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Participant Recruitment of African American College Students at an Historically Black College and University (HBCU): Challenges and Strategies for Health-Related Research

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ABSTRACT

Lack of research participation among African Americans is problematic for population relevant health disparity research. The purpose of this paper is to identify and describe challenges and strategies in recruitment of African American college students for health-related research being conducted at a small Historically Black College or University (HBCU). Upon completion of a recruitment and retention literature review, study investigators constructed and tested a culturally-specific, direct-appeal protocol to recruit participants. Major barriers to recruitment of African American college students included discrete sources of distrust, lack of understanding of the research process, and logistical concerns. Implementation of a culturally-specific, direct appeal protocol led to a significant improvement in recruitment and retention of student participants. It is imperative that researchers demystify scientific investigation as a first step towards building trust between themselves and target populations, particularly those from traditionally underrepresented groups. Reasons for distrust, a need for trust and trust building strategies are offered here.

Key words: African American, recruitment, health-related research, challenges, strategies

INTRODUCTION

Participant recruitment is one of the most difficult challenges clinical researchers face (Story et al., 2003). This is especially true when the research focus requires proportionate representation of minority groups as mandated by federally-funded programs (Olsen, Malvern, May, Jenkins, & Griffin, 2008). More importantly, the absence of an inclusively-balanced sample can lead to important gaps in understanding even when methodology is internally valid and reliable. At best, minority under-representation limits our ability to generalize results to a larger population. At its worst, a sample lacking valid representation of the population can lead to selection bias and/or spurious assumptions

(Smith, 2007).

Some argue that research participation by minority populations has recently increased, implying that health investigators may be growing more adept at addressing the unique challenges posed by recruitment from groups typically underrepresented (Story et al., 2003); and/or that past research experience increases the likelihood of future participation (Scharff, 2010). Others continue to cite difficulties in recruiting and retaining African Americans in health-related studies (Robinson & Trochim, 2007; Huang & Coker, 2010). The dilemma this presents is that African Americans experience a disproportionate impact of obesity (Ward, 2009), but are underrepresented in research because of recruitment challenges.

Persistent reports of the overall prevalence of adult obesity show African Americans at 37.5% as compared to Hispanic and non-Hispanic whites at 28.7 and 23.7 respectively (Centers for Disease Control (CDC), 2009). This means that understanding and preventing obesity is especially important for African Americans because it is a known risk factor for certain cancers (CDC, 2009), cardiovascular disease, diabetes, stroke and hypertension, all more prevalent in African American communities (Kumanyika, 2008). Such health concerns also serve to emphasize the urgency of ensuring that research samples adequately reflect this population.

The purpose of this paper is to discuss challenges to recruitment efforts and the solutions developed to address them, as these may be useful to other health researchers experiencing similar problems. The success of a culturally-specific, direct appeal recruiting protocol is described. This article also reviews recent trust, recruitment, and retention literature intended to increase African American participation in health research.

Recruitment Challenges at a Small HBCU

Winston-Salem State University, a Historically Black College and University (HBCU), is a small liberal arts institution located in the southeastern United States. In light of the obesity crisis among African Americans, study investigators developed a pilot to assess the relationship between chronic stress and weight-related health disparities in a college-aged population. Despite being home to a large number of students pursuing undergraduate and advanced degrees in health-related fields, recruiting and retaining research participants for this study has been challenging. The first months of investigation yielded only a handful of participants. Project investigators turned to Glaser and Strauss' (1999) grounded theory to gain a data-driven understanding of the participation-apathy phenomenon we encountered.

Recruitment and Retention Literature

In Tuskegee's Shadow

Epidemiological literature reports numerous barriers to minority participation in research. In regards to African American willingness to participate, many scholars have identified a historical distrust of the white medical community based on the Tuskegee Syphilis Study (Huang & Coker, 2010). Doubtless, the breech of ethics demonstrated by the Tuskegee study belongs on the list of reasons for being wary of participating in research. However, the notion of a Tuskegee-stigma on research among minority populations presumes that ordinary individuals, some thirty-five years removed from the study's end (CDC, 2010), are as informed about its details as are scientists; an idea that is increasingly being questioned (Freimuth, 2001). Consider that one recent study of 157 African American adults living in a large mid-western city found that less than 25% of participants were aware of the Tuskegee experiment; and of those, only 10 identified its focus on Black men and syphilis (Kerkorian, Traube, & McKay, 2007). Such findings suggest that single factor explanations regardless, of how compelling they are, do a disservice to researchers struggling with recruitment and retention issues because they oversimplify what amounts to complex decision-making processes. As Scharff and colleagues' (2010) work implies, Tuskegee is but one small scab on a much

deeper wound that according to Washington (2007) dates back to colonial times.

Theoretically, distrust reflects perceptions of unnecessary exposure to risk; expectations of injury, or lack of confidence in some or all aspects of the proposed experience (McKnight & Chervany, 2001). As Thomas' Theorem indicates, that which is perceived to be real is real in its consequences. In the case of distrust this appears to be true because physiologically, the brain reacts to the perception of distrust as an intense emotional response associated with fear of loss (Dimoka, 2010). In this light, the distrusting attitudes about research held by African Americans more likely reflect a composite of fears rooted in beliefs built upon stories of first- or more-distant person experience; popular culture artefacts, e.g., the 2001 HBO film, *Miss Evers' Boys,* and/or continual media reports of health disparities, mistreatment and related inequalities. This means that investigators, especially those like us with limited resources, must focus energy on developing concrete methods of building trust among potential participants.

A Trust-based Decision

The concept of trust reflects a complex system of interrelated constructs (Bottitta, & Felici, 2006); for these analyses it is sufficient to acknowledge that trust is both dynamic and crucial in uncertain situations. Essentially, trust is the degree to which an individual allows themselves to be vulnerable to another person's actions (Curşeu & Schruijer, 2010). And, despite the uncertainty about whether trust is the opposite of distrust (Dimoka, 2010), logic dictates that willingness to take part in scientific investigations requires a generous degree of trust. This is because the act of research itself represents a search for knowledge in the face of the unknown.

Empirical evidence shows that for African Americans trust is a- necessary component in the decision to participate in scientific investigation (Topp, Newman & Jones, 2008). For example, in 2002, Corbie-Smith, G., Thomas, S. B. and St. George, D. M. M. conducted a national telephone survey and found that African American participants had significantly higher mean distrust scores than Whites. African American participants were more likely than Whites to not trust their physician. Specifically, African Americans were less likely to trust that a physician would fully explain the consequences of research participation and more likely to expose them to unnecessary risks.

This review showed that, in general, recruitment and retention literature on African American willingness to participate has focused primarily on clinical medical research, with comparatively little attention given to health attitudes and behavioral research. Moreover, although the issue of trust and research participation among African American adults has been well documented; research on African American college student trust has been limited. In one recent study, Diaz, Mainous, McCall and Geesey (2008) evaluated the likelihood that respondents would agree to participate in three types of non-invasive studies. Interestingly, they found that students at an HBCU were less likely to participate in survey research on a sensitive topic than provide a DNA sample. Diaz et al. (2008) concluded that their African American samples were more concerned about personal information being misused than DNA.

Motivation to Participate

Increasing evidence highlights the value of researchers recognizing that the target community is a partner and not simply a sample pool (Coe, Wilson, Eisenberg, Attakai & Lobell 2006). The community-partnership research model consistently shows that recruitment and retention of minority population benefits from alignment between a study's goals and those of the community (Olsen, Malvern, May, Jenkins, & Griffin, 2008). This philosophy argues that recruitment protocols should be culturally-specific. From the perspective that culture is essentially a blueprint for organizing the everyday aspects of one's life, it was clear that our target population represented two very distinct cultures. The protocol developed for this study had to address both African American and student culture. Based on the trust-literature review and the reported success of the

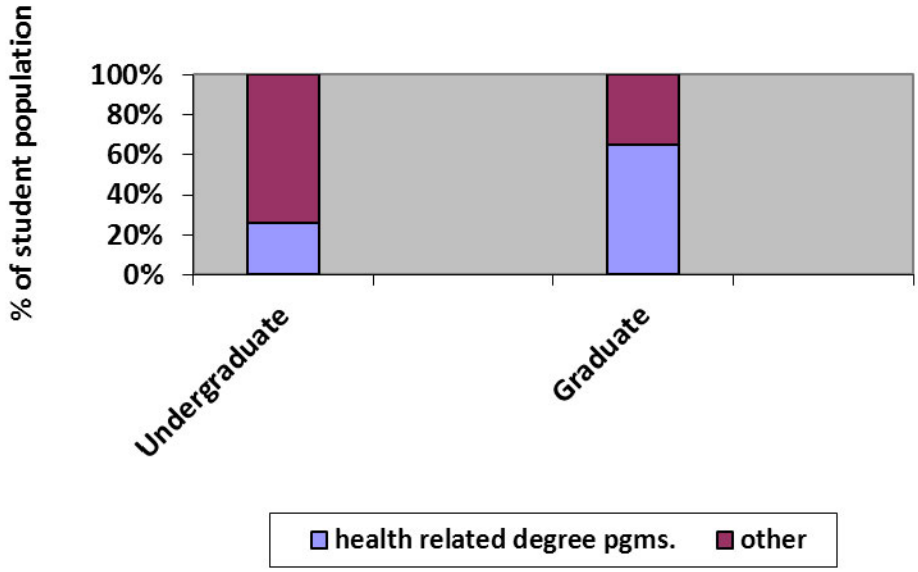
community-partnership model we developed a culturally specific recruitment strategy. The evidence suggested that if we could demonstrate that the parent study goals aligned with known health disparities, it would build trust among potential participants and thereby increase the likelihood of participation.

METHOD

Participants

Out of a total of 102 participants, 94 were African American male and female traditional and non-traditional college students. Participants ranged in age from 18 to 45 (M=21, SD=5). Based on the population of the university (see Figure 1), we expected a diverse array of majors including many health science majors.

Figure 1. WSSU Student Enrollment 2009



Procedure

Initial recruitment strategy relied on passive methods, e.g., flyers. . Passive recruitment occurs when the researcher creates awareness in the target population about the study and then relies on volunteers to approach the researcher (Lee, McGinnis, Sallis, Castro, Chen & Hickman 1997). Ninety color flyers with graphics and pull-tabs were posted at high traffic locations around campus. Locations included the hallways and stairwells of the Behavioral Sciences and Social Work building, Life Sciences and various other department/classroom buildings around campus. Flyers were also posted at campus shuttle-bus stops, on bulletin boards in dormitories, in the student cafeteria, the school's "fast-food" restaurant (The Ram Shack) and in the school's computer center. Flyers prominently displayed the offer of monetary compensation in exchange for participation in the study. Additionally, faculty members were personally asked by study investigators to announce the research participation opportunity to their classes. This process continued throughout two sessions of summer school.

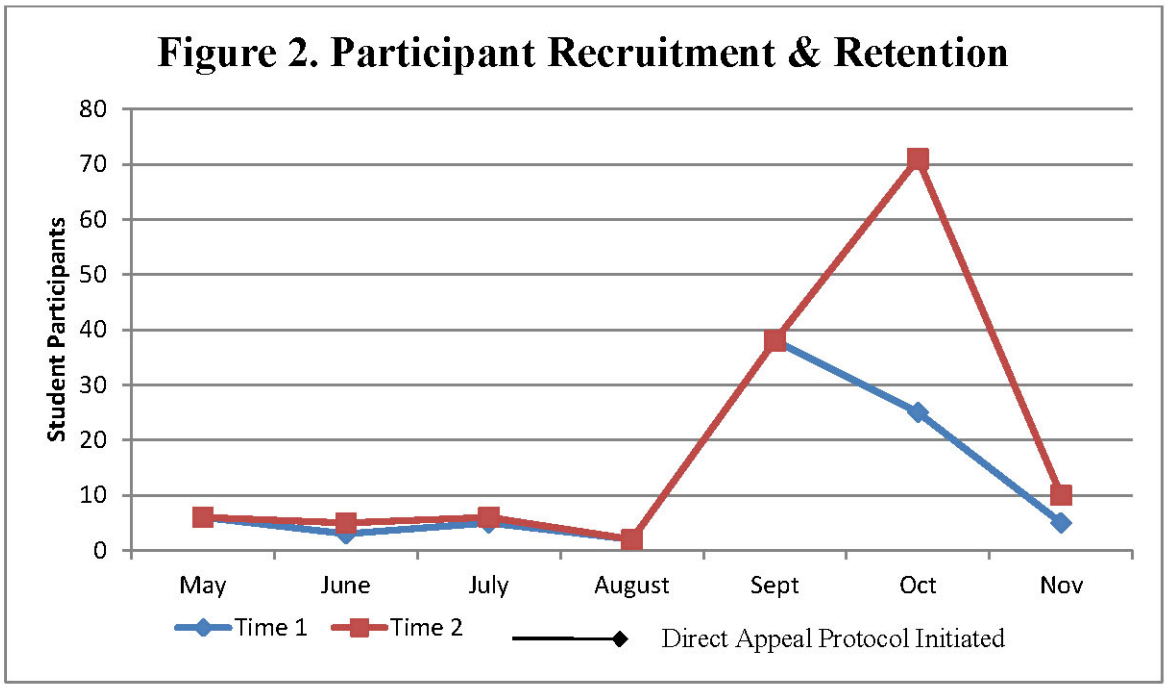
Passive recruitment strategies yielded low numbers of participants. In an effort to boost participant enrollment, an active recruitment strategy was employed. Active recruitment strategies occur when researchers recruit from a known subject pool by targeting specific individuals, groups, or residents in defined areas (Lee, McGinnis, Sallis, Castro, Chen, & Hickman, 1997). Building on the

community-partnership model, themes of trust and motivation prevalent in qualitative research, e.g., Kerkorian, Traube and McKay (2007), mixed methods research on adults, e.g., Farmer, Jackson and Camacho (2007) and lessons learned from Diaz and colleagues (2008) about college students, we developed a culturally specific script that highlighted the parity between the study goals and the African American community by emphasizing the need to further what is known about the relationship between chronic daily stress and persistent health disparities related to obesity.

To minimize students' concerns about feelings of powerlessness at being asked to do something by a professor, the lead research assistant (RA), herself an African American and a recent WSSU graduate spoke to students in their classrooms using a script. The RA made 7 classroom visits from mid-September through November. Within the scope of a 5-8 minute presentation, depending on audiences' questions, the RA explained the potential benefit to the African American community of this study. She, clarified the research process, concerns about confidentiality, and participant rights and responsibilities. Along the way, the RA assuaged student fears that participating in the research would be an added burden or that faculty would learn of their participation. Her presentation ended with a few words about the token compensation available as a "thank you" gesture for participating. Immediately after the direct appeal participants were asked to sign an appointment sheet for a particular day and time to come to the laboratory. She also extended an invitation for students to come to the lab and look around should they have more questions.

RESULTS

Participant recruitment began April and ended in November 2010 once the desired goal of 85 was 10 percent oversaturated to allow for attrition. The use of a passive recruitment strategy resulted in 13 participants from April to early September. In mid-September, once the active recruitment strategy was implemented, the number of participants increased by 89 which represented an 87% increase in participant enrollment including appointments and walk-ins. Of the 94 African American participants 76 were female and 18 were male. Therefore the majority of participants (80.9%) were female. As a result of the RA's in-class visits 85 students recorded information on the sign-up sheets. The average enrollment for classes at WSSU is 30 to 35 students. The smallest class visited had 6



students, 3 students signed-up and all 3 completed their participation. Figure two below shows the impact that a culturally aware protocol can have on willingness to participate in research.

Participants represented all classifications and an array of majors. There were 11 freshmen, 28 sophomores, 26 juniors, 26 seniors, 1 second degree student and 2 graduate students. An examination of the students' majors revealed: 29 healthcare/nursing/ rehabilitation, 15 business/ mass communications, 5 political science/history/justice studies, 21 psychology, 8 education and 5 other.

DISCUSSION

Results show that an active, culturally-specific recruitment strategy that focused on trust building and transparency of the research goals and process significantly increased the number of participants enrolled in this study. The RA's classroom visits performed better than expected. Immediately following the first visit in mid-September, sample recruitment and retention went up exponentially.

Strategies to Build Trust and Motivate Participation in Research

The first step for investigators to engender trust is to create a non-threatening atmosphere for potential participant pool. Again, Diaz et al. (2008) found that African American college students would be more likely to participate in research conducted at an HBCU or under the leadership of an African American investigator. However, our experience has been that despite the study being conducted at an HBCU, and one of the lead investigators being African American, as are both graduate and undergraduate research assistants, students were wary of participating until they knew more about the project. Our strategy to build trust and motivate students to participate focused on (1) demystifying the research process itself; (2) making our investigation purpose more transparent; and (3) demonstrating that the study goals are aligned with community interests.

To shed light on the research process, the culturally-specific recruitment protocol included a brief discussion of how this research could benefit the subjects' community and future generations if not themselves directly. This forum was also an opportunity to allay misgivings rooted in misperceptions about risk exposure or that findings will threaten the best interests of the community. To promote confidence in the investigating team, and to reassure prospective participants that the study design minimizes any additional burden on the student's busy daily life we used technologies with which they are already familiar, e.g., text and email reminders. Specific details were also provided about how confidentiality will be protected. Additionally, because potential participants have likely had little prior exposure to the research process, the protocol specifically used clear, jargon-free language to talk about the nature of this research, i.e., exactly what was expected of participants. In other words, this is the ideal place to emphasise the importance of "getting involved" and to provide a safe setting to address their questions and concerns.

Such a talk should also be used to clarify concerns about privacy and protection. As ethical scientists we take for granted the informed consent and Institutional Review Board processes. However, it is highly unlikely that the average freshman knows why these processes are in place or how they operate. We recommend researchers go beyond ethically mandated ways of conducting informed consent by familiarizing prospective participants with the document. Specifically, researchers should discuss with participants how informed consent protects their rights by guaranteeing them the right to confidentiality or to withdraw at any point. Also, confidence in the researchers can be promoted by reassuring participants that all records of participation would be held under lock and key and that names will be replaced with alphanumeric or other coding system.

Finally, a brief explanation of methodology could provide details to prevent misperceptions about logistical barriers to participation, e.g., study location, availability; the study will provide

reminders, etc. This is also the ideal time to end with an invitation to potential participants. To combat perceptions of unnecessary exposure to risk, invite participants to come into the lab/ workspace to look around and ask more questions. Alternatively, investigators could develop a short video clip of the research procedure to show participants what they can expect.

Figure 3. Culturally-Specific Protocol Recommendations

1) Give a step by step explanation of the research process in clear jargon-free language. Solicit and answer questions for clarification.
2) Clear up concerns about confidentiality.
3) Use research assistants to recruit participants in classrooms.
4) Reassure. Explain that the study will use texting, tweeting, voice or e-mail (their choice) to help students keep up commitment without being too pushy and or overbearing.
5) Invite potential participants to the lab to look around.

Limitations

Some caution should be used in the interpretation of these findings. One item of note is that generalizability is limited partially because conclusions are based on a convenience sample. Moreover, it is possible that African Americans who elect to attend a relatively small historically black liberal-arts institution may reflect a unique cultural centricity that sets them apart from those who opt for a larger, more diverse university setting. However, this sample was never intended to represent all African American college students. The parent study was designed to gain a better understanding of obesity-related health disparities by targeting a population known to be at high risk and simultaneously seeking an education that presumably includes some mention of living a healthy lifestyle.

Future Directions

Although not the primary focus of the original study our experiences here have shed some light on African American willingness to participate in health-related research. The next step is to replicate findings in a more diverse setting; for example, recruitment of African American college students at a predominantly-white college or university. Additionally, given the number of health researchers who have reported recruitment challenges among African Americans of all ages, the culturally-specific protocol developed here should be also expanded for testing at the community-level.

CONCLUSION

Beyond a generalized distrust of investigators and research-oriented institutions, prior research shows that various barriers to participation by African Americans, ranging from logistical to sociocultural factors (Farmer, Jackson, & Camacho 2007). Taking time to make the research and the data collection process more transparent by talking about the goal of the study in question;

the difference between health behavior and clinical research goes a long way to demonstrate that research team members are knowledgeable, ethical, will be forthcoming about the study, and use results to improve the community. Be candid about other factors such as, sampling approach, identification of targeted participants, community involvement, incentives, nature and timing of contact with prospective participants; as these are also important (Yancey, Ortega, & Kumanyika, 2006).

More research is needed on recruitment of African American college students for health disparity research studies, such as studies on obesity because as Diaz et al. (2008) assert, African American college students are an important research population to target. One reason is that this group may be the most agreeable to participation due to their age and education level. Secondly, these are the individuals who will be recruited for future research trials. Therefore it is imperative that we continue to investigate, not only distrust, but other barriers in research recruitment among the college age population.

To paraphrase C. Wright Mills, a respected sociologist, health disparities related to obesity are both a public issue and a private matter. In the public realm, such preventable disparities represent a critical social justice issue and a national priority. More importantly perhaps to our students, is that obesity-related disparities are also personal for them and their loved ones. As this research is being conducted at an HBCU, we believe that a positive experience with research while one is an undergraduate student could inspire the next generation of much-needed minority scholars and scientists.

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