Meeting the Needs of Sexual and Gender Minority Youth: Formative Research on Potential Digital Health Interventions

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ABSTRACT

Purpose: Sexual and gender minority youth (SGMY) have unique risk factors and worse health outcomes than their heterosexual and cisgender counterparts. SGMY’s significant online activity represents an opportunity for digital interventions. To help meet the sex education and health needs of SGMY and to understand what they consider important, formative research was conducted to guide and inform the development of new digital health interventions.

Methods: Semistructured interviews, in-person focus groups, and online focus groups were conducted with 92 youths (aged 15–19 years) who self-identify as nonheterosexual, noncisgender, questioning, and/or have engaged in same-sex sexual behavior. Data were coded and analyzed using inductive thematic analysis.

Results: Thematic analysis revealed that SGMYs are often driven online by experiences of isolation, stigmatization, and lack of information and are looking for a supportive, validating community and relevant, accurate information. Gender minority youths felt that they faced a larger number of and more extreme incidences of discrimination than sexual minority youths. Most youths described interpersonal discrimination as having substantial negative effects on their mental health.

Conclusions: Any digital intervention for SGMY should focus on mental health and well-being holistically rather than solely on risk behaviors, such as preventing HIV. Interventions should include opportunities for interpersonal connection, foster a sense of belonging, and provide accurate information about sexuality and gender to help facilitate positive identity development. Content and delivery of digital interventions should appeal to diverse sexualities, genders, and other intersecting identities held by SGMY to avoid further alienation.

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five priority areas by the Institute of Medicine Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues [1]. A note on language: “SGMY” and “LGBTQ” are often used interchangeably; SGM will be used here as it is more inclusive of emerging sexual and gender identities and more reflective of the diversity of identities in this study’s sample.

Most of the research on negative health outcomes for SGM youths and adults links the stress of living as a minority in an unsupportive society (minority stress theory) to poor health outcomes [13–15]. Qualitative studies with SGMY have found that psychosocial and emotional well-being in teens and young adults is negatively impacted by lack of parental support, lack of SGM role models, reported and perceived instances of discrimination, internalized negative messages, and insecurity about identity [16–20]. Several studies link discrimination experienced by SGM individuals to lower educational attainment, lower socioeconomic position, decreased access to healthcare, and increased long-term health risks [3,13,21]. Current inequities and potential implications for future health and well-being make SGM a vulnerable population in need of focused public health attention.

Digital resources

Emerging data on the ways SGMY engage online suggest that digital approaches are a promising avenue for delivering tailored health interventions. SGMYs are five times more likely to look for information about sexuality or sexual attraction online (62% vs. 12%) and four times more likely to have searched for information about HIV/AIDS and other STIs (19% vs. 5%) compared with their non-SGM peers [22]. SGMYs are also much more likely to have searched online for general health information (81% vs. 46%) [22]. To develop effective digital resources with the maximum potential to reach SGMY, it is necessary to better understand what young people want from digital interventions. The present study consists of formative, exploratory research conducted to assess the issues most important to SGMY and least met by existing resources to guide and inform the development of new, targeted digital health interventions. What experiences of SGMY drive them to seek online resources? What are the implications of SGMY experiences online for new resources?

Methods

Qualitative research was conducted with SGMY aged 15–19 years to inform the design, content, and delivery of digital health resources. The Planned Parenthood Federation of America (PPFA) contracted with the research firm Community Marketing & Insights (CMI) to develop the initial study design. CMI has been conducting research with SGM individuals since 1992. Under PPFA supervision, CMI’s senior research director conducted participant recruitment, screening, and data collection and submitted deidentified data to PPFA. This research project was approved by the Chesapeake Institutional Review Board.

Four in-person focus groups, eight online focus groups, and 20 individual phone interviews were conducted with no participant overlap. Online focus groups used the web conferencing platform GoToMeeting (audio only). In-person focus groups took place at professional focus group facilities. Average length of interviews and focus groups were 45 and 90 minutes, respectively.

Recruitment flyers for in-person focus groups were distributed at SGM service organizations in Dallas, Texas, and in Seattle, Washington. Potential participants for the online focus groups and individual interviews were recruited from the existing CMI research panel and through targeted ads placed on Facebook and prominent SGM organization Web sites. CMI’s research panel consists of 70,000 SGM community members, recruited through more than 300 events, media outlets, and nonprofit organizations.

Screening questions were completed by 1,400 potential participants; those who met the study criteria were contacted for a telephone interview before being accepted into the study. Eligibility criteria included youth aged between 15 and 19 years who self-identify as any nonheterosexual or non-cisgender identity, are questioning, or who have had same-sex sexual experiences. One participant turned 20 between the time of screening and data collection; he was kept in the sample. Participants were excluded if they did not return telephone calls or emails, were unwilling to discuss study topics, or had scheduling conflicts. Informed assent (age: 15–17 years) and consent (18–19 years) was obtained from all participants. Parental permission was not sought, given that youth may not be out to their families, may not receive support from their families around sexual or gender identity, and because youth are able to consent for sexual health services at these ages.

Ninety-two participants were included in the study. Final participant selection was partially in pursuit of demographic diversity. There was attention paid to including a balanced mix of participant experiences to ensure that the conversations did not focus solely on those with extremely negative or extremely positive experiences. Groups were divided by gender identity and age. Two in-person focus groups were conducted in Dallas and two in Seattle with between five and 10 participants per group (n = 30). Eight online focus groups were conducted with between two and seven participants per group (n = 42). Twenty individual telephone interviews were conducted with participants from across the United States. Participants were given $60 (online focus groups) or $75 (interviews and in-person focus groups) incentives via check or gift card in exchange for their participation. See Table 1 for participant demographics.

Data collection

Semistructured interview and focus group guides helped facilitate broad discussion of main concerns for SGMY, available support from friends and family, coming out, and sexual, mental, and physical health habits. Participants were asked about their online behavior and preferences and suggestions for the development of digital resources for SGMY. Data collection was stopped after achieving data saturation. All interviews and focus groups were recorded and transcribed; transcripts did not include personal identifiable information.

Data analysis

Data were analyzed using a general inductive approach to find and clarify patterns and themes from the data [23]. Through
repeated readings of the data, memo writing, reflexive journaling, and a consensus-based constant comparison process, a final coding structure was developed [24–26]. The first two authors conducted line-by-line coding of each transcript using Dedoose qualitative analysis software. Discrepancies were discussed and resolved by consensus to maintain good inter-rater reliability, consistent with the analytic paradigm [23,27]. Researchers discussed personal bias stemming from identity-related experiences and previous research with SGMY throughout data collection and analysis.

Results

To understand what digital resources would be most helpful, this analysis focused on why SGMYs were going online. Three key themes were identified through an interpretive process directed by the analysts: isolation, stigmatization, and lack of information (Figure 1). Each theme was supported by a majority of participants. The themes are illustrated by descriptive quotes (Table 2).

Isolation due to lack of representation and lack of community

Isolation, as operationalized by the researchers, represents an internal, conscious, or subconscious feeling or outlook resulting at least partially from an absence of positive norms and made up of numerous passive experiences. Subthemes of isolation include lack of representation, lack of community, and spectrum of mental health outcomes. Nearly, every participant discussed feeling “lonely” and like they were the “only one”. Some felt they were the only person they knew with their identity and many felt they were alone in their experiences pertaining to identity. Many

![Figure 1. Concept map.](image-url)
of the participants attribute this to not seeing people like them in the world and not having connection to other SGM people. “It really hurts to go through all of this and not have anybody to talk to about it, not have anybody who understands, and to not see yourself, to be invisible and to be erased and to be silenced, and so on…” (P 81, age 19, transgender woman, sexual orientation not reported).

Gender minority youths (GMYs) felt that they faced more isolation and stigmatization than cisgender sexual minority youths and that their experiences tended to be more extreme. Participants linked these experiences to a lack of visibility within society and a lack of understanding of gender identity. GMY reported lack of representation within the sexual minority community and differential treatment from sexual minority peers.

Spectrum of mental health outcomes. When discussing physical and sexual health, participants gave primacy to mental and emotional health concerns and expressed a direct link from mental health to other health outcomes. Participants felt that they and their SGM peers experience worse mental health outcomes than non-SGMs, which participants explicitly linked to isolation and stigmatization. Participants tied feelings of isolation to a range of mental health experiences, including stress, depression, and anxiety, which were discussed explicitly and implicitly. Participants not only identified developmentally appropriate feelings of confusion and anxiety around school, relationships, and fitting in, but also distinctly identified that this “normal” stress was exacerbated for SGM. The addition of identity-related stress contributed to the feelings of isolation. Coming to terms with their sexual orientation and/or gender

Table 2
Participant quotes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation</td>
<td>“...there's just a lot more ignorance about gender issues...from what I gather it's just that a lot of people just don't know a lot about issues and don't know even...just a lot about what even transgender means...” (P 69, age 17, questioning male/gender queer).</td>
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<tr>
<td>Lack of representation</td>
<td>“...People are accepting of people being gay, bi, pan, or whatever, but they're not really as much accepting of gender identities, which is bothersome to me because I'm not cis...” (P 47, age 16, pansexual agender/nonebinary).</td>
</tr>
<tr>
<td>Lack of community</td>
<td>“I guess the whole idea of having to come out and having this big thing about you that people can't necessarily see. You have to be the one to tell them, and then you know that there's always a chance that once you tell them, they might not look at you the same way. Having that kind of pressure...that's a pretty particular challenge...the first person I told, I felt so alone. I cried for three hours after I told them because I was so afraid that they were going to hate me. I think if I had something to fall back on, some type of community of that, that would've been really helpful” (P 83, age 18, bisexual female).</td>
</tr>
<tr>
<td>Spectrum of mental health outcomes</td>
<td>“I see depression, I see anxiety, I see suicide, suicidal tendencies. I see that. I can imagine not being accepted and then you're so sad and depressed and you don't want to even get out of bed because you realize my life is over, my parents don't accept me, nobody else accepts me. It's over...” (P 80, age 17, pansexual, gender not reported).</td>
</tr>
<tr>
<td>Stigmatization</td>
<td>“I definitely think that as a result of the stresses that come along with being a queer teen there's a lot of both physical and mental health side effects that aren't very good...somebody mentioned about anxiety and depression, something that I've noticed pretty much every queer person that I've spoken to struggles with to a certain extent. I also think that as a result of these stresses we're more likely to turn to unhealthy coping methods:” (P 71, age 17, queer transgender male).</td>
</tr>
<tr>
<td>Experiences of discrimination: oversexualization</td>
<td>“It frustrates me a lot, because it's the least true stereotype. A lot of people think if you're bisexual you just want to have sex. They'll try to pressure you into it. They'll invite you to a threesome...They'll be like, &quot;Hey, you can hook up with my girlfriend!&quot;” (P 91, age 15, bisexual/questioning female).</td>
</tr>
<tr>
<td>Experiences of discrimination: gender nonconformity</td>
<td>“...there's this tension in the locker room. When I would be in the dressing room and there would be people like, &quot;Don't look at me.&quot; &quot;I'm not looking at you! I don't find you attractive.&quot; ...some straight people will automatically assume that just because you're gay and of the same gender you want them in a sexual way or something” (P 42, age 19, lesbian female).</td>
</tr>
<tr>
<td>Spectrum of mental health outcomes</td>
<td>“When it comes to gay guys, I feel like you get treated differently if you look differently. I found people more accepting of girls having sex with women. For me, when I identified to a guy, that was so alienating to open a pamphlet and not see myself in it. You open it up and you run through, and this whole pamphlet would be talking about men having sex with women. For me, when I identified as gay, that was so alienating to open a pamphlet and not see myself in this pamphlet...it's very straight and narrow” (P 81, age 19, transgender woman).</td>
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</tbody>
</table>

LGBTQ = lesbian, gay, bisexual, transgender, and queer/questioning.
identity and the experience of “coming out” heightened feelings of stress and separation for a protracted period of time. Coming out was also identified, particularly by youth who identify as something other than lesbian or gay, as a potentially recurring event. Participants reported spending considerable time thinking about the coming out process, trying to predict others’ reactions, and fearing backlash.

Online experience. Isolation was a strong driver of why youth went online and what they sought online. Participants cited feelings of isolation as prompting them to go online to connect with SGM individuals and to try to situate themselves within the larger SGM community. This was true even for youth who stated that they had supportive people in their lives or felt their schools and communities were generally supportive. Youth reported actively looking online for emotional support (especially when contemplating coming out), information about SGM identities, and validation of their feelings, experiences, and identities. A topic that emerged frequently was that participants felt that existing online resources lacked diversity in terms of gender expression, sexuality, age, race/ethnicity, and socioeconomic position. Participants’ interaction with targeted or general online health interventions, fixed content social media such as YouTube videos and Tumblr posts, as well as information from online search results, left many feeling further alienated because their experiences went unaddressed or were undervalued.

“There are [videos] that exist, and I see them on Twitter a lot, but they annoy me...they represent this very sassy white gay man who is like, “It gets better.”... It's not helpful to me in any way” (P 41, age 18, gay male).

Stigmatization due to experiences of discrimination

Participant experiences of isolation and stigmatization, although related, are distinct because of their respective passive or active natures. Feelings of stigmatization came from one or more experiences of active discrimination (harassment), which were reported by many, although not all, participants. Specific incidents were carried out by peers, teachers, community members, and parents in school, home, and community spaces, as well as in digital spaces such as Facebook and online discussion forums. Incidents were verbal, physical, and/or emotional in nature. Many of the incidents were rooted in oversexualization and targeting gender nonconformity.

Experiences of discrimination: Oversexualization. Numerous participants discussed experiences of being oversexualized. Youth reported a fixation on their sexuality by others. Different groups of participants reported different manifestations and effects of oversexualization. Female and bisexual participants felt that they were assumed to be sexually available, which resulted in a lack of respect for autonomy and safety. Many participants also reported pressure to have heterosexual sex to conform to a heterosexual norm, be “converted” to heterosexuality, or to be sure of their sexual identity. Youth felt this pressure from peers, the media, from within the SGM community, and, for a handful of participants, from their parents.

“...I came out first as bisexual. My mom found out...she was talking to me about it and was very distraught...[she] said to me why don't you go have sex with a boy then to make sure that you're not being stupid?...it was an ultimatum, in a way” (P 21, age 19, lesbian/queer female).

A number of participants who were “out” reported feeling that their peers viewed them as hypersexual. Some reported being treated as sexual predators; this was not gender specific.

Experiences of discrimination: Gender nonconformity. Experiences of interpersonal discrimination were often linked to gender expression and rooted in sexism. A number of participants felt that SGMY who violated/transgressed gender norms, particularly masculine norms, experienced high levels of prejudicial treatment and aggression. This was true for cisgender and gender expansive participants. Some participants discussed others’ lack of comfort with gender identities that do not conform to typical male/female gender norms and roles in manner, dress, or behavior.

Spectrum of mental health outcomes. In this study, patterns of discussion centered on mental health despite differences in experience, identity, environment, or self-reported well-being. Participants discussed a range of negative mental health outcomes including stress, anxiety, depression, and self-harming behaviors being rooted in feelings of stigmatization resulting from the cumulative effects of active discrimination.

Online experience. Experiences of harassment also contributed to a desire for affirmation and support from peers. Participants reported going online to try to mitigate negative mental health effects but often finding inadequate resources. Participants noted that most mental health resources for SGMY exist only for crisis situations such as suicide. While suicide remains a significant concern for some SGMY, many participants felt that crisis-oriented resources did not adequately meet the range of their mental health needs.

“I haven't used [suicide hotline] because it's mostly—not like I'm going to commit suicide, it's just I'm not in a very healthy state of mind” (P 75, age 16, bisexual female).

Lack of information: Irrelevant/nonexistent sex education

A large number of participants reported receiving some form of sex education at school. However, the majority described it as irrelevant, unhelpful, or hurtful for SGMY because of an exclusively heterosexual and cisgender focus. When same-sex sexual behaviors were discussed, they were often linked to transmission of HIV/AIDS or other STIs, further stigmatizing subsets of SGM individuals, specifically men who have sex with men.

“...in sex ed in high school I saw it as okay, if you have sexual intercourse you might get pregnant, so I don't have to worry about that. AIDS came up and it was...kind of taught very much so that this is a gay man's disease... okay, I don't have to worry about that, then I don't have to worry about anything...” (P 28, age 19, pansexual trans man).

Participants, especially gay, bisexual, and transgender youth, appeared to be more aware of their risk of contracting STIs than they were of being involved in an unintended pregnancy. Lesbians, or other women who had sex primarily with women, were not very aware of either risk. In both cases, youth felt that they and their peers are not well informed about the
need for and methods of barrier protection they can use for oral, anal, and vaginal sex.

Lack of information: Lack of in-person resources. SGM respondents reported a lack of in-person resources that could serve as trusted and credible sources for sexual health information. Most participants reported that they either had no one to speak to about identity and sexuality or they would speak to peers, who they recognized as having limited information. For example, transgender youth relied on other youth for health information about topics such as hormones and binding but recognized that incorrect information could be harmful. This lack of availability of in-person resources led participants, including those who identified supportive people in their lives, to look online for information.

Online experience. Participants looked online for information about sexuality, sexual health, identity, and coming out. Many went to Google, YouTube, and Tumblr to find SGM sexual health information. However, participants reported that they do not always trust that these resources contain accurate information. Furthermore, SGMY reported that online resources were often irrelevant to their lived experience, too technical or otherwise incomprehensible, and were often not inclusive.

Discussion

This study identifies the primary reasons why SGMYs are going online: in search of a supportive, validating community, and for relevant and accurate information about their identities and sexuality. To meet their needs, any digital health intervention developed for SGMY should include opportunities for interpersonal connection, community development, and comprehensive health information (Table 3). Although sexual health information is important to participants, the prominence of isolation and stigmatization, and their connection to poor mental health, indicates that attention to mental health and well-being should take priority in the development of online sexual health interventions for SGMY. Despite numerous questions from interviewers about sexual and physical health, most participant discussion centered on psychosocial factors, which are common for many youths but can be exacerbated for SGMY [3,28].

Sexual health disparities persist for this population, but given participants’ concerns and their focus on mental health and well-being, it is important to create interventions that feel relevant and engaging. When sexual health promotion efforts were overly risk oriented, youth found them to be divisive, alienating, and isolating [18,28]. In contrast, youth in this study explicitly asked for an online resource that is diverse and comprehensive, that links mental health and sexual health, that is noncrisis oriented, and that focuses on strengths of SGM communities. Given this, additional research may be needed to investigate how comprehensive, reliable, and evidence-based sexual health information can be smoothly integrated with a holistic health resource that uses peer connection modalities [29]. Direct social support, from structured dialogue with similar peers in online groups (much like what occurred during our focus groups), may reduce isolation in identity formation and alleviate some effects of stigmatization [30]. This is critical given that participants’ experiences with existing online resources often left them feeling under-represented, marginalized, and misinformed, compounding the effects of the negative experiences that drove them online originally.

Although often grouped together, it is important to note that individuals may belong to one or more sexual or gender minority

<table>
<thead>
<tr>
<th>Themes</th>
<th>Implications</th>
<th>Applications and recommendations</th>
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<tbody>
<tr>
<td>1. Isolation</td>
<td>Desire for connection with similar others</td>
<td>Include opportunities for interpersonal interaction and discussion (such as message boards, group chats, one-on-one connection)</td>
</tr>
<tr>
<td>Subthemes:</td>
<td>Seeking a supportive, validating community</td>
<td>Allow connection (individual or group) around specific characteristics (identities, ages, life concerns)</td>
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<tr>
<td>Lack of representation</td>
<td></td>
<td>Include possibility of community development online as an alternative to in-person community groups</td>
</tr>
<tr>
<td>Lack of community</td>
<td></td>
<td>Allow for user-driven in-person meet-ups</td>
</tr>
<tr>
<td>Spectrum of MH outcomes</td>
<td></td>
<td>Ensure a diversity of backgrounds, identities, life experiences, and developmental stages in static content and in opportunities for interactive content</td>
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<tr>
<td>2. Stigmatization</td>
<td>Connection with community</td>
<td>Establish community agreements</td>
</tr>
<tr>
<td>Subthemes:</td>
<td>must include safeguards against discrimination and harm</td>
<td>Employ strong privacy measures</td>
</tr>
<tr>
<td>Experiences of discrimination</td>
<td></td>
<td>Monitor and moderate users and interactive content for breaches of community agreements or site policies</td>
</tr>
<tr>
<td>- Oversexualization</td>
<td></td>
<td>Create reporting mechanism and policy protocols; ensure follow-through</td>
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<tr>
<td>- Gender nonconformity</td>
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<tr>
<td>Spectrum of MH outcomes</td>
<td></td>
<td></td>
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<tr>
<td>3. Lack of Information</td>
<td>Looking for relevant and accurate information</td>
<td>Form and mode of information delivery should be innovative, adjust to rapid changes in technology</td>
</tr>
<tr>
<td>Subthemes:</td>
<td></td>
<td>Include comprehensive and inclusive content with medically accurate and developmentally appropriate information</td>
</tr>
<tr>
<td>Lack of in-person resources</td>
<td></td>
<td>Sexual health information should be appropriate for multiple/liquid identities</td>
</tr>
<tr>
<td>Irrelevant/nonexistent sex ed</td>
<td></td>
<td>Information or links should be from trusted sources, with citations for youth to verify</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Information should not be solely risk or crisis-focused, but should address youth health holistically</td>
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</table>

MH = mental health; SGM = sexual and gender minority.

Table 3
Applications and recommendations for online resources
groups and other social categories with distinct health concerns. Integrating diversity to avoid deterring subsections of SGMY from participating is essential [18]. Our findings suggest that this can be addressed by facilitating connection of youth with similar characteristics (identities, ages, and concerns) to foster a more focused, relevant, and needs-based intervention environment. Equally important is the knowledge that not all SGMY experience negative issues. Identified challenges are not inherent to an SGM identity [1,2,8,31].

This “grouping together” is especially an issue for gender expansive youth, as the continuous grouping of “SGM” may prioritize sexuality and ignore issues specific to gender. Our findings demonstrate that more attention should be paid to the way gender and gender norms are addressed and intentionally or unintentionally reproduced in public health and educational interventions. GMYs have fewer resources, fewer role models, face more stigma and misunderstanding than sexual minority youths, and have unique health concerns [21,32]. Targeted analysis of GMY experiences may provide context and further explain this variation but is outside the scope of this article.

Limitations

Our findings may under-represent the experiences of certain segments of SGMY. Despite targeted recruitment efforts, we were only able to recruit one transgender woman, although 15% of the participants identified as transgender. Individuals were encouraged to self-report on gender and sexual orientation identities, which made distinct categorization difficult for analysis. While one goal was to contribute to the research on diversity among SGMY, certain youth, such as closeted youth, may have been harder or impossible to recruit. The study does not include youth who report being completely closeted (43% of the youth indicated being largely in the closet or only partially out). Closeted status refers to both sexual and gender identity and may have contributed to recruitment of fewer questioning youth.

SGM groups are racially, ethnically, regionally, and socioeconomically diverse. These intersecting determinants of health have received less study for this population [1]. Our study did not aim to investigate how factors such as homelessness, race/ethnicity, and socioeconomic status influence SGMY’s experiences. A limitation of this form of qualitative analysis is a lack of subgroup differentiation. Additional analysis on subsets of the data could potentially reveal masked clusters of discourse related to themes and subthemes, and contextual, regional, or group differences. Historically, research has focused on the prevalence of poor mental and sexual health outcomes, but large sample studies are needed to understand the frequency and distribution of experiences that lead to feelings of isolation and stigmatization for SGMY. Large cohort and cross-sectional studies are necessary to further differentiate between SGM groups, understand which sociodemographic factors correlate with experiences of active and passive discrimination, and determine the relative impact of our themes and subthemes on health behaviors and overall well-being of SGMY.

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