

Cancer Screening and Prevention in Lesbian, Gay, Bisexual, and Transgendered Community and Asian Lesbian, Gay, Bisexual, and Transgendered Members

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ABSTRACT

Participation in cancer screening and prevention (cessation of or reduction in modifiable health risk behaviors) are the most effective methods of reducing cancer morbidity and mortality. Some members of the lesbian, gay, bisexual, and transgendered (LGBT) communities have not participated in screening for a variety of reasons which have been explored in the literature. Common and unique behavioral risks are also reviewed. Knowledge about Asian members of the LGBT community participation in cancer screening and prevention is limited. This paper reviews the current literature on

participation and barriers to cancer screening and prevention for the LGBT community and provides some insights for the Asian LGBT subcommunity. Potential interventions that have been demonstrated to be effective are presented for potential implementation within nursing practice and practice settings. Suggestions for future research are also provided to enhance the care of the LGBT community.

Key words: Health disparities, health literacy, LGBT, prevention, screening

Introduction

Sexual minority population membership is subject to social stressors/stigma that have been associated with health disparities, some of which have been linked to cancer risk and development.^[1] Little is known regarding various

minority groups and stress experiences, in this case, the Asian lesbian, gay, bisexual, and transgendered (LGBT) subpopulation and their participation in cancer screening and early detection. Prevention and early detection

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are cornerstones of cancer control, but several factors influence an individual in seeking screening and reducing risky behaviors. Prior research has demonstrated ethnic differences which have been used to develop interventions to improve rates of participation in cancer prevention and early detection which is a lens exploring sexual minorities.

McConnell *et al.* reported sexual minority men experience stress/stigma independent of their ethnicity within their communities, but Asian sexual minority men experience the second highest level of stigma within the LGBT community.^[2] This paper reviews factors influencing the participation of the Asian LGBT persons in cancer prevention and early detection. There is a dearth of knowledge about Asian sexual minorities' participation in cancer screening and prevention, and as such, nonethnicity-specific reports on the broader LGBT community will be reviewed. In addition, reports on factors impacting Asian migrants who are not members of the LGBT community will be reviewed. The significance of this review is supported by demographics (the expanding population of Asians) which includes LGBT,^[3] morbidity, and mortality cancer rates within Asian Americans and the LGBT community and lower levels of participation of cancer screening in first-generation Asian Americans and the LGBT community. One in seven Asian migrants are undocumented^[3] which is an identified barrier to screening.

Defining Sexual Minority

The sexual minority population includes a spectrum of nomenclature and acronyms with no universally agreed upon term to describe this population. The National Institutes of Health (NIH) office of equity, diversity, and inclusion provides an umbrella term of sexual and gender minority that encompasses LGBT populations as well as those whose sexual orientation, gender identity, and expressions or reproductive development varies from traditional societal, cultural, or physiologic norms.^[4] The acronym of lesbian, gay, bisexual, transgender/transsexual, queer/questioning, intersex, and asexual is the term used for inclusiveness and refers to one's self-reported gender identity and sexual orientation. For purposes of this review, the common acronym and population of those in the group of LGBT will be discussed as there are nuances specific to each of the other groups that are bigger than the scope of this paper. This acronym is used by the National LGBT Cancer Network, National LGBT Cancer Project, and the Gay and Lesbian Medical Alliance.^[5] There are many commonalities shared among each of the groups with the overarching connection that this group is the most understudied and underserved population in health disparities research.^[6] Despite nondiscrimination policies,

LGBT individuals continue to experience health disparities for a variety of reasons. There are unique challenges which include discrimination, reduced access to health care, and gaps in patient-provider communication and quality of care.^[7]

Complexities in Applying Knowledge to Asian Populations

Reports on the Asian population are often aggregated which is an ongoing weakness in the literature. There are extensive differences in health beliefs that impact prevention and early detection across the numerous subcultures in the Asian community within the United States. Given this limitation, some belief that impact prevention and early detection may be present within many of the subcultures. Beliefs include privacy, fatalistic views about cancer prevention, and outcomes,^[8] and respect of authority that may limit patient participation expected in western cancer control.^[9] Unlike these cultural similarities, the acceptance of sexual and gender minorities differs greatly from intolerance to acceptance with the Asian subcultures.^[2] In those cultures which are intolerant or have not made care settings more acceptant of sexual and gender minorities, there will be lower levels of participation in screening. For those who have migrated from intolerant cultures to the US, they are likely to continue to be fearful about sharing their sexual status or participating in screening.

Cancer Prevalence within Asians and the Lesbian, Gay, Bisexual, and Transgendered Community

Cancer is the leading cause of death in Asian Americans despite having lower incidence rates than other ethnic groups in some cancers (e.g., breast cancer). Previous studies have reported that the sexual minority population bear a disproportionate cancer burden and are at an elevated risk of multiple types of cancer compared with the non-LGBT population. This increased prevalence is associated with complex factors that drive cancer disparities among other underserved populations.^[10] Decreased cancer screening rates resulting in both a higher prevalence of cancer as well as cancers detected at a later stage are reasons for the disparities.^[11] These cancers include breast, cervical, anal, colorectal, endometrial, lung, prostate cancers, and cancers associated with HIV/AIDS.^[5,12] There is a paucity of information regarding LGBT Asian Americans; however, there is an important caveat to consider when discussing LGBT cancer prevalence reports. Cancer data in the LGBT community have been difficult to quantify and accurately assess as

national cancer registries have not collected information about sexual orientation or gender identity. As such, there has been insufficient research on this community's risks and experiences across the cancer continuum.^[13] Studies have shown that members of the LGBT population have poorer cancer outcomes and experience poorer health-related quality of life.^[14] These outcomes are in part due to decreased cancer screening rates and cancers detected at later stages.^[14] These outcomes are in part due to decreased cancer screening rates and cancers detected at a later stage.^[11]

Cancer Risk Factors Impacting Lesbian, Gay, Bisexual, and Transgendered and Asian Communities

Some of the subgroups within the LGBT community are more economically challenged and may have been exposed to greater environmental risks, poorer nutrition, and less access to primary health care [Socioeconomic status (SES), insurance, etc.].^[10] In addition, many undocumented Asian migrants are economically challenged and/or subject to cancer risks associated with poverty. Factors include behavioral factors that increase cancer risks like those seen in the general population which include tobacco use, alcohol uses, obesity, and risky sexual activities. Some of these modifiable behaviors have been associated to a greater or lesser extent with the varying LGBT subgroups.

Increased risk factors for breast and gynecologic cancers are found in the lesbian population. These factors are related to fewer pregnancies, less total months pregnant, fewer children, fewer total months breastfeeding, higher body mass indices, exercised fewer times per week, and performed fewer breast self-examinations.^[7] An increased risk of anal cancer is noted in Gay men as they are more likely to be exposed to human papilloma virus (HPV).^[7] Increased risk for breast cancer was identified in transgender women (male to female gender) and a reduced risk in transgender men (female to male gender). The risk in transgender women was associated with hormone treatment during their transition.^[15] Among insured transgender individuals, transgender females (male to female) had lower prostate cancer risks but higher endocrine and viral infection-induced cancers.^[16] Insured transgender men had higher risks of breast cancer, smoking, and viral infection-related cancers (cervical cancer).^[16] Current knowledge about transgendered persons is limited by the small sample sizes of the studies reviewed.

Cancer Screening Lesbian, Gay, Bisexual, and Transgendered

Cancer screening would be considered a secondary prevention effort. Significant strides have been made in the proportion of persons participating in screening which has decreased cancer morbidity and mortality over the last 25 years.^[17,18] LGBT individuals are less likely than their heterosexual counterparts to access cancer screening services.^[11,16] Several factors are associated with low screening uptake: lack of knowledge regarding the need for screening, lack of insurance, limited access to (or perception of) healthcare providers knowledge of the specific healthcare needs of the population, and the general perception of homophobia in health care.^[19] It is essential to identify those subpopulations that underutilize screening and prevention practices; however, this has proven to be a challenge as estimates of screening are difficult to quantify as cancer registries do not collect data on sexual orientation.

Several cancer screening guidelines are available to direct healthcare providers in determining appropriate recommendations. The United States Preventative Task Force and American Cancer Society guidelines are often used as the standards. The guidelines detail what is involved to be examined clinically; however, the gynecological recommendations do not include clinical considerations unique to patients on the female-to-male spectrum.^[20] Screening guidelines can be a challenge in transitioning individuals as traditionally males and females are characterized according to their reproductive organs assigned by chromosomal complement and not their induced anatomical changes.^[7] Members of the healthcare team need support and guidance on how to equip themselves with the knowledge and understanding to reduce the potential emotional and physical discomfort during the examination.^[20]

A study examining cervical screening among lesbian and bisexual (LB) women and transgendered men identified factors related to screening. The overarching finding was that unwelcoming healthcare environments and discriminatory healthcare providers were significant contributing factors. Predisposing factors (likely to access screening services) were related to stigma, knowledge, peer support, role models, distrust in healthcare, and gender dissonance. Enabling factors (ability to access screening services) were related to healthcare services (regular healthcare provider), insurance, and socioeconomic status.^[21]

Prevention in Lesbian, Gay, Bisexual, and Transgendered

Minimizing risk exposure is a pillar of cancer primary prevention in the general and sexual minority populations.

To minimize the risks associated with modifiable behaviors and the environment, one must have sufficient health literacy (knowledge of cancer risk) to take effective action. The most common modifiable risks are stress, obesity, alcohol consumption, tobacco use, drug abuse, and unprotected sexual behaviors.^[22] Environmental exposures include exposure to carcinogenic agents in the water, air, or in industrial or agricultural settings.^[22] In addition to modifiable risks, vaccinations are also an important preventive measure. Examples of a cancer prevention immunizations include the HPV vaccine and hepatitis B vaccine.^[23]

There are over 100 types of HPV, a common virus that may go away on its own. However, some types of the virus are riskier than others and can lead to cervical cancer, or cancer of the anus or penis.^[22] A vaccine to target specific types of HPV was developed in 2006 and has been expanded over the years to cover additional types of the virus. The HPV vaccine is recommended for young women through age 26, and young men through age 21.^[24] The national coverage for HPV vaccine within the age range of 19–26, having had one dose is females 48.5% and males 13.5%. Female Asian Americans ranked less than the national average at 42.3%, and for males, the number was too small to calculate.^[25] Limited data exist on information for immunization uptake among LGBT Americans. In a study of LGBT males and females in Kentucky completing the HPV series, females in the study received the vaccine lower than the national average rate at 5.4% and males reporting a higher vaccination coverage at 10.3%.^[26] Apaydin *et al.* examined facilitators and barriers to HPV vaccine identifying 3 level factors influencing vaccination uptake: patient, provider, and system – patient level (low level knowledge and lack of engagement-equated to lower rate), provider level (knowledge and cultural competency of health care provider [HCP] related to HPV), and system level (sexual gender identifying environment) associated with increased vaccines.^[27]

The hepatitis B virus (HBV) can cause liver disease that can lead to liver cancer. The hepatitis B vaccine became commercially available in 1982 and is available for all age groups to prevent HBV infection. Administered on a 0, 1, and 6-month schedule. The recommended doses depend on the vaccine brand and the person's age. Rates of hepatitis B immunization for heterosexual females were 38.4%, bisexual females 58.5%, and lesbians 45.4%. Hepatitis B vaccination rates for Gay men was 53.6% compared to heterosexual males 32.6%.^[23] It is anticipated that these immunization uptake numbers will improve as the hepatitis vaccine has been mandated for public school kindergarten entry in 48 states (CDC, 2019).

The CDC has identified men who have sex with men as a high-risk group for developing hepatitis B.^[28]

General Prevention

Social determinants are conditions in the social and physical environments that promote good health for all.^[29] Those associated with health disparities include access to care and health literacy. Among the US population, there is a wide range in levels of access to care and experience in the quality in the patient–provider communication influencing the disparity.^[10] In 2016, the Affordable Care Act established non nondiscrimination policies and increased access to basic health care services for millions of Americans.^[30] Despite these policies, sexual minority individuals have faced unique and complex challenges in access to care and their experiences within the healthcare system served as barriers in obtaining services. Transgender individuals may have barriers in coverage in assessing body parts that do not match the gender listed on their insurance card and as such experience limitations in healthcare coverage for cancer screening.^[5] Sexual minority individuals may avoid healthcare interactions in toto as there may be insurance obstacles and there is the potential for embarrassing or contentious interactions with members of the healthcare team.^[5]

In the healthcare system, where LGBT patients may see differing providers during their care, they may have to choose to repeatedly “come out” with each new health care encounter, which can be stressful and anxiety producing.^[5] This should not be a patient responsibility but systems with multiple providers should develop methods to address the sharing of sexual orientation across providers.^[5] According to a report by Haider *et al.*, LGBT patients reported greater comfort and improved communication when their sexual orientation and gender identity status were collected via nonverbal self-report.^[31] The registration form was the optimal patient-centered method for collecting this information.

Discussion

The literature suggest sexual minorities have higher rates of immunizations compared to their heterosexual counterparts but less than half of the LGBT community are vaccinated against cancer related diseases.^[23] Portions of the LGBT community have higher rates of obesity, tobacco and alcohol use and unsafe sexual practices increasing their cancer risk compared to the general population. As cancer risks rise, cancer screening becomes increasingly important for early detection and reduction of morbidity. The screening rates differ within the subgroups of the LGBT community but are lower than expected. The lower rates

of screening are a function of structural barriers within the healthcare system, and provider and LGBT community members' health literacy.

The literature, while providing insights related to the participation of Asian LGBT persons in cancer prevention and detection, is limited in providing information for those who are both ethnic and sexual minorities. As such, an important future step is more research of the unique communities. Nursing should join with other health profession to lobby for enhanced data collection in cancer registries and other surveys to understand the needs of sexual and other minorities. To assure essential data on gender identity and sexual orientation necessary for the accurate interpretation and validation of research findings, oncology professional organizations sought increased efforts to require LGBT status be a data element in the cancer registries, clinical trials data, and component of health research. In addition, the Institutes of Medicine, NIH, and the CDC's Healthy People 2020 have recommended this data be collected for the development of precision-based medicine with the NIH designating sexual and gender minorities an official disparities population.^[26,32]

Expanding LGBT data in cancer registries and national surveys will provide much-needed information for quantitative analysis. Qualitative research and smaller local research is also needed for the development of focused interventions. The lack of data for persons who are both sexual and ethnic minority members makes the development of risk behavior analysis for targeted for health literacy interventions challenging, and as such, more general approaches should be considered until research supported interventions are available.

Despite the limitation stated above, several interventions have shown to be effective in increasing the LGBT communities screening and immunization rates. These interventions are included in Appendix 1. The Asian American Network for Cancer Awareness, Research, and Training has demonstrated language and culture Asian subgroups in clinical trials to reduce cancer burdens that may serve as examples for improving participation in screening.^[33] Within some Asian subcultures, a lack of participation in self-care, and not questioning HCPs as they are viewed as authorities have been identified.^[34] It is unknown how broadly these issues impact members of the LGBT community but should be assessed and addressed to expand cancer health literacy and participation in screening.

What can nursing do to increase cancer prevention and screening? First, reflect on one's own practice to become more aware of behaviors that may be perceived as not welcoming to members of the LGBT community. Furthermore, expand one's knowledge of the local cancer

risks experienced by sexual and gender minorities in your practice and resources one can provide to assist the individuals to reduce their risks. The next level of influence nurses can have would be at the organizational level within the institution in which we work. Enhancing participation in cancer screening in both the Asian American and LGBT communities have been tied to organizational health literacy. Making offices friendly and accepting of sexual and gender minorities parallels development of improved linguistic support and modification of educational information for Asians for whom English is a challenge. Brega *et al.* reports 22 quality improvement measures that can improve organizational literacy which are likely to improve screening, immunizations, and positive behavior changes.^[35]

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Conflicts of interest

There are no conflicts of interest.

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Appendix 1: Practice resources

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