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Sociodemographic and Lesbian-Specific Factors Associated with Physical Activity Among Adult Lesbians

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A B S T R A C T

Background: Although participation in moderate and vigorous physical activity (MVPA) results in health benefits, the majority of adult lesbians are not sufficiently active. The purpose of this study was to examine the relationships between sociodemographic factors (age, education level, body mass index [BMI], race, partner status, employment status, annual household income, general health status, diagnosis of chronic conditions, children under 18 years living at home) and lesbian-specific factors (connection with the lesbian community, public identification as a lesbian) to participation in MVPA.

Methods: Participants included 847 self-identified lesbians 18 to 74 years old ($M_{age} = 40.5$; $SD = 11.6$) who completed a 20-minute, web-based survey.

Findings: The binary logistic regression model that included the 10 demographic factors was significantly associated with MVPA, χ^2 (15, $N = 847$) = 105.62, $p < .001$. However, when the two lesbian-specific factors were added, the model did not improve significantly, χ^2 (2, $N = 847$) = 5.20, $p = .07$. BMI and general health status were significantly associated with MVPA (Wald χ^2 (2) = 19.5, $p < .001$) and (Wald χ^2 (4) = 41.2, $p < .001$). Obese participants had 54.5% lower odds than healthy weight participants to engage in sufficient amounts of MVPA. Participants who reported general health status as excellent compared with those who reported poor had 12.7 times greater odds of engaging in sufficient amounts of MVPA.

Conclusions: Future research should extend on this study by utilizing sampling methods that target the recruitment of lesbian women not actively involved in lesbian-related activities.

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Introduction and Background

Physical activity is a behavioral strategy that results in numerous physical and psychological health benefits such as a decreased onset of chronic disease (e.g., cardiovascular disease, type 2 diabetes, some cancers, obesity) and improved psychological parameters (e.g., improved self-esteem and health-related quality of life, decreased symptoms of depression; United States Department of Health and Human Services, 2008). According to the United States Department of Health and Human Services (2008), to achieve health benefits from physical activity, an adult should participate in 1) a weekly total of 150 minutes of moderate intensity physical activity, 2) a weekly total of 75 minutes of vigorous intensity physical activity, or 3) a combination of moderate and vigorous physical activity (MVPA) totaling a minimum of 150 minutes during the week. Understanding that lesbians may have higher rates of chronic disease and higher risks for developing chronic diseases such as cardiovascular disease and obesity than heterosexual women (Boehmer, Bowen, & Bauer, 2007; Case et al., 2004; Cochran et al., 2001; Diamant & Wold, 2003; Dibble, Roberts, Robinson, & Paul, 2002), obtaining the health benefits afforded through regular participation in recommended levels of physical activity is critical.

Few studies have examined physical activity rates of lesbians (Aaron et al., 2001; Boehmer & Bowen, 2009; Valanis et al., 2000). Based on the results of these studies, 57–78% of lesbians do not engage in sufficient amounts of physical activity to achieve health benefits (Aaron et al., 2001; Boehmer & Bowen, 2009; Valanis et al., 2000), which is a rate that is slightly higher than

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the general population of women (53%–57%; U.S. Centers for Disease Control and Prevention [CDC], 2012; National Center for Health Statistics, 2011). However, when Boehmer & Bowen (2009) examined a sample of women who participated in the California Women's Health Survey from 2001 to 2005, the percentages of insufficiently active women did not significantly differ among lesbians, heterosexual, and bisexual women. Regardless of the comparisons of physical activity rates based on sexual orientation, clearly with such high rates of physical inactivity among lesbians, the identification of factors associated with physical activity is imperative to the design of interventions to increase participation rates.

To date, minimal research has been conducted to examine factors associated with physical activity among lesbians. Yancey, Cochran, Corliss, & Mays (2003) examined factors associated with exercise among 1,209 self-identified lesbians from the Los Angeles county area and found that although demographic factors (e.g., age, race) were not associated with exercise, being overweight or obese, the perception of a higher current body weight, and having a physical disability were associated with lower exercise frequency. An important limitation of the Yancey and colleagues' study was that exercise was operationalized as 3 days a week for at least 20 minutes per bout with no intensity noted. Thus, this measure of exercise does not meet the current recommendation of MVPA needed for health benefits.

Additional research examining factors associated with (i.e., barriers) participation in physical activity among lesbians found that although lesbians do experience general barriers to physical activity (e.g., lack of motivation), these women also experience unique lesbian-specific barriers that limit or prevent engagement in moderate physical activity (Bowen, Balsam, Diergaarde, Russo, & Escamilla, 2006; Brittain, Baillargeon, McElroy, Aaron, & Gyurcsik, 2006; Brittain, Gyurcsik, & McElroy, 2008). Of the barriers identified in this previous research, two major categories of lesbian-specific barriers included 1) barriers related to one's connection with the lesbian community and 2) barriers related to one's public identification as a lesbian (Bowen et al., 2006; Brittain et al., 2006; Brittain et al., 2008). According to Syzmanski & Chung (2001), the degree to which a lesbian is connected with the lesbian community depends on the amount of contact one has with other lesbians, the level of involvement in lesbian-related events, and how much one understands the history of the lesbian culture (e.g., symbols, movies, books, community resources). Public identification as a lesbian refers to the range of how a lesbian manages her sexual orientation disclosure in the public domain (e.g., a range from complete public disclosure of one's sexual orientation to never disclosing one's sexual orientation; Syzmanski & Chung, 2001).

Although the aforementioned studies identified categories of barriers to physical activity that revolved around one's connection with the lesbian community and public identification as a lesbian, no study to date has specifically examined the association of one's level of connection and public identification to participation in current MVPA recommendations. Determining whether one's connection with the lesbian community and/or one's public identification as a lesbian explains participation in physical activity, could be critical information when developing multiple levels of prevention to reduce the onset or effects of chronic disease among lesbian women. Thus, the purpose of the current study was to examine the relationships between sociodemographic factors (i.e., age, education level, body mass index [BMI], race, partner status, employment status, annual total household income, general health status, diagnosis of chronic conditions, children under age 18 years living at home) and lesbian-specific factors (i.e., connection with the lesbian community, public identification as a lesbian) with participation in recommended levels of MVPA.

Methods

Participants and Procedures

All procedures for this study were approved by the university's Institutional Review Board. Adult lesbians were recruited via study announcements in lesbian and gay magazines, on lesbian and gay listservs, at lesbian and gay organization meetings, and at lesbian and gay and women's resource centers. Participant inclusion criteria included self-identification as a lesbian, residing in the United States, aged 18 years and older, and no physical disability that hindered one's ability to participate in ambulatory physical activity lasting longer than 10 minutes. Participation in the study included completing a 20-minute, web-based survey to assess demographics (i.e., age, education level, height, weight, race, partner status, employment status, annual total household income, general health status, diagnosis of chronic conditions, children under age 18 living at home), connection with the lesbian community, public identification as a lesbian, and physical activity. Self-reported height and weight were used to calculate BMI. For all recruitment strategies, the link to the web-based survey was provided. The survey link was available for a 4-month period. Each potential participant was informed of the study purpose (i.e., to understand reasons why lesbians are or are not physically active), that participation was voluntary, and that there were no consequences to withdrawing from the study at any time.

Measures

Physical activity

MVPA were assessed with the Behavioral Risk Factor Surveillance System physical activity questions (CDC, 2009). Moderate intensity physical activity was defined as any activity (e.g., brisk walking, gardening) that resulted in small increases in breathing or heart rate (i.e., 50%–70% of an individual's heart rate maximum; CDC, 2009). Vigorous intensity physical activity was defined as any activity (e.g., running, swimming laps) that resulted in large increases in breathing and heart rate (i.e., 70%–85% of an individual's heart rate maximum; CDC, 2009).

Participants were asked if they participated in any moderate activity for at least 10 minutes at a time in a usual week (CDC, 2009). Participants who answered *yes* indicated 1) the number of days in a usual week the activity was performed and 2) the total minutes each day spent doing the activity (CDC, 2009). The same set of questions was used to assess vigorous activity. The total weekly minutes for MVPA were calculated separately by multiplying the total days of participation in the specific intensity by the total minutes. Once these total weekly minutes for each intensity were calculated, all participants were divided into one of two groups: 1) Insufficiently moderately to vigorously physically active ($<$150 minutes of moderate activity; $<$75 minutes of vigorous activity; or a total of $<$150 minutes of moderate and vigorous activity combined), and 2) sufficiently moderately to vigorously physically active (i.e., $\geq$150 minutes of