Pharmacy Education, 2015; 15 (1) 111 - 115

First year pharmacy students as health coach in the management of hypertension

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Abstract

Introduction: Learning how to be a health mentor is an experience that can provide pharmacy students with skills necessary to adequately fulfil their role in prevention and wellness.

Description: This paper describes a service-learning project that involved training 103 first year pharmacy students as health mentors for a pilot program designed to support the prevention or management of risks for heart disease in African Americans. Texas Southern University's College of Pharmacy and Health Sciences partnered with the American Heart Association to implement the AHA's Heart 360 (Get to Goal) program.

Evaluation: Both quantitative and qualitative data were collected to assess students' experiences. Although students were confident in their abilities to perform coaching skills (85%), they did not feel comfortable educating patients about hypertension (86%).

Future Plans: Changing the structure of the skills-based portion of the training from a large to small group will allow faculty to observe each students' readiness to serve as health coach. Including other health profession students will expand the impact of the Healthy People 2020 goals.

Keywords: *Health coaching, health promotion, hypertension management*

Introduction

The frequent and routine interactions pharmacists have with populations who have chronic disease states places pharmacists in a primary position to counsel and educate patients about health and wellness (Patwardhan *et al*., 2012). These interactions have driven changes in the requirements for pharmacy curricula to ensure health promotion instruction is integrated into pharmacy programs (Medina *et. al*., 2013; NAPLEX, 2014; ACPE 2014). The Accreditation for Pharmacy Education (ACPE) requires pharmacy students to complete 300 hours of introductory pharmacy practice experiences (IPPE) between their first and third years (ACPE, 2011). Students engage in "real-life" experiences during IPPE in retail, community, and hospital pharmacies. ACPE allows students to participate in service-learning activities as part of IPPE. Service learning activities involve experiences that extend learning beyond the traditional classroom setting into the communities of people that students may serve as health professionals, thereby facilitating learning in health and wellness.

The National Society of Health Coaches describes health coaching as a style of engaging the patient/client that guides the agenda and taps into his/her own personal motivation to change unhealthy behaviour (NSHC, 2014). As described, learning how to be a health coach is an experience that can provide pharmacy students some of the skills necessary to adequately fulfil their role in prevention and wellness.

There have been minimal publications describing health coaching programs involving pharmacy students. Student led health mentoring programs published in the literature have primarily utilised student volunteers and have not focused specifically on the curricular required experiences of pharmacy students. Although, one study highlighted experiences of second year pharmacy students who volunteered to serve as health coaches in a diabetes management program (Mac Lean *et al*., 2012). Leung and others utilised 11 nursing, medical, and pharmacy students to coach uninsured hypertensive patients (Leung *et al*., 2012). Nutrition student experiences were discussed in an article describing their mentorship to local diabetics as part of a medical nutrition therapy course (Sheehan-Smith & Brinthaupt, 2010). In each of these studies, participants were satisfied with their coaches. The studies also revealed that students of varying levels and backgrounds could be trained to serve as health coaches. Patients coached by employees of University of California San Francisco, who had bachelor's degrees and no clinical background, experienced a significant decrease in their mean systolic blood pressure, demonstrating that clinical knowledge is not a requirement for health coaching (Margolius *et al*., 2012).

This article will contribute to the literature by describing a program that integrated a formalised health coaching training program in a required IPPE didactic course in the pharmacy curriculum. It summarises the experiences of

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ISSN 1447-2701 online

first professional year pharmacy students trained as health coaches in a program that was implemented at Texas Southern University College of Pharmacy and Health Sciences (TSU-COPHS), whereby students earned 15 hours of service-learning experience which contributed to their 300 hour IPPE requirement. The academic aim of this program was to raise students' level of confidence in communicating with individuals about health issues, specifically hypertension. It was also intended to provide students with an opportunity to apply motivational interviewing skills to real life situations.

Description of the Get to Goal Program

The American Heart Association (AHA) of Houston, Texas and TSU-COPHS partnered to train 103 students as health coaches for AHA's Get to Goal cardiovascular risk management program for African-Americans. The AHA referred to the student coaches as "health mentors" who were responsible for making intervention recommendations to support participants' achievement of immediate or ideal measurements for weight, blood pressure, and/or physical activity. Get to Goal utilised health coaching and an online tracking system to promote participants' ownership of their health. The roles of the health coach included: 1) providing positive reinforcement through praise of participants' efforts; 2) referral of participants to appropriate health information resources; and 3) encouragement of participants to discuss their risks with their primary doctors and taking their medications as prescribed.

Students received a total of six hours of training for this program. They first participated in the AHA's four-hour training held in January 2013 with training topics including an overview of the cardiovascular system; AHA's recommended guidelines for blood pressure management; communications, with an emphasis on motivational interviewing techniques; and health resources. Students then participated in a two-hour nutrition seminar sponsored by a local nutrition program.

The AHA recruited a total of 600 African Americans from local churches to participate in the program, and randomly assigned 264 participants to 103 TSU-COPHS students. Each student was assigned approximately two-three participants and was responsible for mentoring participants weekly via email, texts, and phone calls between February and May 2013. Fifty-seven students were assigned two patients, and 50 students were assigned to mentor three patients. During initial implementation, roundtable discussions with students and the AHA indicated that participants' natural attrition and difficulty using the online tracking system inhibited approximately 48 of the 103 student coaches from successfully engaging or contacting their assigned participants. Although reasons for participant drop out were not formerly documented, informal discussions between the TSU-COPHS staff and the AHA indicated that it may have been attributed to a lack of commitment to make health changes, difficulty using technology, the absence of face-to-face contact with the coach, or students' lack of proficiency in engaging the participants in discussions about health. In an effort to increase students' engagement in the health coaching process, TSU-COPHS faculty and AHA decided to modify program structure and use a group model. Those students whose participants had either opted out of the program or were unreachable were placed with a health mentor who was actively engaged with their participant. Thirty-four groups of two to three students were formed, with each assigned one to three patients. After these changes, approximately 141 participants remained in the program for a retention rate of 53.4%. One student per group served as the primary mentor and contact for the participant. The student mentor's role was not to advise or council, but to encourage participants to make healthier choices. During weekly one-hour group meetings, the health mentor provided group members with an account of interactions and progress with the participant. The group discussed intervention recommendations to support their participants' achievement of health goals, which were documented on the Reporting Document for Weekly Group Meetings (Appendix 1) and submitted to the faculty for review.

The Get to Goal health coaching program was exempt from Texas Southern University Committee for Protection of Human Subjects (CPHS) review.

Assessment

In March 2013, midway through implementation of the program, seven groups of 15 – 20 students participated in roundtable discussions to discuss their experiences with the program (Appendix 2). At the end of the program, all student participants completed a written survey that measured their confidence as a result of participation in the program and overall experiences. A descriptive analysis of the survey data was conducted.

The AHA, TSU-COPHS faculty, and a neighbouring pharmacy program that was also implementing the program met monthly to document and share information about challenges and solutions. Patient specific data was managed and monitored by the AHA.

Learning outcomes for the program were for the students to have an augmented skill set in communicating with individuals about health issues, specifically hypertension and to be able to apply motivational interviewing skills to real life situations.

Evaluation: Student Experiences

Students were surveyed about their experiences during class time, resulting in a 100% response rate in survey participation by the 103 students who participated in the experience. Students were asked to rate their feelings on a Likert scale ranging from strongly agree, agree, disagree, strongly disagree, and don't know. The survey revealed that students were largely confident in various aspects of coaching following completion of the program (Table I). Students felt confident in their ability to coach (87%) and

communicate (97%) with African Americans about hypertension management. At least 90% of students felt confident in their ability to help African-Americans achieve their blood pressure goal and motivate African Americans to manage their blood pressure. Students reported a lack of comfort educating individuals about hypertension (86%) which may have been due to their lack of confidence in applying processes of behavioural change or specific health education strategies or the need for additional simulated training. This may have also been related to their early standing in the pharmacy program as first year students and minimal exposure to hypertension education in the curriculum.

Table I: Student Assessment Post Program

SURVEY QUESTIONS	SA/A[1]		D/SD[2]		DK[3]		
	%	N	%	N	%	N	TOTAL
I am confident that I have the skills to coach African Americans in the community about hypertension management.	85.44	88	10.68	11	3.88	4	103
I am confident in my ability to communicate with African Americans about hypertension management.	94.17	97	2.91	3	2.91	3	103
I am confident in my ability to help African Americans achieve their blood pressure goal.	90.29	93	5.83	6	3.88	4	103
I am confident in my ability to motivate African Americans to manage their blood pressure.	90.29	93	4.85	5	4.85	5	103
Weekly group discussions of how to promote health and wellness among patients improved my understanding of health coaching.	91.26	94	5.83	6	2.91	3	103
I feel comfortable educating individuals about hypertension.	8.74	9	86.41	89	4.85	5	103

1 Strongly agree/Agree

2 Disagree/Strongly Disagree

3 Don't' Know

Forty-five of the students also left comments on the survey. Thirteen of the students indicated they had a great experience, while five students felt the group approach was more effective. Ten of the students indicated that participants' non-compliance and technical difficulties "hindered their experience". Difficulty reaching participants was also a primary challenge expressed by students during the roundtable discussions. During those discussions, students also highlighted inexperience in approaching and/or engaging participants in discussions about health issues and uncertainty of their effectiveness given limited contact with participants.

Lessons Learned

Many lessons were learned from piloting this program through the IPPE course. The six hour training provided students with an introductory level of skills and knowledge in health mentoring; however, it did not adequately prepare them for the challenges associated with engaging individuals in discussions about making changes in health. A year long program may allow faculty and AHA to implement additional "booster" trainings and simulated exercises to potentially improve their level of comfort communicating with the participants. Furthermore, lengthening the program will allow students to meet with their participants face-to-face and improve their rapport. The value of the face-to-face encounters between the students and participants was underestimated.

The group model limited opportunities for individual students to communicate directly with participants. A delineation of group members' roles may have facilitated more direct student involvement with participants. Specific roles of group members could have included developing written communications via email and traditional mail, identification of resources, and teaching participants how to properly take their blood pressure.

It may have been beneficial to include the faculty responsible for coordinating the health communications course in the prior semester in the development of the training and the ongoing monitoring of the students. Seeking input from these faculty members could have provided insight into students' readiness for the coaching and additional skills that needed to be reinforced during the training. Additional simulated health coaching training could have also been integrated into the communications course.

Changing the structure of the skills-based portion of the training from a large (103 students) to multiple small groups of 20 students would allow faculty to observe each students' readiness to serve as health coach. Increasing the faculty student ratio to 1:10 would enable faculty to provide more precise guidance; thus, improving the mechanism to monitor or observe communications between students and participants.

Future Plans

In the future, the TSU-COPHS and AHA will continue to explore ways to improve program offerings in health coaching. This collaboration allowed the AHA to contribute to its goal of improving cardiovascular health of all Americans by 20%. Students were able to apply motivational interviewing techniques, a model of communication emphasised in year one of the TSU-COPHS' pharmacy program. Students were also able to observe how determinants of health affect African-Americans' efforts to make behavioural changes.

Replication of health coaching experiences will be considered for future classes of students. Student coach suggestions for improving attrition and participant responsiveness will also be considered. For instance, students suggested meeting with participants prior to the start of the program and publishing health coach contact information on the partnering organisation's website.

Training pharmacy students as health coaches in the prevention and management of chronic diseases will contribute to the nation's health goals as outlined in Healthy People 2020 (U.S. DHHS, 2014). In alignment with contributing to the health goals of other health profession students in the TSU-COPHS, more degree programs can be targeted for program expansion, including clinical laboratory science, environmental health, health administration, health information management, and respiratory therapy.

Acknowledgements

Special thanks to the American Heart Association for giving TSU-COPHS the opportunity to be part of a program that contributes to the training of pharmacy students and the health of the community. We are especially grateful to Aabha Brown, Jometra Pinesette, and Cheryl Solomon of the AHA for their efforts in training the students and coordinating the program. We are also thankful to the University of Houston's College of Pharmacy faculty for their contributions to the planning of the program.

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Appendices

Appendix 1: Reporting Document for Weekly Group Meetings

1. What was the focus of the call?
2. What challenges did the participant identify in their quest to achieve a healthier lifestyle?
3. What successes, if any, is the participant having with their quest to achieve a healthier lifestyle?
4. What stage of motivation to change is participant experiencing (i.e. precontemplation, contemplation, preparation, action, maintenance)? What information have you received from the participant to indicate that he/she is in this stage?
5. What resources or support were recommended to the participant?
6. Describe any additional activities related to supporting the participant (i.e., outlining a plan to reach the participant, monitoring blood pressure via Heart 360 website, developing tracking tool for patient, etc.).

Appendix 2: Roundtable Discussion Guide

1. How would you describe your experience as a health mentor?
2. Provide examples of challenges you may have encountered and how you have resolved them.
3. Tell me about your assigned participants' responsiveness or willingness to communication with you.
4. What additional training, if any, should the AHA and TSU COPHS consider implementing to further support the health coach?
5. Please share any additional questions or concerns that you may have.