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Community Health Worker Perspectives on Recruitment and Retention of Recent Immigrant Women in a Randomized Clinical Trial

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Abstract

This study explores the recruitment and retention strategies used by community health workers (CHWs) who enrolled Korean Americans in a church-based, randomized trial to promote mammogram and Pap tests and retained them over 6 months. We conducted four focus groups with 23 CHWs. Data were analyzed using a thematic analysis. Themes were identified in relation to recruitment: personal networks, formal networks at churches, building on trust and respect, and facilitating a non-threatening environment. Themes were identified for retention: trust and peer support. Qualified, well-trained CHWs can recruit and retain hard-to-reach immigrant women in a randomized trial by using multiple culturally sensitive strategies.

Keywords

community health worker; recruitment; retention; immigrant women; focus groups

Introduction

Approximately 36% of the current U.S. population is from an ethnic minority group, reflecting an increase in diversity.[1] The U.S. Census Bureau projects that racial/ethnic minority populations will grow even further, comprising approximately 50% of the total population in 2040 and 59% in 2060.[2] Despite their increasing numbers, most ethnic minorities continuously lag behind in adequate utilization of preventive services and health outcomes compared to their non-Hispanic white counterparts.[3-5] For example, Korean

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Americans (KAs) represent one of the fastest ethnic minority populations in the U.S., comprising about 10% of all Asian Americans.[6] Among KA women, breast and cervical cancers are the most common forms of cancer with increasing rates of incidence and late diagnosis.[7,8] Yet, KA women are among the groups with inadequate breast and cervical cancer screening rates.[9,10]

One of the key and critical strategies to addressing health disparities is through ethnic minority participation in intervention trials. The importance of ethnic minority participation in research has been well-established to increase generalizability of study findings, to allow accurate sub-group analyses,[11] and to promote dissemination of the results when the intervention approach is proven effective. Studies suggest a variety of strategies to recruit and retain ethnic minority participants in clinical trials: community engagement (e.g., use of a community advisory board, trained lay individuals, or CHWs), cultural consideration, intensive contact and follow-up, and timely incentive payments.[12,13] In particular, CHWs have been noted as an effective recruitment and retention agent when targeting culturally and linguistically isolated ethnic minority women for cancer screening intervention programs.[14,15] CHWs are indigenous lay individuals who share the same ethnicity, culture, or language of the community they serve;[16] however, there is little published documentation about recruitment and retention strategies used by CHWs as a key group of interest in research.

The purpose of this study was to explore specific recruitment and retention strategies used by CHWs in a church-based community intervention trial designed to promote breast and cervical cancer screening among KA women. While sizable literature addresses church-based interventions to promote cancer screening particularly among African American women,[17-22] church-based intervention studies have been rare in Asian American communities. A large proportion of today's KAs (71%) identify themselves as Christians.[23] Emerging as one of the gathering centers for KA communities, Korean ethnic churches provide a variety of educational, social, and community services as well as a place of worship.[24] Hence, utilizing ethnic churches for recruitment and retention of KAs is ideal for community-based participatory research seeking community support and collaborative partnership.[25,26]

Methods

Sample

The parent study was a church-based cluster-randomized clinical trial—Better Breast and Cervical Cancer Control for Korean American Women.[27] The parent study involved 23 ethnic churches in the Baltimore-Washington Metropolitan Area from which 29 CHWs (n=14 in the intervention churches and 15 in the control churches) were recruited. Considering that the parent study was focused on women's health issues, all CHWs were female. CHWs were trained to recruit eligible KA women and retain them over 6 months. CHWs in the intervention group were also trained to deliver the study intervention which consisted of 2-hour health literacy education, monthly phone counseling, and navigation assistance for 6 months. At the conclusion of the study, 23 CHWs were able to participate in a focus group interview to discuss their experiences.

Procedures

All study procedures were approved by the Institutional Review Board. Data were obtained from 23 CHWs in four focus groups of 3 to 8. Each focus group session was moderated by a bilingual researcher (HRH or YS) with one or two additional bilingual research staff members who took field notes. After the informed consent process and before focus group questions were addressed, participants were asked to map out the sources of recruitment (e.g., church, friends, or workplace) that they used to recruit KA women, followed by a series of open-ended questions such as: "What was it like for you to work as a CHW?" "What were specific methods you used to recruit participants?" "Were some recruitment methods more successful than others? How?" "How did you keep the participants in the study for 6 months?" "What were the most successful ways to keep them in the study?" The focus groups were held at a community location (e.g., community center or ethnic churches) at a convenient time for the majority of the participants. Each focus group lasted for about 1½ to 2 hours. Focus group interviews were recorded and transcribed verbatim for analysis. Each focus group participant received $20 compensation for her time. Finally, retention data were obtained from the study team's research records which listed the participant's study number matched with CHW study ID. Matched records were used to calculate a retention rate for each CHW.

Data analysis

Sample characteristics, sources of recruitment, and retention records were analyzed for frequencies and means. We performed a thematic analysis[28-30] to describe the perspectives of CHWs on recruitment and retention of KA women in an intervention trial. Rigor of the analysis was addressed by independent coding.[31] Specifically, two bilingual investigators (EC and GJH) read and re-read the focus group data several times and completed the coding independently. The process of coding identified quotes that the researchers considered pertinent to the research question. The next stage involved searching for themes that explained larger sections of the data by combining different codes that were similar or addressed the same aspect within the data. The initial codes relevant to the research question were then incorporated into themes. This involved defining and naming the themes, accompanied by detailed analysis. Next, subthemes within each theme were defined and named. Once the independent coding was completed by the two bilingual investigators, the other investigators—who were intimately involved in the data collection and delivery of the study intervention—reviewed the themes and subthemes. In addition to independent coding, the process of interpreting the data and the basis for the themes were made available to all investigators to validate confirmability. The study team then met multiple times as a group to discuss the results of the coding process and to identify areas where conflicting coding occurred. Conflicting coding was then discussed until a consensus about the solution was reached.

Results

Sample characteristics

Table 1 summarizes the characteristics of CHWs who joined the focus groups. All focus group participants were married; most were middle-aged (range = 34–61) with a mean

(±SD) age of 45.4 (±7.6) years and had a high school level of education at minimum (high school graduate = 17.4%; some college or more = 82.6%). Each CHW recruited 7 to 35 eligible women (average = 18.7). The CHWs indicated that they used a variety of sources to recruit eligible KA women, with church being the most common source for recruitment (80.7%). Additional sources of recruitment included friends not related to church or workplace (8.4%), family (5.4%), or coworkers (2.6%). The CHWs were able to keep most women in the study for 6 months, with retention rates ranging from 80% to 100% (average = 94.4%).

Recruitment strategies

Our thematic analysis resulted in four themes related to recruitment strategies: use of personal network at church, use of formal network at church, building on trust and respect, and facilitating a non-threatening environment. These main themes characterized CHWs' experiences related to recruitment through seven relevant subthemes, as highlighted in Table 2. While these themes are generally distinct groupings, there were some aspects of participants' experiences that overlapped across these categories.

1. Use of personal network at church—Personal network at the church was the theme most frequently cited by CHWs. The recruitment strategy was further described in the following three subthemes: approaching people that I know, building on existing church groups, and expanding a personal network. When CHWs were asked to recruit study participants, they immediately thought of people that they knew within their church and used personal resources and relationships to contact them first. They then tried to reach out to those in various meetings and groups within the church to which they belonged. The personal network was expanded further through referrals from these church friends and church groups.

Approaching people that I know: CHWs approached people that they knew personally first to spread the words about the program. One CHW talked about the use of personal networks: "I tried to recruit people I knew well and I often saw around." CHWs often preferred to meet them in person to explain the study. This way, CHWs were able to answer questions more efficiently and help women sign up for the study on the spot. One CHW commented: "I met them in person one by one and explained to them [about the study]... For my friends, every time I met, I asked them if they wanted to do it, I then registered them for the program."

Building on existing church groups: In addition to approaching friends in their personal network at the church, CHWs used church groups that they belonged to in trying to get potential study participants. They went to meetings or events organized by these church groups and talked to people in the group about the study. A CHW noted: "In my case, I belong to the church choir, women's meetings, and other things. While I was talking to people or eating with them, I brought it [the study] up and said that it is good for them, so do it."

Expanding personal network through referrals: CHWs indicated that they actively expanded their network through referrals from existing personal networks at the church and recruited additional participants through the expanded network. For instance, when someone they knew at church introduced a potential participant, the CHW put an effort into initiating the conversation about the study by making a direct in-person contact as opposed to other indirect methods such as phone. One CHW explained: “When I was introduced to someone new, I went and talked to her in person. I think at the beginning you should go and talk to the person directly.”

2. Use of formal church network—Using a formal network at church was another common recruitment strategy theme reported by the CHWs. Most churches already had a communication system set up through church bulletins or newsletters so CHWs were able to use these communication resources. Sometimes, their pastor was willing to make an announcement about the study to help facilitate recruitment. Two subthemes were identified related to the theme of using a formal church network: Public announcement in church and use of a church directory.

Public announcement in church bulletin/newsletter or by pastor: CHWs did not necessarily know everyone in their church. After exhausting their personal church network, they tried to reach out to as many women as possible by using formal networks available through advertisements in church newsletters or bulletins or public announcements by their pastor. As one CHW stated: “All but one registered for the study were from my church. We had advertised [the study] in the church newsletter for two weeks. Our pastor also made an announcement during the service. Quite a few registered afterwards.”

Use of church directory: CHWs also used church directories to identify potential participants beyond direct reach. They called people from this list whom they had never met. One CHW described her experience as follows: “I called 80% to 90% of women from my church directory. I called so many people that [it] took me a week. About 250 people all together... I then showed the prescreening form [a study form used for research staff to contact and verify eligibility] to those who wanted to register for the program.”

3. Building on trust and respect—CHW's used their own personal qualities and built on trust and respect that they already had to recruit participants. Individuals were willing to participate in the study because the CHWs were recognized as trustworthy and respectable. The trust and respect the CHWs gained over a long period of time played a crucial role in successful recruitment. One CHW said: “People tend to trust me. That's why it was easier for me to do it [recruitment]. They go, ‘Are you doing it? OK, let me do it then.’ There were a number of people doing it [participating in the study] because they think I'm trustworthy.”

4. Facilitating non-threatening environment—None of the CHWs had prior research experience either as a study team member or as a participant. Talking to people about research was not part of their routine activities until they were selected and trained for the study and, hence, presented some challenges. In particular, at the beginning of recruitment, some CHWs expressed concerns about their sounding nagging, insisting, or even intimidating to women in their church when trying to ask them to join a research study. The

CHWs overcame these uncomfortable feelings by having a recruitment discussion in a natural, non-threatening environment. Dovetailing an existing meeting at their church or random encounters were strategies that the CHWs used to facilitate a non-threatening environment. Food was mentioned as a catalyst for their study discussion with potential participants. A kind explanation was another strategy that CHWs felt useful to have a recruitment discussion in a natural setting.

Dovetailing an existing meeting or random encounters (often with food): CHWs used existing church meetings or random encounters as an opportunity to meet people and introduced them to the research study as naturally as possible. The following comments from two CHWs describe in detail how they approached people in a natural setting, while often eating together: “When I was just chatting with friends or neighbors at church, I said, ‘There is a program for you, why don't you join?’ There were many cases like that... Listening to what I had to say, they then decided to participate in the program.” “Outside the church, I asked questions to encourage people to register for the program voluntarily... When I went to my exercise group I explained it [the study] to them, sometimes even buying them lunch. In the hiking group, I discussed it [the study] while we were having lunch and they had a very positive reaction.”

Kind explanation/making them comfortable: CHWs stated that they intentionally made efforts to make the women understand and feel comfortable about the study in order to persuade them to participate. One CHW stated: “I tried my best to speak to them kindly... I think my strength in relationship is making people comfortable. While I was making women comfortable, I talked to them about why we needed the program and it worked.”

Retention strategies

We identified two themes for retention of participants: trust and realizing benefits. While both were recognized as useful retention strategies, there was a consensus among CHWs in the focus group that trust was the more important retention strategy in retaining study participants. These themes were supported by five subthemes as summarized in Table 3.

1. Trust—Trust was a quality that characterized the CHWs in the study. Trust arose from multiple sources. For example, building and maintaining a good relationship with participants were key to trust which became a foundation for successful retention that every CHW mentioned. CHWs also noted that through the research training they received from the study team, they were able to establish competency in their role as CHWs. Consequently, the competency enhanced the trust between CHWs and participants. Additionally, by showing genuine attention and care, CHWs were able to preserve a trusting relationship with participants.

Good existing relationship: CHWs made every effort to maintain an existing good relationship with study participants. As they understood the importance of good relationships with the women in the study from the start of recruitment, they also employed trust and rapport as a key strategy for retention. One CHW stated the following: “I believe the relationship with study participants is the most important thing [for retention]... The

person with whom I had a good relationship stayed [in the study] because of her relationship with me. On the contrary, the person with whom I didn't keep a strong relationship was not interested in continuing the program."

CHW competency: CHWs' training on the study protocol and acquired competency resulting from the training as CHWs (e.g., participant education, navigation assistance) triggered positive changes in CHWs' self-esteem and motivation, which led to building more trust with study participants. One CHW said, "When I explained [to my participant], I said, 'I can give you information you need... I can call the health department and doctor's office for you'... she [the participant] complimented that I was very informative... so I said, 'This was not done without effort. I do my best because I was trained for 18 hours and was recommended as a community health worker.' " Another CHW noted that, "At first I thought it would make no sense for me to educate others, but now I have a different opinion... When I talked to women, they trusted me and they thought they could count on me, not because I have some professional knowledge, but because I got this much training and I was able to deliver as much as I know...."

Genuine attention and care: CHWs showed genuine attention and care to maintain trust with study participants by listening to their life stories—often not relevant to the study—and empathizing with them. CHWs were able to connect with their participants' stories through their shared cultural background and similar life experiences. One CHW noted, "I visited one participant individually. Even though she and I just met for the study, she told me that she's so lonely that she wanted to go back to Korea. It gave us the opportunity to share our deep personal stories and emotions as immigrants."

2. Realizing benefits—Participants stayed in the study when they realized the benefits associated with study participation. CHWs noted that participation benefits were recognized through study incentives or CHW referrals to address the participants' non-study-related needs.

Contributions to the church: Study participants received $20 at baseline, 3 months, and 6 months follow-up assessments. While they were completely free to use the incentive as they wished, some CHWs—particularly those in the control group—noted that retaining participants in their church was helped by the women coming forward with the idea of collecting the incentives and offering them to the church. The following CHW comment illustrates this point: "We [study participants in the CHW's church] had it [study incentive] as an offering to our church... Although it was only $20 each time for the individual... we had many people from our church who joined the study... we ended up getting over $300 altogether. Some people felt they helped the church... that's why they were willing to stay."

Fulfilling additional needs of the participants using community resources: While working with their participants to help them obtain cancer screening tests, CHWs often went further to address the participants' other health needs by reaching out to available community resources, sharing the information with their participants, and making necessary referrals, which CHWs believed helped retention. One CHW commented on how she helped one of her study participants who had hypertension obtain free medication: "There was

someone in my group [church] who did not have any health insurance but needed help with getting prescribed medication for her hypertension. I referred her to a free medication program offered by a community center. She very much appreciated it."

Discussion

The CHWs recruited participants mostly from their own churches using a variety of direct and indirect methods. Using similar methods, Derose et al.[32] also recruited 1,967 eligible ethnically diverse women to participate in a 3-year randomized church-based trial to promote mammography screening. Such success indicates the effectiveness of using CHWs who are church members as recruiters in community-based randomized trials utilizing church as study sites. Studies have identified similar strategies such as establishing trust,[12,13] recruiting friends, relatives, neighbors, and coworkers,[32] making public announcements at church,[25,32] and inviting women to informal gatherings.[32] Our study adds to this literature by delineating how CHWs concretely recruited study participants. The CHWs used themselves as recruitment tools; they effectively used their social networks to provide a non-threatening environment based on the trust relationship they had been building.

The CHWs benefited from building on the natural, non-threatening environment by dovetailing existing church meetings or other social events for recruitment. Sharing food was seen as especially significant for promoting their natural recruitment discussions with potential participants. As is the case in many countries, food is used as a common way of socializing in the Korean culture and is closely tied to the language. "Have you eaten?" is a common greeting and there are several Korean proverbs pertaining to food (e.g., "We share even an ear of bean"). The CHWs used food—which Koreans generally regard as something to increase intimacy—as a medium to become familiar with potential KA participants, which resulted in promoting recruitment. Food may also be a culturally sensitive recruitment promoter for other ethnicities.

The retention rate observed in our study (94% at 6 months) compares favorably to the rates reported in other church-based randomized trials on cancer screening targeting Latina women (51% at 3-month[35] to 58% at 6-month follow-up[36]) and slightly better or similar to non-church based trials of Asian women (87%[37] to 98%[38] at 6-month follow-up). The participants' trust was important in both recruitment and retention in this study. Other studies have also indicated trust as a major and effective factor for both recruitment and retention of ethnic minority groups.[12,13,33] It is apparent that trust is the foundation of other strategies such as use of personal or formal networks. Trust-related retention strategies in this study included good existing relationships, CHW competency, and genuine attention and care. Studies report that CHWs who accomplished successful recruitment and retention of ethnic minority groups had good communication skills, were respected among their peers, had a high level of health knowledge, and maintained long-term relationships by providing benefits unrelated to the study.[25,32] Aroian et al.[34] stressed the importance of having data collectors who were able to establish personal and culturally appropriate relationships with study participants in recruiting and retaining Arab Muslim immigrant women and their adolescent children for research.

Providing non-study-related health benefits and study incentives also helped participants remain in our study. Providing additional health-related resource upon study participants' requests was helpful in building trust in the Korean community.[25] Timely incentive payment is well-known as a key contributor to retention of racial/ethnic minority research participants. Studies have reported that they directly donated funds or goods to churches as incentives for church-based intervention.[26,32] In our study, by using their study incentives as church offerings, participants stayed in the study together.

Limitations

Selection of a convenience sample of CHWs from Korean ethnic churches in one metropolitan area in the U.S. limits representativeness. We chose focus groups as a method of scientific inquiry to explore and investigate CHWs' experiences in relation to their recruitment and retention efforts. This approach is particularly useful to obtain necessary information from sharing and comparing responses among a group of participants who have a central element of their experience in common with the CHWs.[39] The process of group interviews of CHWs, however, might have influenced the findings by limiting CHWs' willingness to reveal their true feelings and experiences about recruitment and retention in the presence of other CHWs. For example, some CHWs might not have fully discussed recruitment and retention challenges they experienced to avoid embarrassment. Nevertheless, the highly successful recruitment and retention rates support mostly positive experiences shared by CHWs in the study.

Conclusions

This study provides information regarding the recruitment and retention of study participants in implementing randomized trials using CHWs who are members of ethnic churches, which are considered major settings for KA community engagement. While CHWs noted multiple strategies to recruit and retain KA women in the randomized trial to promote cancer screening, most themes identified in the study pertained to varying types of quality and characteristics of the CHWs; hence, for successful recruitment and retention, CHWs in a randomized intervention trial should be active, trustworthy, and culturally sensitive in their community. Addressing benefits of the participants and responding sensitively about their needs was also confirmed as useful retention strategies in this study. Sufficient training and ongoing support for CHWs would be important for CHWs to expand their social networks beyond immediate personal networks, maintain trust relationships, and help participants realize the benefits of study participation.

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Table 1

Demographic and recruitment/retention characteristics of CHWs by focus group (n = 23)

Interview	Age (year)	Education*	Recruitment number[a]	Retained number[b]	Retention rate (%)**
Group 1 (n = 6)	37	C	12	12	100.0
	39	C	21	18	85.7
	46	H	19	19	100.0
	50	H	7	6	85.7
	56	C	24	22	91.7
	61	C	23	23	100.0
Group 2 (n = 3)	34	C	20	18	90.0
	41	H	35	35	100.0
	45	C	13	12	92.3
Group 3 (n = 6)	39	C	10	10	100.0
	41	C	20	19	95.0
	42	C	12	12	100.0
	44	C	20	19	95.0
	54	H	23	23	100.0
	57	C	28	26	92.9
Group 4 (n = 8)	37	C	25	24	96.0
	38	C	10	10	100.0
	41	C	18	17	94.0
	42	C	20	17	85.0
	43	C	26	26	100.0
	49	C	15	15	100.0
	52	C	10	8	80.0
	57	C	20	16	80.0

*Educational level: H=High school graduate; C=Some college or more

**(b/a)×100

Table 2

Themes and subthemes related to recruitment strategies

Themes	Use of personal network at the church	Use of formal network at the church	Building on trust and respect	Facilitating non-threatening environment
Subthemes	Approaching people that I know	Public announcements in church bulletin or by pastor	--	Dovetailing existing meetings or random encounters
	Building on existing church groups	Use of church directory		Kind explanation
	Expanding a personal network			

Table 3

Themes and subthemes related to retention strategies

Themes	Trust	Realizing benefits
	Good existing relationship	Contribution to the church
Subthemes	CHW competency	Fulfilling additional needs of the participants
	Genuine attention and care	