Perceived Barriers to Provision of Medication Therapy Management Services (MTMS) and the Likelihood of a Pharmacist to Work in a Pharmacy that Provides MTMS

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BACKGROUND: Recently, medication therapy management services (MTMS) has gained significant attention as an important type of pharmaceutical care designed to improve patient outcomes with more appropriate medication usage and monitoring. Although the provision of MTMS is increasing in pharmacies across the nation, and pharmacists are well equipped to administer MTMS, many community pharmacists are not currently providing these services.

OBJECTIVE: To determine barriers to provision of MTMS perceived by pharmacists and factors associated with the likelihood of working in a pharmacy that provides MTMS.

METHODS: Surveys were mailed to 906 community pharmacists licensed in West Virginia using a stratified random sample. The instrument was constructed and finalized following a review by experts and pilot tested in a convenience sample of pharmacists. Principal components analysis was performed to determine the factors that describe perceived barriers to provision of MTMS. Discriminant analysis using factor scores and other demographic and practice variables was performed to predict respondents' likelihood to work in a pharmacy that provides MTMS.

RESULTS: A 3-factor model was extracted from the responses, which explained 53.3% of the total variance. The factors included perceived ability to respond to patient interest, pharmacy-related factors, and enabling factors. The discriminant function correctly classified 76.2% of cases and included comfort level with provision of services, perceived value of services to patients, perceived ability to respond to patient interest, and whether they currently offer MTMS. These variables were all positively correlated with pharmacists' likelihood of working in a pharmacy that provides MTMS.

CONCLUSIONS: Comfort level and ability are important factors that influence pharmacists' likelihood of working in a pharmacy that provides MTMS. These findings highlight the importance of advanced practice experiences, certificate programs, and residencies to build pharmacists' confidence, and the role of targeted recruitment to attract pharmacists to community pharmacies that provide MTMS.

KEY WORDS: barriers to provision of services, community pharmacists, medication therapy management services.

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Increased demand for pharmacists since the late 1990s, along with a shortage of available pharmacists, has resulted in increased workloads.[1] Not only are there greater demands on pharmacists, but pharmaceutical care services have become more important in the last decade due to a number of factors.[2] Increased prescription drug usage and polypharmacy have become greater concerns, especially with the aging population. In addition, quality and safety concerns have come to the forefront of health system initiatives in the past several years.[3] These trends have contributed to an increased need for closer monitoring of drug usage and patient-centered pharmacist-provided care. This heightened need for more patient-centered services, along with the increased demand for pharmacists, has encouraged employers to consider targeted recruitment and development of specialized services in community pharmacies.

Historically, several barriers to provision of pharmaceutical care services have been perceived by pharmacists. Barriers associated with facilities include store layout, lack of privacy,[4] and overall lack of space.[5,6] Excessive workload,[4,7] lack of time,[5,6,8-10] and lack of personnel[5,6,8,10] have also been commonly cited

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as barriers to provision of cognitive services. Lastly, lack of financial compensation[5-7,10] and legal liability[6] are perceived to inhibit provision of such services.

Recently, medication therapy management services (MTMS) has gained a significant amount of attention as an important type of pharmaceutical care designed to improve patient outcomes with more appropriate medication usage and monitoring.[11] Although the provision of MTMS is increasing in pharmacies across the nation and pharmacists are well equipped to administer MTMS, many community pharmacists are not currently providing these services. Studies have looked at barriers to provision of MTMS, but few have identified factors associated with the likelihood that a pharmacist will seek employment in a pharmacy that provides these services. Identification of factors that influence the likelihood of a pharmacist to work in a pharmacy that provides MTMS would allow for the promotion of such services in community pharmacies. The costs of pharmacist turnover could be high if employers do not acknowledge these factors.

The objective of the study was to determine barriers to provision of MTMS perceived by pharmacists and how these and other factors are associated with the likelihood of working in a pharmacy that provides MTMS.

Methods

STUDY DESIGN

The study population consisted of pharmacists registered in West Virginia and data were obtained using self-administered mail surveys. Survey instruments were mailed to 906 pharmacists using a stratified random sample. Pharmacists were selected from a 2006 list provided by the state board of pharmacy, organized by zip code, in order to draw a sample that was geographically representative of all pharmacists registered and residing in West Virginia. Because the study focus was on community pharmacists, only responses from pharmacists in ambulatory care settings (chain pharmacies, independent pharmacies, primary care clinics, mass merchandise/grocery, hospital outpatient, or home health sites) were included in the analysis. Responses from hospital inpatient and long-term-care facilities, as well as those with practice site unspecified, were excluded.

A cover letter explaining the purpose and importance of the study accompanied the survey instrument. Two mailings of the instrument were sent 3 weeks apart, with a postcard reminder 1 week following the first mailing. The survey instrument was constructed and finalized following a review by faculty experts and practitioners who are longstanding providers of MTMS and after pilot testing in a convenience sample of community pharmacists. Feedback was provided on content validity, ease of understanding, and responder burden. Approval for the study was obtained from the university's institutional review board.

STUDY VARIABLES

The survey instrument was based on 2 previous surveys regarding barriers to provision of cognitive pharmacy services[9] and pharmacists' educational needs.[12] It consists of 5 sections: pharmacist comfort level in provision of cognitive services (11 items) and perceived value of services to patients (11 items); perceived facilitators and barriers to provision of services (11 items); potential utilization of development resources (25 items); current involvement in MTMS (3 items); and demographic information (19 items). Responses in the first section were measured using a 7-point Likert-type scale, with 1 being "least comfortable/valuable" and 7 being "most comfortable/valuable." Responses for barriers and facilitators to provision of services were measured on a 7-point Likert-type scale, with 1 being "strongly disagree" and 7 being "strongly agree," and were reverse-scored so that low scores represented barriers and high scores represented facilitators. A question was included in the second section pertaining to the likelihood of the respondent working in a pharmacy that provides MTMS, given the choice between one that does and one that does not provide these services. Responses to this question, as well as those in the third section, were measured using a 4-point Likert-type scale, with 1 being "not likely" and 4 being "very likely." Questions in the fourth and fifth sections dealt with current involvement in MTMS and demographics, and were either open-ended or categorical, with the exception of 6 items related to preferred educational training formats, which were based on a 5-point Likert-type scale, from "dislike very much" to "like very much." Demographic information requested included sex, years in practice, job title, practice site, job status, pharmacy staffing levels, and payer mix.

DATA ANALYSIS

Data were analyzed using SPSS for Windows version 15 (SPSS, Chicago, IL). Descriptive statistics, including frequencies, measures of central tendency, and standard deviation, were calculated. In addition, an exploratory factor analysis was performed for purposes of data reduction and to identify the underlying dimensions that explain barriers to provision of services. To determine the factor structure, principal components analysis with varimax rotation was performed on the 11 items pertaining to the perceived barriers and facilitators to provision of MTMS (Table 1). Principal components analysis is a commonly used statistical method in which linear composites of variables are formed and then used to describe relations among the observed variables.[13] The goal is to extract the maximum amount of variance with each factor. Analyses were performed with pairwise deletion for missing values.

Composite scores for perceived value of services to patients and pharmacist's comfort level in provision of ser-

vices were created by summing the 11 responses related to perceived value and 11 items related to level of comfort, respectively. These composites, along with factor scores from the factor analysis and other demographic and practice variables, were entered into a stepwise discriminant analysis to predict whether or not each respondent was likely to work in a pharmacy that provides MTMS (Table 2). Discriminant analysis allows the researcher to determine which attributes best predict membership in a particular group.[14] A forward stepwise procedure was used, with a probability of F to enter of 0.15 and a probability of F to remove of 0.3. A classification table was produced, using equal prior probabilities for each group. Cross-validation was performed using leave-one-out analysis. Means were imputed for missing values in the cross-validation.

NONRESPONSE BIAS INVESTIGATION

Information could not be obtained from nonresponders to the questionnaire. In lieu of this, an analysis was performed in a sample of early responders (those who responded <7 days after initial mailing) versus late responders (those who responded >32 days after initial mailing) in order to assess potential nonresponse bias (late responders are considered much like nonresponders).[15] Five critical variables were used, including number of years in practice, sex, practice site, a comfort level composite score, and a barriers/facilitators composite score, created by summing each respondent's scores for all questions related to barriers and facilitators. Results for early and late responders were compared using Student's *t*-test for continuous variables and Pearson's χ^2 analysis for categorical variables.

Table 1. Perceived Barriers and Facilitators to Provision of Services

Barriers/Facilitators	Mean ± SD[a]
Lack of time	3.08 ± 1.878
Physician attitudes	4.23 ± 1.472
Lack of reimbursement	4.34 ± 1.924
Legal liability	4.56 ± 1.679
Lack of patient counseling area	4.57 ± 2.058
Adequate support staff	4.58 ± 1.973
Lack of confidence	4.98 ± 1.686
Employer	5.10 ± 1.650
Lack of customer loyalty	5.23 ± 1.696
Educational background	5.24 ± 1.498
Patients' willingness to participate	5.69 ± 1.179

[a]Responses for barriers and facilitators to provision of services were measured on a 7-point Likert-type scale, with 1 being "strongly disagree" and 7 being "strongly agree" and were reverse-scored to ensure uniformity of direction, so that low scores represented barriers and high scores represented facilitators.

Results

Of the 906 mailed survey instruments, 877 were deliverable. Two hundred seventy-six (31.5%) participants responded to the survey; of those, 256 (29.2%) responses were usable. Unusable responses included those left blank due to death, retirement, or career change of the addressee. One hundred seventy-four responses were received from community pharmacists and were therefore included in the analysis. The remaining 82 respondents indicated that they worked in an institutional setting, and were therefore excluded. One hundred fifty-two (87.4%) of the 174 included respondents practiced in chain pharmacies or independent pharmacies. The remaining 22 respondents practiced in primary care clinics, mass merchandise/grocery, hospital outpatient, or home health sites. Only thirty-one (17.8%) pharmacists reported that MTMS are currently being provided in their pharmacy (Figure 1). Some respondents reported more than one service. The most commonly reported services were covered by the Public Employee Insurance Agency (a state health insurance program for government employees), Community Care Rx, and Humana. Number of years in practice reported by respondents ranged from 1 to 53 years (mean ± SD 18.9 ± 12.4) and 18.9% of respondents indicated that their highest degree earned was a PharmD.

Table 1 demonstrates the 11 items related to perceived barriers and facilitators to provision of MTMS. Items were

Table 2. Discriminant Function Correlation Matrix and Standardized Canonical Discriminant Function Coefficients

Variable	Correlation[a]	Coefficient[b]
Comfort level composite	0.901	0.531
Perceived ability to respond to patient interest in MTMS	0.714	0.334
Value composite	0.666	0.274
Currently offer MTMS	0.302	0.335
Highest degree earned (BS vs other)	0.247	NA
Years in practice	–0.160	NA
Enabling factors	0.152	NA
Practice site (independent vs chain/mass merchandise/grocery vs other)	0.067	NA
Job status (part-time vs full-time)	0.049	NA
Sex	0.028	NA
Pharmacy-related factors	0.008	NA

MTMS = medication therapy management services; NA = not applicable.

[a]Correlations are between the predictor variable and the discriminant function.

[b]Standardized canonical discriminant function coefficients are analogous to standardized regression coefficients. The coefficient with the greatest value represents the predictor variable with the greatest influence on the dependent variable. The discriminant function included the first 4 variables.

rated on a scale from 1 to 7. Low scores represented barriers to provision of MTMS and high scores represented facilitators. Respondents indicated that patients' willingness to participate (5.69 ± 1.18) and pharmacists' educational background (5.24 ± 1.50) were the greatest facilitators. Respondents indicated that lack of time was the single greatest barrier (3.08 ± 1.88) and that physician attitudes were the next greatest barrier (4.23 ± 1.47). Six participants were identified as possible outliers, and factor extractions were performed without these outliers.

PRINCIPAL COMPONENTS ANALYSIS

Eigenvalues were examined to determine the number of factors. Eigenvalues represent an index of the portion of total variance explained by the factor.[16] A value of 1 means that the factor explains at least as much variance as a single variable. Using eigenvalues of greater than 1 as the extraction rule, a 3-factor solution emerged from the principal components analysis, which accounted for 53.3% of the total variance (Table 3) and included: perceived ability to respond to patient interest (confidence, educational background, patients' willingness, and legal liability); pharmacy-related factors (counseling area, time, customer loyalty, and reimbursement); and enabling factors (physician attitudes, employer, and adequate support staff). Employer was loaded onto both the pharmacy-related factor and the enabling factor. It was assigned to the factor that had the higher loading, which was the enabling factor. Cronbach's α was calculated for each factor to assess reliability. These values appear in Table 3. Using this model, communalities indicate that between 34.3% and 75.3% of the variance in any variable is accounted for by this solution.

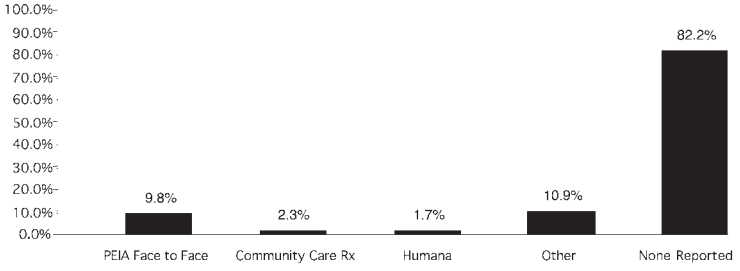

Figure 1. Medication therapy management services currently being provided by pharmacies in West Virginia. Some respondents reported more than one service. PEIA = Public Employees Insurance Agency.

Table 3. Principal Components Analysis Rotated Component Matrix—3-Factor Model[a]

Variable	Component Factor Loadings[b] 1	2	3	Communalities[c]
Patients' willingness to participate	**0.610**	0.024	0.289	0.456
Educational background	**0.751**	–0.046	0.323	0.670
Lack of confidence	**0.818**	0.098	0.078	0.684
Legal liability	**0.494**	0.247	–0.263	0.374
Lack of customer loyalty	0.401	**0.538**	–0.141	0.471
Lack of time	0.065	**0.721**	–0.003	0.525
Lack of counseling area	–0.052	**0.773**	–0.041	0.603
Lack of reimbursement	0.423	**0.457**	–0.102	0.398
Adequate support staff	0.133	–0.037	**0.756**	0.591
Physician attitudes	0.052	–0.126	**0.569**	0.343
Employer	0.085	0.579	**0.641**	0.753
Cumulative variance explained	26.2%	42.0%	53.3%	
Cronbach's α	0.660	0.615	0.515	

[a]Bold-faced data represent highest factor loading.
[b]Factor loadings indicate the correlation between a variable and a factor. High factor loadings indicate that the variable can be interpreted as belonging to that factor, and variables that load on the same factor are considered to belong together.
[c]Communalities indicate the proportion of the variance in the variable that is accounted for by the 3 factors.

DISCRIMINANT ANALYSIS

Of the original 174 cases, 28 were dropped from the analysis due to missing data. Six cases were identified as outliers and were excluded, leaving 140 cases in the discriminant function analysis. Of those, 104 (74.3%) responded "likely" or "very likely" when asked, "If you had a choice to work at a pharmacy that provided MTMS or at a pharmacy that did not provide MTMS, how likely would you be to work in the pharmacy that provides MTMS?" The remaining 36 (25.7%) responded "unlikely" or "uncertain." One discriminant function was developed, since there were only 2 groups, with a Wilk's lambda of 0.696 ($p < 0.001$). Wilk's lambda is a multivariate test of significance ranging between 0 and 1 and represents the ratio of error variance to total variance. The squared canonical correlation for the model was 0.305, and the eigenvalue for the model was 0.437. The squared canonical correlation is the proportion of variability explained by differences between the 2 groups. The eigenvalue represents overlapping variance among variables.

The discriminant function developed for the sample included: comfort level in provision of services; perceived value of services to patients; perceived ability to respond to patient interest in MTMS; and whether they currently offer MTMS (0 = no, 1 = yes). The p value was < 0.001 for all 4 steps. These variables were all positively correlated with pharmacists' likelihood to work in a pharmacy that provides MTMS, as seen by the standardized canonical discriminant function coefficients listed in Table

2. Comfort level in provision of services to patients was the most important predictor of pharmacists' likelihood to work in a pharmacy that provides MTMS (r = 0.901), followed by current involvement in MTMS (r = 0.302), and then by ability to respond to patient interest (r = 0.714) (Table 2). Sex, years in practice, job status (full-time vs part-time), practice site, highest degree earned, and the factor scores for pharmacy-related factors and enabling factors were not significantly correlated with the likelihood of working in a pharmacy that provides MTMS. The discriminant function correctly classified 76.2% of the original cases and 73.8% of the cross-validated cases (Table 4). Morrison's proportional chance criterion was used to determine the proportion of the overall sample that is expected to be correctly classified by chance alone, and was found to be 56.8%.[17] The discriminant function improved prediction of group membership by 34.2% over chance alone.

NONRESPONSE BIAS INVESTIGATION

Early versus late responder analysis revealed no significant differences in participants who responded fewer than 7 days after the initial mailing compared to those who responded after more than 32 days for any of the 5 variables.

Discussion

Factor analysis revealed that barriers to provision of services are explained by the pharmacist's perceived ability to respond to patient interest in MTMS, factors associated with practice facilities, and enabling factors such as physician attitudes about MTMS, employer, and adequate support staff. These results were similar to those in a study of pharmacists' communications with patients about antimicrobial resistance.[18] The study showed that the 4 factors that influenced participation in a judicious antibiotic use campaign included: attitudes (normative role, preparation, comfort level); enablers (physician support, employer support, education); limits (lack of time, lack of materials, and uncertainty and unfamiliarity); and autonomy (control within the organization). A study assessing factors perceived as barriers to provision of smoking cessation–related activities using principal components analysis found the following dimensions: pharmacist interpersonal characteristics (comfort level, recognition of targeted patients); practice site considerations (private counseling area, time, employer support); patient characteristics (willingness, pharmacist-perceived patient benefit); and financial concerns (reimbursement).[19]

Discriminant analysis revealed that pharmacists who perceive a high value of services to patients are currently providing MTMS, have a high comfort level with provision of MTMS, and feel as though they have the ability to respond to patient interest in MTMS are more likely to join pharmacies that participate in MTMS, according to the discriminant function described in Table 2. A recurring theme among both the factor analysis and discriminant analysis results is the importance of pharmacist confidence and educational background in perceived facilitators to provision of MTMS and desired involvement in MTMS, as indicated by the significance of perceived ability to respond to patient interest (Factor 1 in Table 3). A study by Venkataraman et al. found that pharmacists' confidence was the greatest facilitator to provision of pharmaceutical care services.[9] This emphasizes the role and importance of advanced practice experiences, certificate programs, or residencies that focus on patient care to increase pharmacists' confidence in their own abilities to provide MTMS. Benefits of such exposure include more intensive training in provision of these services than can be gained from a classroom setting alone.[20] In addition, students who have been exposed to community pharmacy settings where such services are provided tend to have a greater level of comfort in becoming involved in MTMS after graduation, and, as our study has shown, would be more likely to work in a pharmacy that provides MTMS.

A survey of fourth-year pharmacy students regarding knowledge of, attitudes toward, and intention to provide MTMS found that almost all of the respondents felt that participation in MTMS was important in the advancement of pharmacy practice and would allow them to provide better care to their patients.[21] Seventy-three percent of respondents agreed or strongly agreed that they had the knowledge and skills necessary to provide MTMS. However, only 60% agreed or strongly agreed that they intended to provide such services, and only 54% agreed or strongly agreed that they intended to seek an employment position where they could provide MTMS. These results suggest that further research is needed to understand ways to build student confidence in providing these services.

Not surprisingly, the composite score for perceived value of services to patients was a significant predictor of whether a pharmacist is likely to work in a pharmacy that provides MTMS. It might be expected that a high perception of value would be associated with positive attitudes toward MTMS.

Table 4. Classification Table

Likelihood to Provide MTMS	Predicted Group Membership, n (%)		Total, n (%)
	No	Yes	
Original[a]			
Actual count			
no	32 (72.7)	12 (27.3)	44 (100.0)
yes	28 (22.6)	96 (77.4)	124 (100.0)
Cross-validated[b]			
Actual count			
no	30 (68.2)	14 (31.8)	44 (100.0)
yes	30 (24.2)	94 (75.8)	124 (100.0)

[a]76.2% of original grouped cases correctly classified.
[b]73.8% of cross-validated grouped cases correctly classified.

Positive attitudes toward pharmaceutical care services, in general, have been shown to be associated with both intent to provide services and propensity to remain with an employer who offers these services. A 2006 survey in Iowa demonstrated that pharmacists who felt they had more control in provision of services and a positive attitude toward MTMS had the strongest intent to provide services.[8] Practice setting and demographic variables were not significant predictors of intent to provide MTMS, similar to the results in our study. In contrast to our study, however, pharmacists' lack of skills and knowledge were not identified as significant barriers to implementation. A study published in 1995 demonstrated that a positive attitude toward pharmaceutical care and its effect on pharmacy practice was associated with a higher level of commitment to the employer.[22] This suggests that pharmacists' perceptions of the value of MTMS are significant predictors of likelihood to remain with their current employer.

The vast majority (73.8%) of respondents to our survey indicated that they were likely or very likely to work in a pharmacy that provides MTMS if given a choice between a pharmacy that provides these services and one that does not. This suggests a considerable interest in provision of these services from an employee standpoint. A 2006 survey of pharmacists showed that community pharmacists wanted to spend less time in medication dispensing and more time in patient consultation and drug use management.[23] These study results indicated that, at the time of the study, respondents spent 50% of their time in medication dispensing activities, 19% in consultation with patients and other healthcare providers, and 12% in drug use management. According to a survey of pharmacists published in 2007, 15% of respondents indicated that they were likely to leave their current place of employment in the next year.[24] Those who were likely to leave reported significant discrepancies between actual and desired time spent in drug use management activities versus drug dispensing activities. Results of another survey published in 2007 demonstrated that organizational identification (perception of belonging to the organization) mediates the effect of the practice of pharmaceutical care services on intention to search for another employer.[25] The authors concluded that provision of pharmaceutical care may strengthen organizational identification, and in turn, decrease employee turnover. These studies suggest that pharmacists who are given opportunities to provide pharmaceutical care services, such as MTMS, have a higher level of job satisfaction and are less likely to change jobs. Pharmacies that provide MTMS, therefore, become very attractive for potential pharmacist employees.

Our study has limitations inherent to survey research, including potential self-report bias. Social desirability may influence responses from pharmacists. Nonresponders may have elected not to participate due to their opinions on MTMS and barriers to provision of these services, although nonresponder analysis showed no significant difference between early versus late responders. Informative nonresponse may have biased the results. Missing data were excluded rather than imputed. In addition, these results may not be generalizable to other states or settings. Although this study demonstrates factors that describe barriers and facilitators to provision of MTMS and desire for involvement in MTMS, further research is needed to determine the most effective way to support pharmacist training issues in order to encourage the development and expansion of MTMS programs.

Pharmacists indicated that lack of time and physician attitudes were common barriers to provision of MTMS, while patients' willingness to participate and pharmacists' educational background were the greatest facilitators. Pharmacists who perceive a high value of services to patients, are currently providing MTMS, have a high comfort level with provision of MTMS, and feel as though they have the ability to respond to patient interest in MTMS are more likely to join pharmacies that want to participate in MTMS. These findings highlight the importance of advanced practice experiences, certificate programs, and residencies to build pharmacists' confidence, and the role of targeted recruitment to attract pharmacists to community pharmacies that provide MTMS.

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Barreras Percibidas para la Provisión de Servicios de Manejo de Terapia con Medicamentos (MTM) y la Probabilidad de que un Farmacéutico Trabaje en una Farmacia que Provee Servicios de MTM

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EXTRACTO

TRASFONDO: Recientemente, los servicios de Manejo de Terapia con Medicamentos (MTM) han ganado atención significativa como un tipo importante de cuidado farmacéutico diseñado para mejorar los resultados en el paciente mediante el uso más apropidado de los medicamentos y el seguimiento. Aunque la provisión de servicios de MTM está aumentando en las farmacias a lo largo de la nación y los farmacéuticos están bien capacitados para administrar los servicios de MTM, al presente muchos farmacéuticos de comunidad no están proveyendo estos servicios.

OBJETIVO: Determinar las barreras para la provisión de servicios de MTM percibidas por los farmacéuticos y los factores asociados con la probabilidad de trabajar en una farmacia que provee servicios de MTM.

MÉTODOS: Se envió por correo cuestionarios a farmacéuticos de comunidad (906) licenciados en Virginia Occidental utilizando una muestra aleatoria estratificada. El instrumento fue construido y finalizado siguiendo una revisión por expertos y un piloto puesto a prueba en una muestra de conveniencia de farmacéuticos. Para determinar los factores que describen las barreras percibidas para la provisión de servicios de MTM, se llevó a cabo un Análisis de Componentes Principales. Para precedir la probabilidad de los que respondieron de trabajar en una farmacia que provee servicios de MTM, se llevó a cabo un Análisis Discriminante usando puntuaciones de factores y otras variables demográficas y de la práctica.

RESULTADOS: De las respuestas, se extrajo un modelo de 3 factores que explica el 53.3% de la varianza total. Los factores incluyeron habilidad percibida para responder al interés del paciente, factores relacionados con la farmacia, y factores capacitantes. La función discriminante clasificó correctamente el 76.2% de los casos, e incluyó el nivel de comodidad con la provisión de servicios, valor percibido de los servicios a los pacientes, habilidad percibida para responder al interés del paciente, y si al presente ofrecen servicios de MTM. Estas variables fueron todas correlacionadas positivamente con la probabilidad de los farmacéuticos de trabajar en una farmacia que provee servicios de MTM.

CONCLUSIONES: El nivel de comodidad y la habilidad son factores importantes que influyen en la probabilidad de que los farmacéuticos trabajen en una farmacia que provee servicios de MTM. Estos hallazgos ilustran la importancia de las experiencias prácticas avanzadas, programas de certificado, y residencias para construir la confianza del farmacéutico, y el papel del reclutamiento dirigido a atraer farmacéuticos a farmacias de comunidad que proveen servicios de MTM.

Traducido por Ana E Vélez

Les Barrières Perçues pour Offrir un Programme de Gestion des Traitements Médicamenteux et la Probabilité qu'un Pharmacien Travaille dans une Pharmacie qui Offre ce Programme

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RÉSUMÉ

OBJECTIF: Déterminer les barrières perçues par les pharmaciens associées à la mise en place d'un programme de gestion des traitements médicamenteux (GTM) et les facteurs associés avec la probabilité de travailler dans une pharmacie qui offre un programme de GTM.

MÉTHODES: Des questionnaires ont été envoyés par la poste à 906 pharmaciens communautaires de la Virginie de l'Ouest en utilisant un échantillon aléatoire stratifié. Le questionnaire a été développé et finalisé suite à une évaluation par un groupe d'experts et a été testé dans un échantillon de pharmaciens. L'analyse en composantes principales a été effectuée pour déterminer les facteurs qui décrivent les barrières perçues dans la mise en place d'un programme de GTM. Une analyse discriminante a été également effectuée en utilisant les résultats factoriels et les autres variables démographiques et de pratiques pour déterminer quelle était la probabilité que les pharmaciens travaillent dans une pharmacie qui offre un programme de GTM.

RÉSULTATS: Un modèle à 3 facteurs a été tiré des réponses ce que expliquait 53.3% de l'écart total. Les facteurs évalués comprenaient la capacité perçue de répondre aux demandes des patients, les facteurs associés à la pharmacie et les facteurs facilitateurs. La fonction discriminante a correctement classifiée 76.2% des cas et incluait le niveau de confort de donner des services, la valeur perçue des services aux patients, la capacité perçue de répondre aux demandes des patients, et si les pharmaciens offraient un programme GTM. Ces variables étaient tous

positivement associées à la probabilité que les pharmaciens travaillent dans une pharmacie qui offrait un programme GTM.

CONCLUSIONS: Le niveau de confort et la capacité sont des facteurs important qui influencent la probabilité des pharmaciens à travailler dans des pharmacies qui offre un programme GTM. Ces résultats mettent en évidence les pratiques avancées, les programmes de certificat, et les résidences spécialisées pour augmenter le niveau de confiance des pharmaciens, et le rôle du recrutement pour attirer des pharmaciens en pratique communautaire qui offre un programme GTM.

Traduit par Louise Mallet