

Perceived Value of Pharmacist Interns in a Culturally Adapted Community Program

Koffi C, Wang C, Gao Y and Moultry AM*

Texas Southern University College of Pharmacy and Health Sciences, 3100 Cleburne St., Houston, TX 77004, USA

Abstract

Objective: A study was conducted to determine program participants' perception of fourth year pharmacist interns in a culturally adapted community program focused on improving medication adherence.

Methods: Students participated in translation, recruitment, pre- and post- program screening, and reminder phone calls to program enrollees. An 8 question survey using a likert scale was developed and administered to participants at the end of the program.

Results: There was a 100% "Always" report in three questions that inquired about the pharmacist interns' contribution to the participants' learning, and the program participants "Always" felt like their time was well spent with the pharmacist interns.

Conclusion: Patients perceived the involvement of pharmacist interns in the implementation of a culturally adapted community program as positive.

Keywords: Patient perception; Cultural competence; Culturally adapted; Pharmacist interns impact; Advanced Pharmacy Practice Experience (APPE)

Background

Many racial and ethnic minority Americans experience language barriers which can range from low or no English proficiency to limited proficiency in speaking, reading or comprehending English. These linguistic barriers can present challenges to patients and providers in healthcare settings [1]. The culturally and linguistically appropriate services standards (CLAS) for healthcare issued by the U.S. Department of Health and Human Services Office of Minority Health (OMH) in December 2000 states that healthcare organizations should ensure patients/consumers receive effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language. It also states that healthcare organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered groups in the service area [2].

The Accreditation Council for Pharmacy Education (ACPE) requires that schools of pharmacy develop professional practitioners capable of understanding a culturally diverse society and their role in it as health care providers. It also requires that pharmacy practice experiences include direct interaction with diverse patient populations in a variety of practice settings and involve collaboration with other health care professionals. The ACPE accreditation standards define Introductory and Advanced Pharmacy Practice Experiences as structured, college-directed teaching and learning experiences whereby the student applies the knowledge of pharmacy to patient care in a practice setting that allows the student to develop and demonstrate the critical thinking skills required for professional practice [3].

The advanced pharmacy practice experiences (APPEs) occur during the fourth year of pharmacy school, reinforcing introductory pharmacy practice experiences (IPPEs) from the first through third professional years of pharmacy school and allowing students to apply their didactic learning to direct patient care experiences. APPEs include four required experiences and three elective experiences to allow the student to acquire a diverse background in pharmacy practice and

patient care. Students participating in APPEs and IPPEs are referred to as pharmacist interns, and as interns they are trained to master the competencies of the program in order to exhibit strong ethics of professionalism, confidence and leadership. As pharmacist interns, students are afforded the opportunity to practice alongside a licensed pharmacist who is referred to as their preceptor. While working with their preceptor, they are able to contribute to the healthcare team and be recognized as vital members of the pharmacy team, directly assisting in the care provided to patients as well as in the community [4-7]. The profession of pharmacy values the building of relationships between patients and pharmacists [8,9]. The patient-intern interaction may either weaken or strengthen the pharmacist-patient relationship [4].

APPE pharmacist interns at Texas Southern University were afforded the opportunity to actively participate and play a significant role in the implementation of a culturally adapted community program. The Managing Your Medications (MY Rx) program was developed with the goal to evaluate the effectiveness of evidence-based practices used to improve rates of medication adherence through information dissemination among diabetic and hypertensive African-American, Asian American, and Hispanic residents housed in four senior public housing facilities in the Greater Houston Area. Students participated in translation, recruitment, pre- and post- program screening, and reminder phone calls to program enrollees. It was hypothesized that intern-patient interactions during experiential training favorably impacted the patients' perception of their experience.

*Corresponding author: Moultry AM, Texas Southern University College of Pharmacy and Health Sciences, 3100 Cleburne St., Houston, TX 77004, USA, Tel: (713)313-7553; Fax: (713)313-7965; E-mail: morris_ma@tsu.edu

Received October 08, 2014; Accepted October 29, 2014; Published November 01, 2014

Citation: Koffi C, Wang C, Gao Y, Moultry AM (2014) Perceived Value of Pharmacist Interns in a Culturally Adapted Community Program. J Pharma Care Health Sys S1-008. doi:10.4172/jpchs.S1-008

Copyright: © 2014 Koffi C, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

There are relatively few studies published on the impact of pharmacist interns in a community setting, in contrast to the availability of those focused on pharmacist interns in a clinical setting or those involving medical students [7,10-13]. Furthermore, there were no studies identified which focused on the impact of pharmacist interns involvement in a culturally adapted program. This study will contribute to the literature by giving insight into the value patients place on pharmacist interns participating in a culturally adapted community program.

Methods

The My Rx program occurred over a 12-week period in four independent senior living facilities that housed seniors 55 and older. Thirteen pharmacists and four health educators were matched to participants based on cultural/ethnic similarity and language. Additionally, fourth year pharmacist interns who were on APPE rotations participated in the program with their pharmacist preceptors. Participants in the program spoke English, Spanish, and Mandarin Chinese. As a result, translation of written material and spoken information was important to the success of the program in the facilities that had participants who did not speak English.

The program included baseline and post follow-up assessments for blood pressure and/or hemoglobin A1C, knowledge of hypertension and/or diabetes, and behavioral intention related to medication adherence. The intervention consisted of one home visit conducted by the assigned pharmacist followed by a group health education session led by a health educator on healthy eating and a follow-up phone call by a pharmacist, and an additional group health education session led by a health educator on physical activity and reducing stress and a follow-up phone call by a pharmacist. Follow-up screenings and surveys were conducted following completion of the final follow-up phone calls conducted by pharmacists. A patient centered medical home model was modified through the incorporation of health educators and licensed pharmacists working together to deliver health services to participants in their homes. Prior to implementation of the program, IRB approval was received.

Pharmacist interns contributed to the program by attending recruitment events, performing baseline screenings and post intervention screenings of blood pressure and/or A1C, attending health education sessions, and placing calls to remind patients of upcoming health education sessions or to get follow up screening results. Furthermore, two students who spoke Mandarin Chinese facilitated translation during recruitment events and health education sessions held at a facility that had a high population of Mandarin Chinese speakers. The other three facilities spoke English as the dominant language, with a couple having a minimal amount of Spanish speakers.

At the conclusion of the study, a survey was developed and

administered to residents at the facility with a high population of Mandarin Chinese speakers to assess the perceived value of pharmacist interns' involvement in the program. An 8 question survey was developed using a previously administered survey from a published study that evaluated patients' perceptions of pharmacy student participation in the delivery of care. Existing questions were reviewed and revised to create a survey that was relevant to the activities the students were involved. Three questions from the previous survey that lacked relevance to the objectives of this survey were replaced by three questions that were related to the pharmacist interns' experiences. A section to capture demographic information, such as race/ethnicity, age, and gender was also included. A panel of three experts reviewed the survey instrument for validity.

A 5-point likert scale ranging from Never to Always was used to measure questions. Questions asked on the survey related to the patients thoughts about their social interaction with the pharmacist interns. The questions also took into account categories found in the literature that assessed students' impact. Questions also inquired about the time the patients spent with the interns (ex: "I feel my time is well spent when the student explain the lesson to me"), the role the interns played in educating the patient (ex: "Having the students during the class helped me a lot"), and the reactions the patients had to the interns themselves (ex: "I enjoyed talking with the pharmacy intern during the health education class) Table 1.

Surveys were translated into Chinese and made available to participants in English and Chinese. The survey was administered during weekly resident meetings at the facility for 4 consecutive weeks in an effort to gain feedback from as many MY Rx enrollees as possible. The pharmacist interns coordinated with onsite personnel to leave the survey at a table readily accessible to residents during the meetings to facilitate ease of completion. The pharmacist interns remained onsite during the meetings to be available to assist any survey participant that had questions or concerns. At the beginning of the resident meeting, the facility personnel informed the residents that the survey was available for them to complete on a voluntary basis. At the conclusion of resident meetings, the pharmacist interns retrieved the completed surveys.

The surveys did not request any patient identifier information; therefore responses submitted by the participants were anonymous. Descriptive analyses were conducted using Microsoft Access® to determine how the patients' perceived their interactions with the pharmacist interns.

Results

Thirty of 40 residents who interacted with the pharmacist interns during the MY Rx program participated in the survey for a response rate of 75%. Of those surveyed 60% were females and 40% were males with an average age for all participants of 75 ± 7. The majority of

Survey question:	Never	A little	Sometimes	A lot	Always
Question # 1. I enjoyed talking with the pharmacist interns during the health education class.	0%	0%	0%	0%	100%
Question # 2. My time was well spent with the pharmacist interns.	0%	0%	0%	0%	100%
Question # 3. Having the pharmacist interns during the health education class helped me a lot.	0%	0%	0%	0%	100%
Question # 4. Having the pharmacist interns translate during the health education class did not help me.	100%	0%	0%	0%	0%
Question # 5. The pharmacist interns helped me learn.	0%	0%	0%	0%	100%
Question # 6. If I could, I would choose not to talk with the pharmacist interns.	100%	0%	0%	0%	0%
Question # 7. The pharmacist interns made it easier for me to understand the lessons in the health education classes.	0%	0%	0%	0%	100%
Question # 8. The pharmacist interns helped me more than the health educators.	25%	0%	0%	0%	75%

Table 1: Participants' perceptions of pharmacist interns' roles (N=30).

the participants reported they were Asian American (80%), and the remaining reported they were African American (20%). The responses reflected that the presence of pharmacist interns had a positive impact on the participants with 75% reporting that, "The pharmacist interns helped me more than the educator." All of the patients reported that they "Always" enjoyed talking to the pharmacist interns. There was a 100% "Always" report in three questions that inquired about the pharmacist interns' contribution to the participants' learning (see questions 3, 5, and 7 in Table 1). The program participants also "Always" felt like their time was well spent with the pharmacist interns.

Discussion

The overwhelmingly positive results were surprising to the investigators, however, the positive nature of the survey results are consistent with past research that has been conducted involving health profession students. Findings from York et al. revealed that more than 92% of patients believed they benefited from medical students participation in their care [12]. This was also evident in a study involving pharmacy students which concluded that the presence of students in a practice setting likely affected patients' perceptions of care [4].

Additionally, the role of the pharmacist interns to provide verbal translation with program participants was one cultural adaptation in a program that utilized multiple adaptations, including the distribution of linguistically specific written material and one-on-one counseling with a pharmacist who spoke the participants' preferred language. In a systematic review of the effectiveness of specific cultural adaptations in interventions targeting smoking cessation, diet, and/or physical activity, researchers concluded that culturally targeted behavioral interventions may be more effective if cultural adaptations are implemented as a package of adaptations, which did occur in the MY Rx program [14].

The 75% positive response to the question, "The pharmacist interns helped me more than the health educators," correlates to the 80% Chinese survey participants and the 100% "never" response to the question, "Having the pharmacist interns translate during the health education class did not help me." When also taking into consideration the majority female participants, the results are consistent with a study specific to Mandarin and Cantonese speaking Chinese-Australian women. This study found that culturally specific values, beliefs and language barriers played a significant role in shaping women's breast cancer experiences and their negative response to the diagnosis [15]. This implies that removing language barriers will have a positive impact on health care experiences as reflected by the survey results.

The pharmacist interns did not complete a survey to evaluate the perception of their own contribution to the program. However, there is an opportunity to evaluate the interns' perceived contribution as well as their perceived level of cultural competence after participating in a culturally adapted program. In a study designed to engage pharmacy students on APPEs in activities to improve cultural competence, 98% of the students reported learning something new about counseling patients with cultural/language differences after participating in the activities [16]. Furthermore, a separate study revealed pharmacy students had high levels of comfort with cultural encounters during their APPEs which may be indicative of the seemingly ease students had with relating to the program participants [17].

Limitations

Pharmacist interns conducted a survey which evaluated perceived value of their involvement in a program and were present during administration of the survey. This introduced an opportunity for

bias, wherein participants may have been reluctant to reveal their true assessments in an effort to avoid offending the interns. Additionally, the survey did not ask for participant names, so there was no way to confirm participants were actually past enrollees in the MY Rx program. In an effort to measure the impact of the active role the students had in translating at a facility that had an abundance of Mandarin Chinese speakers, the survey was only conducted at one facility of four that were involved in the MY Rx program. Therefore, it did not reflect input from program participants at all facilities in the program. Lastly, due to the sample size, results cannot be extrapolated to the entire community setting.

Conclusion

Pharmacist intern participation in a culturally adapted program in the community setting was perceived to add value to program participants' experience. This conclusion is consistent with the Institute of Medicine report on Unequal Treatment which states that racial concordance of patient and provider is associated with higher patient satisfaction [1]. Therefore, it is essential that pharmacy educators develop culturally competent professionals to help contribute to positive experiences for patients in the health care system.

References

1. Unequal treatment : confronting racial and ethnic disparities in health care / Brian D. Smedley, Adrienne Y. Stith, and Alan R. Nelson, editors; Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, Board on Health Sciences Policy, Institute of Medicine.
2. Zuniga GC, Seol YH, Dadig B, Guion WK, Rice V (2013) Progression in understanding and implementing the cultural and linguistic appropriate services standards: five-year follow-up at an academic center. *Health Care Manag (Frederick)* 32: 167-172.
3. American College of Clinical Pharmacy, Rathbun RC, Hester EK, Arnold LM, Chung AM, et al. (2012) Importance of direct patient care in advanced pharmacy practice experiences. *Pharmacotherapy* 32: e88-97.
4. Hermansen CJ, Walbrandt PD, Sorkness CA, Wiederholt JB (2000) The Patient Perspective of Pharmacy Clerkship Students' Roles in Pharmacist-Patient Relationship Development and the Delivery of Care. *Am J Pharm*: 413-419.
5. Briceland LL, Kane MP, Hamilton RA (1992) Evaluation of patient-care interventions by Pharm.D. clerkship students. *Am J Hosp Pharm* 49: 1130-1132.
6. Slack MK, Draugalis JR (1994) Models for estimating the impact of clerkship students on pharmacy practice sites. *Am J Hosp Pharm* 51: 525-530.
7. Chisholm MA, Hawkins DW, Taylor AT (1997) "Providing pharmaceutical care: Are pharmacy students beneficial to patients?" *Hosp Pharm* 32: 370-375.
8. American Pharmaceutical Association (1994) Code of Ethics for Pharmacists.
9. American Pharmaceutical Association-Academy of Students of Pharmacy/ American Association of Colleges of Pharmacy-COD Task Force on Professionalism (2000). White Paper on Pharmacy Student Professionalism. *J Am Pharm Assoc* 31: 96-102.
10. Hermansen CJ, Wiederholt JB (2001) Pharmacist-patient relationship development in an ambulatory clinic setting. *Health Commun* 13: 307-325.
11. Kamien M (1990) Can first-year medical students contribute to better care for patients with a chronic disease? *Med Educ* 24: 23-26.
12. York NL, DaRosa DA, Markwell SJ, Niehaus AH, Folse R (1995) Patients' attitudes toward the involvement of medical students in their care. *Am J Surg* 169: 421-423.
13. Jones S, Oswald N, Date J, Hinds D (1996) "Attitudes of patients of medical student participation: General practice consultations on the Cambridge Community-Based Clinical Course." *Med Educ* 30: 14-17.
14. Nierkens V, Hartman MA, Nicolaou M, Vissenberg C, Beune EJ, et al. (2013) Effectiveness of cultural adaptations of interventions aimed at smoking cessation, diet, and/or physical activity in ethnic minorities. a systematic review. *PLoS One* 8: e73373.

15. Kwok C, White K (2011) Cultural and linguistic isolation: the breast cancer experience of Chinese-Australian women - a qualitative study. *Contemp Nurse* 39: 85-94.
16. Haack S (2008) Engaging pharmacy students with diverse patient populations to improve cultural competence. *Am J Pharm Educ* 72: 124.
17. Cooper LA, Vellurattil RP, Quiñones-Boex A (2014) Pharmacy students' perceptions of cultural competence encounters during practice experiences. *Am J Pharm Educ* 78: 31.

This article was originally published in a special issue, **Innovations in Pharmacy Practice and Education** handled by Editor(s). Dr. Fadi M Alkhateeb, Texas A&M Rangel College of Pharmacy, USA