

West Chester University
Digital Commons @ West Chester University

Kinesiology Faculty Publications

Kinesiology

2019

Zumba in the Postindustrial Midwest: Minority Women and Access to Physical Fitness

Selen Razon

Shannon Powers

Lindsay Pursglove

Dagny Zupin

Lawrence W. Judge

Follow this and additional works at: https://digitalcommons.wcupa.edu/kin_facpub

 Part of the [Exercise Science Commons](#)

PHYSICAL FITNESS

Zumba in the Postindustrial Midwest: Minority Women and Access to Physical Fitness

*Selen Razon, Shannon Powers, Lindsay Pursglove,
Dagny Zupin, Lawrence W. Judge*

Abstract

Historically, minority women have had limited access to health care resources. Healthy People 2020 identified the promotion of activity and wellness as a key for eliminating health disparities in ethnic minorities, as minority women are not significant consumers of exercise programming. This study explored participation of a sample of underserved African American women in an individualized Zumba exercise program. The underserved sample was taken from a postindustrial Midwestern city. Participants ($n = 35$, $M_{age} = 45.75$) completed a 4-month aerobic intervention program offered through an accessible gym. At program completion, they responded to a semistructured survey that gauged reasons for participation, perceived enjoyment, and effectiveness. In addition, the survey prompted recommendations and suggestions for future programming. Low cost and entertainment aspects were the most commonly cited reasons for participation. Most participants found the program enjoyable and effective and expressed interest for participating in similar events in the future.

Selen Razon is an assistant professor, Department of Kinesiology, West Chester University. Shannon Powers is an assistant professor of Kinesiology, School of Kinesiology, Ball State University. Lindsay Pursglove is a former assistant professor of sport administration, Ball State University, and is currently the owner and operator, Swimtastic Swim Schools of SW Florida. Dagny Zupin is a student assistant, School of Kinesiology, Ball State University. Lawrence W. Judge is a professor, School of Kinesiology, Ball State University. Please send author correspondence to lwjudge@bsu.edu

Cardiovascular disease is the number one cause of death in the United States, and African American women are particularly at risk for cardiovascular disease, with an age-adjusted rate of cardiovascular disease 72% higher than that of White women (Centers for Disease Control and Prevention [CDC], 2016). African American women are also twice as likely as White women to have a heart attack (American Heart Association, 2016). On average, 82% of African American women are classified as overweight (Burwell, Frieden, & Rothwell, 2015). Regular physical activity prevents risks for developing cardiovascular disease and obesity (Berra, Rippe, & Manson, 2015). Nevertheless, physical inactivity is an ongoing challenge in the United States, particularly among minorities and women (Ward, Clarke, Freeman, & Schiller, 2013). In the United States, African American women aged 20 to 59 years accumulate an average of only 20 daily minutes of moderate to vigorous physical activity (Troiano et al., 2008), and 63% fail to meet the recommended physical activity guidelines (Burwell et al., 2015).

These statistics are interesting given that African Americans are regarded as a segment with high sport consumption behaviors (Bilyeu & Wann, 2002). Specifically, in professional sports, many mainstream healthy, fit, athletic African American athletes create a strong image for this demographic. There are 3 million to 6.5 million African American television viewers from ages 10 to 49 years old (Nielsen Holdings N.V., 2014, p. 17). These highly publicized athletes create strong viewership of sport and lead to higher sport consumption (Nielsen Holdings N.V., 2014). However, the strong viewership of sport for the African American segment, in general because sport consumption is a gendered experience (Tang & Cooper, 2012), has not translated to high sport and physical activity participation in African American women (Bassuk & Manson, 2004 ; Nies, Vollman, & Cook, 1999).

Of particular relevance to this study, pertaining to physical activity behaviors in African American women, data from public health research indicated limited child care opportunities, exercise partners, space at home or at work, motivation, and feelings of fatigue among the major barriers to being physically active (Joseph, Ainsworth, Keller, & Dodgson, 2015; Nies et al., 1999; Van Duyn et al., 2007). Other data sources have also cited lack of time, high

cost, and “feeling out of place” in exercise facilities outside of their neighborhoods (Walcott-McQuigg, 2005) as barriers to physical fitness. Recent research in health behavior has revealed that African American women may find particular appeal in long-term, comprehensive, and structured programs that address both exercise and nutrition and keep them motivated by means of ongoing support by their “buddies” (Thomas et al., 2009). Finally, barriers such as low socioeconomic status may be a cause of the increased prevalence of sedentariness (Burwell et al., 2015) and should be considered within initiatives of promoting activity in any community (Cohen et al., 2013).

To that end, community programs with goals to engage racially diverse populations in physical activity have highlighted the importance of involving the target community early, tailoring the physical activity programs to suit the predominant race, and creating partnerships among diverse groups (Bank-Wallace & Conn, 2002; Kumanyika, 2001; Schulz et al., 2005; Tanjasiri, 2005; Yancey et al., 2004). Consistent with the unique barriers these communities may be experiencing, these approaches have also emphasized the importance of select social determinants of health behaviors including levels of income, racial segregation, and social support.

Consequently, for this secondary market to gain further interest in physical activity programs, it may be imperative that insights into the psychological and contextual factors that facilitate physical activity behaviors are gathered from community members. In fact, understanding psychological and contextual correlates of physical activity behavior among African American women is necessary for designing comprehensive programs that particularly appeal to this community (Fleury & Lee, 2006).

Though associations have been made between physical activity behavior and several psychological and contextual factors, much remains unknown about the relationship between these correlates and regular physical activity participation, particularly in low-income, African American populations (Andersen, Gustat, & Becker, 2015). This study (1) identifies psychological and contextual correlates of physical activity participation among African American women in a low-income neighborhood in the rural Midwest and (2) advances

practical implications and recommends future directions for physical activity programming to appeal to this population.

Method

Design

Given the limited knowledge on potential physical activity participation and sport consumption behaviors of African American women (Hamner & Wilder, 2010), this study used a semistructured survey with greater emphasis on qualitative items. Open-ended questionnaires can help discover how participants in a study make sense of events and assign meaning to their experiences (Rubin & Babbie, 2016). In addition, through an explorative approach to inquiry, qualitative investigations can help reveal complex human experiences. Specifically, a qualitative approach emphasizes the consideration of several realities in the interpretations of social events (Fletcher & Arnold, 2011). Consequently, the rationale was that collecting data from various perspectives could promote greater understanding of diverse correlates of physical activity participation, such as the behaviors and preferences inherent in this segment. To that end, the researchers used an open-ended, semistructured questionnaire to prompt the perspectives and experiences of those who have participated in a physical activity program within a community facility.

Participants

The researchers used a homogeneous sampling technique to focus and simplify potential participant recruitment to members of a particular community center (see Patton, 2005). Specifically, following institutional review board approval, potential participants who were already using the center were contacted via flyers sent home through local schools, radio advertisements, and word of mouth. These communicants informed them about the purpose of the study, defined what participation would entail, and solicited participation. Overall, program attendance ranged from 60 to 90 participants per session: 32% males and 68% females and 100% African American racial classification. For the purposes of this study (i.e., achieving an in-depth understanding of African American women's experiences),

the sample of interest included 35 African American women ($M_{age} = 45.75$). Of the 35 women who responded to the survey, only 12 completed its qualitative section. Nonetheless, 12 was considered an appropriate number given that as the data collection progressed, new themes and coding failed to emerge, hence the occurrence of data saturation (Burmeister & Aitken, 2012; Guest, Bunce, & Johnson, 2006).

Procedure

Subsequently, the researchers presented information about the study at a selected community center both verbally and via participation packets, which were handed to participants. For the purposes of this study, participants engaged in rhythmic aerobics (i.e., Zumba) two times per week for 3 consecutive months within the local community center. Classes were free of charge. Each class took 60 to 70 min. Complimentary meal samplings followed each exercise session. Free babysitting services were provided as well, and due to the center's proximity to the participants' residences, minimal to no transportation was required. The researchers offered a fitness-based incentive to encourage twice weekly attendance. Zumba Basic Level 1 instructor certification was available for anyone who attended 24 out of 32 exercise sessions (75% of sessions). Eight out of 90 participants were eligible and became certified Zumba instructors through the incentive program. At the completion of the program, a 20-min, semistructured questionnaire was administered.

Semistructured Questionnaire

Initially, a preliminary interview was conducted with the center's manager so that the researchers could ensure that the comprehensive questionnaire addressed the relevant areas of sport and physical activity behaviors in the participants. This preliminary interview enabled the researchers to refine the items for the semistructured questionnaire used in this study. Specifically, drawing upon this interview, questionnaire items were finalized to achieve a deeper understanding of the participants' subjective experiences with the program (for a review, see Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001).

A semistructured questionnaire (see Figure 1) that investigated the thoughts and recommendations of the participants about the program was developed. Using a multiple-choice and open-ended format, the first section of the questionnaire asked participants to select two reasons why they initially chose to participate in the program. This section allowed the researchers to gain an insight into the motives behind these individuals' reasons for participating in a physical activity program. Using a Likert-type rating scale with anchors ranging 1 (*not at all*) to 5 (*very much*), the second section explored levels of enjoyment and perceived effectiveness associated with the program, as well as participants' potential interest in doing Zumba in the future. This section allowed the researchers to gain an insight into the potential of the program to truly change behavior and result in sustainability in the future. Using an open-ended format, the last section of the questionnaire encouraged participants to elaborate on any recommendations and/or comments related to the program, as well as preferences and requests for the future. This section allowed the researchers to identify important cues on what makes a program appealing to this segment and how this can inform upcoming practices.

Data Analysis

Mixed methods were utilized for analyzing the data from the qualitative survey. Data and the data analysis process of qualitative survey research can be described as “the rectangular variable by case matrix structure of the data set” and the consequential form of analysis by column inventory and consequential analysis “by matching variation in one variable with variations in other variables, which is an application of grounded theory” (de Vaus, 2002, p. 6). The qualitative survey does not aim to establish frequencies, means, or other parameters, but to determine the *diversity* of some topic of interest within a given population (de Vaus, 2002). In doing so, coding the open-ended responses with quantitative measures establishes a meaningful variation within the population. In addition, descriptive analyses were run in the Statistical Package for Social Science (SPSS) 19 for the scores associated with numerical data. Statistics of frequency, percentage distributions, mode, median, and standard deviations were computed pertaining to the motives for program participation, level of enjoyment, perceived effectiveness, and likelihood of doing

Zumba in the future. Data were organized in tables based on the respondents' answers to survey questions.

Results

Through Glasser's (2017) coding technique, categories of meaning emerged that had internal convergence and external divergence. Specifically, three consistent categories that are distinct from one another held deep meaning for participants. These referred to further initiatives participant would like to see offered and included additional Zumba classes, alternative courses, and suggestions related to nutritional components (see Table 1). Four general categories emerged in the respondent's narrative recommendations for the current program and/or upcoming programs (see Table 2): no changes, instructional recommendations, recommendations related to facilities, and suggestions for nutritional component.

Table 1

What Other Health-Behavior-Related Initiatives Would You Like to See Offered?

| Category | Recommendations |
|-------------------------------------|--|
| Alternative courses | "Weights" "Any, I appreciate it all" "Maybe kids classes" "More Zumba!" "Dance club" "Piloxing and stretching" "Step aerobics" |
| Higher frequency of offered classes | "Just more of anything physical" |
| Nutrition | "Healthy cookies" "Recipes for the meals" "Nutrients guide" |

Table 2*How Could the Program Have Been Better?*

| Category | Recommendations |
|-------------------------------|--|
| Instructional recommendations | “Step aerobics” |
| | “Different routines” |
| | “Provide clearer instruction when beginning the session” |
| | “Longer sessions” |
| | “I want to be able to do it more on my own time” |
| Nothing more... | “Very satisfied” |
| | “Please continue workouts like this one” |
| | “It was awesome. I’m glad I heard about it” |
| | “Everyone was very nice and informative” |
| | “Nothing, good program” |
| | “Please continue workouts like this one” |
| Nutritional component | “The food provided was very good. I feel it was all healthy and gave me some ideas to cooking at home” |
| | “It reminded me to promote good health at home” |
| Facilities | “Air conditioning” |

Of descriptive analysis, Table 3 lists the frequencies of participants per survey item, reporting how much they enjoyed Zumba, to what extent they found it helpful, and how likely they are to continue participation in the future. Of 35 participants, 19 responded to the first item and 20 to the other two items. On a scale ranging 0 (*not at all*) to 5 (*very much*), on average participants reported very high enjoyment and perceived effectiveness associated with the program and very high likelihood of doing Zumba in the future. Table 4 lists the frequencies of participants per primary reasons of joining the program. Most participants reported joining the program because they found it either fun or cost effective, while some reported joining because they found it convenient.

Table 3*Frequency of Participants Reporting Primary Reasons for Joining the Program*

| Primary reason | Frequency | % | Valid % | Cumulative % |
|-----------------------|------------------|----------|----------------|---------------------|
| Fun | 14 | 40.0 | 40.0 | 40.0 |
| Cost | 15 | 42.9 | 42.9 | 82.9 |
| Valid Informative | 1 | 2.9 | 2.9 | 85.7 |
| Convenient | 5 | 14.3 | 14.3 | 100.0 |
| Total | 35 | 100.0 | 100.0 | |

Table 4*Frequency and Ratings of Participants for Perceptions Associated With the Program and Future Intentions*

| Perception | N | Min | Max | M | SD |
|---|----------|------------|------------|----------|-----------|
| Enjoy Zumba | 19 | 5 | 5 | 5.00 | .000 |
| Helpful for physical activity and nutrition | 20 | 2 | 5 | 4.55 | .887 |
| Likely to do in the future | 20 | 4 | 5 | 4.90 | .308 |
| Valid N (listwise) | 19 | | | | |

Discussion

The high levels of inactivity and the persistent disparity in cardiovascular disease underscore the need for better programming focused on enticing African American women to increase physical activity (American Heart Association, 2016; Burwell et al., 2015) due to the large number of African American women who struggle to participate in regular physical activity (Webb, Khubchandani, Hannah, Doldren, & Stanford, 2016). This study delineated psychological and contextual facilitators of physical activity participation among African American women in a low-income neighborhood in the rural Midwest and accordingly advances practical implications and recommendations for attempts to appeal to this population.

These findings suggest that strategies with the most appeal to low-income African American women are entertaining, cost effective, and convenient. Specifically, the participants placed high value on being active with others from the community, having

classes available at low or no cost, and having easy access to the facility, which best accommodated their work and family schedules. Dornelas, Stepnowski, Fischer, and Thompson (2006) completed a similar study. They attempted to engage minority women (African Americans and Hispanics) into regular physical activity by conducting two 10-week aerobic fitness programs that were offered in both a women's health care clinic and a church. The study concluded that considering age and target population is vital to identifying a setting that best fits urban-minority women. Location can be a large factor in the underserved's willingness and ability to participate in physical activity. The current study supports that conclusion, as 100% of the participants reported convenience as a primary reason for their participation. In addition, Dornelas et al. suggested that places of religious practice are being underused as a convenient location for physical activity. Community religious buildings provide a setting where underserved women already feel comfortable and familiar with (Campbell et al., 2007; Young & Stewart, 2006). Places of worship often have a strong social network in place, and strong social support is directly correlated with compliance to physical activity and a fitness schedule (Heath et al., 2012). For creating a fitness program for urban minority women, it is important that research explores what locations have deep roots in the community and will translate to a more comfortable exercise experience for minority women. As in the current study, where 20 out of 35 participants indicated they would participate in the activity again, Dornelas et al. (2006) received a similar response: 31 out of 34 (91%) of participants said they would participate again if the class was offered.

Earlier reports have also proposed that to increase the appeal of health promotion activities, activities need to be modified to the unique sociodemographic characteristics of the community (Kong, Tussing-Humphreys, Odoms-Young, Stolley, & Fitzgibbon, 2014) and cognizant of considerations such as time and financial restrictions (Conn, Chan, Banks, Ruppard, & Scharff, 2013). Earlier marketing research has also recommended that although intimidating for some (Miller & Miller, 2010), ideally, activities to increase physical activity participation among minorities should be group-focused, hands-on, purposeful, and inclusive of more than family and friends (Van Duyn et al., 2007).

Thus, based on the present results, marketing efforts would benefit from attempts to build fun and entertainment value into these programs, decrease associated costs, and increase access to places for physical activity. Consistent with early recommendations, researchers in this study partnered with community leaders to best overcome common barriers to physical activity including lack of infrastructure, transportation, and access (Schulz et al., 2005). These partnerships should remain an integral part of similar efforts in the future. To that end, this approach seemed to benefit from integrating an existing local facility that was easy to reach, safe, and available for the type of program offered, as well as extending free child care services for participating members and offering a Zumba instructor certification for the those who regularly attended.

Noteworthy, many of the participants reported high enjoyment and high satisfaction with the program. Of these participants, most reported that they are likely to do Zumba in the future. This feedback is important because negative affects toward physical activity preclude participation (Ekkekakis, Hall, & Petruzzello, 2008), while positive affects help facilitate it (Williams et al., 2008). In fact, positive affects were shown to help adherence to health behavior in African Americans in general (Ogedegbe et al., 2012). Although the primary focus of this study was the physical activity portion of the program, a combination of physical activity and nutritional education programs is integral to increasing community health behaviors (American Heart Association, 2016) and active living environments in communities (Stirling, Lobstein, & Millstone, 2007; Viswanath & Bond, 2007). Consistent with this view, the participants found it beneficial when both activity and nutrition programs for their overall health and continued health behaviors were offered.

Finally, findings from this study reinforce the notion that low-income African American women have low rates of physical activity participation. Therefore, understanding the unique correlates to activity in this population is vital and could lead to the design of programs and interventions that effectively appeal to them (Resnicow et al., 2000). Few studies have examined low-income African American women's perceptions toward and experiences with physical activity (Ainsworth, Wilcox, Thompson, Richter, & Henderson, 2003; Jackson et al., 2016).

Taken together, these findings indicate that (a) psychological correlates of physical activity likely influence participants' decision to engage in a program; (b) if properly addressed, unique contextual barriers to a community, such as cost of physical activity, commitments including child care, and lack of convenient facilities, can become distinctive strengths and facilitate recruitment of the community's members; and finally, (c) although not specifically tested herein, early partnership with community leaders, as well as focus groups with local residents, can help these programs to meet their goals. Thus, they should be diligently considered when research targets these relatively unexplored second markets.

Critical recommendations could therefore include a number of tactics to expand the Zumba market. Expanding the market past the traditional target market of Caucasian women can indeed lead to more diversity, inclusion, and opportunities for growth. Creating Zumba programs to service this population and fulfill their physical activity needs and promote health is a cause-related marketing perspective. Specifically, when sport programs have a focus or cause, it creates a synergy for increasing awareness and participation for achieving a common goal. Thus, the focus is a point of differentiation from other physical activity programs because it exhibits how this Zumba program specifically meets the client's needs. If a program meets the needs of the participants before, during, and after the activity, then the participant is more likely to stick to the plan in the long term (Fjeldsoe, Neuhaus, Winkler, & Eakin, 2011). Thus, participants incorporating the Zumba program into their lifestyle could result in higher consumption rates, and the opportunities for partnership/sponsorship relationships could grow with the participant base. Obtaining these relationships would offset program expenses and participant expenses while benefiting the sponsor by providing exposure to their company, brand, or product. All of these opportunities in this sport business model provide a means of creating and growing a sustainable fitness program that serves African American women as a viable secondary market.

Limitations and Recommendations for Further Research

During this research effort, the researchers found that the unique barriers and facilitators that promote physical activity participation were relatively unexplored among low-income African American

women. The results are not representative of a broader population due to the nonrandom recruitment strategy, small sample size, and use of mostly qualitative rather than quantitative research methods. Another drawback of the study was its primary focus on physical activity participation and its limited discussion of the nutritional component. The nutritional portion of this program was not standardized, as it consisted instead of sampling foods and providing nutritional pamphlets for participants to take as they desired and read at their convenience. Other studies, however, have shown that programs with structured physical activity and nutritional education components can be highly effective in similar communities (Resnicow, Taylor, Baskin, & McCarty, 2005; Resnicow et al., 2000; Wadden et al., 1990). Thus, our primary focus may have precluded an investigation of the effectiveness of other components such as the unstructured nutritional educational piece and their combined effect on overall health behavior change.

However, the strategies discussed remain evidence-based and are likely to benefit upcoming programs within same or similar demographics. Although not emphasized within the framework, it appears that nutritional education is an important determinant of these initiatives and deserves more attention in future research. Thus, future investigations with a more complete and structured set of components could possess particular promise to identifying the unique correlates of health behavior engagement in this market. Upcoming studies might include other variables such as more targeted instructive pieces and could obtain measures of those to determine if or how they contribute to the appeal of the program within a given community.

Collectively, these findings emphasize the usefulness of community-based interventions as means to enhance physical activity behavior in underserved communities. From a theoretical standpoint, these results provide further support for tailoring interventions to a specific community's cultural needs (Heath et al., 2012). From an applied standpoint, these findings provide practitioners with further tools to design and implement interventions within minority settings. This finding is particularly relevant in that there is an ongoing need for designing appealing and effective programs for minorities given their lower levels of physical activity (Lewis, Napolitano, Buman, Williams, & Nigg, 2017).

References

- Ainsworth, B. E., Wilcox, S., Thompson, W. W., Richter, D. L., & Henderson, K. A. (2003). Personal, social, and physical environmental correlates of physical activity in African-American women in South Carolina. *American Journal of Preventive Medicine*, 25(3), 23–29. [https://doi.org/10.1016/s0749-3797\(03\)00161-2](https://doi.org/10.1016/s0749-3797(03)00161-2)
- American Heart Association. (2016). *Cardiovascular disease: Women's no. 1 health threat – 2016 update*. Retrieved from https://www.heart.org/idc/groups/heartpublic/@wcm/@adv/documents/downloadable/ucm_472728.pdf
- Andersen, L., Gustat, J., & Becker, A. B. (2015). The relationship between the social environment and lifestyle-related physical activity in a low-income African American inner-city southern neighborhood. *Journal of Community Health*, 40(5), 967–974. <https://doi.org/10.1007/s10900-015-0019-z>
- Bank-Wallace, J., & Conn, V. (2002). Interventions to promote physical activity among African American women. *Public Health Nursing*, 19(5), 321–335. <https://doi.org/10.1046/j.1525-1446.2002.19502.x>
- Bassuk, S. S., & Manson, J. E. (2004). Gender and its impact on risk factors for cardiovascular disease. In M. J. Legato (Ed.), *Principles for gender-specific medicine*. Amsterdam, Netherlands: Elsevier. <https://doi.org/10.1016/b978-012440905-7/50286-3>
- Berra, K., Rippe, J., & Manson, J. E. (2015). Making physical activity counseling a priority in clinical practice: The time for action is now. *Journal of the American Medical Association*, 314(24), 2617–2618. <https://doi.org/10.1001/jama.2015.16244>
- Biddle, S. J., Markland, D., Gilbourne, D., Chatzisarantis, N. L., & Sparkes, A. C. (2001). Research methods in sport and exercise psychology: Quantitative and qualitative issues. *Journal of Sports Sciences*, 19(10), 777–809. <https://doi.org/10.1080/026404101317015438>
- Bilyeu, J. K., & Wann, D. L. (2002). An investigation of racial differences in sport fan motivation. *International Sports Journal*, 6(2), 93–106.
- Burmeister, E., & Aitken, L. M. (2012). Sample size: How many is enough? *Australian Critical Care*, 25(4), 271–274. <https://doi.org/10.1016/j.aucc.2012.07.002>

- Burwell, S. M., Frieden, T. R., & Rothwell, C. J. (2015, May). *Health, United States, 2014: With special feature on adults aged 55–64*. Retrieved from <http://www.cdc.gov/nchs/data/abus/abus14.pdf>
- Campbell, M. K., Hudson, M. A., Resnicow, K., Blakeney, N., Paxton, A., & Baskin, M. (2007). Church-based health promotion interventions: Evidence and lessons learned. *Annual Review of Public Health, 28*, 213–234. <https://doi.org/10.1146/annurev.publhealth.28.021406.144016>
- Centers for Disease Control and Prevention. (2016). *Women and heart disease fact sheet 2011–2013*. Retrieved from http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_women_heart.htm
- Cohen, S. S., Matthews, C. E., Signorello, L. B., Schlundt, D. G., Blot, W. J., & Buchowski, M. S. (2013). Sedentary and physically active behavior patterns among low-income African-American and white adults living in the southeastern United States. *PloS One, 8*(4). <https://doi.org/10.1371/journal.pone.0059975>
- Conn, V. S., Chan, K., Banks, J., Ruppap, T. M., & Scharff, J. (2013). Cultural relevance of physical activity intervention research with underrepresented populations. *International Quarterly of Community Health Education, 34*(4), 391–414. <https://doi.org/10.2190/iq.34.4.g>
- de Vaus, D. (2002). *Analyzing social science data: 50 key problems in data analysis*. Thousand Oaks, CA: Sage.
- Dornelas, E., Stepnowski, R., Fischer, E., & Thompson, P. (2006). Urban ethnic minority women's attendance at health clinic vs. church based exercise programs. *Journal of Cross-Cultural Gerontology, 22*, 129–136. <https://doi.org/10.1007/s10823-006-9023-1>
- Ekkekakis, P., Hall, E. E., & Petruzzello, S. J. (2008). The relationship between exercise intensity and affective responses demystified: To crack the 40-year-old nut, replace the 40-year-old nutcracker! *Annals of Behavioral Medicine, 35*(2), 136–149. <https://doi.org/10.1007/s12160-008-9025-z>
- Fjeldsoe, B., Neuhaus, M., Winkler, E., & Eakin, E. (2011). Systematic review of maintenance of behavior change following physical activity and dietary interventions. *Health Psychology, 30*(1), 99–109. <https://doi.org/10.1037/a0021974>
- Fletcher, D., & Arnold, R. (2011). A qualitative study of performance leadership and management in elite sport. *Journal of Applied Sport Psychology, 23*(2), 223–242. <https://doi.org/10.1080/10413200.2011.559184>

- Fleury, J., & Lee S. M. (2006). The social ecological model and physical activity in African American women. *American Journal of Community Psychology*, 37, 129–140.
- Glasser, B. (2017). *The discovery of grounded theory: Strategies for qualitative research*. New York, NY: Routledge.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822x05279903>
- Hamner, J. B., & Wilder, B. F. (2010). Prediction and perception of cardiovascular disease of Alabama women in a rural county. *Applied Nursing Research*, 20(2), 80–85. <https://doi.org/10.1016/j.apnr.2008.06.004>
- Heath, G. W., Parra, D. C., Sarmiento, O. L., Andersen, L. B., Owen, N., Goenka, S., . . . Lancet Physical Activity Series Working Group. (2012). Evidence-based intervention in physical activity: Lessons from around the world. *Lancet*, 380(9838), 272–281. [https://doi.org/10.1016/s0140-6736\(12\)60816-2](https://doi.org/10.1016/s0140-6736(12)60816-2)
- Jackson, H., Yates, B. C., Blanchard, S., Zimmerman, L. M., Hudson, D., & Pozehl, B. (2016). Behavior-specific influences for physical activity among African American women. *Western Journal of Nursing Research*, 38, 992–1011. <https://doi.org/10.1177/0193945916640724>
- Joseph, R. P., Ainsworth, B. E., Keller, C., & Dodgson, J. E. (2015). Barriers to physical activity among African American women: An integrative review of the literature. *Women & Health*, 55(6), 679–699. <https://doi.org/10.1080/03630242.2015.1039184>
- Kong, A., Tussing-Humphreys, L. M., Odoms-Young, A. M., Stolley, M. R., & Fitzgibbon, M. L. (2014). Systematic review of behavioural interventions with culturally adapted strategies to improve diet and weight outcomes in African American women. *Obesity Reviews*, 15(S4), 62–92. <https://doi.org/10.1111/obr.12203>
- Kumanyika, S. K. (2001). Minisymposium on obesity: Overview and some strategic considerations. *Annual Review of Public Health*, 22(12), 293–308. <https://doi.org/10.1146/annurev.publhealth.22.1.293>
- Lewis, B. A., Napolitano, M. A., Buman, M. P., Williams, D. M., & Nigg, C. R. (2017). Future directions in physical activity intervention research: Expanding our focus to sedentary behaviors, technology, and dissemination. *Journal of Behavioral*

- Medicine*, 40(1), 112–126. <https://doi.org/10.1007/s10865-016-9797-8>
- Miller, W. C., & Miller, T. A. (2010). Attitudes of overweight and normal weight adults regarding exercise at a health club. *Journal of Nutrition Education and Behavior*, 42(1), 2–9. <https://doi.org/10.1016/j.jneb.2008.08.005>
- Nielsen Holdings N.V. (2014). *The African American consumer 2014 report*. Retrieved from <http://www.thechicagourbanleague.org/cms/lib07/IL07000264/Centricity/Domain/76/nieslen-essence-2014-african-american-consumer-report-Sept-2014.pdf>
- Nies, M. A., Vollman, M., & Cook, T. (1999). African American women's experiences with physical activity in their daily lives. *Public Health Nursing*, 16(1), 23–36. <https://doi.org/10.1046/j.1525-1446.1999.00023.x>
- Ogedegbe, G. O., Boutin-Foster, C., Wells, M. T., Allegrante, J. P., Isen, A. M., Jobe, J. B., & Charlson, M. E. (2012). A randomized controlled trial of positive-affect intervention and medication adherence in hypertensive African Americans. *Archives of Internal Medicine*, 172(4), 322–326.
- Patton, M. Q. (2005). *Qualitative research*. New York, NY: John Wiley & Sons.
- Resnicow, K., Taylor, R., Baskin, M., & McCarty, F. (2005). Results of Go Girls: A weight control program for overweight African-American adolescent females. *Obesity Research*, 13(10), 1739–1748.
- Resnicow, K., Yaroch, A. L., Davis, A., Wang, D. T., Carter, S., Slaughter, L., . . . Baranowski, T. (2000). GO GIRLS! Results from a nutrition and physical activity program for low-income, overweight African American adolescent females. *Health Education & Behavior*, 27(5), 616–631. <https://doi.org/10.1177/109019810002700507>
- Rubin, A., & Babbie, E. (2016). *Empowerment series: Research methods for social work*. Boston, MA: Cengage Learning.
- Schulz, A. J., Zenk, S., Odoms-Young, A., Hollis-Neely, T., Nwankwo, R., & Lockett, M. (2005). Healthy eating and exercising to reduce diabetes: Exploring the potential of social determinants of health frameworks within the context of community-based participatory diabetes prevention. *American Journal of Public Health*, 95(4), 645–651. <https://doi.org/10.2105/ajph.2004.048256>

- Stirling, A., Lobstein, T., & Millstone, E. (2007). Methodology for obtaining stakeholder assessments of obesity policy options in the PorGrow project. *Obesity Reviews*, 8(2), 17–27. <https://doi.org/10.1111/j.1467-789x.2007.00355.x>
- Tang, T., & Cooper, R. (2012). Gender, sports, and new media: Predictors of viewing during the 2008 Beijing Olympics. *Journal of Broadcasting & Electronic Media*, 56(1), 75–91. <https://doi.org/10.1080/08838151.2011.648685>
- Tanjasiri, S. P. (2005). Shared responsibility: California's state and community partnerships to promote physical activity among diverse populations. *Journal of Health Education*, 30(2), 64–71. <https://doi.org/10.1080/10556699.1999.10603435>
- Thomas, J. L., Stewart, D. W., Lynam, I. M., Daley, C. M., Befort, C., Scherber, R. M., & Ahluwalia, J. S. (2009). Support needs of overweight African American women for weight loss. *American Journal of Health Behavior*, 33(4), 33–42. <https://doi.org/10.5993/ajhb.33.4.1>
- Troiano, R. P., Berrigan, D., Dodd, K. W., Masse, L. C., Tilert, T., & McDowell, M. (2008). Physical activity in the United States measured by accelerometer. *Medicine & Science in Sports & Exercise*, 40(1), 181–188. <https://doi.org/10.1249/mss.0b013e31815a51b3>
- Van Duyn, M. A., McCrae, T., Wingrove, B. K., Henderson, K. M., Boyd, J. K., Kagawa-Singer, M., ... Maibach, E. W. (2007). Adapting evidence-based strategies to increase physical activity among African Americans, Hispanics, Hmong, and Native Hawaiians: A social marketing approach. *Prevention of Chronic Disease*, 4(4). Retrieved from https://www.cdc.gov/pcd/issues/2007/oct/07_0025.htm
- Viswanath, K., & Bond, K. (2007). Social determinants and nutrition: Reflections on the role of communication. *Journal of Nutrition Education and Behavior*, 39(2), 20–24. <https://doi.org/10.1016/j.jneb.2006.07.008>
- Wadden, T. A., Stunkard, A. J., Rich, L., Rubin, C. J., Sweidel, G., & McKinney, S. (1990). Obesity in black adolescent girls: A controlled clinical trial of treatment by diet, behavior modification, and parental support. *Pediatrics*, 85(3), 345–352.
- Walcott-McQuigg, J. A. (2005). Weight control behavior and women: A cross-cultural perspective. *Journal of International Women's Studies*, 7(2), 152–168.

- Ward, B. W., Clarke, T. C., Freeman, G., & Schiller, J. S. (2013). Early release of selected estimates based on data from the January–September 2012 National Health Interview Survey. Retrieved from the National Center for Health Statistics website: <https://www.cdc.gov/nchs/nhis/releases/released201303.htm>
- Webb, F. J., Khubchandani, J., Hannah, L., Doldren, M., & Stanford, J. (2016). The perceived and actual physical activity behaviors of African American women. *Journal of Community Health, 41*, 368–375. <https://doi.org/10.1007/s10900-015-0106-1>
- Williams, D. M., Dunsiger, S., Ciccolo, J. T., Lewis, B. A., Albrecht, A. E., & Marcus, B. H. (2008). Acute affective response to a moderate-intensity exercise stimulus predicts physical activity participation 6 and 12 months later. *Psychology of Sport and Exercise, 9*(3), 231–245. <https://doi.org/10.1016/j.psychsport.2007.04.002>
- Yancey, A. K., Kumanyika, S. K., Ponce, N. A., McCarthy, W. J., Fielding, J. E., & Leslie, J. P. (2004). Population-based interventions engaging communities of color in healthy eating and active living: A review. *Prevention of Chronic Disease, 1*(1). Retrieved from https://www.cdc.gov/pcd/issues/2004/oct/04_0015.htm
- Young, D. R., & Stewart, K. J. (2006). A church-based physical activity intervention for African American women. *Family and Community Health, 29*(2), 103–117. <https://doi.org/10.1097/00003727-200604000-00006>