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## Clinical psychological science must move beyond documenting disparities in LGBTQ health towards eliminating them

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Psychology and other disciplines have exceptionally documented sexual orientation and gender identity disparities in mental and physical health outcomes with psychological antecedents. Research on sexual and gender minority (SGM) health has seen impressive growth, including the launch of dedicated conferences, journals, and designation as a disparity population for U.S. federal research purposes. From 2015-2020, the number of SGM-focused research projects funded by the U.S. National Institutes of Health (NIH) increased by 66.1% (*cf.* 21.8% for all NIH projects). SGM health research has expanded beyond HIV (73.0% of NIH SGM projects in 2015 down to 59.8% in 2020) into other domains, such as mental health (41.6%), substance use disorders (23%), violence (7.2%), and transgender (21.9%) and bisexual (17.2%) health. Yet only 8.9% of projects were clinical trials testing interventions. The need for more research on later stages in the translational research spectrum (*i.e.*, mechanisms, intervention, implementation) to eradicate SGM health disparities is the focus of our Viewpoint article.

SGM health research is growing and diversifying, but it has not yet translated into widespread improvements in SGM health. Analyses of population data comparing the size of sexual orientation disparities in mental health across generations has found that they have grown rather than shrank (Liu & Reczek, 2021). Likewise, for physical health issues like HIV, men who have sex with men and transgender women comprise an increasing proportion of cases relative to heterosexual and cisgender people (Centers for Disease Control and Prevention, 2020). These trends, also found for many other outcomes, seem at odds with overall social and legal progress for SGM communities. Progress towards equality has always been nonlinear and met with resistance that itself adversely impacts health (*e.g.*, laws prohibiting gender affirming care). How can psychologists leverage this growth in SGM health research into increasing health equity?

First, research to eliminate SGM health disparities must move toward multilevel interventions aimed at cultivating health, wellbeing, and thriving. There have been excellent examples of testing, refining, and extending mechanistic theoretical models in ways

that uncover viable psychosocial intervention targets for diverse SGMs. Adaptations to the widely-used minority stress theory (Meyer, 1995) better reflect the experiences of transgender and bisexual individuals and the intersectional stigma experienced by SGM racial or ethnic minorities. Research has identified psychological mechanisms that link stigma to mental health outcomes and can serve as intervention targets. For example, a recent meta-analysis of 193 studies found that the cognitive, emotional, behavioral, and self-monitoring demands of concealing one's sexual orientation due to experienced or anticipated stigma was significantly associated with internalizing mental health problems (Pachankis et al., 2020). Interventions addressing such psychological mechanisms (e.g., rumination, social support, coping), as well as to reduce SGM stress at their sources in unjust and discriminatory social structures, exist but are still in early stages of being tested (i.e., few tested through randomized controlled trials; Chaudoir et al., 2017).

Second, research to test how psychological theories apply to SGM people can inform new theories or extend existing ones, which can spur new areas of inquiry. For example, we are excited by the ways research on physical health outcomes has challenged minority stress theory. Diamond and Alley (2022) have proposed that the absence of social signals of safety *is as consequential* for physical health as the presence of minority stress because of the effects of chronic threat-vigilance on cognitive, emotional, and immunological function. Indeed, our work has shown high levels of systemic inflammation among young gay and bisexual cisgender men, which increases the psychological damage of traumatic experiences (Schrock et al., 2021). Characterizing inflammation as a mechanism linking social adversity to health importantly allows markers of inflammation to serve as biological outcomes in studies of psychological interventions. One meta-analysis found that psychological interventions significantly reduced harmful immune function in ways that may be more long-lasting and cost less than pharmacotherapy (Shields et al., 2020). Research understanding how psychological interventions might address physical health disparities in SGM people is needed.

Third, translational SGM health research would benefit from a developmental lens to identify protective and promotive factors across the lifespan. Much of our own work has focused on adolescence, which is characterized by milestones like coming out, first sexual and romantic relationships, identity exploration, and initiating gender transition. Capturing these experiences as they are unfolding—rather than retrospectively—is critical, and interventions delivered before or during childhood and adolescence can have profound life-course impacts that may be impossible to achieve for interventions delivered later. For instance, strategies that may effectively deflect stigma in adolescence (e.g., overcompensation in achievement-related domains, vigilance and quick aggressive response to threat), can be highly maladaptive and difficult to retrain in adulthood. Ethics boards' applications of regulations that allow waivers of parental permission—facilitated by APA advocacy and developmental ethics research (American Psychological Association, 2018)—has opened doors for SGM adolescent research. This has in part enabled scholars to develop SGM-specific sexuality education and HIV prevention programs with adolescents' input and can enable future mental health promotion and treatment research. There are also new opportunities for research with younger children through inclusion of items assessing SGM identities in large, longitudinal cohort studies starting in childhood. For example,

ABCD is a 10-year study of over 11,800 adolescents enrolled at ages 9-10 years across the US, aimed at understanding how childhood experiences relate to psychological, social, and neurodevelopmental outcomes. Parent-child reports of gender (felt, contentedness, expression) and sexuality (behaviors, attractions, identity) across development can be correlated with later outcomes, allowing an unprecedented opportunity to characterize risk and protective factors at earlier ages than prior research (Potter et al., 2022). Similar attention is needed in cohort studies following participants into older adulthood as SGM aging research has been very limited. Investigating promotive and protective intervention targets across the lifespan can shift our focus from simply preventing adverse outcomes and toward capitalizing on strengths of SGM people.

Finally, using mechanistic findings to inform, develop, disseminate, and implement interventions to reduce SGM health disparities is crucial at this time. Most intervention research with SGM individuals has focused on HIV/AIDS, and development of interventions addressing other major drivers of morbidity and mortality in the SGM community, such as tobacco use, suicide, depression, exposure to violence, and hazardous drug and alcohol use is insufficient. Whenever possible, intervention studies should consider hybrid designs that can simultaneously, and to varying degrees, study intervention effectiveness and implementation strategies (Landes et al., 2019). Historically, few of the 100+ implementation science models have explicitly included health equity (Brownson et al., 2021); that has changed in recent years, and equity informed models can provide roadmaps for better delivery of evidence-based mental health practice to the SGM community. For instance, a better understanding of SGM-specific barriers and facilitators of intervention implementation (e.g., homophobia and transphobia in healthcare, laws against discussing SGM topics in schools, community connectedness and non-familial support networks) can inform the development of strategies designed to help these interventions succeed in real world settings (e.g., stigma reduction, diffusion through SGM community organizations).

The barriers to conducting SGM health intervention and implementation research are solvable. First, clinical and implementation trials are expensive, and the largest funder (NIH) only recently recognized SGMs as a health disparity population. The robust translational HIV research portfolio among men who have sex with men and increasingly among transgender women was enabled due to NIH's funding of HIV/AIDS research, not because of prioritization of SGM health research. Centering SGM communities' needs in federally funded research will likely yield more mechanistic, intervention, and implementation science on a broader array of health and wellbeing outcomes. Second, the SGM health research workforce is small relative to the size of the population and health disparities. Yet SGMs often face obstacles along the road to a scientific career, like bullying in school, lack of parental support for college, lack of role models, and double marginalization (i.e., being SGM and studying SGM issues; Veldhuis, 2022). Even SGM employees of the NIH experience high levels of harassment relative to their heterosexual and cisgender coworkers (NIH, 2020). To improve SGM health, we must also improve the educational and workplace experiences of SGM scientists and trainees who can bring critical lived experience and community connections to this work. Efforts to improve racial, ethnic, and gender diversity, equity, and inclusion in the research enterprise should be expanded to explicitly include SGM scholars. All psychologists should receive formal training to achieve competency

in researching and/or providing services to the SGM community (e.g., assessing sexual orientation and gender identity; Matthews et al., 2018).

There has been no better time to conduct research to improve SGM health. There is strong federal support for SGM health research, guidelines that facilitate inclusion and protection of SGM research participants, and a scientific Zeitgeist toward translating mechanistic findings into implementable interventions that reduce health disparities and improve quality of life for SGM people. These sea changes also offer numerous opportunities to expand and improve the climate for the SGM workforce. We invite you to join us in this exciting work and push SGM clinical psychological science towards achieving health equity.

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## References

- American Psychological Association. (2018). APA Resolution on Support for the Expansion of Mature Minors' Ability to Participate in Research. American Psychological Association. Retrieved 9/1/2018 from <https://www.apa.org/about/policy/resolution-minors-research.pdf>
- Brownson RC, Kumanyika SK, Kreuter MW, & Haire-Joshu D (2021). Implementation science should give higher priority to health equity. *Implementation Science*, 16(1), 28. 10.1186/s13012-021-01097-0 [PubMed: 33740999]
- Centers for Disease Control and Prevention. (2020). HIV Surveillance Report, 2018 (Updated). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>
- Chaudoir SR, Wang K, & Pachankis JE (2017). What reduces sexual minority stress? A review of the intervention "toolkit". *Journal of Social Issues*, 73(3), 586–617. 10.1111/josi.12233 [PubMed: 29170566]
- Diamond LM, & Alley J (2022). Rethinking minority stress: A social safety perspective on the health effects of stigma in sexually-diverse and gender-diverse populations. *Neuroscience and Biobehavioral Reviews*, 138, 104720. 10.1016/j.neubiorev.2022.104720 [PubMed: 35662651]
- Landes SJ, McBain SA, & Curran GM (2019). An introduction to effectiveness-implementation hybrid designs. *Psychiatry Research*, 280, 112513. 10.1016/i.psvchres.2019.112513 [PubMed: 31434011]
- Liu H, & Reczek R (2021). Birth cohort trends in health disparities by sexual orientation. *Demography*, 58(4), 1445–1472. 10.1215/00703370-9357508 [PubMed: 34137819]
- Matthews AK, Rak K, Anderson E, Bostwick W, Ramirez-Valles J, Ruiz RA, Macapagal K, Watson KS, Jeremiah RD, Castillo A, & Choure W (2018). White paper from a CTSA workshop series on special and underserved populations: Enhancing investigator readiness to conduct research involving LGBT populations. *Journal of Clinical and Translational Science*, 2(4), 193–200. 10.1017/cts.2018.317 [PubMed: 30559982]
- Meyer IH (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, 36(1), 38–56. 10.2307/2137286 [PubMed: 7738327]
- National Institutes of Health. (2020). NIH Workplace Climate and Harassment Survey Summary Findings Report. [https://diversity.nih.gov/sites/coswd/files/images/docs/NIH\\_Workplace\\_Climate\\_and\\_Harassment\\_Survey\\_Executive\\_Report\\_508.pdf](https://diversity.nih.gov/sites/coswd/files/images/docs/NIH_Workplace_Climate_and_Harassment_Survey_Executive_Report_508.pdf)
- Pachankis JE, Mahon CP, Jackson SD, Fetzner BK, & Branstrom R (2020). Sexual orientation concealment and mental health: A conceptual and meta-analytic review. *Psychological Bulletin*, 146(10), 831–871. 10.1037/bul0000271 [PubMed: 32700941]
- Potter AS, Dube SL, Barrios LC, Bookheimer S, Espinoza A, Feldstein Ewing SW, Freedman EG, Hoffman EA, Ivanova M, Jefferys H, McGlade EC, Tapert SF, & Johns MM (2022).

Measurement of gender and sexuality in the Adolescent Brain Cognitive Development (ABCD) study. *Developmental Cognitive Neuroscience*, 53, 101057. 10.1016/j.dcn.2022.101057 [PubMed: 35026661]

Schrock JM, McDade TW, Carrico AW, D'Aquila RT, & Mustanski B (2021). Traumatic events and mental health: The amplifying effects of pre-trauma systemic inflammation. *Brain, Behavior, and Immunity*, 98, 173–184. 10.1016/j.bbi.2021.08.208 [PubMed: 34391815]

Shields GS, Spahr CM, & Slavich GM (2020). Psychosocial interventions and immune system function: A systematic review and meta-analysis of randomized clinical trials. *JAMA Psychiatry*, 77(10), 1031–1043. 10.1001/iampsvchiatr.2020.0431 [PubMed: 32492090]

Veldhuis CB (2022). Doubly marginalized: Addressing the minority stressors experienced by LGBTQ+researchers who do LGBTQ+ research. *Health Educational and Behavior*, 49(6), 960–974. 10.1177/10901981221116795