limitation regarding the survey design was that when asked about average number of MTM sessions the pharmacists completed per period, those who completed zero MTM were lumped in the same category as those who completed 1-5 MTM sessions. However, MTM is an expectation of all pharmacists in this corporate division and during the last calendar year, approximately 300 pharmacists participated in MTM. Thus, the authors felt it was reasonable to have a category devoted to minimal MTM experience.

As more and more pharmacies are looking to incorporate both general and targeted MTM into their workflow, it can be important for those in leadership to understand the major barriers (i.e., workflow and education), and may find it interesting to specifically note that pharmacists showed slight agreement with the statement that job satisfaction may improve if they conducted more MTM sessions. Along those same lines, those in leadership may find it valuable to know that on average, pharmacists moderately agreed that they would benefit from additional training regarding pain and depression management MTM, and that CE was the preferred route. This may empower pharmacist to reach out to their colleagues to develop strategies for reviewing disease states where pharmacists feel less comfortable.

### Conclusion

Pharmacists are interested in and believe patients would benefit from MTM specifically for pain management and depression. Barriers to MTM focused on pain and depression were pharmacist training and work flow issues with the MTM process. There are opportunities to overcome these barriers with continuing education and live presentations, and incorporating technicians into the work flow as technicians can play a key role in the MTM process. Further research on how best to prepare pharmacists for a wide variety of direct patient care opportunities should be conducted.

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Parameter		Number (%)
Sex	M	77 (41)
	F	109 (59)
Education*	BSP Pharm	113 (61)
	PharmD	79 (42)
	Residency	6 (3)
Age	20-29	42 (23)
	30-39	68 (37)
	40-49	43 (23)
	50-59	21 (11)
	Older than 60	12 (6)
Average weekly prescription volume	<1500	55 (30)
Strongly Disagree 1	>1500	131 (70)
*Participants were asked to select all that apply		

Scale:							
Strongly Disagree 1	Moderately Disagree 2	Slightly Disagree 3	Neither Disagree or Agree 4	Slightly Agree 5	Moderately Agree 6	Strongly Agree 7	
					PharmD (median)	BSP Pharm (median)	Kruskal-Wallis p-value
I am knowledgeable using patient assessment tools for pain					5	4	.005
I am knowledgeable using patient assessment tools for depression					5	3	.009
I am adequately trained to provide MTM for diabetes					7	5	.000
My job satisfaction will increase if I conduct more MTM sessions					6	5	.023
I enjoy providing MTM through Kroger's existing model (i.e., Mirixa, Outcomes)					6	5	.021
<i>All of the following listed items were found to be statistically significant (p &lt; 0.05)</i>							