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Health Volunteerism and Improved Cancer Health for Latina and African American Women and Their Social Networks: Potential Mechanisms

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Abstract

Health volunteerism has been associated with positive health outcomes for volunteers and the communities they serve. This work suggests that there may be an added value to providing underserved populations with information *and* skills to be agents of change. The current study is a first step toward testing this hypothesis. The purpose is to identify how volunteerism may result in improved cancer health among Latina and African American women volunteers. A purposive sample of 40 Latina and African American female adults who had participated in cancer volunteerism in the past five years was recruited by community advocates and flyers distributed throughout community venues in San Diego, CA. This qualitative study included semi-structured focus groups. Participants indicated that volunteerism not only improved their health, but also the health of their family and friends. Such perceptions aligned with the high rates of self-report lifetime cancer screening rates among age-eligible patients (e.g., 83–93%:breast; 90–93%:cervical; 79–92%:colorectal). Identified mechanisms included exposure to evidence-based information, health-protective social norms and support, and pressure to be a healthy role model. Our findings suggest that train-the-trainer and volunteer-driven interventions may have unintended health-protective effects for participating staff, especially Latina and African American women.

Keywords

cancer disparities; Latina; African American; volunteerism

Introduction

Volunteerism, including serving as a non-paid community health worker (CHW) or cancer health educator (CHE), may be health-protective[1–5]. A recent meta-analysis documented

volunteerism to be associated with a 20% reduction in all-cause mortality[2]. An alternative approach to strictly *educational* efforts may thus be to support populations' efforts to serve in cancer health promotion themselves. This *engagement* approach may result not only in improved outcomes for individuals participating in programs, but also improved outcomes for the social networks in which they are embedded. This may be especially the case for Latina and African American women, given gendered cultural norms and values place on them the responsibility of fostering strong interpersonal relationships within family and friends[6–9]. This approach is further relevant given the poorer cancer-related outcomes[9–22] Latina and African American women exhibit relative to non-Latina White (NLW) counterparts exist in part due to less healthy behaviors[16, 19–21]. The current study is a first step toward a conceptual framework to elucidate if and how an *engagement* approach may have added value in eliminating cancer outcome disparities through addressing racial/ethnic differences in health behaviors.

Optimizing cancer education among underserved populations has been a public health priority for decades [23–26]. Train-the-trainer and community-based participatory research models are increasingly popular, wherein academic and practice-based stakeholders partner with communities to increase capacity in the dissemination of cancer health information[27–32]. Numerous programs have shown promising results in training community members to change cancer knowledge and screening within Latino and African American populations [25, 33, 34]. Nonetheless, these programs have rarely assessed the effects of such training for volunteers' personal health.

Simultaneously, there is a large body of literature concerning positive health effects of volunteerism[1, 5, 35]. Although mostly focused on non-cancer (e.g., blood pressure, depression) or holistic outcomes (e.g., self-rated health, all-cause mortality), this work suggests that volunteerism may be a worthwhile intervention strategy[2]. Other research, not focused on formal volunteerism, has found similar associations between individuals' willingness to disseminate health information and their own health behaviors[36–39]. For example, a recent study found that Latinas' intention to discuss breast cancer and breast cancer screening they had learned from a CHW/CHE was associated with a greater intention to obtain a mammogram[36].

Nonetheless, gaps exist. First, the majority of studies to date have focused on predominantly NLW populations or racial/ethnic minority men[2–4, 1, 5]. Little is known about the potential for volunteerism to improve the cancer health of Latina and African American women in particular[40]. Second, no study has examined the potential impacts of volunteerism for volunteers' social networks. Third, mechanisms underlying the relationship between volunteerism and health have not been extensively explored[35]. Such data are necessary to develop effective, targeted volunteerism interventions. Potential mechanisms or cues to action can be identified from health promotion and psychological theories, including the PRECEDE-PROCEED model, the Health Belief Model, the Theory of Planned Behavior, Social Cognitive Theory, and Dissonance Theory[41–45]. Collectively, these theories suggest the following factors may be mechanisms: regular exposure to health-protective education, experiencing health-protective social interactions and norms, and responding to others' expectations given one's message.

These mechanisms are particularly important to characterize across subpopulations, as they may differ across groups and be associated with individuals' sociocultural orientations, norms, values, and practices. For example, social norms and support may be particularly important mechanisms by which volunteerism is associated with improved health for Latina and African American women [1,46,47]. Given these populations experience knowledge-based barriers regarding cancer and cancer-related behaviors[48,49], information exposure may be a particularly relevant mechanism underlying volunteerism and health for Latina and African American women. Further, CHW/CHEs may benefit from regular, repeated exposure to information, although exposure-dose response relationships have not been tested in the context of volunteerism and health[2]. Nonetheless, one promising study found that African American women who had been exposed to health information 4+ times were 15 times more likely to report obtaining a mammogram relative to women with less exposure to health information[50].

The current study is a first step to address these gaps in the literature and develop a framework to understand how volunteerism may lead to improved cancer outcomes among Latina and African American women. Using qualitative methods, we identify the perceived health effects of volunteerism for volunteers and their social networks as well as underlying mechanisms among a purposive sample of Latina and African American women.

Methods

Study population and procedures

The current project draws from a small study conducted in San Diego between May and June 2015. The main focus of this study was to examine the relationship between health-related volunteerism and cancer-related health behaviors. Two community advocates(NM, MSM) completed human subjects in research training and led recruitment, eligibility screening, and scheduling efforts. Recruitment efforts included paper and electronic flyers distributed throughout local community- and faith-based community venues and relevant electronic listservs. Eligible, interested women telephoned one of the advocates, who provided a brief description of the study and screened women for eligibility (18 years or older, self-identification as Latina/Hispanic/Chicana or African American/Black American, and self-reported participation in any type of cancer-related volunteerism within the past 5 years). Forty eligible women participated in one of six semi-structured focus groups (3–10 individuals) that were held in English or Spanish, depending on participants' preferences. During focus groups, women provided written consent to participate, completed quantitative survey measures, and participated in an audio-recorded 30–60 minute group discussion led by the Principal Investigator (YM). Participants received \$40 for their effort. All procedures and materials were reviewed and approved by (BLINDED)'s Institutional Review Board.

Measures

Perceived effects of health-related volunteerism—A semi-structured guide was used, including eight open-ended questions regarding experiences with volunteerism and perceived health effects of volunteerism for themselves, family and friends. Sample

questions were “Why might volunteering lead people to become healthier?” and “How did experiences as a volunteer change your own health choices and behaviors?”

Lifetime volunteerism frequency—We assessed the frequency with which women had volunteered for any cause and for cancer specifically[35]. Response categories were: 0 = Almost never have; 1 = In the last month; 2 = Several times this past month; 3 = About once a week this past month; 5 = Several times a week this month; and, 5 = Daily.

Demographic and healthcare information—Questions from the Behavioral Risk Factor Surveillance System [51] were used to obtain information on age, ethnicity, annual household income, education, insurance status as well as breast, cervical, and colorectal cancer screening. We used guidelines from the U.S. Preventive Services Task Force at the point of data collection to guide our operationalization of cancer screening [52–54]. Specifically, we measured lifetime attainment of Pap tests among women aged 21 years and older; attainment of mammograms; and, colorectal cancer (CRC) screening test (e.g., colonoscopy, FOBT) among women aged 50 years and older.

Data analysis

Our primary objectives were to identify mechanisms underlying the relationships between volunteerism and health for volunteers and their family and friend networks. One author (YM) ensured verbatim, high-quality transcription of audio-recordings and uploaded files into ATLAS.ti version 7 (Berlin, Germany). Two authors (YM, NMB) independently read each transcript. The team used both deductive and inductive analysis approaches, in which themes were explored that had been previously identified from extant literature and new themes were identified from raw interview data[55]. Coders met regularly to review codes and coding strategies as well as to maintain inter-rater reliability. The coders clustered similar concepts together into categories representative of each emergent theme and discussed preliminary findings with the study team. When there was a disagreement, coders discussed their perspectives until a consensus was reached and then texts were re-coded to ensure consistency. Summary reports were presented to the larger study team to assess meaningfulness and believability of results(CEF,KM, LB, MSM, NM).

Results

Table 1 depicts demographic and healthcare information by ethnicity. Latina and African American participants were, on average, in their 50s. Most indicated they had volunteered for cancer- and other health-related causes within a month of the study. The majority of participants within recommended age ranges for screening indicated they had attained breast (83–93%), cervical (90–93%), and colorectal cancer screening (79–92%) at least once in their lifetime. With regard to significant differences, Latina participants indicated lower socioeconomic status, less educational attainment, and healthcare coverage relative to African American women (all $p<.05$).

During focus groups, respondents emphasized that volunteerism improved their own and their social network’s health behaviors. Overall, participants identified three mechanisms underlying their improved health behaviors: increased knowledge of evidence-based health

strategies; exposure to health-protective social ties; and the need to be a healthy role model for one's community. Our analyses suggested that themes did not vary appreciably by ethnicity. When asked about culturally specific experiences and perspectives, most indicated there were no differences or referenced differences between racial/ethnic minority and NLW volunteers. Given this, we present exemplar quotes from both Latina and African American women for all themes.

Volunteerism and personal health

Increased knowledge—The first reason women perceived volunteerism was associated with cancer-related health was greater knowledge about *how* to be healthy, as depicted by this Latina respondent, “Being a part of a volunteering group has helped me...to know the appropriate actions for cancer prevention.” An African American respondent emphasized, “Volunteering at health fairs makes you be more health conscious. ‘Oh, this [health problem] can happen? Well, let me make sure I’m on top of it.’ Like with the mammograms, that’s very important.” Another Latina participant similarly declared, “Volunteerism gives you an awareness of the risks and consequences if you don’t take care of yourself...like colorectal cancer. I will fight against it - I already went and did it [the screening test].”

Exposure to health-protective social ties—Women also reported behavior change as a consequence of the relationships they gained through volunteerism. This was in part due to informal information exchanges, as this Latina respondent noted, “What has helped me [from volunteering], apart from the training I have received, is meeting really marvelous people...they share what they know.” Social interactions also enabled exposure to health-protective social norms, as described by these two African American respondents:

Ever since I started with the YMCA...I’ve changed my circle of friends who are people who are like-minded with a healthier lifestyle. I used to drink every weekend. Now, I don’t even miss it. My kitchen is completely clear. If I can’t catch it or pick it, I don’t eat it. It’s changed my life.

I have always been motivated [to be healthy]...but I haven’t always been consistent...so just being around people that are like-minded – it helps keep me straight...Anytime I can be around somebody or a health environment, it’s going to motivate me and help me stay on track.

The pressure to be healthy as a role model—Finally, the majority of participants identified the pressure to be healthy role models, as described by this Latina, “I always did my [mammography] exams before I was a promotora, but now [I do it] with more reason...with more desire. Because how can you tell other people to do it and not do it yourself?” An African American respondent similarly noted:

You have to model what it is that you’re passionate about... you’re like the billboard for whatever thing that you’re doing...that alone helped me to become who I am by being an example and really gracefully being that person even when I fall. Try to get myself back up because it’s important we try to model and be that example for those who are watching you.

When describing the pressure to be a healthy role model, women often described how the process of being perceived as an authority figure in health enabled them to examine their own barriers to health. A Latina participant declared, “The principal change when you start [volunteering] is to start with your own house, with yourself. You change – that’s where you start to make the changes [for the community].” Relatedly, this African American respondent emphasized:

I’d be that person who’d be like, ‘You need to go get checked out, you need to do this.’ ...then I’m the one who hadn’t gone to my yearly mammogram...the self-evaluation of ‘Okay, why did it take me so long to get a mammogram?’

Volunteerism and the health of volunteers’ family and friends

Latina and African American participants also described how these mechanisms influenced their families’ and friends’ health.

Increased knowledge—Exposure to information gave volunteers the opportunity to help their family and friends, as described by this Latina participant, “I have three daughters and it [volunteerism] motivated me to help them.” This African American woman similarly endorsed the utility of new information for her family’s health:

You’re volunteering, you’re helping, but you’re also learning because you may have to – it might be something in your family you need. And that very thing that you volunteer for sets you up to be able to do it more thoroughly.

Volunteers additionally exhibited high self-efficacy with family members undergoing cancer-related conditions because of the information they gained through volunteerism. One African American participant described:

Because we had all of that [prostate tests] here at our church during the health fairs, I understood about the PSAs and what it meant when they said they’re at a certain level when you’re [at] risk and when you’re not...so when I went with him [brother] to consult with the doctor, I wasn’t in the dark. I was informed. That’s the beauty of volunteering – because I was here volunteering with that...so it was key in helping me understand how to deal with that...and I have literature, stuff that I can read and better help him deal with the whole issue and try to encourage him.

Exposure to health-protective social norms and support—Participants described volunteerism as an opportunity to establish health-protective social norms and values within their social circles, as reported by this Latina respondent, “That information from volunteerism doesn’t only save the life of a woman, it impacts the family.” One African American participant similarly emphasized a responsibility to establish health-protective norms for family and friends as a volunteer:

Volunteering opens a whole new dialogue...if you volunteer for your activities, then you’re going to encourage your family and friends to try those activities...you know, if you want your family to drink more water or wash your hands. It [volunteerism] can just open the door.

The need to be healthy and be a role model—Family members' and friends' association with recognized volunteers also positioned them as role models within the community. One African American participant reported, "Even my kids – when they're in the lunch room, they [other students] are like, 'Your mom's picture on the billboard, so what are you eating?'" Such exposure may have also enabled a need for women's family and friends to begin to volunteer. An African American respondent declared, "I had two of my younger brothers do the breast cancer walk with me, one complained the whole way...we're at the end of the stretch and he's complaining. Afterward, though, he was like 'Okay, so same time next year?'" When describing these experiences, women mostly talked about how their volunteerism inspired their children in particular, as depicted by this Latina participant, "They are two young boys and they always say, 'My mom works in breast cancer.' When they're with me, they say, 'Mommy, I will help you hand out flyers!'"

Discussion

The current study provides major contributions to unanticipated benefits of utilizing CHW and CHE-driven programs in efforts to eliminate cancer disparities. Specifically, Latina and African American volunteers may not only serve to improve population-level disparities, but may also personally benefit and serve as conduits to improve the health of their family and friends. Our work further identifies potential mechanisms by which train-the-trainer and volunteerism programs may serve as interventions for the interventionists. In line with multiple theoretical frameworks[41–45], women perceived their volunteerism was associated with improved health for themselves and their families, because it exposed women to evidence-based information, health-protective social norms and support, and social pressure to be a healthy role model.

Our research adds to a growing body of work relating volunteerism to health outcomes. We have identified mechanisms that may be important to weave into CHW/CHE-based interventions in order to optimize the health of volunteers as well as their family and friends. Notably, these mechanisms are rooted in other health promotion theories that underlie traditional educational interventions[41–43]. Volunteerism may have longer, sustained effects than standard education interventions. For example, volunteerism may result in greater knowledge through providing women with the skills for searching and being aware of any changes in evidence-based guidelines about cancer-related health. They may further experience health benefits through more regular exposure to such information[50]. Such benefits in terms of attendance to shifting knowledge would be particularly important to document in the context of cancer, given different screenings have recently received much scrutiny[56]. Volunteerism may result in greater exposure to these cues to action (knowledge, social norms, pressure to be a healthy role model) relative to standard education. Alternatively, these factors may have stronger health effects in the context of volunteerism relative to standard education. Future longitudinal quantitative research is needed to assess these scenarios to inform patient activation theory and literature, which suggests there is added value to promoting agency within populations[57,58].

Another important finding is that volunteerism can impact the social networks in which women are embedded and does so through similar mechanisms as its effects on personal

health. This finding has important implications for explaining how individual-level interventions may lead to community-wide health impacts. We did not engage volunteers' families and friends, however. Future qualitative research is warranted to incorporate the perspectives of these individuals to confirm volunteers' perceptions. Further, quantitative social network analysis would be helpful to characterize the diffusion of health effects from volunteerism.

It is worthwhile to note that our study did not find major ethnic differences. Our findings align with research suggesting both Latina and African American communities strongly value social relationships and share some intrapersonal barriers (e.g., access to breast health information)[59–64]. Nonetheless, it is important to note that these populations also have a variety of different experiences within the U.S., including language, health access and utilization, and manifestations of societal discrimination[65–68]. Further, it is essential to note that our work is based on a purposive sample of San Diego-based African American and Latina women. Latinas and African American populations are not monolithic. More research is thus needed to assess the relationships between volunteerism and health across multiple segments of Latina and African American women throughout the U.S. and across different contextual factors.

Our study had a number of limitations. First, our study was focused on experiences and needs of a convenience-based sample and may not be representative. Future larger population-based studies with Latina and African American women are needed to examine the associations of volunteerism and health. Second, while our study presumes volunteerism has positive impacts on health, an argument can be made that only healthy people choose to volunteer. Either argument may explain our particularly high rates of self-report cancer screening across participants' lives. Future quantitative research is warranted that can examine comparable samples of volunteers and non-volunteers and with prospective designs to confirm our postulation that volunteerism improves health. Nonetheless, our qualitative methods rely on the strength of examining how volunteers themselves *perceive* their health has improved by volunteerism. Relatedly, we have identified, but not empirically tested, mechanisms of volunteerism and health. Future quantitative longitudinal research is warranted to confirm that greater exposure to knowledge, health-protective social ties, and pressure to be a healthy role model mediates the relationship between volunteerism and health. Third, we provide self-report data concerning volunteers' health. These data may not be accurate, due to social desirability, recall, and other biases[69]. Future research is warranted that can demonstrate associations of volunteerism and health through electronic medical record data. Fourth, we focused on cancer health among Latina and African American women. Other populations (e.g., low income NLWs, Native Americans/American Indians) however suffer disproportionately from cancer[11,14,20,70–76]. They may also benefit from social engagement and volunteerism. Fifth, volunteerism is associated with different health outcomes. We did not assess which mechanisms may underlie cancer behaviors versus other behaviors/outcomes. Future research is warranted with other populations and across health outcomes. Finally, we required women to have volunteered within the past five years in cancer-related causes, but we did not obtain detailed data concerning their specific volunteering experiences in cancer (e.g., types of duties as a volunteer, type of organization for which one was a volunteer). Future research must collect

this information, which may indicate that different types of volunteerism do not have identical effects for volunteers' and their networks' health.

Conclusion

Despite these limitations, our findings provide important contributions to the scholarship of cancer education. Specifically, volunteerism is perceived by Latina and African American women to positively impact their health and the health of the networks in which they are embedded through increased knowledge, exposure to health-protective social ties, and the pressure to be role model in health. Engagement approaches that provide information and opportunities to disseminate information to family and friends may be optimal for addressing persistent cancer inequities through fostering a culture of health.

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Table 1

Study sample characteristics.

	Latina Americans (n = 20) M (SD)	African Americans (n = 20) M (SD)
Age	56.96 (11.50)	52.78 (13.79)
	N (%)	N (%)
<High school ¹	5 (25)	0 (0)
<Household income of \$30,000 ^{1,2}	14 (70)	6 (30)
Not privately insured ³	14 (74)	2 (11)
Cancer volunteerism in the past month	16 (80)	14 (70)
Any volunteerism in the past month	18 (90)	20 (100)
Lifetime cervical cancer screening ⁴	18 (95)	17 (90)
Lifetime breast cancer screening ⁵	13 (93)	10 (83)
Lifetime colorectal cancer screening ⁵	11 (79)	11 (92)

¹Variable analyzed continuously, but represented categorically to facilitate interpretability²Median-based cut-off⁴Assessed among women aged 21 years and older (19 Latinas, 19 African American women)⁵Assessed among women aged 50 years and older (14 Latinas, 12 African American women)⁶