INNOVATIONS in pharmacy

Volume 2 | Number 3 Article 49

2011

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Patient And phaRmacist Telephonic Encounters (PARTE) in an underserved rural population with asthma: methods and rationale

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Key words: patient-pharmacist communication, asthma, telepharmacy
Disclosure of Conflicts: The authors have no potential conflicts of interest to disclose.
Acknowledgements: We would like to thank Mary Jo Knobloch, Jennifer L. Grimm, Tonja L. Larson and Douglas D. Seubert for their contributions to this study.
Funding: This project was supported by grant 1UL1RR025011 from the Clinical & Translational Science Award (CTSA) program of the National Center for Research Resources, National Institutes of Health.

Abstract

Purpose: *Methods used to deliver and test a pharmacy-based asthma care telephonic service for an underserved, rural patient population are described.*

Summary: *In a randomized controlled trial (RCT), the Patient And phaRmacist Telephonic Encounters (PARTE) project is assessing the feasibility, acceptability, and preliminary impact of providing pharmacy-based asthma care service telephonically. The target audience is a low income patient population across a large geographic area served by a federally qualified community health center. Ninety-eight participants have been randomized to either standard care or the intervention group who received consultation and direct feedback from pharmacists via telephone regarding their asthma self-management and medication use. Pharmacists used a counseling framework that incorporates the Indian Health Services 3 Prime Questions and the RIM Technique (Recognition, Identification, and Management) for managing medication use problems. Pharmacists encouraged patients to be active partners in the decision-making process to identify and address the underlying cause of medication use problems. Uniquely, this trial collected process and summative data using qualitative and quantitative approaches. Pharmacists' training, the fidelity and quality of pharmacists' service delivery, and short term patient outcomes are being evaluated. This evaluation will improve our ability to address research challenges and intervention barriers, refine staff training, explore patient perspectives, and evaluate measures' power to provide preliminary patient outcome findings.*

Conclusion: *A mixed method evaluation of a structured pharmacist intervention has the potential to offer insights regarding staff training, service fidelity and short term outcomes using quantitative and qualitative data in an RCT. Results will provide evidence regarding the feasibility and quality of carrying out the study and service delivery from the multiple perspectives of participants, clinicians, and researchers.*

Introduction

Asthma is a prevalent and costly long-term condition that can be associated with diminished quality of life, morbidity and mortality.[1-11] Over 24 million American adults, or 8.2% of the US population, had a diagnosis of asthma in 2009.[12] In addition, individuals with family incomes below the federal poverty level have higher prevalence of asthma than those at or above the poverty level.[12] The prevalence of lifetime asthma is increasing at a similar rate among urban and rural populations in the US, but it is a particular problem for rural residents of some states.[13] The cost associated with caring for people with asthma in the US is approximately $20.7 billion, $5.6 billion of which is accounted for by prescription drugs.[1]

Optimal medication use, which is part of asthma patient self-management, is a vital strategy to improve asthma control.[14] Although appropriate use of prescription medications prevents exacerbations and improves patients' quality of life, many patients have difficulties adhering to regimens.[15,16] Common asthma medication use problems include under-utilization of controller medications, overuse of rescue medications and improper inhaler technique and are

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associated with inadequate asthma control, poor quality of life, and increased emergency and non-emergency health services utilization.[17,18] Patients' non-adherence to asthma medication regimens range from 30% to 80%.[17] Factors contributing to patients' non-adherence with asthma medication therapy can include regimen complexity, difficulty with self-monitoring, difficulty with the routes of drug delivery and mastery of needed skills, lack of patient education and understanding of techniques and goals, and an underestimated disease severity.[16]

Pharmacists are uniquely positioned in the health care system to efficiently intervene with and help patients overcome barriers to appropriate medication use.[19-21] Pharmacists can provide patient education and monitor medication use to prevent or solve drug therapy problems.[14,22-24] Pharmacist care services have successfully improved health outcomes and have been positively associated with patient satisfaction.[14,22,24] Pharmacy-based programs can improve asthma outcomes; however less data are available regarding their impact on rural populations in the US.[14,24,25]

Rural patients have problematic access to health care services including programs that could improve their medication use and asthma control, due to economic and supply disparities.[26,27] Data, although limited, also suggest that patients living in rural areas receive inferior care for their asthma.[26,28] Whereas studies support the use of pharmacy-based services to aid patients' asthma care, rural pharmacy practices face recruitment, retention, and workload pressures that may impact their ability to provide patient care services.[29] Rural patients need novel ways of asthma care delivery. Telemedicine (e.g., telephone, televideo) could provide instrumental opportunities.[30]

The provision of pharmacist care through the use of telecommunications and information technologies to patients at a distance (e.g., telepharmacy), has offered promise in improving patients' access to health care services.[31] International research has shown that it is feasible and cost-effective to conduct pharmacist-based patient care services using telemedicine.[32,33] In addition, Bynum et al found that patient education provided by pharmacists via interactive compressed video was an effective method for teaching and improving metered-dose inhaler technique in a rural, adolescent US population.[34] However, to the best of our knowledge, there are no published evaluations of pharmacist-based care for underserved, rural patients with asthma via telephonic interaction in the US.

Evaluating the feasibility and outcomes of telepharmacy services for low income, rural populations are particularly important for patients with limited access to care. If successful, the results have implications for transferability to other high need populations and medical conditions. In this paper, we discuss methodology used to pilot-test a pharmacy-based asthma care service for an underserved, rural patient population. Our intention is to offer a model that others can consider for future pilot pharmacy service delivery programs.

Study Design

The Patient And phaRmacist Telephonic Encounters (PARTE) project was designed to assess the feasibility, acceptability, and preliminary impact of providing pharmacy-based asthma care telephonically to an underserved, rural patient population using a randomized controlled design. Participants randomized to the intervention group receive consultation and direct feedback from pharmacists via telephone regarding their asthma self-management and medication use (as described below). Five clinic-based pharmacists perform the intervention. The intervention is incorporated into the usual practice and daily activities of the pharmacists. Participants randomized to the control group receive usual care, consisting of the receipt of written medication use instructions through the mail with a prescription. Pre- and post-intervention telephone surveys are conducted by an interviewer. Telephone interviews with study participants are conducted to explore facilitators and barriers associated with implementing the intervention. Five trained pharmacists are conducting the program. The study was approved by the Marshfield Clinic Institutional Review Board and the Health Sciences Institutional Review Board at the University of Wisconsin Madison.

Participants

The study involves patients who are served by Family Health Center of Marshfield, Inc. (FHC), a federally funded community health center that partners with Marshfield Clinic (MC) to provide services to low income patients. Marshfield Clinic is a multispecialty, non-profit, 501(c)(3) organization, employing over 775 physicians in 80 medical specialties and subspecialties providing care in over 50 locations throughout northern, central and western Wisconsin. FHC patients receive pharmacy services primarily through the in-house 340B pharmacy that provides mail-order services at no patient copayment or out of pocket costs. Currently, the FHC pharmacy provides care for approximately 1000 patients with asthma, dispensing an estimated 3000 asthma medications in 2009.

The FHC service area is 8228 square miles and is located within an eleven county region in north central Wisconsin. This predominantly rural area is comprised of 254

municipalities, 78% of which are populated by less than 1000 people. Within this service area, all individuals living at or below 200% of the federal poverty level who experience barriers to health and dental services are eligible to apply for FHC care. Eighty-six percent of the service area population resides in communities that have been designated by the federal government as medically underserved areas and/or a medical, dental, or mental health professional shortage area. The region is 97% White, with a small but growing Hispanic population.

Study participants were identified from electronic health records (medical and pharmacy). Patients are included if they are: English speaking; ≥ 19 years of age; have a confirmed asthma diagnosis; receive ≥ 1 asthma medications dispensed via mail-order from FHC pharmacy in the 6 month period ending January 31, 2009; and documented to have a medication possession ratio of less than 80% or over 120% for asthma controller medications. Patients are excluded from the study if they participate in an automatic refill program, have chronic obstructive pulmonary disease (COPD), or participate in any other asthma management programs.

Recruitment and Randomization

Because of the pilot nature of this study, our goal was to recruit 100 participants. Eligible study participants were mailed a letter on Marshfield Clinic Research Foundation letterhead to introduce them to the study. The mailings included additional information sheets describing the study and consent forms without signature requirements.

Approximately 4-5 days following this mailing, an experienced interviewer contacted prospective study participants to determine their willingness to enroll in the study and answered any questions they have about the study. The interviewer also screened prospective participants for remaining study exclusion criteria (i.e., participation in any medication auto-refill programs). If an individual was interested, the interviewer obtained oral consent and conducted a pre-intervention survey to assess asthma control, self-reported adherence, patient activation, and satisfaction with pharmacy services.

A rolling, 3-month study enrollment period was conducted. After participants were recruited and the pre-survey completed, their information was forwarded to a data coordinator. The data coordinator randomly assigned half of the participants to each group. We used a block randomization scheme, specifying the number of and randomly allocating participants to each group, to balance the group sizes and reduce bias and confounding.[35] Because this is a pilot study, participants were not stratified based on asthma severity or other medical conditions. The data coordinator then forwarded a list of intervention participants (along with contact information) to the study pharmacists for further contact. Thus, the interviewers and study pharmacists were blinded to the randomization of participants to the intervention and control groups.

Approximately 3 months after the final pharmacists' telephone contact, interviewers re-contacted all study participants and conducted a post-intervention telephone survey (outcome evaluation). The control group was contacted during this same time period. At the end of the post-intervention survey, 15 intervention group participants were randomly invited to participate in a follow-up interview (process evaluation). In addition, participants are reimbursed $75 for study participation: $50 at the beginning and $25 for study completion.

Control Group

The control group continued to receive their asthma medications and support from their FHC pharmacists as per the current standard of service. The current service provided to all FHC patients managing their asthma is as follows: 1) medication refills are mailed to the patient's home upon their request, 2) the FHC pharmacist provides additional education and pharmaceutical care services at the patient's request, 3) the FHC patients are given a toll-free number to call their pharmacist if they have questions; this information is provided in each mailed prescription and in quarterly newsletters, and 4) medication information (both FDA required and standard medication guides) for each prescription is provided with each dispensing. Other avenues of contact available to control group receiving usual care can include interactions when phoning in a prescription order, seeking clarification on written materials and when picking up an acute care medication at one of the other affiliated program pharmacies or another community pharmacy outside of the FHC program.

Intervention

The intervention group had three telephone contacts with study pharmacists spaced at approximately 4-week intervals during the first 13 weeks of their study enrollment. During the telephone contacts, study pharmacists used a scripted communication guide to assess patients' current use of and potential barriers with asthma medications. The communication guide focuses on three areas based on the Indian Health Services' (IHS) patient-counseling model: purpose of the prescribed medications, directions for using the medications, and monitoring for efficacy and side effects.[36] The RIM Technique for managing medication use

problems also was used to shape pharmacists' interactions with participants. The RIM Technique contains the following three steps: 1) Recognition – assess the presence of a medication use problem, 2) Identification – determine the root cause of the medication use problem, and 3) Management – develop a plan, with the patient as an active partner in the decision-making process, to address the underlying cause and resolution of the medication use problem.

Following a concordance perspective, pharmacists collaborated with participants to identify root cause(s) and implement solutions to resolve medication use problems.[37] The root cause(s) of medication use problems include knowledge (misconception regarding dose, directions, purpose, duration, technique), practical (cost, administration, side effects), and belief/efficacy (fear of long term effects, stigma, doubt benefit, low self-efficacy) barriers. Pharmacists implemented patient-centered solutions to address specific problems. For example, pharmacists provided patient education about the purpose of rescue and controller medications when a knowledge gap was identified pertaining to the need for two different types of inhalers. In addition, participants were sent tailored (according to participants' preferences and needs) educational materials via postal mail.[38-40]

Because the target population participates in a federally-funded prescription drug program, cost issues should rarely occur. However, participants' drug program eligibility can change during the study period. Therefore, pharmacists referred participants to the MC Patient Assistance Center when cost issues were identified. Pharmacists used motivational interviewing (MI) to address problems related to low efficacy or motivation. MI is a theory-based skillful clinical method and style of counseling and psychotherapy designed for assessing patients' source of motivation and assisting patients to commit to change.[41] MI has been found to help patients overcome motivational barriers and adhere to prescribed regimens.[42]

Inhaler technique is an important factor to address for management of asthma medication use. We developed a series of questions to assess participants' inhaler technique telephonically. Pharmacists used these questions to evaluate whether participants need additional education regarding inhaler technique. If problems with inhaler technique were identified, pharmacists provided verbal instruction on the telephone and also may have sent participants educational material via postal mail depending upon participants' desires.

Pharmacists have access to participants' health and medication records through an electronic medical records system. Pharmacists reviewed participants' records and/or contacted their primary health care provider if they deemed it clinically necessary to help the participant resolve identified problems. If severe asthma-related problems were identified, pharmacists referred participants to the appropriate health care provider which may include their primary care provider, specialty provider, or urgent care/emergency room services provider.

Pharmacists electronically documented each encounter with intervention group participants via a MicroSoft Access database. The database was constructed based upon the communication guide. The database contains check-boxed standardized options as well as open-field options to allow pharmacists to include free text notes regarding their encounters with intervention group participants. Pharmacists reviewed previous documentation before initiating subsequent contacts with the intervention group.

Pharmacist Training and Skill Assessment

Pharmacist training to provide the intervention was based upon self-efficacy theory.[43] Bandura (1986) defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391).[44] Bandura proposes that self-efficacy is an important function in human behavior because people's beliefs in their personal efficacy influence decisions about which actions to pursue (Bandura, 1986; Bandura, 1994).[44,45] Stronger beliefs in one's ability to perform a specific behavior lead to a greater likelihood of performing that specific behavior (Bandura, 1994).[45]

The behavior of interest in this study is the study pharmacist's use of the communication guide during consultations with intervention group participants. Thus, we sought to strengthen study pharmacists' self-efficacy regarding their ability to use the communication guide. The intervention training encompassed the observation of role models, mastery experiences, and direct feedback; these components are hypothesized to enhance self-efficacy beliefs.[43] The intervention training consisted of two 8-hour sessions.

In the first session, a patient-provider communication expert educated study pharmacists about the components of the communication guide: RIM technique, IHS patient-counseling model, concordance, and MI. The pharmacists also were shown mock encounters of a pharmacist using the communication guide during a patient consultation. Next, the pharmacists practiced using the communication guide during role-playing exercises. The patient-provider communication expert provided guidance and constructive

feedback regarding pharmacists' role-playing performances. During the second session, an established asthma educator and researcher provided an overview of asthma management. In order to ensure clinical consistency in intervention efforts, study pharmacists were evaluated and benchmarked through the National Asthma Educator Certification Board Exam.

Process and Outcome Evaluation

Both process and outcome evaluation are being conducted (Table 1). A part of our process evaluation is to examine the pharmacists' fidelity to the interaction protocol (communication guide). Study pharmacists are evaluated during the implementation of the intervention by a health communication specialist. The health communication specialist listens to the pharmacists during interactions with study participants. Using the standardized counseling framework as a guide, the specialist reviews and makes comments about the study pharmacists' adherence to the counseling protocol. After the interaction with the study participant, the specialist and study pharmacist review the evaluation and deviations from the framework are discussed. In addition, the study team conducts weekly meetings to discuss issues that arise during the intervention period. Interviews with a random subset of intervention group participants also are conducted. A research assistant uses a standardized interview guide to conduct confidential, one-on-one interviews (via telephone) to explore facilitators and barriers associated with the intervention. All interviews are audio-recorded. Finally, enrollment status is being assessed to identify accrual and dropout rates and reasons for dropout.

This study is also conducting outcome evaluation. Research outcomes include participants' control of asthma, adherence to asthma medications, patient activation, and patient satisfaction. These outcomes are assessed during the pre- and post-intervention telephone surveys. The Asthma Control Test (ACT) is used to measure patients' control of asthma.[46] The ACT measures the level of impairment due to asthma over the past 30 days. Adherence is measured by reviewing medication profile records for refill history and by self-report. Self-reported adherence is assessed with Morisky Medication Adherence Scale (MMAS).[47] Patient activation is measured with the Patient Activation Measure (PAM).[48] We use a revised patient satisfaction scale to assess patients' acceptance of the intervention.[49] Table 2 displays ACT, MMAS, PAM, and patient satisfaction items.

Participants' health literacy also is assessed because of the potential influence on study outcomes.[50] Health literacy is assessed with the Short Test of Functional Health Literacy in Adults (sTOFLA) during the post-intervention telephone survey to reduce respondent burden during the pre-intervention survey phase.[51] Prior to the post-intervention telephone survey, all participants are mailed a packet of materials including a letter and a sealed envelope (containing the sTOFLA). The letter instructs the participant to keep the sealed envelope closed until the telephone interviewer informs them to open it. During the post-intervention telephone survey call, the interviewer asks the participant to open the sealed envelope and complete the sTOFLA. The interviewer asks the participant to read her/his responses and the interviewer records the participant's answers. The participant then is instructed to place the completed sTOFLA instrument in a self-addressed envelope and place the envelope in the mail. The interviewer also asks the participant if they opened the envelope prior to the telephone call and if they had help completing the sTOFLA.

Demographic and environmental characteristics and medical condition information also is collected. Demographic data include age, gender, race/ethnicity, education, and income. We use items from the Centers for Disease Control and Prevention's National Asthma Survey to assess participants' environmental factors that may affect asthma. Current smoking status, the number of self-reported asthma exacerbations experienced in the past 6 months that require urgent medical care and the number of asthma-related hospital admissions within the past six months also are gathered by self-report.[52] The reliability and validity of self-reported exacerbations and hospitalizations data will be assessed by comparisons with electronic health records.

Analysis Plan

Descriptive statistics (percentages, means, and standard deviations) will be reported for all baseline variables by assigned group, including patient satisfaction, asthma control, self-reported adherence, and patient activation. Differences from baseline and month 5 for numeric variables will be compared by group. These will be tested with either a Student's t-test or Wilcoxon signed rank test, against the null hypothesis that the difference of the mean/median is equal to zero. The Wilcoxon test will be used if it is likely that the underlying distribution for a numerical variable is non-normal. Categorical variables will have the distribution from baseline compared to the distribution from month 5 by using a Chi-square test. One-on-one interview data will be analyzed to uncover themes related to the facilitators and barriers associated with the intervention.

Accrual and dropout rates will be calculated overall and by group. Accrual rate will be calculated by average patients enrolled per week, and dropout rate will be determined by

the number of participants lost to follow up divided by total number of participants. The means and standard deviations of the outcomes such as ACT, adherence measures, and PAM will be estimated. These estimates will be used in calculating sample size and power for statistical tests to be performed in future large studies.

Discussion

This article describes the methodology used in one pilot study to help model how process and outcome evaluation can be integrated into preliminary pharmacy service delivery research involving 100 or fewer patients. By including both process and summative data collection, even at the pilot study level, it is possible to evaluate the feasibility of the intervention and at the same time gain important clues to improve the field's ability to address research challenges and intervention barriers, refine staff training, explore patient perspectives, and test measures' power to provide preliminary patient outcome findings.

Study resources and pharmacy site capacity influence the structure of extensive data collection. In this example, a large regional health system provided an opportunity for a variety of process and summative data opportunities. As Table 1 summarizes, qualitative (e.g., audiotape interview data) as well as quantitative data are collected to refine study methods and evaluate the impact of the intervention as well as contribute to future analyses of pharmacist and patient perceptions. This information will guide the development of a larger study to examine the impact of this intervention on asthma patient outcomes.

The collection of summative data for outcome evaluation is standard as it details the effectiveness of the intervention. However, process evaluation (i.e., formative evaluation, program monitoring, and implementation assessment) provides feedback for improving the intervention, helps to explain and interpret findings, and provides information to aid the replication of the intervention in alternative contexts.[53] In this study, process evaluation allows for an examination of the research project processes and fidelity of the pharmacist service delivery to protocols. A careful analysis of project activities can provide information about inefficiencies that can hinder the research efforts and allow the researchers an opportunity to immediately correct methodological issues or inform future studies. Regarding the interpretation of findings, the documentation of participants' experiences during the intervention helps explain how and why outcomes were or were not achieved.[53] Finally, gaining an understanding of how the program's processes operate from multiple perspectives (e.g., providers' and participants') can be vital for the translation of the intervention into a larger trial or everyday practice. For example, Sorensen et al found it necessary to facilitate effective collaboration between physicians and pharmacists in order to make the intervention translatable across a nationwide research effort.[54]

Study barriers and limitations

Investigators can be confronted with barriers that can impede the research enterprise when conducting practice-based intervention studies. Such barriers include obtaining 1) "buy in" from the practice, supervisors and providers, and 2) provider participation. In this study, we are overcoming these barriers by targeting a problem area that the practice itself selected (i.e., asthma care) and, perhaps the most pertinent key, fostering a collaborative culture that includes all stakeholders as members of the research team. The collaborative culture entails involving pharmacists in every step of the research process, from conceptualization to implementation and evaluation. For example, study pharmacists were involved with constructing the counseling framework and intervention procedures. Study pharmacists participated in discussions about data collection measures and length of the pharmacist intervention study period. The most frequently asked question was "how can we make this intervention feasible for you and your practice?" This involvement has been invaluable to the success of the project and continued enthusiasm of participating pharmacists.

In addition to potential barriers, there are potential limitations to this pilot study. First, this study was not powered to detect effects of the intervention, and patients with poor asthma control were not targeted for recruitment. However, the purpose of this study was to conduct a pilot test. Thus, we were primarily interested in the feasibility and acceptability of the intervention as well as facilitators and barriers to the implementation of the intervention. Pilot studies help to determine the plausibility of the intervention from the perspectives of those who are involved (patients, clinicians, etc). The study design outlines a strategy for piloting an intervention that can lead to a larger study aimed to more rigorously examine the effectiveness of the intervention (i.e., address issues of clustering by pharmacist and accounting for important covariates such as disease severity). Second, the consultation process outlined in the study protocol could be a weakness (e.g., time demands). From the participant's perspective, the question was whether the intervention may take too long and thus decrease their willingness to continue participation. From the pharmacist's perspective, the question was whether the consultation process may be impractical and lead to deviations in the protocol. Our evaluation strategies should illuminate issues regarding whether the counseling framework is burdensome.

For example, we may find that 1) the percentage of participant drop-out is higher in the intervention groups, 2) participants reported this as a barrier during one-on-one interviews, or 3) study pharmacists have poor protocol fidelity.

Summary

In conclusion, the primary study objective is to conduct an initial assessment of a pharmacy-based intervention. We present a methodological design that uses qualitative and quantitative approaches to implement and evaluate a service delivery model. Results will provide evidence regarding the plausibility and quality of carrying out the study and service delivery from the multiple perspectives of participants and clinicians.

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Table 1. Summary of Evaluation Tools

Evaluation	Data Collection	Purpose	Measures
Process	Direct observation	Fidelity to protocol	Review
	Interview (pharmacists)	Identify issues affecting implementation	Interview questions
	Telephone Interview (participants)	Identify barriers & facilitators to participation	Interview questions
Outcome	Pre-survey	Asthma Control, Adherence, Patient Activation, Patient Satisfaction, Demographics	Asthma Control Test, Morisky Medication Adherence Scale, Patient Activation Measure, Patient Satisfaction
	Post-survey	Asthma Control, Adherence, Patient Activation, Patient Satisfaction, Health Literacy, Environmental factors	Asthma Control Test, Morisky Medication Adherence Scale, Patient Activation Measure, Patient Satisfaction, sTOFLA, National Asthma Survey

Table 2. Asthma Control Test[46], Morisky Medication Adherence Scale[47], Patient Activation Measure[48], and Patient Satisfaction tems[49]

Asthma Control Test
In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school or at home?
During the past 4 weeks, how often have you had shortness of breath?
During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness, or pain) wake you up at night or earlier than usual in the morning?
During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?
How would you rate your asthma control during the past 4 weeks?
Morisky Medication Adherence Scale
Do you sometimes forget to take your asthma medication?
Over the past 2 weeks, were there any days when you did not take your asthma medicine?
Have you ever cut back or stopped taking your asthma medication without telling your doctor because you felt worse when you took it?
When you travel or leave home, do you sometimes forget to bring along your asthma medications?
Did you take your asthma medicine yesterday?
When you feel like your asthma is under control, do you sometimes stop taking your medicine?
Taking medication everyday is a real inconvenience for some people. Do you ever feel hassled about sticking to your asthma treatment plan?
How often do you have difficulty remembering to take all your asthma medication?
Patient Activation Measure
When all is said and done, I am the person who is responsible for managing my health condition.
Taking an active role in my own health care is the most important factor in determining my health and ability to function.
I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition.
I know what each of my prescribed medications do.
I am confident that I can tell when I need to go get medical care and when I can handle a health problem myself.
I am confident I can tell my health care provider concerns I have even when he or she does not ask.
I am confident that I can follow through on medical treatments I need to do at home.
I understand the nature and causes of my health condition(s).
I know the different medical treatment options available for my health condition.
I have been able to maintain the lifestyle changes for my health that I have made.
I know how to prevent further problems with my health condition.
I am confident I can figure out solutions when new situations or problems arise with my health condition.
I am confident that I can maintain lifestyle changes like diet and exercise even during times of stress.
Patient Satisfaction
How would you rate the pharmacist's ability to help you manage your asthma therapy?
How would you rate the pharmacist's ability to help you prevent problems with your asthma?
Rate the overall care you received from your pharmacists.