Call to action: The need for an LGBT focused physical activity research strategy

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In 2011, the Institute of Medicine (IOM) released the report, *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding* highlighting numerous gaps in health research across the life course of lesbian, gay, bisexual, and transgender (LGBT) populations. This report also included an overview of multiple health inequities among LGBT populations when compared to heterosexuals, including higher rates of chronic disease (e.g., heart disease, some cancers, obesity), mental health (e.g., suicide ideation, depression, anxiety), and social environmental health (e.g., violence, discrimination, social exclusion) concerns. While the report included a call for additional research to advance the understanding of health inequities among LGBT populations as well as the creation of theoretically sound and empirically driven health interventions, there was no specific mention of the role of physical activity (PA) as a means to addressing these and other health issues. It is well established that PA is linked to numerous physical, psychological, and social health benefits for all individuals over the life course. Regular participation in moderate to vigorous aerobic PA (MVPA) and muscle strengthening activity is associated with stronger bones and improved muscular fitness; lower risks of heart disease, diabetes, depression, and certain forms of cancer; as well as improved health related quality of life and overall psychological well-being. Given low participation rates in PA among LGBT people, steps need to be taken to ensure LGBT people are provided the same opportunities to become active and enjoy the health benefits that come from an active lifestyle. Researchers have identified both personal and social barriers that prevent LGBT people from being active. Barriers have included physical and psychological
challenges that stem from identified chronic health conditions as well as exclusionary discriminatory practices and homophobic, biphobic, and transphobic remarks that involve threats of violence. Historically, and currently, LGBT people have largely been systematically excluded from health research resulting in a knowledge deficit and a lack of well-informed PA interventions for LGBT people. Thus, this Current Issues paper will briefly provide an overview of PA research involving LGBT populations, including a discussion on how research efforts need to address LGBT inclusion in PA to overcome known health inequities. Suggestions for future research as well as calls for further funding are presented in the hope that they may stimulate progressive research endeavors.

PA recommendations and Review of LGBT PA research

Based on national recommendations by the United States Department of Health and Human Services (USDHHS) for aerobic PA, to achieve health benefits, adults (18-64 years) and older adults (over the age of 65 years) should regularly engage in one of the following: (1) a weekly total of 150 minutes of moderate-intensity PA, (2) a weekly total of 75 minutes of vigorous-intensity PA, or (3) a combination of MVPA totaling a minimum of 150 minutes during a week.² The USDHHS also recommends that adults and older adults perform moderate or high intensity muscle-strengthening activities that involve all major muscles on two or more days of the week. Children and adolescents should engage in 60 minutes of MVPA on each day of the week and incorporate muscle-strengthening activities on at least three days of the week.
Despite the well-documented health benefits associated with PA, only minimal primary (e.g., descriptive), secondary (e.g., moderating effects), and tertiary (e.g., mediating effects) research has examined PA and factors associated with PA initiation and adherence among LGBT populations. In primary research, a psychological process is identified and a problem is spotted. Primary research to date shows that the majority of LGBT populations across the life course are not sufficiently active to achieve health benefits, especially when compared to their heterosexual counterparts. In terms of adolescents, LGB youth compared to heterosexual youth have lower rates of participation in 60 minutes of MVPA each week (lesbian/gay = 19%; bisexual = 17% heterosexual = 25%). Among adult females, lesbians (22-43%) and bisexuals (33%) compared to heterosexuals (27-43%) may not differ in terms of participation in recommended levels of PA, but lesbians experience unique barriers to engaging in PA including social exclusion and bullying. However, the results from research examining PA among males has been mixed. Among male populations, Dilley and colleagues found that 67% of both gay and heterosexual males were sufficiently physically active. In contrast, Grogan and colleagues found that gay males participated in PA an average of only 1 day each week compared to 3 days each week for heterosexual males.

While only minimal research has been used to examine participation in PA among LGB populations, even fewer studies exist for the transgender population. Recently, a study by Fredriksen-Goldsen et al. indicated that a higher percentage of transgender compared to cisgender (i.e., non-transgender) older adults were more likely to be insufficiently active (23% vs. 15%).
While the aforementioned studies describe some of the differences in PA participation rates among LGBT populations compared to heterosexuals, additional secondary research, or factors associated with the strength of a psychological process, is needed. For example, researchers may wish to better understand the relationship between PA initiation and adherence among different LGBT populations. This may include objectively measured rates of PA among multiple demographic segments of LGBT populations, such as an examination of various income levels, racial and ethnic groups, age groups, and geographic locales (e.g., rural, urban). Significant limitations of previous LGBT research has included the oversampling of Caucasian, younger, higher income, and highly educated individuals residing in urban settings. Additionally, a greater understanding of barriers and facilitators of PA, psychological correlates (e.g., self-efficacy, motivation, intention, and personality) as well as the moderating effects of factors such as social support, resiliency, and discrimination on PA can provide a strong evidence-base for understanding the unique experiences of LGBT populations. Without collecting basic scientific evidence about LGBT populations and their relationship with PA initiation and maintenance, important information guiding the design of effective theory-based interventions will not exist. Despite the need for additional primary and secondary research examining PA within LGBT populations, four pilot interventions (i.e., tertiary research) specific to LGB people have been evaluated and published to date. Two of these studies have examined the effects of exercise on both physical and mental health, and involved predominately gay and lesbian adults living with HIV. One study examined the use of exercise to help gay and lesbian cancer survivors and their caregivers address depressive symptoms. The final study examined the
effects of a theory-based educational intervention to improve levels of MVPA in lesbians. None
of the four studies involved transgender individuals and none of the studies showed a significant
effect on PA engagement or any aspect of physical fitness. Given the non-significant results of
these studies, there is a critical need for additional primary and secondary research to inform the
design of interventions (i.e., tertiary research) targeting PA behaviours amongst LGBT people.

Recommendations for future research and practice

Due to limited primary, secondary, and tertiary research, several strategies should be considered
for conducting PA research involving LGBT people. The IOM has established a series of
recommendations to forward research for LGBT people, recommendations that can be easily
adapted to facilitate the creation of PA research programs. Perhaps what makes these initiatives
so special and unique when examining PA research involving LGBT people is that they have
never been attempted before. First, researchers and government stakeholders should
acknowledge LGBT invisibility in PA research. Invisibility in PA research can be addressed
through a number of strategies including: (1) comprehensive diversity training, (2) collaborative
participatory research, and (3) assessment of sexual orientation and gender identity on all
standard demographic questionnaires.

Comprehensive diversity training on sexual orientation and gender identity including specific
knowledge pertaining to LGBT definitions, general health, and known health inequities should
be available for all researchers (e.g., faculty, staff, and undergraduate and graduate students).
Additionally, a collaborative participatory research framework is needed in which LGBT people are actively engaged in the research process to ensure their unique PA needs are being addressed. As noted by the IOM,\(^1\) research involving LGBT people can be challenging. Specifically, both sexual orientation and gender identity are terms that can be difficult to define by the individuals themselves and the researcher. Thus, many LGBT individuals may not participate in research as they do not feel the process is inclusive of their unique identity. Individuals may also be reluctant or afraid to participate in research that specifically targets LGBT people for fear of being ‘outed’ or persecuted. Providing a setting and process that ensures full confidentiality or anonymity is critical to the protection of the participant. Finally, LGBT people comprise a small portion of the general population, which may make recruitment difficult, labor intensive, and potentially costly. Without key stakeholders established in the community, recruitment may be extremely challenging if not impossible.

Another strategy to address invisibility in PA research involves the inclusion of sexual orientation and gender identity as part of all standard demographic questionnaires. This suggestion is in conjunction with the recent inclusion of LGBT health objectives for Healthy People 2020, in which the federal government has identified the need for an assessment of LGBT health via national level public health surveillance studies. These data can provide regional breakdowns allowing both governmental and non-for-profit agencies to answer the who, what, why, when, and where questions associated with PA participation. Through the assessment of sexual orientation and gender identity on all surveys, as well as additional demographic information (e.g., age, race, ethnicity, socioeconomic status) and psychological and
environmental correlates of PA, a thorough understanding of the primary and secondary levels of research may be achieved.

Additional IOM recommendations include improved and more rigorous research designs assessing LGBT populations. The majority of previous PA research among LGBT people has been based on observational research designs in which cross sectional sampling methods have been utilized. Reliance on more rigorous research designs, such as prospective studies with large and robust sample sizes, will enhance the validity of primary and secondary research findings.

Once a more thorough evidence-base of the experiences of LGBT people and PA has been identified, tertiary research (i.e., experimental/quasi-experimental) can be used to evaluate complex and unique interventions for improving the initiation and maintenance of PA. Intervention research design should adhere to high standards and general good practice, including the use of valid and reliable questionnaires, objective PA measurement, use of behavioral theory, and unbiased reporting practices.

Finally, federal, state, and local government entities, foundations, academic institutions, and other not for profit organizations should provide needed funding opportunities for the examination of LGBT health, particularly PA. By providing multiple types of funding opportunities (e.g., small grants, exploratory/developmental grants, academic research enhancement awards) young researchers can have the opportunity to build a career around understanding the PA behaviors of LGBT populations. Currently, the National Institutes of Health (NIH), is providing a funding opportunity (i.e., Health of Sexual and Gender Minority
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Populations for advancing knowledge of the health status of diverse populations so as to improve the effectiveness of health interventions and services for members of such groups. Previously in 2012, the USDHHS, Office on Women’s Health provided a funding opportunity for nutrition and PA based research titled: Healthy Weight in Lesbian and Bisexual Women: Striving for a Healthy Community. Continued offerings of funding opportunities through NIH and USDHHS as well as targeted opportunities through other federal funding sources such as the Robert Wood Johnson Foundation, are critical to the advancement of theoretically informed research to improve initiation and maintenance of PA, promote health and well-being, and prevent or limit the impact of chronic illnesses among LGBT populations.

Conclusion

Overall, LGBT people face many physical, mental, and social health challenges that compromise their overall health and well-being. Physical activity is one behavioral strategy that may reduce health inequities among LGBT populations. Unfortunately, little research has effectively and comprehensively examined: (1) rates of PA participation among LGBT populations (primary), (2) correlates of PA participation (secondary), (3) moderating effects on PA (secondary), and (4) unique strategies to assist individuals in initiating and maintaining a regular program of PA (tertiary). Many challenges, in conjunction with systematic exclusion from the research process, have contributed to this limited knowledge gathered about the PA behaviors and ultimately the health and well-being of LGBT people. However, given the importance of PA to the health of all individuals, efforts need to be made to help establish equitable and rigorous research programs to
ensure LGBT people benefit from public health PA initiatives and have the chance to lead healthy and fulfilling lives.
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