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PHARMACISTS' PERSPECTIVES ON COLLABORATING WITH COMMUNITY HEALTH WORKERS IN DIABETES CARE

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Abstract

Objective—To qualitatively assess pharmacists' perspectives on the barriers and facilitators of collaborating with community health workers (CHWs) when caring for patients with diabetes.

Methods—Eight pharmacists were invited to participate in a focus group. All pharmacists had worked with CHWs for 12 months as part of a larger study. Seven pharmacists participated in a single focus group while one participated in an individual interview. Data were analyzed by two investigators to identify common themes.

Results—Perceived barriers included issues associated with maintaining patient confidentiality, CHW and pharmacists comfort, uncertainty of CHW roles, and inconsistent communication between the pharmacists and CHWs. However, pharmacists reported that the care model fostered

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improvement in patient-pharmacist communication, patient adherence, and in the assessment of the patients' overall condition.

Conclusions—Pharmacists expressed positive attitudes and experiences related to working with CHWs in caring for a minority patient population with poorly controlled diabetes. Most felt that CHWs acted as facilitators and aided them in producing positive clinical outcomes by addressing the multiple psychosocial and contextual dimensions of patient health. Developing approaches for more frequent and effective communication between the pharmacist and CHW was the primary perceived challenge.

Keywords

Community Health Workers; Pharmacists; Diabetes Mellitus; Type 2; Focus Groups; Medication Adherence; Medication Reconciliation

INTRODUCTION

Estimates from 2012 suggest that diabetes impacts over 9% of all Americans with rates among African Americans and Hispanics exceeding 12%.¹ Goals for managing diabetes include controlling blood glucose, blood pressure, and lipids using a combination of lifestyle modification and pharmacotherapy. Unfortunately, national data suggest that almost half of those with diabetes fail to reach therapeutic goals.² Furthermore, diabetes control is particularly difficult for urban minorities who face various complex physical, economic, and socio-cultural barriers to adherence.³

Recognizing that many patients require additional support for their diabetes management, we have been evaluating a novel approach to care that incorporates pharmacists and Community Health Workers (CHWs) into the traditional physician-nurse model of care.⁴⁻⁵ Our research targets low-income Latino and African-American adults with poorly controlled type 2 diabetes who are receiving care within three urban clinics in an academic healthcare network.⁵ This randomized controlled trial (RCT), which began in December 2011 with an anticipated completion date of April 2016, served as the basis for the qualitative research described herein. The RCT was designed to determine the efficacy of CHWs partnering with pharmacists to improve glycemic control, blood pressure, lipids, and medication adherence. Study participants from the original research had an A1C $\geq$ 8% in the past year.

Within this RCT, patients were consented and completed baseline data collection. The research assistant telephoned the pharmacy to schedule the patient for an in-person visit at the patient's convenience within the following few weeks. In addition, patients were contacted by their CHWs to schedule a home visit.

CHWs completed over 120 hours of extensive training in diabetes health, nutrition, motivational interviewing, and in identifying adherence barriers based on the World Health Organization framework.⁶⁻⁷ CHWs contacted patients and conducted initial home visits. Pharmacists scheduled patients for monthly visits where they reconciled medications, discussed patient progress, and set therapeutic goals. CHWs were also present during these visits and advocated for patients, supported patient-pharmacist communication and decision-

making, and helped reinforce pharmacist recommendations based on patients' context. Outside of these encounters, CHWs contacted pharmacists by telephone or email to provide relevant patient information regarding self-management behaviors and potential threats and facilitators to adherence.⁵

CHW performance was evaluated weekly in meetings with the clinically trained (physician and psychologist) research investigators. CHWs presented each scheduled patient encounter in detail addressing the interventions they provided (e.g. education, referrals to resources), adherence barriers, individual health-related goals, and new information. They were given time to ask questions of the team and received feedback and suggestions. In addition, the investigators reviewed logs of CHW patient phone contact and detailed encounter reports.

OBJECTIVE

To qualitatively assess pharmacists' perspectives on the barriers and facilitators of collaborating with CHWs when caring for patients with diabetes.

METHODS

Study Population and Design

This qualitative research was designed using a focus group approach to interview pharmacists who worked with the patients and CHWs of the RCT. All pharmacists involved in the RCT were eligible to participate. Recruitment letters were sent by email to the eight eligible pharmacists informing them of the focus group which would be scheduled at their convenience. All eligible pharmacists consented to participate. These pharmacists were all female, English-speaking, employed within the academic medical center, and experienced in providing diabetes management support. Each pharmacist had worked with one or more of the five CHWs over a 12-month period as part of the RCT.

Seven pharmacists participated in a single focus group lasting one hour. Due to a schedule conflict, one pharmacist completed an individual interview. The interview followed the same question guide as the focus group and lasted thirty minutes. The focus group and one individual interview were led by an experienced moderator who followed a standardized semi-structured question guide. All interactions were audio-recorded and transcribed for data analyses.

Data analysis

Two of the authors (ER, LS) independently read the transcripts before meeting to outline a coding scheme. Together, they outlined a shared coding scheme with definitions that were organized around two central themes: (1) Perceived barriers – themes that represented pharmacists' perceptions of difficulties in implementing the pharmacist-CHW component of the model and (2) Perceived facilitators – themes that represented pharmacists' perceived patient improvements in adherence, addressing barriers, and general health. The two authors independently applied the coding scheme to the transcripts before meeting to discuss their results. Discrepancies were resolved by a third author (BG).

RESULTS

Perceived Barriers

Comfort and Trust—Overall, the pharmacists enjoyed having the CHW attend the patient visits. However, they expressed a desire for the CHW to divulge more information uncovered from home visits. Occasionally, they felt CHWs refrained from actively participating in the patient visit. Pharmacists expressed that the CHWs may feel a self-imposed power differential, seeing the pharmacists as “experts” in terms of what the patients need. Interestingly, the pharmacists felt that the CHWs were actually “experts” themselves having established strong relationships with patients.

Two pharmacists recognized that the amount of information patients share with CHWs depends on respect for confidentiality, patient autonomy, and beneficence. Both pharmacists had observed instances where the CHW struggled to maintain patients’ trust while continuing to share relevant information that could assist the pharmacist during the patient visit. For example, patient financial difficulties may be most appropriately shared by the CHW with the pharmacist when the patient is not present to avoid embarrassing the patient. Communication becomes complicated for the CHW when the patient fails to share information with the pharmacist or provides information related to adherence that the CHW believes is inaccurate. The pharmacists recognized this conflict for the CHWs, and understood why the CHWs may not volunteer information readily during encounters.

Uncertainty with Regards to CHW Requests and Roles—Pharmacists understood the general goals and tasks of a CHW. However, some ambiguity remained in regards to what pharmacists could ask of the CHWs and to what extent they can be expected to help. One pharmacist was hesitant to ask a CHW for help with patient-related insurance problems, while another expressed confusion regarding the CHWs’ role in delivering dietary education. Another pharmacist indicated some confusion regarding the unique nature of the patient-CHW relationship.

Communication—Communication was the most critical challenge to effective implementation of the pharmacist-CHW model. CHWs did not share any form of documentation with the pharmacists or physicians in this study. Hospital policy currently does not allow CHWs to document in the patients’ electronic medical records. Furthermore, due to busy schedules, communication regarding study patients primarily relied upon telephone contact and secure email. CHWs do have study cellular telephones, but on occasion were unreachable for various reasons when pharmacists attempted to contact them. This at times resulted in telephone calls back and forth with the CHW and pharmacist. Often the pharmacists’ patient load did not allow for one-on-one time with the CHWs before or after the patients’ appointments.

Pharmacists expressed a lack of awareness regarding the CHW and patient interactions outside of their visit with the patient. Two pharmacists stated they felt the patient visits and medication reconciliation often went very well; however, they were uncertain what kind of follow-through with the stated plan and goals takes place afterwards between the patient and CHW. This point was not reflective of pharmacists concern that nothing was happening

outside of the pharmacy visit, but reflected their strong interest in learning details about the patients' life context and home environment from the CHWs. Specifically, pharmacists were interested in learning more about their patients' health-related barriers and home dynamics to improve the care they could provide.

Perceived Facilitators

Improved Patient-Pharmacist Communication—Pharmacists believed the integration of the pharmacist-CHW treatment model fostered improvements in their overall communication with patients. One pharmacist described how CHWs help bridge the linguistic gap with non-English speaking Latino patients by serving as translators when the professional service was not immediately available. Four pharmacists also reported an improvement in communication with regard to scheduling and appointment attendance. Pharmacists stated that CHWs often help contact patients when pharmacists have difficulty reaching them to schedule, confirm, or follow-up on visits. This is typically fostered by the CHWs having more consistent and reliable communication with patients.

Improved Patient Adherence—Pharmacists described how they value the roles CHWs play in regards to improving patient adherence via added accountability, monitoring, education, and more effective navigation of the health care system. Three pharmacists believed CHWs help serve as a bridge to the health care system by helping address issues of transportation and lack of motivation. Acting as an additional source of accountability was also described to be one of the roles CHWs play in the sense that patients now have another individual checking in and following up with them. Another pharmacist stated that by monitoring patients in their own home, CHWs are able to gain a unique first hand perspective into the patient's routine and practices in regards to their medication adherence. If a discrepancy in their medication regimen is identified, the CHW is then able to directly educate or advise the patient on how to correct the issue, communicate discrepancies to the pharmacist, offer medication reconciliation, and also encourage the patient to seek the pharmacist's assistance.

Improved Assessment of Patient Condition and Situation—Pharmacists acknowledged how important CHWs were in terms of identifying, relaying, and helping address social, therapy, dietary, cultural, and language barriers. By observing and interacting with patients in their homes, CHWs are able to gain a more complete picture and assist the pharmacist in understanding patients. For example, one pharmacist described an instance where she was unaware of the specific foods and ingredients of a Latino patient's ethnic diet. The CHW, who was also Latino, was able to explain the various aspects of the diet so adjustments could be made. By being in the patient's home environment, CHWs are also able to discover significant social and personal barriers such as economic or domestic difficulties, which can contribute to the patient's health outcomes.

Supporting quotes from participants for each specific theme, separated by barriers and facilitators, are presented in appendices A and B, respectively.

DISCUSSION

Overall, pharmacists reported that CHWs fostered improvement in patient-pharmacist communication, patient assessments, and adherence. However, there were perceived barriers in maintaining patient confidentiality, uncertainty of CHW roles, and inconsistent communication between pharmacist and CHW.

Others have similarly recognized the inherent challenge in determining what personal patient information health coaches should share with the clinicians.⁸ This is likely a difficult dilemma inherent in any collaborative model of care that involves establishing close relationships with patients as patients often withhold personal information from providers. Ethical guidelines for CHWs identify trust, respect, honesty, consent, and confidentiality as key moral components. While these moral principles should theoretically function in congruence with the principle of beneficence, there are no clearly defined recommendations for addressing discrepancies.^{9–10} Ideally, the CHW would encourage and support the patient in divulging significant and treatment-related information themselves; however, this may be difficult to accomplish in actual practice. As every situation and relationship between the CHWs and patients is intrinsically unique, this issue may be best solved with the CHWs' professional discretion to balance patient trust, autonomy, and confidentiality against the importance of successful intervention, treatment, and overall patient health.

Despite pharmacists receiving introductions, orientations, and frequent communications with CHWs, pharmacists did not fully understand their roles. We speculate that this incomplete understanding stems from the unconventional responsibilities of CHWs in contrast to traditional health care professional roles. Since CHW's roles are diverse and overlap with other professional disciplines such as social work, nutrition, translation, and counseling, pharmacists required additional time and experience to appreciate and integrate the varied roles of CHWs. Considering that CHWs had training on culture-related behavior, we expected pharmacists to comment more on the culturally-related aspects of care. It is possible that patients who have cultural beliefs that negatively impact medication adherence may simply be less likely see the pharmacists. Thus, pharmacists would less likely acknowledge and delegate the issue to CHWs.

LIMITATIONS

One of the major limitations of this study is generalizability. This pharmacist-CHW model was incorporated into a diabetes-focused setting where the majority of patients were of low income. Furthermore, only one academic site was used and the results only capture the opinions and point of view of the pharmacists. The CHWs likely would provide another valuable perspective. Since one of the pharmacists was interviewed separately, it is also possible that due to the lack of peer influence, her responses may have differed. However, this is unlikely as her responses were overall in agreement with those of the other seven pharmacists. Lastly, this focus group provides only a qualitative evaluation of the model and empirical support will be reliant on final outcomes of the main study.

CONCLUSION

Despite challenges, pharmacists unanimously perceived value in the collaborative assistance of the CHWs in caring for patients. A more thorough understanding of the CHW-pharmacist model may be gained by conducting CHW-only and joint CHW-pharmacist focus groups, as well as by including Spanish-speaking pharmacists. Future efforts to implement such a model should focus upon identifying feasible avenues for weekly information sharing and communication between CHWs and pharmacists.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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