

Health Promotion in the Community: Impact of Faith-Based Lay Health Educators in Urban Neighborhoods

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Abstract Promoting wellness and providing reliable health information in the community present serious challenges. Lay health educators, also known as community health workers, may offer a cost-effective solution to such challenges. This is a retrospective observational study of graduates from the Lay Health Educator Program (LHEP) at Johns Hopkins Bayview Medical Center from 2013 to 2014. Students were enrolled from the surrounding community congregations and from the hospital's accredited clinical pastoral education program. There were 50 events implemented by the lay health educators during the 2014–2015 time period, reaching a total of 2004 individuals. The mean time from date of graduation from the LHEP to implementation of their first health promotional event was 196 ± 76 days. A significant number of lay health educators implemented events within the first year after completing their training. Ongoing monitoring of their community activity and the clinical impact of their efforts should be a priority for future studies.

Keywords Health literacy · Lay health educators · Community health · Health promotion · Chaplain students

Introduction

Presently, the burden of disease has shifted from acute care of disease toward chronic illness management (Hunter and Srinath 2013). The impact of this shift is seen in healthcare costs, which have continued to rise over recent years, and in medical care,

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which is becoming more and more complex (Schroeder 2007; Thorpe and Howard 2006; Jencks et al. 2003). For example, nearly all of the growth in Medicare spending between 1987 and 2002 can be accounted for by recipients with five or more chronic medical issues (Thorpe and Howard 2006). This is likely due in large measure to the costly and uncoordinated healthcare settings where Medicare beneficiaries seek their medical care (Anderson 2002). Further, with health provider shortages likely to worsen (Aiken et al. 2009; Cohen 2009) as the population grows and ages, the possibility of lay professionals delivering timely and reliable health information and assisting in coordinating cost-effective healthcare appears to have great potential value.

Community health workers may provide such a solution, as they offer a unique bridge between the community and medical institutions. Current literature on community health educators varies widely in regard to their roles and responsibilities, as well as results from published interventions (USDHHS 2007; Kash et al. 2007; Swider 2002; Viswanathan et al. 2009). The role of a community health worker is likely to grow, with requirements that will include working with a multi-disciplinary team involved in health promotion, research, and engaging in culturally appropriate health and social services delivery. However, how community health workers are selected and trained remains challenging and adds to the assorted identities and roles these workers may assume (O'Brien et al. 2009). Note that the terms such as community health educator or lay health educator have often been used as more specific nomenclature to describe community health workers when health and wellness promotion is their main responsibility. We will use these terms interchangeably through the remaining portion of the article.

Since 2011, we have offered a formal training initiative at our medical institution whereby we recruit community members from local congregations and clinical pastoral education trainees to enroll in a Lay Health Educator Program. Upon completion of the course, they are expected to organize wellness programs and disseminate reliable health information to the community in which they are members. Note that this formal expectation began in 2013; therefore, prior classes, who were encouraged but not explicitly expected to implement projects, have not had formal tracking of their community initiatives. Therefore, this is a retrospective observational study of graduates from the Lay Health Educator Program (LHEP). We sought to see how long after graduation a health promotion event was implemented, the type of health promotion event, and how many community members were ultimately reached.

Methods

The Lay Health Educator Program

The program has been described in prior publications (Galiatsatos et al. 2015; Galiatsatos and Hale 2015). In brief, the Lay Health Educator Program is a 10-week course designed to teach community members about current health concerns (e.g., diabetes, heart health, and advance directives), with emphasis on resources for these issues. Information on epidemiology, pathology (if applicable), and resources is provided by resident internal medicine physicians in a 2-h class given once a week. Before and after tests are distributed to the participants to assure objectives are met and understood. Further, a binder with summaries from each lecture is distributed to each participant. Table 1 reviews a list of topics covered in the LHEP. Courses were taught on location at Johns Hopkins Bayview Medical Center.

Table 1 Health topics presented during the 2013 and 2014 classes for the Lay Health Educator Program

Depression
Medication Management
Addiction
Chronic Kidney Disease
Women's Health
HIV
Sexually Transmitted Diseases
Chronic Obstructive Pulmonary Disease
Dementia
Stroke
Heart Disease
Oral Health
Diabetes
Nutrition
Talking to Your Doctor
Advance Directives
Vaccinations

Participants of the LHEP are recruited from two backgrounds. One is through congregations and local faith communities in the Baltimore–Washington D.C. metropolitan area. We approached leaders of the congregations, explained the mission of the initiative, and invited them to recommend candidates from their community. Second, participants were recruited from the clinical pastoral education (CPE) program. The CPE program trainees were ordained persons with theological degrees enrolled in either a full-time yearlong residency-training or a part-time CPE program called community partners CPE.

Upon graduation, the LHEP stayed in contact with the graduates through emails and telephone conversations. They were identified as lay health educators among their communities in order to help initiate the conversations of health and wellness promotion. Lay health educators were encouraged to notify the program once they had a project in mind. We tracked the health events offered by the class of 2013 during the 2014 calendar year and those offered by the class of 2014 in the 2015 calendar year. IRB approval was obtained to thoroughly evaluate the impact of lay health educators.

Data Collection and Statistical Analysis

This is a retrospective observational study of health events implemented by lay health educators. We collected data on time to first health promotion event in the community, type of event, and how many community members were participants in the event. Where appropriate, results are reported as mean (\pm SD). Analyses were conducted with SigmaPlot 11.0 (San Jose, CA).

Results

Between 2013 and 2014, the Lay Health Educator Program graduated 36 persons. Twelve of the graduates were CPE trainees (33 %). Table 2 lists demographic information regarding the graduates.

Table 2 Demographic information regarding graduates of the Lay Health Educator Program from 2013 to 2014

	Community Members	Clinical Pastoral Students
<i>Number</i>	24	12
Class of 2013	14	9
Class of 2014	10	3
<i>Sex (female) (%)</i>	21 (88)	8 (67)
Class of 2013	13	6
Class of 2014	8	2
<i>Religious affiliation</i>		
Christian (%)	16 (67)	9 (75)
Catholic	4	3
Methodist	2	2
Baptist	3	3
Nondenominational	7	1
Not otherwise specified	8 (33)	3 (25)

A total of 50 events were implemented by the classes of 2013 and 2014 in the Baltimore–Washington D.C. metropolitan area. Between the two classes, the mean time to implement their first health promotional event was 196 ± 76 days (median 185 days). For the class of 2013, the mean time was 209 ± 70 days (median 211 days); for the class of 2014, their mean time to the first health event was 177 ± 73 days (median 148 days). Figure 1 shows the number of health events per month. Figure 2 indicates the number of people reached by the events. The dashed line divides the year 2014 from 2015.

The majority of events [36] were stand-alone lectures. Lecture topics were primarily one of three talks: heart health, cancer discussions, and mental health. They requested health professionals to discuss these specific health topics in a lecture format with allowance of 15–20 min for questions from the audience. When visual aids were used, PowerPoint was the main tool; occasionally, a video would also be shown. The lectures were often held at the end of a religious gathering or scheduled as an adjunct to an already planned event.

For pamphlet requests (Jencks et al. 2003), health topics were more diverse, including themes such as nutrition, medication management, and how to talk with a doctor. One congregation requested monthly health topics over a six-month period to be distributed as pamphlets during a Sunday Mass. These were also translated into Spanish since half of the congregation was Latino and spoke only Spanish. While it was hard to keep track of how many people were ultimately impacted by the handout, since once the congregation members left church they were encouraged to share the material, the lay health educators based their number on how many pamphlets were distributed. Therefore, their report of the number of persons reached is likely an underestimate.

There were six workshops implemented in 2014. Three workshops were centered on blood pressure training, while the other three were on advance directives. The lay health educators who implemented the workshop requested additional training upon graduation from the LHEP. For the blood pressure workshop, they were taught how to take blood pressures for the purpose of hypertension screening by a nurse and physician. As for the advance directive workshop called “Who Will Speak for You?”, they were taught about the single most significant act of advance care planning, naming a healthcare agent.

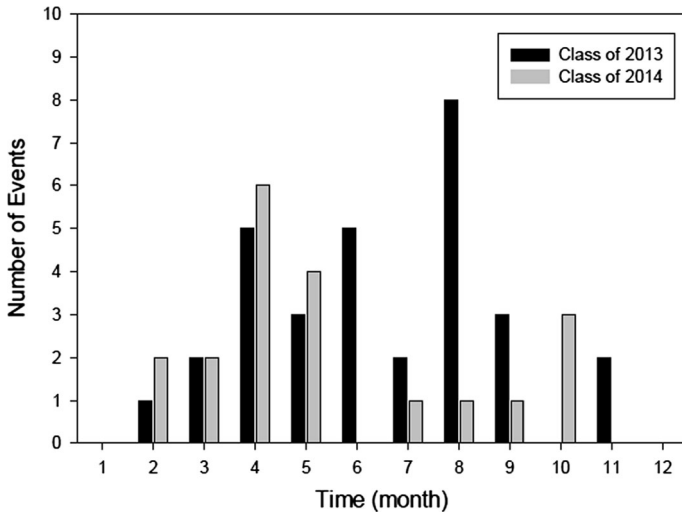


Fig. 1 Timeline of health events by each month for the years 2014 (as implemented by the class of 2013) and 2015 (as implemented by the class of 2014). January is represented as “1” (and also represents the first month after graduation), February is “2,” and so forth

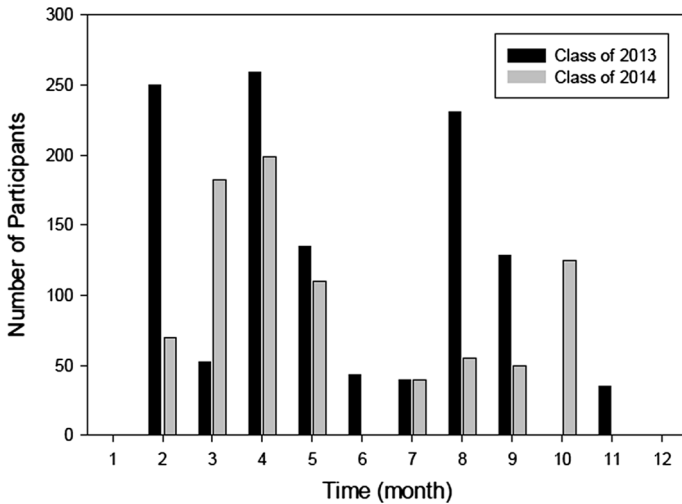


Fig. 2 Timeline of health events and the number of participants reached by each month for the years 2014 (as implemented by the class of 2013) and 2015 (as implemented by the class of 2014). January is represented as “1” (and also represents the first month after graduation), February is “2,” and so forth

Additional information on the topic of living wills and advance directives was offered as a follow-up. Training to prepare the lay health educators for these workshops included two additional hours. Note that for the blood pressure training, the lay health educators were also taught an algorithm to follow depending on blood pressure values. The educators reached 74 persons with these workshops (44 for the advance directive workshop; 30 for the blood pressure workshop).

The graduates from 2013 reached 1173 individuals; the class of 2014 reached 831. Overall, 2004 persons were reached by health initiatives implemented by lay health educators (a ratio of 56 community members for each lay health educator).

Discussion

The graduates of the Lay Health Educator Program implemented health promotional events in their respective communities, reaching 2004 persons. This is significant in that it demonstrates the far-reaching impact one community member can have after receiving formal training in health information and awareness while continuing to collaborate with leaders of the faith community and hospital. Further, this is the first study to demonstrate the potential use of clinical pastoral education students as lay health educators, thus expanding their role in implementing coordinated cost-effective healthcare.

Our educators were volunteers and trained at an academic hospital. These variables are in contrast to current publications on community health workers. Kash et al. (2007) describe 17 states with established training programs that emphasize skill development for community health workers in a standardized fashion. In their review, they note that the majority of training occurs at community colleges or direct service agencies, such as nonprofit community centers and clinics. Our lay health educators were trained at a hospital, with emphasis on maintaining that relationship after graduation. More so, Kash et al. describe these workers as employed and often using their training for career advancement purposes. The authors noted that the advantage of being employed meant reimbursements for the health workers' efforts, which lead to higher productivity and better retention of community health workers. Our workers were volunteers, either retired or actively employed, or were clinical pastoral students. It remains to be determined whether these volunteer workers will have as much of a clinical impact as employed workers. Further, given the lack of a monetary incentive, other variables should be evaluated for volunteer workers in regard to identifying what drives their motivation.

Given that significant clinical outcomes will take time to become apparent from these interventions (e.g., survival improvement), we can still measure effectiveness in other ways. For example, in regard to the cost-effectiveness of a lay health educator program, certain variables may be explored. For instance, since our lay health educators were volunteers, as were the physicians who participated and led the health lectures during the training course, all of the funding went toward the course's needs (e.g., handouts, food, and beverages) or to help with community events. On estimate, about 2000 US dollars were spent in total for the class of 2013 and 2014. Since 2004 persons were reached, this effectively translates into about one US dollar per person impacted. From a business perspective, this type of intervention appears viable and cost-effective.

Another unique feature of our lay health educators was the participation of clinical pastoral education (CPE) students, also called chaplain students. These students have impacted medical care in a variety of ways. Frazier et al. (2015) describe chaplain students impacting medical education by demonstrating to medical students the importance of spirituality for inpatients. Chaplain interns who join medical wards teams have been seen as emotional support for the medical team while also enhancing the delivery of team-based patient-centered care (Hemming et al. 2015). Further, chaplains have been shown to meet health providers' personal and professional needs while helping build relationships among the staff (Taylor et al. 2015). However, CPE students working as community health

workers, such as lay health educators, have not been described in the literature. Being a lay health educator seems to be in accordance with chaplain students' identity: focus on relationships (in this case between hospitals and communities), working with faith-based organizations, and improving patient-centered care. Therefore, it seems beneficial to expand the role of chaplain students to include serving as lay health educators.

There were several limitations to this study. First, the demographics of the lay health educators were not well reported. While we did provide surveys that asked questions pertaining to demographics, we did not enforce the need to fill out the forms by the lay health educators. The reason was concern that these types of questions, which may have been perceived as research, would have hindered the ability to earn the trust from some of the communities from which we recruited the lay health educators (Skloot 2010). Second, we did not address in this manuscript any clinical outcomes from the work of the lay health educators. Third, we did not evaluate to see what type of health event is most effective in improving specific educational outcomes, such as health literacy. Future studies should address this and thus be taught to the lay health educators during training sessions. Finally, we only describe time to the first health event and type. We should explore if these lay health educators implement more events and projects. Further, given they are volunteers, we should explore, if they remain active as lay health educators, what motivates them to continue doing work that is not economically compensated (e.g., assess elements such as grit and purpose).

As the population grows and ages, so will the prevalence of chronic diseases and the need for cost-effective ways to help with the monitoring and management of these conditions. Lay health educators/community health workers may fulfill this role by, for example, delivering medical information and helping to coordinate care for patients in the community. Hospitals and medical institutions can do their part by allocating resources to recruit and train lay health educators from the community. Further, this study demonstrates that clinical pastoral education students may also be an excellent resource to serve as lay health educators. Future studies should couple the monitoring of lay health educators' community activities with an evaluation of their potential clinical impact.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Animal and Human Right This article does not contain any studies with human participants performed by any of the authors.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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