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Strategies/factors facilitating community engagement in health promotion activities: Findings from the Jackson Heart Study Community Outreach Center

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ABSTRACT

Background: Community engagement is a critical component of health promotion programs that are aimed to close gaps in health disparities. There is a need for community collaborators to develop services to improve the quality of life for at-risk populations emphasizing a reduction of risk factors and premature morbidity and mortality.

Aim: This study aims to assess strategies implemented by Jackson Heart Study Community Outreach Center (JHS CORC) to influence or motivate community engagement in health promotion activities which focused on reduction of health disparities and improvement of the health status of the communities in three counties.

Methods: This was a quantitative, correlation study of the perceptions of JHS participants and other stakeholders who were purposively selected. A self-administered questionnaire was utilized that elicited comments and perceptions from 128 participants regarding five subject areas measuring community engagement: 1) Ways to increase participation in the community outreach activities; 2) reasons the respondents decided to participate in community outreach activities; 3) interest in participating in a community research study similar to the JHS; 4) the best way to communicate about community outreach activities; and 5) diseases that affect the communities the most. The investigation explored the participants' views of the five main subject areas as well as additional related supplemental questions accompanying each main category to gain an understanding of their perceptions based on demographic characteristics.

Conclusion: It is important to encourage effective and sustainable community engagement in health promotion programs which focuses on closing gaps in health disparities and improving the health status of the communities. This research builds on the existing literature on productive academia—community partnership as it presents effective strategies that have been developed by the JHS CORC at Jackson State University (JSU). The framework of JSU CORC's strategies can be employed universally to promote health equity through prevention, education, training, and research, though elements may require tailoring for a given community.

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Introduction

In 2011, a higher percentage of African-Americans than whites reported high blood pressure (49.7% of African-American females compared to 31.3% for White females, and 43.3% of African-American males compared to 35.8% for White males). African-Americans had the highest death rate due to heart disease (271.5 per 100,000 compared to 228.1 per 100,000 for Whites); and the age-adjusted death rate related to stroke in Mississippi was 63.3 deaths per 100,000 African-Americans compared to 46.3 deaths per 100, 000 for Whites [1]. African-Americans received "poorer quality of care and worse access to care than Whites for many measures." Poorer access to health care contribute to some of African-Americans' excess risk of chronic disease, in addition to the risk associated with demographic, socioeconomic, lifestyle, and clinical factors. Improved access to health care for highrisk individuals could narrow disparities in chronic disease incidence [2]. Because there is a greater prevalence of premature cardiovascular disease (CVD) among African-Americans, the Jackson Heart Study (JHS) was implemented in 2000 to explore the reasons for this disparity and to uncover new approaches to reduce it [3].

The JHS is the largest single-site, prospective, epidemiologic, observational investigation of CVD among urban and rural African-Americans ever undertaken. The JHS is a unique model in collaboration among three academic institutional partners: Jackson State University (JSU), Tougaloo College and the University of Mississippi Medical Center; as well as the Jackson community and the National Heart, Lung, and Blood Institute and the National Institute for Minority Health and Health Disparities [4,5]. The JHS Community Outreach Center (CORC), housed within ISU's School of Public Health is one of five JHS Centers. It evolved from the Community Partnership/Outreach Office (CPO), a division of the JHS Coordinating Center at JSU from 2000 to 2013, continuing to build a collaborative health promotion partnership that effectively employed principles of community-based participatory research (CBPR) by including groups of diverse community representatives who developed a vision for long-term change. The mission of the JHS CORC is to foster a welcoming, respectful, and collaborative community-academic environment that promotes health equity through prevention, education, training, and research [6].

The JHS CORC played a major role in the unprecedented recruitment and training of more than 90

community health advisors (CHAs) who have been trained to empower and inspire other community members to provide leadership to local community health promotion projects in the metro Jackson counties of Hinds, Madison, and Rankin in which they live [6,7]. Operating initially as the CPO, the JSU CORC was instrumental in the development and implementation of novel strategies to successfully recruit the 5,301 African-American adults from urban and rural areas of Hinds, Madison, and Rankin counties.

There is a need for community collaborators to develop services to improve the quality of life for at-risk populations emphasizing a reduction of risk factors and premature morbidity and mortality. Such community collaboration can establish a structure to set policy, guide implementation, and progressively advance planned activities in a high performing integrated delivery system [8]. To this end, the JHS CORC joined with community representatives to initiate programs that evolved into comprehensive strategies for addressing health disparities and the high prevalence of CVD. This collaboration was made possible by first promoting an understanding of the need for combined effort, the desire to interact with other community partners, and the vision to establish an effective governance structure. The partnership between JHS CORC and the community has empowered and inspired community members to provide leadership to other health promotion projects [6]. To achieve its objective of promoting sustained community engagement, the CORC implemented five CHANs in the JHS study area (communities of Bolton/Edwards, Canton, Clinton, Pearl, and Jackson) and systematically organized health promotion/health activities that were designed to train the community partners to acquire the capacity to lead in the area of health promotion and health behavior modification within their respective communities [7]. It is anticipated that by engaging with communities, researchers may be able to: design more culturally and language-appropriate interventions; conduct research that can translate more easily to real-world settings and impact health; incorporate critical insights into their research questions or interpretation of their data [9].

Mistrust of medical research and scientists is a major factor that impact African-American participation in research studies. The United States Public Health Syphilis Study (1942–1972), commonly referred to as the Tuskegee Study, has led to decades of continued mistrust of research by African-Americans [10,11], causing some researchers to hesitate

to actively recruit minority participants in clinical trials because of their personal beliefs and prejudices that it may be more difficult to obtain compliance with study protocol, and African-Americans may have higher attrition rates [12–25]. This study sought to outline strategies and activities implemented by JHS CORC to reach community residents to facilitate community engagement and health promotion/health education activities to eliminate health disparity and improve health status.

Methods

Data collection

This study sought to understand how certain characteristics of the participants related to their perceptions of community engagement strategies used by CORC. This was a quantitative, correlation investigation of the perceptions of JHS participants and other stakeholders, such as JHS CHAs, members of the JHS Community Ethics Advisory Board, and partners in community-based and faith-based organizations, who are knowledgeable about current CHAN operations as well as the operational details of the JHS.

A self-administered questionnaire was utilized that elicited comments and perceptions from 128 participants regarding five subject areas measuring community engagement: 1) Ways to increase participation in the community outreach activities; 2) reasons the respondents decided to participate in community outreach activities; 3) interest in participating in a community research study similar to the JHS; 4) the best way to communicate about community outreach activities; and 5) diseases that affect the communities the most. The investigation explored the participants' views of the five main subject areas as well as additional related supplemental questions accompanying each main category to gain an understanding of their perceptions.

The data were collected at the annual 2017 Celebration of Life community event held February 25, 2017 in the Jackson Medical Mall in Jackson Mississippi. Participants were purposefully selected based on their participation in CORC's regularly scheduled activities and JHS community events and their intimate knowledge of the JHS as well as of the operational details of current CHANs implementation. Questionnaire guides were administered in a manner that allowed respondents to freely react to questionnaire items. In general, instruction focused on clarifying operational differences. Event attendees were provided the questionnaires upon registering for the event. The study was approved by the

Institutional Review Board at JSU. Prior to beginning the questionnaire, respondents were informed of the purpose for administering the questionnaire and provided with an informed consent document for their signature. Participants were also told that their participation was voluntary, prior to beginning the questionnaire. Students, volunteers from the other JHS centers, and a small group of facilitators provided assistance to respondents in completing the questionnaires as needed. Upon completion, all questionnaires were placed in a sealed envelope to ensure anonymity in the process.

Data analysis

The Statistical Analysis System software was used to conduct descriptive analyses to describe the demographic profile of the participants and the inferential statistics used to explore relationships among variables measuring participant recruitment and engagement. We used descriptive statistics to examine the demographic characteristics of the participants by exploring the group composition by gender, race, age, county of residence, affiliation, and years of participation in CORC activities. We used inferential statistics to explore relationships among the demographic variables and the variables of interest that were 1) ways to increase participation in the community outreach activities; 2) reasons the respondents first decided to participate in community outreach activities; 3) interest in participating in a community research study similar to the IHS; 4) The best way to communicate about community outreach activities; and 5) diseases that affect the communities the most. To accomplish this, chi-square tests of independence were computed.

Results

Respondent characteristics

As shown in Table 1, a total of 128 individuals completed the questionnaire. Of those, 76.4% (n=94) were female and 96.8% (n=122) self-identified as Black or African-American. Among all respondents, 42.4% (n=53) were 66 years of age or older. Furthermore, 16.8% (n=21) were 56–65 years of age, 18.4% (n=23) noted 46–55 years of age, 10.4% (n=13) selected the 36–45 years of age group; and 35 years of age or younger was identified by 12% (n=15) of participants. Regarding county of residence, 68.5% (n=87) of respondents lived in Hinds, 16.5% (n=21) resided in Madison and nine respondents (7.1%) were residents of Rankin county. Approximately 8% (n=10) lived outside of the tri-county region.

Table 1. Respondent demographics.

Item	Respondent (n = 128)		
Ttelli	% (n)		
Gender			
Female	76.4 (94)		
Male	23.6 (29)		
Race			
African-American/Black	96.8 (122)		
Caucasian/White	3.2 (4)		
Age			
35 years of age or younger	12 (15)		
36–45 years of age	10.4 (13)		
46–55 years of age	18.4 (23)		
56–65 years of age	16.8 (21)		
66 years of age or older	42.4 (53)		
County of residence			
Hinds	68.5 (87)		
Madison	16.5 (21)		
Rankin	7.1 (9)		
Other	7.9 (10)		
Affiliation (multiple choices selected			
for some respondents)			
Community member	33.9 (41)		
JHS participant	30.6 (37)		
CHA	13.2 (16)		
Staff	5.8 (7)		
Institutional partners	2.5 (3)		
Non-profit	4.9 (6)		
Student	22.3 (27)		
Other	1.7 (2)		
Years participating in CORC activities			
0–1 year	44.4 (56)		
2–4 years	10.3 (13)		
5–8 years	4.8 (6)		
9–11 years	5.6 (7)		
12 years or more	34.9 (44)		
Role participated in the CORC			
activities (multiple choices selected			
for some respondents)			
Planning community outreach	28.7 (29)		
activities			
Outreach for recruitment	23.8 (24)		
Hosting community health fairs	21.8 (22)		
Design/present CVD prevention	19.8 (20)		
health education messages	` ,		
First time participant	35.6 (36)		

Respondents were then asked about their CORC affiliation, with multiple options to select. Nearly 34% (n = 41) were community members, 30.6% (n = 37) were current JHS participants, and 22.3% (n = 27) were students within an academic institution. Staff, institutional partners, and representatives of non-profits combined constituted 13.2% (n = 16) of those who completed the questionnaire.

When questioned about their participation or role in CORC activities, with multiple options to select, 35.6% (n = 36) stated they were a first time participant with no prior engagement. Also, 28.7% (n = 29) stated they had assisted with the planning of activities; 23.8% (n = 24) participated within the recruitment efforts: 21.8% (n = 22) have hosted community health fairs; and 19.8% (n = 20) aided in the design and presentation of cardiovascular prevention health education messaging. Respondents duration of participation within CORC activities varied in years, with the majority (44.4%) having been active with the center for the last 0-1 year. Following closely was 12 years or more of involvement at 34.9% (n = 44). The 2-4, 5-8, and 9-11 years were identified at 10.3% (n = 13), 4.8% (n = 6), and 5.6% (n = 7), respectively.

Influential factors of initial engagement

Analyses were computed to examine relationships based on the demographic characteristics of the participants. The results presented indicate only those relationships that showed significance. Respondents were provided several options of predetermined reasons as to why they initially participated in CORC activities and asked to rank the statements by the extent of influence for each (see Table 2). The Likert-like scale responses included "none," "slightly," "moderately," "very," and "extremely." When asked the extent in which respondents participated to improve their personal health and quality of life, very and extremely were emphasized by

Table 2. Motivators and influences of community engagement participation.

To what extent did the following reasons cause you to first participate in CORC activities						
_		Respondents $(n = 124)$				
Item	% (n)					
	None	Slightly	Moderately	Very	Extremely	
To provide input to the project.	13.4 (13)	18.6 (18)	15.4 (15)	28.9 (28)	23.7 (23)	
To increase my knowledge of CVD in order to improve the quality of life in my community	2.6 (3)	3.5 (4)	8.7 (10)	33.9 (39)	51.3 (59)	
To address health problems in my community	3.5 (4)	5.3 (6)	14.9 (17)	31.6 (36)	44.7 (51)	
To be a voice for those who don't have the capacity to be heard	5.6 (6)	11.1 (12)	13.9 (15)	28.7 (31)	40.7 (44)	
To improve my personal health and quality of life	2.5 (3)	1.7 (2)	9.3 (11)	22.9 (27)	63.6 (75)	

Table 3. Chi-square analysis results for the extent to which improving personal health and quality of life caused respondents to first participate in community outreach activities by gender.

	Value	df	Asymp. Sig. (two-sided)
Pearson chi-square	11.233ª	4	0.024
Likelihood ratio	10.121	4	0.038
Linear-by-linear association	7.248	1	0.007
Number of valid cases	114		

^aFive cells (50.0%) have expected count less than 5. The minimum expected count is 0.47.

86.5% (n = 102). Increasing personal knowledge of CVD to improve the community's quality of life was identified as very and extremely instrumental in initial participation among 85.2% (n = 98) of respondents. Approximately 76% (n = 87) selected addressing health problems in their community as a very and extremely persuasive motivator.

Relating to being a voice for those who don't have the capacity to be heard, 69.4% (n = 75) noted this reason as a very or extremely important indicator of participation. Providing input to the project was noted by 52.6% (n = 51) of participants as very or extremely pivotal. Improving personal health and quality of life, the most identified selection in the very and extremely category, had a significant association when reviewed by gender (Table 3) (χ^2 = 11.233, df = 4, p = 0.024). Although identified as a motivator among women, men did not illustrate a highly favorable view in comparison.

Motivational strategies to facilitate continued engagement

Respondents were provided with examples of strategies to foster continued engagement within CORC activities and asked to rank each option as "not important," "slightly important," "neutral," "very important," and "extremely important" (see Table 4). Health screenings were noted as very or extremely important by 92.2% (n = 95) of participants. Furthermore, 87.9% (n = 102) also identified providing study findings in a community friendly language as a high motivating factor. Approximately 83% (n = 90) of individuals categorized documentation of the effectiveness of the community events as a technique of heightened importance. Also, 82.2% (n = 93) noted that trust working with the ISU CORC is very or extremely impactful. With regard to allowing the individual to be involved in planning community events, 61.5% (n = 67) identified this strategy as being very or extremely important. Within the same classifications, providing incentives was identified among 61.5% (n = 67) of respondents as well.

According to the chi-square tests of independence, there are two significant relationships between what keeps a respondent engaged in the community outreach activities and their age and gender. These significant relationships include: trust working with the JSU CORC and age (χ^2 = 24.622, df = 12, p = 0.017) (Table 5) and trust working with the JSU CORC and gender ($\chi^2 = 9.953$, df =4, p = 0.041) (Table 6). Older respondents reported trust working with the JSU CORC as a reason for remaining engaged in the community outreach activities, while a significant number of younger respondents (45 years of age and younger) noted it was not a prominent factor. Also, female respondents reported trust working with the JSU CORC as a reason for remaining engaged in the community outreach activities, while a significant number of male respondents reported trust was not as highly regarded. Additional research is required to identify reasons for male engagement.

Table 4. Motivational strategies to facilitate continued engagement.

	Respondents (n = 125) % (n)					
Item						
Tem	Not important	Slightly important	Neutral	Very important	Extremely important	
Allowing me to be involved in planning community events	6.4 (7)	11 (12)	21.1 (23)	40.4 (44)	21.1 (23)	
Incentives (e.g., transportation, gift card, etc.)	11.9 (13)	3.7 (4)	22.9 (25)	38.6 (42)	22.9 (25)	
Documentation of the effectiveness of the community events	1.8 (2)	5.5 (6)	9.3 (10)	41.7 (45)	41.7 (45)	
Health screening	0 (0)	5.9 (6)	1.9 (2)	33.9 (35)	58.3 (60)	
Trust working with the JSU CORC	2.7 (3)	2.7 (3)	12.4 (14)	40.7 (46)	41.5 (47)	
Providing study findings in a community-friendly language	1.7 (2)	0.9 (1)	9.5 (11)	38.8 (45)	49.1 (57)	

Table 5. Chi-square analysis results for how important trust working with the JSU CORC is in keeping respondents engaged by age.

	Value	df	Asymp. Sig. (two-sided)
Pearson chi-square	24.622ª	12	0.017
Likelihood ratio	19.230	12	0.083
Linear-by-linear association	0.597	1	0.440
Number of valid cases	113		

^aThirteen cells (65.0%) have expected count less than 5. The minimum expected count is 0.05.

Table 6. Chi-square analysis results for how important trust working with the JSU CORC is in keeping respondents engaged by gender.

	Value	df	Asymp. Sig. (two-sided)
Pearson chi-square	9.953°	4	0.041
Likelihood ratio	10.303	4	0.036
Linear-by-linear association	3.100	1	0.078
Number of valid cases	108		

^aFive cells (50.0%) have expected count less than 5. The minimum expected count is 0.69.

Information dissemination and communication recommendations

Respondents also provided communication/media recommendations to increase CORC participation among community members, with the option of selecting multiple choices (see Table 7). Information dissemination related to community health events via radio was rated the highest at 57.5% (n = 73) followed by television at 55.9% (n = 71). The utilization of social media (52.8%) and personal contact (48.8%) were also given as suggestions to strengthen engagement. Expanding newsletter tion (35.4%) and advertising in local newspapers (43.3%) were also expressed by a number of participants (n = 100). On the subject of the best medium to use to communicate with community members, a total of 60 individuals (50%) noted email; and an identical response rate for postal mail reminders was shown. Approximately 44% (n = 53) of individuals stated communicating by telephone is the best method of information sharing. Text messaging was also expressed by 28.3% (n = 34) respondents.

Chi-square tests of independence indicates there are three significant relationships between the ways respondents believe that engagement can be increased based on their county of residence and age. These significant relationships include: Television/radio and county of residence ($\chi^2 = 4.620$, df = 4.620)

Table 7. Communicatory recommendations to encourage participation.

ITERA	Respondent (n=128)			
ITEM	% (n)			
Ways to increase participation in				
the CORC activities (multiple choices				
selected)				
Increase number of newsletters	35.2 (45)			
Community health events	55.5 (71)			
Personal contact	48.4 (62)			
Television/radio	57.0 (73)			
Newspapers	43.0 (55)			
Social media	44.5 (57)			
BEST way to communicate to you				
about CORC activities (multiple choices				
selected)				
Email	46.8 (60)			
Telephone follow-up calls	41.4 (53)			
Text messaging	26.6 (34)			
Mail reminders	46.8 (60)			

1, p = 0.032), social media and county of residence ($\chi^2 = 13.090$, df = 3, p = 0.000) (Table 8), and social media and age ($\chi^2 = 26.751$, df = 1, p = 0.000) (Table 9). Respondents from all other counties reported television/radio as a way to increase participation at a significantly higher rate than respondents from Hinds County. Also, respondents from all other counties reported social media as a way to increase participation at a significantly elevated rate than respondents from Hinds County. Respondents 65 years of age and younger reported social media as a way to increase participation at a significantly higher rate than those over the age of 65 years.

Discussion

Results of this study highlight various implications facilitating community-engagement regarding among African-American populations as it relates to promoting health equity through prevention, education, training, and research for hypertension and chronic disease self-management. Respondents expressed their desire to participate in health-promoting activities having been influenced by increasing their knowledge of and addressing chronic disease prevalence in their community; and improving not only their quality of life but also the community as a whole. Those who have a vested interest in the health outcomes of their community project themselves as potential partners who can be trained as as CHAs. As indicated by the utilization of CHAs within the IHS CORC activities, as well as a sound body of literature, this is an effective culturally appropriate strategy to improve individual health and build

Table 8. Chi-square analysis results for using social media to increase participation in community outreach activities by county of residence.

	Value	df	Asymp. Sig. (two-sided)	Exact Sig. (two-sided)	Exact Sig. (one-sided)
Pearson chi-square	13.090°	1	0.000		
Continuity correction ^b	11.754	1	0.001		
Likelihood ratio	13.602	1	0.000		
Fisher's exact test				0.000	0.000
Linear-by-linear association	12.988	1	0.000		
Number of valid cases	128				

^aZero cells (.0%) have expected count less than 5. The minimum expected count is 19.54.

Table 9. Chi-square analysis results for using social media to increase participation in community outreach activities by age.

	Value	df	Asymp. Sig. (two-sided)
Pearson chi-square	26.751°	3	0.000
Likelihood ratio	27.803	3	0.000
Linear-by-linear association	19.942	1	0.000
Number of valid cases	128		

^aTwo cells (25.0%) have expected count less than 5. The minimum expected count is 0.95.

community capacity of chronic disease prevention [26–28]. Likewise, it is a cost effective and sustainable approach because peers are widely available and are members of the target communities which fosters trust-building [29].

One of the important findings is that older respondents reported trust working with the JSU CORC as a reason for remaining engaged in the community outreach activities, whereas this is not a significant factor in the case of younger respondents (45 years of age and younger). Distrust of the medical/scientific community is regarded as a critical impediment to African-American participation in health research studies [12]. One reason for the impact of age on the trust levels and the willingness of the African-American participants to remain engaged in the community outreach activities is the fact that the ISU CORC focused a great deal of attention on building collaborative health promotion partnerships, working feverishly to ease the fears of many of the older participants who were haunted by the abuses of the Tuskegee Study and other notorious abuses in research. The JHS community welcomed the opportunity to work with the ISU CORC because members of the CORC staff had led the successful effort to recruit and retain the JHS cohort, by effectively employing principles of CBPR through many dimensions, including developing a vision to ensure that changes would be long-lasting, while presenting the African-American community with opportunities to

create strong, viable partnerships that can produce comprehensive strategies for addressing health disparities and the high prevalence of CVD. The JHS community recognizes cultural relevance in community outreach activities where the JHS communities have the opportunity to define their health priorities and research agenda themselves; older residents are more inclined to operate in an environment that exudes mutual trust and respect where the JSU CORC and its collaborating partners establish, develop, and openly cultivate respect and trust [6,7].

Similarly, female respondents reported trust working with the JSU CORC as a reason for remaining engaged in the community outreach activities (as compared to male respondents).

Females generally show a higher rate of community activity than males, and that trend is no different in the JHS where females outnumber males in all aspects of participation in the JHS cohort, as well as the CHAN and all community activities and events. A possible reason for the gender variation and an implication for the strategies to facilitate/motivate community engagement is the fact that there are distinct cultural expectations with respect to the value African-American women attach to community activities, such as religiosity and research activities; African-American women's traditional commitment to religious involvement may show some relationship to their superior engagement in research and community outreach activities, as evidenced in this study, when compared to men [30].

Also noted was the importance of providing information related to the effectiveness and reach of previous events to promote future activities. Sharing research findings through community engagement builds trust within the community as well and can be accomplished in various ways. For example, implementing interactive community presentations and partnering with CHAs and other liaisons will facilitate continuing dialog [31]. This effort should be designed to enable two-way communication

^bComputed only for a 2x2 table

and learning to ensure scientific and community advancement [32,33]. Another strategy featured by the findings was the incorporation of health screenings within community events as a way to facilitate participation. As it relates to early chronic disease detection, this is a suitable avenue that has the potential to reach large numbers of individuals [34]. It also gives participants a snapshot of their health if they do not have access to or regularly visit a health-care provider; and connects them with community health resources for healthcare services [35].

A number of information dissemination and communication recommendations to advertise community-engagement events were also offered by respondents. Television, radio, email, and postal mail were ranked high as preferable mediums for communication. There is an array of variance documented within the literature regarding which strategy is most beneficial to individual segments of a target population, as well as cost-effectiveness of each [36,37].

Differences are noted among the counties with regard to preferable means of communication (media) to increase participation in the CORC activities. Respondents from Hinds County are somewhat different from other counties on the preference of communication media. The capital city of the state of Mississippi, Jackson, is located in Hinds County, which also contains some areas designated as rural and provides media coverage for the Jackson metropolitan area that also includes Madison and Rankin Counties that together comprise the JHS area. Madison and Rankin counties are considered rural counties and their communities, especially the African-American communities, adhere to a different set of customs and values.

Also, noted is a difference between old and young age community members in the preference of communication media to disseminate information to increase community engagement. One possible reason for this difference in the age-groups is the fact that older community members still rely heavily on person-to-person interaction, television, regular postal mail, print media, and radio for information dissemination and invitations to events and other activities. The younger community members are more responsive to internet and social media, including Facebook and Twitter.

Limitations

Although a source of rich data was provided by this study, there are limitations. The participants were

not randomly selected which could lead to bias and the sample size is relatively small. In addition, the views of participants may not be representative of African-Americans nationally and also may not reflect non-African-American communities.

Conclusion

Community engagement is an important initial step to reduce disparities and improve the health status of vulnerable and racial/ethnic minority populations. This research presents effective strategies that have been developed by the JHS CORC at ISU to make information on prevention, health education, training, and research more accessible and engaging to facilitate community engagement and health promotion. The results suggested that placing emphasis on promoting community members' contribution and input could have optimal benefit and increase community representativeness in leadership and decision-making of the IHS by recognizing and utilizing the talents and abilities of community members from the entire JHS service area (i.e., tricounty region of Hinds, Madison, and Rankin Counties); this approach can be adopted for other similar cohort studies. The tailored and novel approaches employed by the ISU CORC have the potential to maximize communication, information sharing, leadership development and maximize community benefit in this research partnership. Differences in results and response rates based on gender and age suggest that tailored and novel approaches should be employed to recruit and engage males and those of a younger age (i.e., 18–45 years of age).

Notable strengths of this study include the utilization of a longstanding community-academic partnership between JSU CORC and the JHS communities to collect data to improve community engagement efforts. Community members who participated in this study expressed high interest in accelerating exploration of healthy community outcomes, which offers CORC an opportunity to explore a new cohort of potential CHAs to recruit and subsequently train for future outreach and research within the greater Jackson community. This process of engaging community members initiated by ISU CORC involves regular training and ongoing support, has been successful in building deeper community connections, and may be applicable to multiple communities. The JSU CORC engagement with the CHAs promotes the sharing of views of community members who have great interest in enhancing healthy community outcomes through community engaged health activities.

It is imperative that researchers utilize a multilevel approach to interacting with community members to maximize reach. The importance of a multifarious design was also emphasized by the significance testing of questionnaire results in connection with age, gender, and geographical location. An individual's perceptions and behaviors are framed by these characteristics and researchers must actively address each to leverage positive results [20-22]. It is necessary to use a variety of platforms to interact with community members. It would be productive to include on-line groups in the information dissemination that are designed for participants of all ages and draft messages so that they may have optimal benefit among the intended audience.

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