Published in final edited form as:
Public Health Nurs. 2010 ; 27(6): 537–543. doi:10.1111/j.1525-1446.2010.00881.x.

Services Delivered by Faith-Community Nurses to Individuals With Elevated Blood Pressure

Victoria Monay, B.A.[Research Assistant],
University of California, Los Angeles,California

Carol M. Mangione, M.D., M.S.P.H.[Professor],
Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, California; and Department of Health Services, UCLA School of Public Health, University of California, Los Angeles, California

Alice Sorrell-Thompson, M.B.A., P.H.N., R.N.[Nursing Director], and
Absolute Home Health Agency Inc., Los Angeles, California

Arshiya A. Baig, M.D., M.P.H.[Assistant Professor]
Section of General Internal Medicine, Departmentof Medicine,University of Chicago,Chicago, Illinois

Abstract

Objective—Our study describes the services faith-community nurses provide to a community-dwelling sample of patients with elevated blood pressure.

Design and Sample—The faith-community nurses completed a survey describing services provided to study participants at each patient encounter. We describe the type of contact and the frequency and types of services provided to these patients. From October 2006 to October 2007, we conducted a partnered study with a faith-community nursing program and enrolled 100 adults with elevated blood pressure from church health fairs.

Measures—Patient demographics and faith-community nurse services provided.

Results—Data from 63 of 108 (58%) visits to faith-community nurses made by 33 participants were collected from surveys completed by the nurses. The majority of the participants were female (64%), Latino (61%), with an average age of 59 (*SD* = 11) years and incomes below US$30,000 (83%). The most frequent services patients received from faith-community nurses were blood pressure measurement (73%), hypertension-specific education on dietary changes (67%), and supportive counseling (56%).

Conclusions—Faith-community nurses represent a new method of supportive self-management for low-income individuals with a chronic condition who may otherwise have limited access to health services. Further research is needed to understand the effect of faith-community nurse interventions on improving chronic disease health outcomes in these communities.

Keywords

community outreach; faith-community nursing; hypertension; parish nursing

Correspondence to: Arshiya A. Baig, Section of General Internal Medicine, Department of Medicine,University of Chicago,5841 S. Maryland Ave. MC 2007, Chicago, IL 60637. abaig@uchicago.edu.

Forty-six million Americans are currently uninsured, and minorities and low-income individuals are disproportionately represented in this group (DeNavas-Walt, Proctor, & Smith, 2007; Institute of Medicine, 2002). Community-based organizations have a long history of reaching out and successfully serving these underserved populations (Babalola et al., 2001; Benotsch et al., 2004; Floyd, Skeva, Nyirenda, Gausi, & Salaniponi, 2003; Forbes, 2000; Jancloes & Martin, 1998; Mercer, Liskin, & Scott, 1991; Singh et al., 2004). Many nongovernmental organizations have established community nursing sites as a way to deliver and make health care more accessible to underserved and predominantly uninsured communities. Churches have emerged as an important site for community health nursing through the establishment of faith-community nursing programs. These programs emerged in the United States in the 1980s and have flourished as innovative health delivery models that address the physical, emotional, and spiritual needs of faith communities while providing holistic nursing care, boasting over 6,000 programs across the United States (Stewart, 2000; Weis, Matheus, & Schank, 1997; Westberg, 1990; Zuvekas, Nolan, Tumaylle, & Griffin, 1999).

Faith-community nursing programs draw on the community outreach model and have grown as a response to the inequity of health care delivery. Faith-community nursing programs provide outreach to community members and extend their services beyond just the church community. They establish a vital link among health care providers, community organizations, and members of communities, by identifying those in need of care, educating and supporting adherence to care, and coordinating care linkages (Van Zandt, D'Lugoff, & Kelley, 2000). Faith-community nurses offer personalized attention to establish a stable source of care and facilitate urgent care when needed (Chase-Ziolek & Striepe, 1999; Findley et al., 2003; Health Ministries Association, American Nurses Association, 2005; Shiber & D'Lugoff, 2002; Stewart, 2000; Zuvekas et al., 1999).

Studies have documented the services that faith-community nurses provide, ranging from qualitative work describing nurse experiences to quantitative studies describing the services the nurses provide to their patients (Anderson, 2004; Brudenell, 2003; Burkhart & Androwich, 2004; Chase-Ziolek & Striepe, 1999; Coenen, Weis, Schank, & Matheus, 1999; Matteson, Reilly, & Moseley, 2000; McDermott & Burke, 1993; McDermott, Solari-Twadell, & Matheus, 1998; Nist, 2003; Sherwin, 1996; Stewart, 2000). Yet, to our knowledge, few studies have described what services are prioritized and delivered by faith-community nurses specifically to patients with chronic conditions in underserved communities. Faith-community nursing programs may represent a new way to promote self-care behavior and deliver health services to individuals with poorly controlled hypertension in these communities. Our study describes the services that nurses provide to such individuals from mainly low-income, immigrant communities at health fairs in Los Angeles County.

Methods

Design and sample

We used community-based participatory research methods to partner with a nonprofit faith-community nursing program in Los Angeles. We worked with our partner organization in the design, implementation, analysis, and interpretation of the results from the research. The data used for this report came from self-administered surveys completed by faith-community nurses from a community-based randomized intervention trial that measured changes in systolic blood pressure, hypertension knowledge, participation in hypertension self-care, and medication intensification among patients with poorly controlled blood pressure recruited from community nurse-led church health fairs. Participants who were 18 years of age or older with elevated blood pressure were enrolled in the study from 26 health fairs at 11

churches in Los Angeles County. All participants provided written informed consent upon enrollment. Four months after recruitment, participants completed follow-up measures. During the study period, participants visited a faith-community nurse and/or a primary care physician. During the 4-month study period, the nurses were asked to complete a survey after every visit with a study participant. The UCLA institutional review board approved all study procedures, and this trial was registered at http://clinicaltrials.gov, identifier number NCT00535444.

The larger community-based intervention trial randomized patients to direct referrals to faith-community nurses or assisted patients in making an appointment with a physician to manage their elevated blood pressure. Participants randomized to direct referral to a faith-community nurse arm were introduced to the nurse at the health fair and encouraged to see the nurse within the next 2 weeks. The nurses followed their standard protocol for managing a participant with poorly controlled hypertension. The faith-based community nurses were all registered nurses and were not licensed to prescribe or dispense medications to participants. Participants randomized to the physician referral arm were assisted by non-medical personnel in making an appointment with their physician to address their elevated blood pressure. If the participant did not have a primary care physician, the study team identified a physician for the participant and assisted in making an appointment. Participants in the physician referral arm could visit with the faith-community nurse if they chose; though, the study team did not provide any information on the nurse to the participant in the physician referral arm. This report uses data from the subset of participants from both arms of the larger study who saw the nurse within the 4-month follow-up period and had a survey completed after one or more of their visits.

Measures

Patient demographics—Participants reported their age, gender, race/ethnicity, employment status, income, educational attainment, marital status, type of health insurance, smoking status, and primary language spoken.

Nurse visits—We verified attendance at nurse office hours through patient self-report and a review of each nurse's records that were kept as a part of the study protocol.

Nurse services—The faith-community nurses helped develop the survey instrument to measure the services they delivered and approved the final draft before fielding. The survey included domains for: the date of the visit, the church location, the location of the visit (e.g., phone, office hours, church campus), and a list of 15 different services. These services included: providing education on dietary habits, increasing exercise, tobacco cessation, decreasing alcohol use, and information about hypertension and its complications, assistance in making appointments with physician, assistance with transportation, counseling on importance of properly taking medication, referral to mental health services, to diagnostic procedures, to subspecialists, to homeless services, supportive counseling, and teaching self-monitoring of blood pressure at home. Nurses also had the option of describing additional services delivered in free text fields that were then added to the appropriate category (e.g., supportive counseling) or a new category if needed. Each nurse was asked to fill out a survey after each participant visit. The surveys were mailed by nurses to the study project office and were entered into a database by research staff.

Analytic strategy

We pooled the faith-community nurse surveys from both study arms of the larger trial to report frequency of services provided by the nurses to the patients. We calculated the number of times a service was provided divided by the total number of visits. We conducted

our analyses using STATA 10.0 (StataCorp, College Station, TX, U.S.A.) and SAS, version 9.1 (SAS Institute Inc., Cary, NC, U.S.A.).

Results

A total of 11 churches and 10 nurses participated in the study. Of 187 health fair participants with an average of the last two of three blood pressure readings equal to or over 140mmHg systolic or 90mmHg diastolic, 150 fulfilled the study eligibility criteria, and 67% ($N = 100$) enrolled in the study (Drummond, Buss, & Ladigo, 1992). The nonenrollees and enrollees did not differ in terms of mean age, gender distribution, mean systolic or diastolic blood pressure, or by distribution of race and/or ethnicity.

Of the 100 people enrolled in the study, 33 participants made a total of 108 visits to a faith-community nurse during the 4-month study period. Twenty-one of the 50 participants randomized to see a nurse made 78 nursing visits, and 12 of the 50 participants randomized to assistance with making an appointment to see a physician independently made 30 visits to the nurse. We have survey information describing the services provided for 63 of these 108 visits (58%). The nurses' reasons for not completing a survey included lack of time during the office visit, forgetting, and confusion about whether surveys were only supposed to be completed for the first patient visit or for all subsequent visits. Participants who visited a nurse or not did not differ in terms of mean age, gender distribution, mean systolic or diastolic blood pressure, or by distribution of race and/or ethnicity.

Patient characteristics

The demographic characteristics of the 33 patients who saw the nurse during their 4-month follow-up period and for whom surveys were completed are displayed in Table 1. The mean age of the patients was 59 ($SD = 11$) years. The majority were female (64%), Latino (61%), born outside the United States (79%), did not speak English at home (67%), had less than a high school education (49%), and had an annual income of less than US$30,000 (83%). The health and health care characteristics of the patients are described in Table 2. The mean systolic blood pressure at the time of study enrollment, before any visits with a faith-community nurse, was 148 ($SD = 10$)mmHg, and the mean diastolic blood pressure was85($SD = 9$)mmHg. Most had never smoked (67%), were insured (55%), and had a family history of hypertension (61%). Many had previously been diagnosed with hypertension (67%), though less than half reported being on blood pressure medication (42%). The majority described their health status as fair (52%). Twenty-seven percent of the patients had diabetes.

Nurse services

Each patient visited the nurse an average of 3.3 times. Patients saw a nurse within a mean of 28 ± 30 days after study enrollment. The types of patient encounters and the services delivered by the faith-community nurses are described in Tables 3 and 4. The most common contact was face to face during office hours. The most frequent services offered during the visits included blood pressure measurement ($n = 46$, 73%), education on diet ($n = 42$, 67%), supportive counseling ($n = 35$, 56%), and education on exercise ($n = 31$, 49%).

Discussion

We found that the most frequently provided services by faith-community nurses for patients focused on providing the needed information to increase participation in self-management and lifestyle behavioral change.

Our findings confirm previous reports on services provided by faith-community nurses that health education and support are common services delivered (Anderson, 2004; Burkhart & Androwich, 2004 Matteson et al., 2000; Sacks, Svetkey, & Vollmer 2001; Sherwin, 1996; Stewart, 2000). The main services that the nurses provided in their patient encounters were in support of self-management, which is critical for hypertension management (Chobanian Bakris, & Black, 2003; Kelley & Kelley, 2000 Whelton, Chin, Xin, & He, 2002). These findings are reassuring, considering clinical guidelines on hypertension care encourage provider counseling on dietary and lifestyle changes to control systolic blood pressure among patients with hypertension and prehypertension (Perez-Stable, Napoles-Springer, & Miramontes 1997). Faith-community nursing programs may represent a new way to support self-management among a population that otherwise would have extremely poor access to these services.

Although measuring blood pressure and encouraging lifestyle changes were frequently delivered services and are important in blood pressure management, we also found that some hypertensive services were less frequently reported. The rates of counseling on the importance of taking medication and on proper medication use were low. Increasing counseling in these areas is important since medication nonadherence is a key factor in poor blood pressure control (DiMatteo, Giordani, Lepper, & Croghan, 2002). Considering that faith-community nurses cannot prescribe medications, referring patients to physicians for antihypertensive medication therapy is key, though we found that assistance in making physician appointments for patients was not a common service provided. Although the nurses' main focus was on encouraging patient self-management of hypertension, providing patients with other services that were less frequently offered, such as assessing adherence to medications and coordinating physician linkages, may be key in expanding the roles the nurses play in hypertension management.

Our study does have some limitations. Our finding may not be generalized to all populations since we recruited from health fairs, where attendees may be more activated to seek and receive health care. Only visits to nurses by participants who had been identified as having a high blood pressure were included in this study. The nurses did not fill out a survey for every visit, which reduces the internal validity of our findings. The list of services we used for our survey instrument applied specifically to our community group by being based primarily on the input of the participating faith-community nurses. While this made the list relevant to the communities we studied, it reduced its ability to be generalized to other faith-community nurse programs (Burkhart, Konicek, Moorhead, & Androwich, 2005; Coenen et al., 1999).

Through a better understanding of the frequency and types of services that faith-community nurses provide, we can work to improve and expand these services and tailor these programs to better deliver care to low-income, uninsured patients with chronic diseases. Further research needs to be conducted to understand the effect of faith-community nurse interventions on improving chronic disease health outcomes in these communities.

Acknowledgments

The Robert Wood Johnson Foundation Clinical Scholars Program supported this work. We would like to thank Jeanne Miranda, Ph.D. and the QueensCare Health and Faith Partnership for their support and hard work in making this project possible. Dr. Mangione is Director of the Recruitment and Retention Core of the Older Americans Independence Center at UCLA funded by the National Institutes of Health (NIH) and National Institute on Aging (NIA) grant P30AG02874 and receives support from the UCLA Center for Health Improvement of Minority Elderly/Resources Centers for Minority Aging Research under the NIH/NIA grant P30AG021684.

References

Anderson CM. The delivery of health care in faith-based organizations: Parish nurses as promoters of health. Health Communication. 2004; 16:117–128. [PubMed: 14979855]

Babalola S, Sakolsky N, Vondrasek C, Mounlom D, Brown J, Tchupo JP. The impact of a community mobilization project on health-related knowledge and practices in Cameroon. Journal of Community Health. 2001; 26:459–477. [PubMed: 11759096]

Benotsch EG, Stevenson LY, Sitzler CA, Kelly JA, Makhaye G, Mathey ED, et al. HIV prevention in Africa: Programs and populations served by non-governmental organizations. Journal of Community Health. 2004; 29:319–336. [PubMed: 15186017]

Brudenell I. Parish nursing: Nurturing body, mind, spirit, and community. Public Health Nursing. 2003; 20:85–94. [PubMed: 12588425]

Burkhart L, Androwich I. Measuring the domain completeness of the nursing interventions classification in parish nurse documentation. Computers, Informatics, Nursing. 2004; 22:72–82.

Burkhart L, Konicek D, Moorhead S, Androwich I. Mapping parish nurse documentation into the nursing interventions classification: A research method. Computers, Informatics, Nursing. 2005; 23:220–229.

Chase-Ziolek M, Striepe J. A comparison of urban versus rural experiences of nurses volunteering to promote health in churches. Public Health Nurse. 1999; 16:270–279.

Chobanian AV, Bakris GL, Black HR. The seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure: The JNC 7 report. Journal of American Medical Association. 2003; 289:2560–2571.

Coenen A, Weis DM, Schank MJ, Matheus R. Describing parish nurse practice using the nursing minimum data set. Public Health Nursing. 1999; 16:412–416. [PubMed: 10620251]

DeNavas-Walt, C.; Proctor, BD.; Smith, J. Income, poverty, and health insurance coverage in the United States: 2006. Washington, DC: U.S. Census Bureau; 2007.

DiMatteo MR, Giordani PJ, Lepper HS, Croghan TW. Patient adherence and medical treatment outcomes. Medical Care. 2002; 40:794–811. [PubMed: 12218770]

Drummond M, Buss TF, Ladigo MA. Volunteers for community health. An Ohio hospital sponsors parish nursing programs for area churches and synagogues. Health Progress. 1992; 73:20–24. [PubMed: 10118339]

Findley S, Irigoyen M, See D, Sanchez M, Chen S, Sternfels P, et al. Community-provider partnerships to reduce immunization disparities: Field report from northern Manhattan. American Journal of Public Health. 2003; 93:1041–1044. [PubMed: 12835176]

Floyd K, Skeva J, Nyirenda T, Gausi F, Salani-poni F. Cost and cost-effectiveness of increased community and primary care facility involvement in tuberculosis care in Lilongwe District, Malawi. International Journal of Tuberculosis and Lung Disease. 2003; 7:S29–S37. [PubMed: 12971652]

Forbes A. A community nurse-led project to tackle health inequalities. British Journal of Community Nurse. 2000; 5:610–618.

Health Ministries Association, American Nurses Association. Faith community nursing: Scope and standards of practice. Silver Spring, MD: American Nurses Association; 2005.

Institute of Medicine. Unequal treatment: Confronting racial and ethnic disparities in health care. Washington, DC: Author; 2002.

Jancloes M, Martin JD. Attacking poverty and improving health: A report on the WHO/State of Maryland International Health Congress, Baltimore, September 1997. Tropical Medicine and International Health. 1998; 3:333–336. [PubMed: 9623936]

Kelley GA, Kelley KS. Progressive resistance exercise and resting blood pressure: A meta-analysis of randomized controlled trials. Hypertension. 2000; 35:838–843. [PubMed: 10720604]

Matteson MA, Reilly M, Moseley M. Needs assessment of homebound elders in a parish church: Implications for parish nursing. Geriatric Nursing. 2000; 21:144–147. [PubMed: 10864694]

McDermott MA, Burke J. When the population is a congregation: The emerging role of the parish nurse. Journal of Community Health Nursing. 1993; 10:179–190. [PubMed: 8229117]

McDermott MA, Solari-Twadell PA, Matheus R. Promoting quality education for the parish nurse and parish nurse coordinator. Nursing and Health Care Perspectives. 1998; 19:4–6. [PubMed: 10446542]

Mercer MA, Liskin L, Scott SJ. The role of non-governmental organizations in the global response to AIDS. AIDS Care. 1991; 3:265–270. [PubMed: 1932189]

Nist J. Parish nursing programs. Through them, faith communities are reclaiming a role in healing. Health Progress. 2003; 84:50–54. [PubMed: 12592946]

Perez-Stable EJ, Napoles-Springer A, Miramon-tes JM. The effects of ethnicity and language on medical outcomes of patients with hypertension or diabetes. Medical Care. 1997; 35:1212–1219. [PubMed: 9413309]

Sacks FM, Svetkey LP, Vollmer WM. Effects on blood pressure of reduced dietary sodium and the dietary approaches to stop hypertension (DASH) diet. New England Journal of Medicine. 2001; 344:3–10. [PubMed: 11136953]

Sherwin R. Blood pressure in minorities screened for the multiple risk factor intervention trial (MRFIT). Public Health Reports. 1996; 111:68–70. [PubMed: 8898781]

Shiber S, D'Lugoff M. A win-win model for an academic nursing center: Community partnership faculty practice. Public Health Nursing. 2002; 19:81–85. [PubMed: 11860592]

Singh AA, Parasher D, Shekhavat GS, Sahu S, Wares DF, Granich R. Effectiveness of urban community volunteers in directly observed treatment of tuberculosis patients: A field report from Haryana, North India. International Journal of Tuberculosis and Lung Disease. 2004; 8:800–802. [PubMed: 15182154]

Stewart LE. Parish nursing: Renewing a long tradition of caring. Gastroenterology Nursing. 2000; 23:116–120. [PubMed: 11235442]

Van Zandt SE, D'Lugoff MI, Kelley L. A community-based free nursing clinic's approach to management of health problems for the uninsured: The hepatitis C example. Family and Community Health. 2000; 25:61–70. [PubMed: 12802143]

Weis D, Matheus R, Schank MJ. Health care delivery in faith communities: The parish nurse model. Public Health Nursing. 1997; 14:368–372. [PubMed: 9439176]

Westberg, GE. The parish nurse: Providing a minister of health for your congregation. Minneapolis, MN: Augsburg Fortress; 1990.

Whelton SP, Chin A, Xin X, He J. Effect of aerobic exercise on blood pressure: A meta-analysis of randomized, controlled trials. Annals of Internal Medicine. 2002; 136:493–503. [PubMed: 11926784]

Zuvekas A, Nolan L, Tumaylle C, Griffin L. Impact of community health workers on access, use of services, and patient knowledge and behavior. Journal of Ambulatory Care Management. 1999; 22:33–44. [PubMed: 11184887]

Table1
Demographic Characteristics of Study Participants (N = 33)

Characteristic	*n*	%
Age (mean, *SD*)	59	11
Female	21	64
Race or ethnic group		
Caucasian	5	15
Hispanic	20	61
African American	3	9
Asian/Pacific Islander	5	15
Marital status		
Never married	12	36
Married	11	33
Widowed	3	9
Divorced/separated	5	15
Living with partner	2	6
Education		
No high school degree	16	49
High school degree	6	18
Some college or technical school	5	15
College degree or more	6	18
Income less than US$30,000[a]	23	83
Currently employed	17	52
Born outside of United States	26	79
Number of years in the United States (mean, *SD*)	33	21
Speak English at home	11	33

Note. SD = standard deviation.

Owing to rounding, percents may not add up to 100.

[a]Six participants did not report their income.

Table2
Health and Health Care Characteristics of Participants (N = 33)

Characteristic	*n*	%
Have health insurance	18	55
Have a usual source of care	24	73
Known family history of hypertension	20	61
Known diagnosis of hypertension	22	67
On antihypertensive medication	14	42
Diagnosed with diabetes	9	27
Diagnosed with heart disease	5	15
Smoking status		
Never smoked	22	67
Current smoker	3	9
Past smoker	8	24
Self-reported health status		
Excellent	2	6
Very good	4	12
Good	8	24
Fair	17	52
Poor	2	6

Note. Owing to rounding, percents may not add up to 100.

Table3

Types of Patient Encounters (N = 63)

Type of encounter	*n*	%
Phone	15	24
Office hours	47	75
Church campus	1	2

Note. The percentages may not add up to 100 due to rounding.

Table4
Description of Services Provided During Patient Encounters (N = 63)

Services	*n*	%
Measurement/testing		
Blood pressure measurement	46	73
Blood sugar test	2	3
Education		
Education on diet	42	67
Education on exercise	31	49
Education on disease process and complications	22	35
Education on decreasing alcohol use	9	14
Education on tobacco cessation	4	6
Teaching on self-monitoring at home e.g., blood pressure treatment)	1	2
Counseling		
Supportive counseling	35	56
Counseling on importance of taking medication	27	43
Counseling on properly taking medication	22	35
Reinforcement of health tips	2	3
Referrals		
Referral to subspecialist	3	5
Referral to mental health services	1	2
Referral to social services agency	1	2
Assistance with appointments		
Assistance in making appointment with physician	14	22
Change/plan appointment with nurse	3	5
Helped switch from one clinic to another	1	2
Other services		
Reminder to come get blood pressure measured	2	3
Treatment of arm injury	5	8

Note. The percents do not add to 100 because more than one service was reported by the nurse per encounter.