


Patient Satisfaction With Pharmacist-Led Chronic Disease State Management Programs

Journal of Pharmacy Practice
1-6
© The Author(s) 2015
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0897190014568672
jpp.sagepub.com


Tyler J. Schuessler, PharmD¹, Janelle F. Ruisinger, PharmD²,
Sarah E. Hare, PharmD¹, Emily S. Prohaska, PharmD, BCACP¹,
and Brittany L. Melton, PhD, PharmD²

Abstract

Purpose: To assess patient satisfaction, perception of self-management, and perception of disease state knowledge with pharmacist-led diabetes and cardiovascular disease state management (DSM) programs. **Methods:** A self-insured chain of grocery store pharmacies in the Kansas City metropolitan area administers pharmacist-led diabetes and cardiovascular DSM programs for eligible employees and dependents. A modified version of the Diabetes Disease State Management Questionnaire was used to assess patient satisfaction with the DSM programs. Demographic information was also collected. Survey items were based on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Patients were eligible to complete the survey if he or she had been in at least 1 DSM program for 6 months. Data were assessed using descriptive statistics and analysis of variance. **Results:** Across 20 pharmacies, 281 eligible participants were identified, and 46% (n = 128) completed a survey. Means for summed items relating to overall satisfaction (8 items), self-management (5 items), and knowledge (4 items) were 36.6/40 (standard deviation [SD] = 3.9), 20.9/25 (SD = 3.4), and 17.6/20 (SD = 2.1), respectively. Participant comments further indicated that the program and pharmacists are helpful and increase motivation and accountability. **Conclusions:** Positive patient responses to the program support use of pharmacist-led DSM programs.

Keywords

pharmacists, community pharmacy, disease management, patient satisfaction

Introduction

In the United States, chronic diseases including hypertension, hyperlipidemia, and diabetes continue to go undiagnosed and represent significant challenges with regard to economic cost, disability, and death.¹ In 2010, chronic diseases accounted for as many as 7 in 10 deaths, more than 69 000 deaths could be attributed to diabetes, and heart disease was the number one cause of death.² The direct and indirect costs for patients with diabetes were an estimated US\$254 billion in 2012, more than twice the cost for people without diabetes.³ The total medical expenses for patients with cardiovascular disease, including lost productivity, were estimated to be US\$443 billion in 2010 and are expected to approach US\$1 trillion by 2030.⁴

Pharmacists are well positioned to help patients control their chronic diseases by providing education on lifestyle changes, monitoring, and medication adherence.⁵⁻⁷ Prior studies have shown that pharmacist involvement in disease state management (DSM) improves clinical outcomes and reduces direct and indirect health care costs.⁵⁻⁷ For example, the Asheville Project was started to assist City of Asheville, North Carolina, employees with diabetes, asthma, hypertension, and

dyslipidemia; this program assessed the clinical and economic impact of pharmacist-provided education, medication reconciliation, and drug therapy recommendations.⁶ After 5 years, more than 50% of the enrolled patients in the Asheville Project had clinically significant improvements in their hemoglobin A1c (HgA1c), low-density lipoprotein, and high-density lipoprotein at each follow-up.⁶ This study also demonstrated a reduction in total mean direct medical costs of approximately US\$1200 to US\$1800 per patient per year compared to baseline.⁶ Indirect costs, measured through reduction in sick days and improved productivity, saved employers an estimated total of US\$18 000 per year.⁶ Further, the Diabetes Ten City Challenge, modeled after the Asheville Project, assessed

¹ Balls Food Stores—Hen House Market Pharmacy, Olathe, KS, USA

² Department of Pharmacy Practice, University of Kansas School of Pharmacy, Lawrence, KS, USA

Corresponding Author:

Tyler J. Schuessler, Walmart Pharmacy, 5475 N Meridian Ave, Wichita, KS 67204, USA.

Email: tyschu@gmail.com

clinical and economic outcomes of a pharmacist-led diabetes program for 573 patients with diabetes in 10 different geographic areas.⁷ At the conclusion of the project, HgA1c was statistically significantly reduced from 7.5% to 7.1%. Average total health care costs per patient per year were reduced by US\$1079.⁷

In addition to improved clinical outcomes and reduced costs, previous studies have demonstrated high patient satisfaction with pharmacist-implemented clinical services.⁸⁻¹⁵ These clinical services include medication therapy management, immunizations, counseling, education, and DSM, among others. Further, studies have evaluated new survey tools in order to improve assessment of satisfaction, which points to a rising interest in understanding patient satisfaction and motives.^{8,16} Despite growing interest, few studies have focused on patient satisfaction with pharmacist-led DSM programs. Although landmark studies like the Asheville Project and the Diabetes Ten City Challenge assessed and demonstrated high patient satisfaction with pharmacist-led DSM programs, humanistic outcomes were limited to secondary study objectives.^{9,10} Assessing and understanding factors associated with patient satisfaction may be important to the future long-term success of DSM programs as physicians and patients realize the benefit of pharmacist involvement.¹⁷ Therefore, the purpose of this study was to assess patient satisfaction, perception of self-management, and perception of disease state knowledge with pharmacist-led diabetes and cardiovascular DSM programs.

Study Methods

Service Description

The diabetes and cardiovascular DSM programs evaluated in this study are administered by Balls Food Stores, a self-insured company in the Kansas City metropolitan area that operates 28 grocery stores with 20 pharmacies. These pharmacist-led DSM programs are intended to improve the patient's disease state knowledge and self-management and to reduce health care costs, disability, and death associated with uncontrolled hypertension, hyperlipidemia, and diabetes. Eligible employees and their dependents (spouse and/or children) may participate in the DSM programs under the company's health insurance plan. Eligibility in the programs is determined by specific laboratory or biomarker thresholds (Table 1). Participation in the DSM programs is voluntary, but eligible employees or dependents are incentivized to participate through discounts on health insurance premiums, free generic cardiovascular and glucose-lowering agents, reduced copays on brand name glucose-lowering agents, and free or reduced copays on diabetes testing supplies.

When an employee or dependent enrolls in one of the programs, the patient is teamed with 1 of the 7 clinical pharmacists to improve cardiovascular and/or diabetes outcomes through collaborative drug therapy optimization and education. The pharmacist also collaborates with the patient's provider to

Table 1. Biometric Criteria Used to Determine Disease State Management Program Eligibility.

Disease state	Demographic or biometric marker	Screening or laboratory test result
Hypertension	Blood pressure	SBP >140, DBP >90
Dyslipidemia	LDL	>160 mg/dL
	Triglycerides	>300 mg/dL
	Total cholesterol	>250 mg/dL
Diabetes	Medical claims data	

Abbreviations: SBP, systolic blood pressure; DBP, diastolic blood pressure; LDL, low-density lipoprotein.

optimize the drug regimen. Program participants are required to meet with their assigned clinical pharmacist for a 30-minute visit every month for the first 3 months, then every 2 months thereafter. During each visit, the pharmacist conducts a medication reconciliation, provides pertinent education, sets goals for future visits, obtains vital signs, and discusses drug therapy changes or additions with the patient. Once the patient's disease states are controlled and they have demonstrated adequate disease state knowledge, visits are scheduled every 3 to 6 months.

Inclusion/Exclusion Criteria

This study was exempted by the University of Kansas Medical Center Human Subjects Committee. Patients were eligible to participate if they were aged 18 or older, were an employee or dependent utilizing Balls Food Stores health insurance, had participated in one of the DSM programs for 6 or more months, and had a DSM visit during the study period. Patients who spoke English as a second language participated at the pharmacists' discretion.

Questionnaire Design

The cross-sectional survey contained 17 modified statements across 3 domains from the Diabetes Disease State Management Questionnaire (DDSM-Q)¹⁶ using a 5-point Likert-type scale (1 = strongly disagree and 5 = strongly agree). Demographic information was collected for gender, age, diagnosed disease state, race, annual income level, and education level. At the end of the survey, participants were given the option to answer open-ended statements regarding what they did or did not like about the program.

Survey Administration

Survey administration and collection occurred between November 2013 and January 2014. A cover letter accompanied the survey, which explained the purpose and described the instructions for survey completion. Eligible participants were identified prior to survey administration using patient records originally gathered for the DSM programs at the time of enrollment. Clinical pharmacists administered surveys to

eligible program participants during the study period, and the administering pharmacist wrote each participant's length of enrollment on the survey at the time of distribution. The survey was anonymously completed at the end of the pharmacist visit, placed into a sealed envelope, returned to the clinical pharmacist, and collected by the primary investigator every 1 to 2 weeks during the study period to maintain anonymity.

Data Analysis

Descriptive statistics were used to evaluate participant demographics. Summative scales for the domains of overall patient satisfaction with the program (8 items), perception of self-management (5 items), and perception of disease state knowledge (4 items) were created for participants without missing responses. Each response was evaluated across categorical demographic variables using analysis of variance and against enrollment length using linear regression with an a priori significance of .05. Negative statements were reverse coded for analysis. Data were analyzed using SPSS v.20.0 (Chicago, Illinois). Patient's comments from the open-ended items were evaluated for emerging themes through enumeration.

Results

Two hundred and eighty-one eligible participants were identified across 20 pharmacies, and 46% ($n = 128$) completed a survey. Participant demographics are summarized in Table 2. Of the 128 study participants, the majority were men aged 50 to 59 years who had at least a high school diploma and earned less than US\$40 000 per year. Mean length of time enrolled in the DSM programs was roughly 28 months (standard deviation [SD] ± 11.7 months). Twenty-eight (22.9%) participants self-reported having all 3 DSM program conditions (diabetes, hypertension, and hyperlipidemia), and another third of participants had 2 of the 3 conditions.

Summative scales for overall participant satisfaction, perception of self-management, and disease state knowledge showed participants were satisfied and felt involved and knowledgeable about their conditions, with mean scores of 36.6/40 (SD = 3.9), 20.9/25 (SD = 3.4), and 17.6/20 (SD = 2.1), respectively. Individual items also indicated they were satisfied, self-motivated, and were comfortable with their level of disease state knowledge, with means for each item above 4, indicating participants agreed or strongly agreed with each statement (Table 3). Overall participant satisfaction, perception of self-management, or perception of disease state knowledge was not found to be statistically significantly associated with age, race, income, education level, or length of enrollment in the program.

Forty-two (32.8%) participants responded to the open-ended statements on the survey. Three major themes emerged from these comments: satisfaction with the program, satisfaction with the pharmacist, and improved motivation and accountability (Table 4). Of those who provided written comments, 27 (64.3%) participants were thankful for the program

Table 2. Demographic Information of Study Participants.^a

Variable	n (%)
Gender	
Male	67 (52.3)
Female	58 (45.3)
Unspecified	3 (2.3)
Education	
Masters or higher level college degree	6 (4.7)
Undergraduate degree	7 (5.5)
Associate degree	11 (8.6)
Some college	31 (24.2)
High school graduate or GED equivalent	64 (50)
Some high school	5 (3.9)
Unspecified	4 (3.1)
Personal annual level of income	
>US\$100 000	6 (4.7)
US\$80 000-US\$99 999	4 (3.1)
US \$60 000-US\$79 999	8 (6.3)
US \$40 000-US\$59 999	16 (12.5)
US\$20 000-US\$39 999	50 (39.1)
<US\$20 000	33 (25.8)
Unspecified	11 (8.6)
Age, years	
70+	4 (3.1)
60-69	36 (28.1)
50-59	61 (47.7)
40-49	19 (14.8)
30-39	5 (3.9)
18-29	1 (0.8)
Unspecified	2 (1.6)
Disease states	
Diabetes, hyperlipidemia, and hypertension	28 (21.9)
Hyperlipidemia and hypertension	24 (18.8)
Hyperlipidemia only	19 (14.8)
Diabetes only	18 (14.1)
Hypertension only	17 (13.3)
Diabetes and hypertension	9 (7)
Diabetes and hyperlipidemia	7 (5.5)
Unspecified	6 (4.7)
Enrollment length, mean (range), month	27.6 (7-43)

Abbreviation: GED, General Education Development.

^aNumber of subjects (n) = 128.

or were satisfied with their pharmacist. One participant explained, "I have appreciated this program very much. It helps to be and stay accountable to keep up with my health and make the best decisions possible." Some participants also commented on a specific intervention made by their pharmacist. Another participant stated, "I was taking a higher dosage medication for cholesterol. It was changed under the FDA. I was unaware, but my pharmacist brought it front and center. I want to bring it up by saying thank you." Eleven (26.2%) participants also indicated that the program motivated them to improve their health or nutrition.

Discussion

The primary purpose of this cross-sectional study was to assess patient satisfaction with diabetes and cardiovascular DSM

Table 3. Mean Likert-Type Scores Reported in Survey Responses by Study Participants.

Statement	Mean (std deviation)
Service	36.59 (3.92)
I am satisfied with being able to reach my current pharmacist when needed.	4.58 (0.63)
I appreciate receiving the service from my current pharmacist.	4.66 (0.55)
I am pleased with the service I receive.	4.65 (0.56)
The appointment site is too hard to get to.	1.77 (1.09) ^a
I am satisfied that my current pharmacist is helpful during the service.	4.69 (0.56)
I am thankful for the time my current pharmacist gives up to provide the service.	4.65 (0.63)
I am satisfied with the convenience of the location during the service.	4.47 (0.82)
My current pharmacist is unfriendly and unsupportive during the service.	1.26 (0.76) ^a
Self-management	20.91 (3.43)
The service motivates me to stay in control of my disease state(s).	4.29 (0.79)
I am more compliant with my medications since participating in the service.	4.01 (1.00)
The service gives me confidence to deal with my disease state(s).	4.31 (0.75)
I feel a sense of accomplishment after achievement of my goals and participating in the service.	4.31 (0.76)
I have improved my lifestyle (diet and exercise habits) since participating in the service.	4.10 (0.87)
Knowledge	17.56 (2.14)
I am satisfied with my understanding of what I should eat to control my disease state(s).	4.35 (0.63)
I am satisfied with my understanding of the types and amounts of physical activity I can do to control my disease state(s).	4.34 (0.67)
I am satisfied with my understanding of how things (eg, stress, obesity) can change my blood sugar or blood pressure.	4.46 (0.62)
I do NOT know what types of exercise are beneficial to control my disease state(s).	1.58 (0.85) ^a

^aStatements were reverse coded for analysis.

Table 4. Qualitative Results—Emerging Themes.

Theme	n (%)
Theme 1: program is helpful	26 (50)
(1) Appreciative of or thankful for service	12 (23)
(2) Program is helpful overall	9 (17)
(3) Participants want the program to continue or expand	5 (10)
Theme 2: pharmacists	28 (54)
(1) Satisfied with the pharmacist overall	15 (29)
(2) Satisfied with the pharmacist's helpfulness	9 (17)
(3) Satisfied with the pharmacist's knowledge	4 (8)
Theme 3: motivation and accountability	11 (21)
(1) Motivated to improve health overall	7 (13)
(2) Motivated to improve nutrition	2 (4)
(3) Motivated to improve exercise	2 (4)

programs. Study participants were satisfied with regard to the overall program, perception of their disease state self-management, and disease state knowledge based on quantitative responses to the survey. This was further reflected in the themes that emerged from participant comments.

The results from this study support high patient satisfaction with pharmacist-provided services found in prior research.⁸⁻¹⁵ At the conclusion of the Diabetes Ten City Challenge, almost 98% of participants were either satisfied or very satisfied with their pharmacist-provided diabetes care.⁹ Additionally, Garrett and Martin reported the perceptions of patients with diabetes participating in the Asheville Project. A focus group of 21 patients was largely satisfied with a variety of program components including pharmacist support and encouragement, improved access to disease related information, and improved quality of life.¹⁰ Another example is PharmacistCARE, a

pharmacist-led ambulatory care clinic owned by the University of Kentucky, which enrolled patients in a diabetes program. These patients were provided education through regular pharmacist visits and incentives to enroll through coinsurance discounts on glucose testing strips, similar to the study program. At the end of 1 year, 73% of patients completed a satisfaction survey and reported increased satisfaction from baseline for overall care, quality of care, services offered, explanation of laboratory test results, questions answered, and provider courtesy.¹¹ These studies are of particular relevance since pharmacists conducted regular visits with patients in a similar manner to Balls Food Stores DSM programs.

Another study, which was conducted in a community pharmacy chain in Missouri, assessed patient satisfaction with an employee wellness program. Patients met regularly with community pharmacists for health coaching and monitoring. At the beginning of the program and throughout the duration of the study, patients reported a high level of satisfaction with the pharmacists and the services provided.¹² An additional study assessed patient satisfaction with 12 components of pharmacist-led disease state education in Veterans Affairs primary-care clinics and found that 75% of participants rated the service as excellent, which reinforces the satisfaction regarding pharmacist education observed in the present study.⁸ Further, a study utilizing the modified DDSM-Q assessed patient satisfaction of diabetes management administered by clinical pharmacy specialists in a patient-centered medical home within the Veterans Affairs system. In this study, patients reported high overall satisfaction among the 3 areas of service, knowledge, and disease self-management.¹³ Additional studies have assessed patient satisfaction with retail pharmacy services, including prescription

dispensing, pharmacist–patient relationships, pharmacy accessibility, and immunizations and found that most patients were highly satisfied with the pharmacy services evaluated.^{14,15} The satisfaction with self-management and disease state knowledge reported by our study participants is consistent with the results of previous research on pharmacist-led DSM programs.

Customer or participant satisfaction is an important component of a successful program or business venture. Studies in customer satisfaction abound in hospitality literature, and the findings may translate to health-care services such as pharmacist-led DSM programs. Cultural norms in the United States promote honest customer feedback regardless of whether the customer, or in this case participant, is satisfied or dissatisfied with the service rather than minimizing his or her emotions.¹⁸ Additionally, customers are more likely to provide unsolicited negative feedback to a business rather than positive feedback.¹⁹ However, there are certain groups that are less inclined to verbalize complaints. Those who are older, have a lower income, or are less educated, like the majority of the respondents in the present study, are less likely to provide unsolicited negative feedback^{20,21} and provide shorter responses to open-ended questions²² about a program or service. Although the study population is less likely to provide unsolicited complaints, feedback was actively sought rather than passively obtained. Fewer participants provided qualitative comments, which is consistent with the hospitality literature; however, the comments were positive, as were the responses to the closed-ended items, which runs counter to the evidence that negative comments are more likely. This would suggest that while the results of the present study are limited to the responses received, they do reflect an overall satisfaction with the program.

Assessing the needs and desires of patients is an important aspect of delivering quality patient care. Prior studies have demonstrated the clinical effectiveness of pharmacist-led DSM programs,^{6,7} but assessing patient satisfaction may further enhance DSM programs by identifying additional areas of improvement. Future research may focus on patients with limited English language skills to determine whether satisfaction reported by this patient group is similar to the current study and previously published research.^{23,24}

Limitations

Several study limitations were identified. First, participants agreed or strongly agreed with statements in all 3 domains. This led to a lack of variation, which contributed to nonstatistically significant differences between survey responses. Second, as demonstrated by demographic results, the participant population lacked diversity. This may have been due to the fact that this study was confined to a relatively small geographic area of the United States and was limited to a small sample size. Third, because patients who speak English as a second language were surveyed at the pharmacists' discretion, some eligible patients may not have completed surveys. Further, some patients did not have a visit during the study

period. Omission of these patient groups could have also affected the results since these patients may have felt that their particular needs were not being met. Finally, because this was a cross-sectional study and was conducted during a 3-month period, patients may feel differently if surveyed at another point in time.

Conclusion

Patients were satisfied with diabetes and cardiovascular pharmacist-led DSM programs. Results from this study could influence future consideration for starting or continuing pharmacist-led chronic DSM programs. Due to the satisfaction reported by program participants, other pharmacies may benefit by using these results to justify implementing, continuing, improving, or expanding existing pharmacist-led DSM programs.

Authors' Note

The investigators declare no financial interests or other interests which could be considered a conflict, including grants, employment, gifts, stock holdings, or honoraria.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Centers for Disease Control and Prevention. Chronic Diseases and Health Promotion; 2014. Web site. <http://www.cdc.gov/chronic-disease/overview/index.htm>. Accessed January 16, 2015.
- Murphy SL, Xu J, g KD. Death: final data for 2010. *Natl Vital Stat Rep*. 2013;61(4):1-118.
- Centers for Disease Control and Prevention. National diabetes statistics report: estimates of diabetes and its burden in the United States; 2014. Web site. <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>. Accessed January 16, 2015.
- Heidenreich PA, Trogon JG, Khavjou OA, et al. Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association. *Circulation*. 2011;123(8):933-944.
- Yu J, Shah BM, Ip EJ, et al. A Markov Model of the cost-effectiveness of pharmacist care for diabetes in prevention of cardiovascular diseases: evidence from Kaiser Permanente Northern California. *J Manag Care Pharm*. 2013;19(2):102-114.
- Cranor CW, Bunting BA, Christensen DB. The Asheville Project: long-term clinical and economic outcomes of a community pharmacy diabetes care program. *J Am Pharm Assoc*. 2003;43(2):173-184.

7. Fera T, Bluml BM, Ellis WM. Diabetes ten city challenge: final economic and clinical results. *J Am Pharm Assoc.* 2009;49(3): e52-e60.
8. Knight DE, Caudill JA. Implementation of a patient perception survey in a pharmacist-managed primary care clinic and analysis with a unique HFMEA method. *J Am Pharm Assoc.* 2010;50(1): 78-83.
9. Fera T, Bluml BM, Ellis WM, et al. The diabetes ten city challenge: interim clinical and humanistic outcomes of a multisite community pharmacy diabetes care program. *J Am Pharm Assoc.* 2008;48(2):181-190.
10. Garrett DG, Martin LA. The Asheville Project: participants' perceptions of factors contributing to the success of a patient self-management diabetes program. *J Am Pharm Assoc.* 2003;43(2): 185-190.
11. Johnson CL, Nichols A, Divine H, Perrier DG, Blumenschein K, Steinke DT. Outcomes from DiabetesCARE: a pharmacist-provided diabetes management service. *J Am Pharm Assoc.* 2008;48(6):722-730.
12. DiDonato KL, May JR, Lindsey CC. Impact of wellness coaching and monitoring services provided in a community pharmacy. *J Am Pharm Assoc.* 2013;53(1):14-21.
13. McFarland MS, Wallace JP, Parra J, Baker J. Evaluation of patient satisfaction with diabetes management provided by clinical pharmacists in the patient-centered medical home. *Patient.* 2014;7(1)115-121.
14. Malewski DF, Ream A, Gaither CA. Patient satisfaction with community pharmacy: comparing urban and suburban chain-pharmacy populations. *Res Social Adm Pharm.* 2015;11(1):121-128.
15. Patterson BJ, Doucette WR, Urmie JM, et al. Exploring relationships among pharmacy service use, patronage motives, and patient satisfaction. *J Am Pharm Assoc.* 2013;53(4):382-389.
16. Krass I, Delaney C, Glaubitz S, et al. Measuring patient satisfaction with diabetes disease state management services in community pharmacy. *Res Social Adm Pharm.* 2009;5(1):31-39.
17. Shah M, Markel VA, Wilken L. Medication therapy management clinic: perception of healthcare professionals in a university medical center setting. *Pharm Pract (Granada).* 2013; 11(3):173-177.
18. Voss CA, Roth AV, Rosenzweig ED, et al. A tale of two countries' conservatism, service quality, and feedback on customer satisfaction. *JSR.* 2004;6:212-230.
19. Soderlund M. Customer satisfaction and its consequences on customer behaviour revisited: the impact of different levels of satisfaction on word-of-mouth, feedback to the supplier and loyalty. *Int J Serv Ind Manag.* 1998;9(2):169-188.
20. Jones DL, McCleary KW, Lepisto LR. Consumer complaint behavior manifestations for table service restaurants: identifying sociodemographic characteristics, personality, and behavioral factors. *J Hosp Tour Res.* 2002;26:105-123.
21. Singh J. Identifying consumer dissatisfaction response styles: an agenda for future research. *Eur J Marketing.* 1990;24(6): 55-72.
22. Denscombe M. The length of responses to open-ended questions: a comparison of online and paper questionnaires in terms of a mode effect. *Soc Sci Comput Rev.* 2008;26:359-368.
23. Kim-Romo DN, Barner JC, Brown CM, et al. Spanish-speaking patients' satisfaction with clinical pharmacists' communication skills and demonstration of cultural sensitivity. *J Am Pharm Assoc.* 2014;54(2):121-129.
24. Olenik NL, Gonzalvo JD, Snyder ME, et al. Perceptions of Spanish-speaking Clientele of patient care services in a community pharmacy. *Res Social Adm Pharm.* 2014;S1551-7411(14): 105-103.