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Intersectional stigma and its impact on HIV prevention and care among MSM and WSW in sub-Saharan African countries: A protocol for a scoping review

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3 **Intersectional stigma and its impact on HIV prevention and care among MSM and WSW**
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5 **in sub-Saharan African countries: a protocol for a scoping review**
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Abstract

Introduction: Research has established that various forms of stigma (HIV stigma, gender non-conforming stigma, and same-gender sex stigma) exist across Sub-Saharan African countries and have consequences for the utilization of HIV prevention and care services. The two most common ways in which these stigmas are evaluated in HIV literature are investigating individual stigmas and investigating individual key populations and the various forms of stigma they may face that could impact their wellbeing and access to HIV care. The concept of intersectionality highlights the interconnected nature of social categorizations and the ability of these categorizations to create interdependent systems of discrimination based on gender, race, sexuality, etc. This therefore underlines the need for public health scholars to examine the effects of the stigmatization and marginalization of social identities not as distinct realities, but as parts of a whole. Drawing from perspectives in intersectionality literature, intersectional stigma denotes the link and convergence of multiple marginalized identities within a person or at a group level, the experiences of stigma associated with such oppressed identities, as well as the impact of these experiences on health and wellbeing. With respect to HIV, scholars can examine the impacts of multiple stigmas on HIV prevention and care utilization as well as broader health outcomes.

Methods and analysis: This scoping review will employ a systematic search through published quantitative and qualitative studies as well as grey literature that include data on stigma, healthcare and HIV status among MSM and WSW in Sub-Saharan Africa. We will search through MEDLINE, Global Health, Embase, Scopus, Web of Science Core Collection, and Africa Index Medicus in addition to citation chaining. Eligible studies will include primary or

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3 secondary data on one or more stigmas related to HIV-risk factors, as it relates to MSM or WSW
4 in Sub-Saharan African countries. Studies must be in French or English. We will exclude
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6 studies published before 1991 as we identified the first article looking at intersection HIV stigma
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8 was published in this year. All screening and data extraction will be performed in duplicate and
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10 if discrepancies arise, they will be settled by consensus or through consultation with LEN or
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12 GMRA. Our findings from this study will be reported according to the Preferred Reporting
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14 Items for Systematic reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-
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16 ScR).

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21 **Ethics and dissemination:** There will be no human participants in this study. Since no protected
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23 data will be used, ethics approval is not required. Our findings will be communicated and
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25 disseminated through conferences, webinars, peer-reviewed manuscripts and can be used to
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27 inform policies and practices in government health agencies.
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31 **Strengths and limitations of the study:**

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- This scoping review is reinforced by the comprehensive search strategy designed by an experienced public health librarian and peer reviewed by an independent medical librarian and supplemented with citation chaining.
 - The novel approach to this research topic is a strengths as it will enable us to highlight the current status of intersectional stigma as a key determinant of access to HIV prevention and care among key populations
 - A limitation of this review is the focus on Sub-Saharan Africa, as it restricts its generalizability to the experiences of MSM and WSW globally

Introduction

Human immunodeficiency virus (HIV) remains one of the leading causes of death worldwide, with the majority of global cases centralized in sub-Saharan Africa (South, East, Central, and West) (1, 2). Though sub-Saharan Africa comprises 12% of the world population, this region accounted for 75% of HIV-related deaths and 65% of new HIV infections globally in 2017 (1, 2). Rates of HIV infections are particularly high in Eastern and Southern Africa, with nine countries in this region accounting for nearly 50% of the global total of people living with HIV (3). In any global context, men who have sex with men (MSM) stand at a heightened risk for HIV infection (4, 5). Within sub-Saharan Africa, HIV prevalence among MSM is three times as high as HIV prevalence in the general male population (5). Also, despite the disproportionate burden of HIV among women in sub-Saharan Africa, limited research examines the prevalence of HIV among women who have sex with women (WSW) in this region (3, 6). There exists a long-standing assumption that WSW do not face a high-risk of HIV infection, yet some existing research has drawn contrary conclusions, supporting the need for investigating the risks of HIV infection and barriers to HIV prevention and care services among WSW in sub-Saharan Africa (6). While MSM and WSW populations contribute a small percentage of the overall population, they have an extremely high risk for HIV transmission with estimated prevalence in Sub-Saharan countries ranging from 12% to as high as 30% (7). MSM and WSW face several barriers to HIV prevention and treatment, from community-wide issues such as (e.g. inadequate financial resources, lack of convenient access to healthcare clinics) to specific barriers that arise as a result of their HIV status and/or from their identity as MSM or WSW (e.g. stigma) (5, 8, 9).

Stigma emanates from a construct of psychological, social, and societal factors that engender and enforce inequalities between groups of people (10). The social ecological model

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3 emphasises the multi-layered manner in which people conceive and enact stigma, as well as the
4 important role power structures play in maintaining it (11). Stigmas are commonly associated
5 with certain socio-demographic characteristics, behaviors/experiences and health conditions.
6
7 Stigma can be manifested and experienced on the individual, interpersonal, institutional and
8 societal level. Drivers (such as stereotypes and lack of awareness) cause stigma on an individual
9 level, while facilitators (such as laws, culture and gender norms) cause it at a societal level (12).

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17 Intersectional stigma occurs when an individual or group experience(s) multiple stigmas.
18 It denotes the synergistic effect produced by systems of oppression at the intersection of these
19 stigmatized identities/behaviours/conditions on wellbeing and health. HIV scholars
20 predominantly examine stigma and marginalized identities in a piecemeal nature by mainly
21 focusing on single factors such gender, sexual orientation, profession, race, socioeconomic
22 status, etc. (13-15). Men who have sex with men living in Sub-Saharan Africa have been
23 reported to experience intersectional stigma with regards to same-sex attraction, gender-non-
24 conforming behaviour, actual or perceived HIV status, and others. At health-care facilities, MSM
25 experience treatment refusal, verbal abuse, and avoidance behaviours (like double gloving) and
26 socially, they experience physical and verbal harassment, social isolation and discrimination (16-
27 19). For the sake of preserving interpersonal relationships, many MSM avoid HIV-related care
28 out of fear of others suspecting that they have sex with men and this anticipated stigma is further
29 compounded by a fear of discriminatory treatment at healthcare facilities (20, 21). These are just
30 some of the reasons for which fear of stigmatization and discrimination is a key determinant of
31 voluntary HIV testing, care-seeking, and linkage to care among MSM (22, 23). By viewing
32 stigma through an intersectional lens, researchers are able to gain a more comprehensive view of
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3 the impact of HIV/AIDS, identify synergies between risk factors that may allow for development
4 of more impactful and efficient solutions and develop multi-faceted solutions.
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8 Different forms of stigma, while often analyzed individually, do not exist singularly.
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10 While MSM and WSW experience unified intersectional forms of stigma, the ways in which
11 intersectional stigma affects health outcomes for these groups remain poorly understood (24). In
12 Sub-Saharan Africa specifically, there are a limited number of studies on intersectional stigma
13 and its implication on HIV-related health outcomes. The primary objective of this study is to
14 assess the state of science with regards to HIV-related stigma research on MSM and WSW
15 populations in Sub-Saharan Africa. It aims to investigate the common presentations of stigma in
16 HIV research and the prevalence of stigma being discussed and conceptualized in research as an
17 intersectional experience. The secondary objective of this study is to evaluate how the
18 experience of intersectional stigma is shown to affect HIV prevention and care for MSM and
19 WSW in literature. Overall, this study intends to provide an overview of intersectional
20 experiences of stigma for MSM and WSW and its effects on HIV-related health outcomes.
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35 **Methods and Analysis**

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37 To develop this protocol for the scoping review, we used the guideline for scoping
38 reviews; the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for
39 Scoping Reviews (PRISMA-ScR) (25). As explained by Tricco et al., (2018), before a scoping
40 review, the research team needs to develop a protocol to explain the intent and processes of the
41 scoping review (25). Such a protocol, when reviewed and published, will ensure transparency of
42 the process and avoidance of duplication of efforts.
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51 **Ethics and dissemination**

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3 There will be no human participants and no data collection in this study. As such, ethics
4 approval is not required (26). The findings from this study will be disseminated through
5 conferences, webinars, peer-reviewed manuscripts and could inform policies and practices in
6 government health agencies and other healthcare facilities.
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11 **Patient and Public Involvement**

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14 We will not engage MSM and WSW when conducting this scoping review. We however
15 anticipate to disseminate findings to the public especially audiences in HIV research, and
16 practice to inform knowledge on research and decision making in health care practice and policy
17 (27).
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23 **Criteria for Study Inclusion**

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26 For an article to qualify for inclusion in this scoping review it must discuss at least one or
27 more stigmas related to HIV-risk factors, prevention, intervention, or care. The study must also
28 present primary data or secondary involving MSM, or WSW, and conducted in a single or
29 multiple sub-Saharan African countries. The United Nations defines sub-Saharan African
30 countries to include all countries south of the Sahara, namely; Angola, Benin, Botswana, Burkina
31 Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Eritrea,
32 Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar,
33 Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal,
34 Sierra Leone, Somalia, South Africa, United Republic of Tanzania, Togo, Uganda, Zaire,
35 Zambia, and Zimbabwe (28). To ensure an extensive inclusion of articles from all parts of sub-
36 Saharan Africa, we will include studies conducted or written in English or French languages.
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52 Considering that research on the impact of intersectional stigma on HIV prevention and
53 care remains limited, we intend to include all articles that examine stigma among MSM and
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3 WSW, from 1991 to present at the screening stage, and extract data from articles that discuss
4 intersectional stigma for analysis. As indicated earlier, the first article that examined the
5 combination of HIV stigma and sexuality among participants was published in 1991 (29).
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7 Keeping articles that discuss piecemeal stigma will enable the team to quantify and compare
8 studies on intersectional stigma and others on piecemeal stigma. We will exclude studies that
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10 combine data from sub-Saharan African countries with data from other countries in a way that
11 the team cannot extract the data on sub-Saharan African countries distinctively.
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19 **Types of studies.** Both experimental and observational studies will be considered in this
20 review. Studies will not be excluded based on methodological approaches; quantitative,
21 qualitative, and mixed methods studies will be considered. Articles synthesizing existing
22 literature, such as reviews, will not be included in analysis but will be used for citation chaining.
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28 **Search Strategy**

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31 **Identifying sources.** Author KN, a research librarian for the Yale University School of
32 Public Health, will lead the search for articles; authors GMRA, LEN, and DD will support KN in
33 identifying sources of grey literature from reports of organizations that examine HIV in sub-
34 Saharan African countries.
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42 **Electronic database searching.** We will search for relevant documents in key public
43 health sources MEDLINE (Ovid), Global Health (Ovid), and Embase (Ovid), and bibliographic
44 databases that index content across disciplines: Scopus, Web of Science Core Collection (as
45 licensed at Yale). We will also search regional literature databases: Africa-Wide Information and
46 Africa Index Medicus (through Global Index Medicus).
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3 **Grey literature searching.** To identify other pertinent documents not found in the
4 electronic search of bibliographic databases, we will search for theses, dissertations, and
5 conference papers in the databases ProQuest Dissertations and Theses Global, Open Access
6 Theses and Dissertations, and Networked Digital Library of Theses and Dissertations. We will
7 also search on organizational websites, such as the United Nations Program on HIV/AIDS –
8 UNAIDS, the Global Fund, International AIDS Society, and the World Health Organization –
9 WHO. Additionally, we will identify and contact key scholars who examine HIV in sub-Saharan
10 African countries on possible reports and sources of articles that examine stigma, and
11 unidentified by the team. Finally, we will supplement our searches of traditional bibliographic
12 databases by searching Google Scholar and screening results until the Google Scholar relevance
13 ranking order shows us 20 results that are not relevant.
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29 **Data Screening**

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31 Studies will be imported into EndNote and duplicates will be removed. The remaining
32 citations and abstracts, as well as inclusion and exclusion criteria, will be added to Covidence
33 Systematic Review Software (30). Using Covidence Systematic Review Software, four reviewers
34 will screen the title and abstract of the first 50 articles in pairs, as recommended in the PRISMA-
35 ScR guideline, to ensure clarity of the inclusion and exclusion criteria (25). Inter-rater reliability
36 (IRR) will be estimated using Cohen's kappa. Acceptable agreement will be considered at $k=0.80$
37 (31). If we cannot determine study eligibility from the title and abstract alone, the full text will
38 be screened to determine eligibility. After IRR is determined, each of the remaining articles will
39 be reviewed by two independent reviewers. Disagreements will be resolved through team
40 consensus; if a consensus cannot be reached, LEN or GMRA will be consulted.
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54 **Data Extraction**

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3 **Content.** After screening articles for eligibility, we aim to extract the data on publication
4 information, conceptualization components, methodology, and results. On *publication*
5 *information*, we will extract author names, year of publication, the journal of publication, and
6 funding source, when applicable. On *conceptualization components*, we will extract information
7 on the research questions or hypothesis, theoretical or conceptual frameworks used, if any,
8 variables (e.g. types of stigma measured, condom use, sex episodes). Concerning the
9 *methodology*, we will extract information on the study design (e.g. qualitative design, mixed-
10 method design, quantitative design), sampling and recruitment techniques (e.g. simple random
11 sampling, snowball sampling), and methods of data collection (e.g. interviews, surveys, focus
12 group discussion). We will also extract information on the analytical techniques (e.g. correlation,
13 qualitative coding). Additionally, we will extract data on the *setting of the study* (e.g. country,
14 cardinal point location, rural/urban areas, if identified). For the *results*, we will first extract the
15 participant information (MSM, WSW, number of participants, socio-economic characteristics,
16 such as age range, income, education). We will then extract findings of the study on
17 intersectional stigma and its impact on HIV prevention and care in the population. For each
18 finding, we will extract information, such as main thematic areas, quotes, measures of central
19 tendency, and statistical findings, when applicable. We will not extract data from single stigma
20 article beyond identifying the type of stigma examined (e.g. gender, HIV)

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23 **Process.** To enable a systematic and coordinated approach to data extraction, we will use
24 a data extraction Google Form with questions for each extractor to enter the findings from the
25 study. The tool has specific questions that extractors need to answer. At least two authors will
26 extract data from each article to ensure consistency. The two authors will meet to discuss and
27 evaluate the extracted data for missing information or contradicting reports. Authors GMRA and
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3 LEN will meet with extractors to reach consensus on contradictory information if the primary
4 reviewers could not arrive at a decision.
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8 9 **Analyses and reporting**

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11 We will report the findings from the extracted data based on PRISMA-ScR guidelines
12 (25). We will use a table to report the results based on the questions. We will then provide a
13 narrative synthesis of the findings based on the common themes that answer the specific research
14 questions.
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20 **Outcome**

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22 The primary outcome of this study is investigating the nature of intersectional stigma
23 associated with HIV risk factors experienced by MSM and WSW living in Sub-Saharan Africa
24 as well as evaluating the scope of and gaps in existing literature on stigma associated with these
25 populations. The secondary outcome of this study is investigating the impacts of intersectional
26 stigma on access to HIV prevention and care services among our target population.
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36 **DISCUSSION**

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38 Sexual minorities including MSM and WSW experienced various forms of stigma that have joint
39 effects on their health and wellbeing in Sub-Saharan African countries (32). The convergence of
40 those stigmas named intersectional stigma faced by these groups has greatly impacted their HIV
41 prevention and care on a daily basis (33, 34). Studying the influence of the intersectional stigma
42 in Sub-Saharan African region is important where higher levels of HIV transmission and HIV-
43 related mortality occurred (35). Many interventions have been initiated in this region to expand
44 access to HIV treatment and prevention services (36), but a limited number of studies have
45 investigated the role of the intersectional stigma that it played in those interventions. Also,
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3 research from multiple disciplines has established that characteristics including social-economic
4 status, race, and sex could privilege or disadvantage people at the individual and societal level
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6 (33), but very few studies investigated the experiences and consequences of living with
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8 intersectional stigma aimed to reduce the burden of HIV in this region. Specifically, more
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10 research is needed to study how to reduce the intersectional stigma that hindered individuals to
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12 community-delivered HIV prevention and care services.
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16 This scoping review will contribute important knowledge to HIV prevention, but it is not without
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18 limitations. Its specificity to the Sub-Saharan African region may reduce its relevance to other
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20 parts of the world. Nevertheless, given intersectional stigma exists across geopolitical contexts
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22 and this scoping review includes an extensive search on current literature, we believe that the
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24 knowledge it generated could be applied globally.
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28 **Ethical Consideration**

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30 Considering that we will not engage patients or the public in the scoping review, we do
31
32 not need to seek ethical approval from our Institutional Review Board – IRB.
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35 **Dissemination Plan**

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37 We will publish the scoping review findings in a peer-reviewed journal to ensure that other
38
39 scholars, practitioners, and the general public can access it for use. We will also present the
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41 findings at HIV and stigma conferences and other spaces when the opportunity arises.
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43 Additionally, we will use the findings to conceptualize new studies to fill in the scholarly gaps
44
45 identified.
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7 extraction form.
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References

1. James SL, Abate D, Abate KH, *et al.* Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018;392(10159):1789-858.
2. Roth GA, Abate D, Abate KH, *et al.* Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018;392(10159):1736-88.
3. UN Joint Program on AIDS (UNAIDS). *The Gap Report*. Geneva: United Nations; 2014.
4. Baral S, Sifakis F, Cleghorn F, *et al.* Elevated Risk for HIV Infection among Men Who Have Sex with Men in Low- and Middle-Income Countries 2000–2006: A Systematic Review. *PLOS Medicine*. 2007;4(12):e339.
5. Beyrer C, Baral SD, van Griensven F, *et al.* Global epidemiology of HIV infection in men who have sex with men. *The Lancet* 2012;380(9839):367-77.
6. Tat SA, Marrazzo JM, Graham SM. Women Who Have Sex with Women Living in Low- and Middle-Income Countries: A Systematic Review of Sexual Health and Risk Behaviors. *LGBT Health*. 2015;2(2):91-104.
7. Samuel, K. MSM living in African countries that criminalise gay sex are at a much higher risk of getting HIV. *NAM AIDSMAP*. 2020;<https://www.aidsmap.com/news/jul-2020/msm-living-african-countries-criminalise-gay-sex-are-much-higher-risk-getting-hiv>.

- 1
2
3 8. Croome N, Ahluwalia M, Hughes LD, *et al.* Patient-reported barriers and facilitators to
4 antiretroviral adherence in sub-Saharan Africa. *AIDS*. 2017;31(7):995-1007.
5
6
- 7
8 9. Poteat TC, Logie CH, Adams D, *et al.* Stigma, sexual health, and human rights among
9 women who have sex with women in Lesotho. *Reprod Health Matters*. 2015;23(46):107-
10
11
12 16.
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15 10. "Tackling HIV Stigma: What Works? Using the Global Evidence Base to Reduce the
16 Impact of HIV Stigma." National AIDS Trust. FCB Health Network, June 2016. Web.
17
18
- 19
20 11. Baral S, Logie CH, Grosso A, Wirtz AL, Beyrer C. Modified Social Ecological Model: A
21 Tool to Guide the Assessment of the Risks and Risk Contexts of HIV Epidemics. *BMC*
22
23
24
25
26
27 12. Stangl A, Brady L, Fritz K. STRIVE Technical Brief: Measuring HIV stigma and
28 discrimination; International Center for Research on Women, Washington D.C., USA;
29
30
31
32 2012 (updated in 2018).
- 33
34 13. Jackson-Best F, Edwards N. Stigma and intersectionality: a systematic review of
35 systematic reviews across HIV/AIDS, mental illness, and physical disability. *BMC*
36
37
38
39
40
41 14. Mburu G, Ram M, Siu G, Bitira D, Skovdal M, Holland P. Intersectionality of HIV
42 stigma and masculinity in eastern Uganda: implications for involving men in HIV
43
44
45
46
47
48 15. Hargreaves JR, Busza J, Mushati P, Fearon E, Cowan, FM. Overlapping HIV and sex-
49 work stigma among female sex workers recruited to 14 respondent-driven sampling
50 surveys across Zimbabwe, 2013. *AIDS Care*. 2016;29(6):675–685.
51
52
53
54
55
56
57
58
59
60

- 1
2
3 16. Kushwaha S, Lalani Y, Maina G, *et al.* “But the moment they find out that you are
4
5 MSM...”: a qualitative investigation of HIV prevention experiences among men who
6
7 have sex with men (MSM) in Ghana’s health care system. *BMC Public Health.*
8
9 2017;17(1). doi:10.1186/s12889-017-4799-1
10
11
12 17. Kennedy CE, Baral SD, Fielding-Miller R, *et al.* “They are human beings, they are
13
14 Swazi”: intersecting stigmas and the positive health, dignity and prevention needs of
15
16 HIV-positive men who have sex with men in Swaziland. *Journal of the International*
17
18 *AIDS Society.* 2013;16(4 Suppl 3):18749. doi:10.7448/ias.16.4.18749
19
20
21 18. Cloete A, Simbayi LC, Kalichman SC, Strebel A, Henda N. Stigma and discrimination
22
23 experiences of HIV-positive men who have sex with men in Cape Town, South Africa.
24
25 *AIDS Care.* 2008;20(9):1105–1110. doi:10.1080/09540120701842720
26
27
28 19. Anderson AM, Ross MW, Nyoni JE, McCurdy SA. High prevalence of stigma-related
29
30 abuse among a sample of men who have sex with men in Tanzania: implications for HIV
31
32 prevention. *AIDS Care.* 2014;27(1):63–70. doi:10.1080/09540121.2014.951597
33
34
35 20. Kim HY, Grosso A, Ky-Zerbo O, *et al.* Stigma as a barrier to health care utilization
36
37 among female sex workers and men who have sex with men in Burkina Faso. *Ann*
38
39 *Epidemiol.* 2018;28(1):13-9.
40
41
42 21. Bwambale FM, Ssali SN, Byaruhanga S, Kalyango JN, Karamagi CA. Voluntary HIV
43
44 Counselling and Testing among Men in Rural Western Uganda: Implications for HIV
45
46 Prevention. *BMC Public Health.* 2008; 8(1):263-276.
47
48
49 22. Nelson LE, McMahon J, Zhang N, Adu-Sarkodie Y, Mayer KH. Exploring HIV, same-
50
51 sex and gender non-conformity stigmas and delays in HIV diagnosis, linkage and
52
53 retention for MSM in Ghana. National Institute of Mental Health; 2016.
54
55
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60
23. Holtzman S, Landis L, Walsh Z, Puterman E, Roberts D, Saya-Moore K. Predictors of HIV testing among men who have sex with men: a focus on men living outside major urban centres in Canada. *AIDS care*. 2016;28(6):705-11.
 24. Turan JM, Elafros MA, Logie CH, *et al*. Challenges and opportunities in examining and addressing intersectional stigma and health. *BMC medicine*. 2019;17(1):7-7. <https://doi.org/10.1186/s12916-018-1246-9>
 25. Tricco AC, Lillie E, Zari W, *et al*. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med*. 2018;169(7):467-473. doi:10.7326/M18-0850.
 26. Yale University Institutional Review Boards. IRB Policy 100 Institutional Review Board (IRB) Review of Human Subject Research Protocols or FDA- Regulated Activities Involving Human Participants. New Haven: USA; 2018.
 27. Mburu G, Igbinedion E, Lim SH, *et al* Outcomes of HIV treatment from the private sector in low-income and middle-income countries: a systematic review protocol *BMJ Open*. 2020;10:e031844. doi: 10.1136/bmjopen-2019-031844
 28. UNICEF. The State of the World's Children 1996 Report. New York: USA; 1996. Available at <https://www.unicef.org/sowc96/groups.htm>.
 29. Grossman AH. Gay men and HIV/AIDS: understanding the double stigma. *J Assoc Nurses AIDS Care*. 1991;2(4):28-32.
 30. Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org. 2019.

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31. Belur J, Tompson L, Thornton A, Simon M. Interrater Reliability in Systematic Review Methodology: Exploring Variation in Coder Decision-Making. *Sociological Methods & Research*. September 2018. doi:10.1177/0049124118799372
32. Risher K, Adams D, Sithole B, *et al*. Sexual stigma and discrimination as barriers to seeking appropriate healthcare among men who have sex with men in Swaziland. *Journal of the International AIDS Society*. 2013;16(3 Suppl 2):18715-18715.
33. Turan JM, Elafros MA, Logie CH, *et al*. Challenges and opportunities in examining and addressing intersectional stigma and health. *BMC medicine*. 2019;17(1):7-7.
34. Eichenberger A, Weisser M, Battegay M. [HIV in Sub-Saharan Africa: Where Are We Today?]. *Praxis (Bern 1994)*. Nov 2019;108(15):971-976.
35. Kharsany ABM, Karim QA. HIV Infection and AIDS in Sub-Saharan Africa: Current Status, Challenges and Opportunities. *The open AIDS journal*. 2016;10:34-48.
36. Ortblad KF, Baeten JM, Cherutich P, Wamwicwe JN, Wasserheit JN. The arc of HIV epidemics in sub-Saharan Africa: new challenges with concentrating epidemics in the era of 90-90-90. *Current opinion in HIV and AIDS*. 2019;14(5):354-365.

Ovid MEDLINE(R) ALL <1946 to November 23, 2020>

Search history sorted by search number ascending

#	Searches	Results
1	[Gamji MEDLINE draft 20201124]	0
2	[queries from Kate's project with Sarah Abboud project, edited to focus on MSM, WSW]	0
3	bicurious.mp.	3
4	bisexual*.mp.	10791
5	gay.mp.	11636
6	gays.mp.	460
7	gender minorit*.mp.	4618
8	gender queer.mp.	17
9	GLB.mp.	409
10	GLBQ.mp.	3
11	GLBs.mp.	16
12	GLBT.mp.	101
13	GLBTQ.mp.	14
14	heteroflexible.mp.	3
15	homosexual*.mp.	35679
16	lesbian*.mp.	7061
17	lesbigay*.mp.	5
18	LGB.mp.	1038
19	LGBQ.mp.	112
20	LGBS.mp.	68
21	LGBT*.mp.	2652
22	men who have sex with men.mp.	11941
23	mostly-heterosexual.mp.	124
24	MSM.mp.	10713
25	MSMW.mp.	121
26	nonheterosexual*.mp.	151
27	non-heterosexual*.mp.	279
28	queer.mp.	1400
29	queers.mp.	26
30	same gender loving.mp.	7
31	same sex couple*.mp.	359
32	same sex relations*.mp.	324
33	same-sex attract*.mp.	297
34	sexual identit*.mp.	1865
35	sexual minorit*.mp.	2860
36	sexual orientation*.mp.	6157
37	sexual preference*.mp.	639
38	SGM.mp.	603
39	women loving women.mp.	8
40	women who have sex with women.mp.	179
41	WSW.mp.	153

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2	42	WSWM.mp.	18
3	43	"sexual and gender minorities"/	4045
4	44	bisexuality/	4227
5	45	exp homosexuality/	30137
6	46	or/2-45 [population terms]	54126
7	47	stigma*.mp.	40591
8	48	social stigma/	8811
9	49	exp shame/	2458
10	50	[terms from https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009453.pub2/appendices#CD009453-sec1-0012 , Clement 2013, with my edits]	0
11	51	stereotyping/	11095
12	52	(stereotyp* or stigma* or label* or negative image* or ignoran* or misconception* or misperception* or ((public* or community or social or popular) adj perception*)).mp.	753541
13	53	social perception/	23528
14	54	public opinion/	18779
15	55	prejudice/ or homophobia/	25301
16	56	((public* or community or social or popular or religious) adj attitude*).mp.	3305
17	57	((negative or positive or chang*) adj3 attitude*) or prejudice* or hostile* or intoleran*).mp.	120023
18	58	social distance/	3087
19	59	(social adj1 (distance or acceptance or rejection)).mp.	5379
20	60	rejection, psychology/	1605
21	61	(discriminat* or marginali* or rejecting behavi* or injustice* or (social adj (distance or justice or rejection or acceptance or exclusion or inclusion))).mp.	296664
22	62	[additions based on https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-018-5861-3 , Jackson-Best 2018]	0
23	63	social discrimination/	1281
24	64	or/47-63 [stigma terms]	1154251
25	65	[the Sub-Saharan Africa hedge from the Canadian Health Libraries Association https://extranet.santecom.qc.ca/wiki/!biblio3s/doku.php?id=concepts:afrique-subsaaharienne]	0
26	66	Africa South of the Sahara/ or Angola/ or Benin/ or Botswana/ or Burkina Faso/ or Burundi/ or Cameroon/ or Cape Verde/ or Central African Republic/ or Chad/ or Comoros/ or Congo/ or Brazzaville/ or Cote d'Ivoire/ or Djibouti/ or Equatorial Guinea/ or Eritrea/ or Ethiopia/ or Gabon/ or Gambia/ or Ghana/ or Guinea/ or Bissau/ or Kenya/ or Lesotho/ or Liberia/ or Madagascar/ or Malawi/ or Mali/ or Mauritania/ or Mauritius/ or Mozambique/ or Namibia/ or Niger/ or Nigeria/ or Rwanda/ or Sao Tome e Principe/ or Senegal/ or Seychelles/ or Sierra Leone/ or Somalia/ or South Africa/ or South Sudan/ or Sudan/ or Swaziland/ or Tanzania/ or Togo/ or Uganda/ or Western Sahara/ or Zaire/ or Zambia/ or Zimbabwe/ or (Angola or Benin or Botswana or Bobo-Dioulasso or Burkina Faso or Burundi or Cameroon or Cape Verde or Central African Republic or Chad or Comoros or Congo or Brazzaville or Cote d'Ivoire or Djibouti or Equatorial Guinea or Eritrea or Ethiopia or Gabon or Gambia or Ghana or Guinea or Bissau or Kenya or Lesotho or Liberia or Madagascar or Malawi or Mali or Mauritania or Mauritius or Mozambique or Namibia or Niger or Nigeria or Rwanda or Sao Tome e Principe or Senegal or Seychelles or Sierra Leone or Somalia or South Africa or South Sudan or Sudan or Swaziland or Tanzania or Togo or Uganda or Western Sahara or Zaire or Zambia or Zimbabwe or "Africa South of the Sahara" or "Sub-Saharan Africa").tw,kw.	397719
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69	exp africa south of the sahara/	213254
70	or/65-69 [geography terms]	1136991
71	46 and 64 and 70	439
72	"Stigma and discrimination experiences of HIV-positive men who have sex with men in Cape Town, South Africa ".ti.	1
73	"intersecting stigmas and the positive health, dignity and prevention needs of HIV-positive men who have sex with men in Swaziland".ti.	1
74	"Sexual behavior stigma and depression among transgender women and cisgender men who have sex with men".ti.	1
75	"Stretching the Boundaries: Tanzanian Pharmacy Workers' Views and Experiences of Providing STI Services for Men Who Have Sex with Men".ti.	1
76	"Healthcare experiences of lesbian and bisexual women in Cape Town, South Africa".ti.	1
77	"Suicidal ideation among MSM in three West African countries: Associations with stigma and social capital".ti.	1
78	or/72-77 [validation articles from Dada and Kate]	6
79	78 and 71	6

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item	Reported on Page #
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	N/A
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	ScholarOne
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	N/A
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	N/A
Support:			
Sources	5a	Indicate sources of financial or other support for the review	13
Sponsor	5b	Provide name for the review funder and/or sponsor	13
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	4-6
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	6
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	7-8
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	8-9

Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	13-14
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	9
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	9
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	10-11
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	10-11
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	11
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	N/A
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	N/A
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2 , Kendall's τ)	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	11
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	11
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	N/A

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

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For peer review only

BMJ Open

Intersectional stigma and its impact on HIV prevention and care among MSM and WSW in sub-Saharan African countries: A protocol for a scoping review

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2020-047280.R1
Article Type:	Protocol
Date Submitted by the Author:	22-Apr-2021
Complete List of Authors:	Abubakari, Gamji M'Rabiu; Yale University School of Public Health, Center for Interdisciplinary Research on AIDS Dada, Debbie; Yale University School of Nursing; St Michael's Hospital Centre for Urban Health Solutions Nur, Jemal; St Michael's Hospital Centre for Urban Health Solutions, Turner, DeAnne; Center for Interdisciplinary Research on AIDS Otchere, Amma; Yale University School of Nursing Tanis, Leonne; Yale University School of Nursing Ni, Zhao; Yale University School of Medicine Mashoud, Ibrahim; 37 Military Hospital Nyhan, Kate; Yale University, Harvey Cushing/John Hay Whitney Medical Library Nyblade, Laura; RTI International Nelson, Laron; Yale University School of Nursing, ; St Michael's Hospital Centre for Urban Health Solutions,
Primary Subject Heading:	HIV/AIDS
Secondary Subject Heading:	Health services research, Public health, Sexual health
Keywords:	Public health < INFECTIOUS DISEASES, MENTAL HEALTH, HIV & AIDS < INFECTIOUS DISEASES

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3 **Intersectional stigma and its impact on HIV prevention and care among MSM and WSW**
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5 **in sub-Saharan African countries: a protocol for a scoping review**
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Abstract

Introduction: Research has established that various forms of stigma (HIV stigma, gender non-conforming stigma, and same-gender sex stigma) exist across Sub-Saharan Africa and have consequences for the utilization of HIV prevention and care services. Stigmas are typically investigated in HIV literature individually or through investigating individual populations and the various stigmas they may face. The concept of intersectionality highlights the interconnected nature of social categorizations and their ability to create interdependent systems of discrimination based on gender, race, sexuality, etc. Drawing from perspectives on intersectionality, intersectional stigma denotes the convergence of multiple marginalized identities within an individual or a group, the experiences of stigma associated with these identities, as well as the synergistic impact of these experiences on health and wellbeing. With respect to HIV, public health scholars can examine the impacts of intersectional stigmas on HIV prevention and care utilization.

Methods and analysis: Reviewers will search systematically through MEDLINE, Global Health, Embase, Scopus, Web of Science Core Collection, and Africa Index Medicus and citations for quantitative studies, qualitative studies and grey literature that include data on stigma and HIV among MSM and WSW in Sub-Saharan Africa.. Eligible studies will include primary or secondary data on stigma related to HIV-risk factors experienced by this population. be written in French or English and be published between January 1991 and November 2020. All screening and data extraction will be performed in duplicate and if discrepancies arise, they will be settled by GMRA, LEN, DD or AO. Findings from this study will be reported according

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2
3 to the Preferred Reporting Items for Systematic reviews and Meta-Analyses Extension for
4 Scoping Reviews (PRISMA-ScR).

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8 **Ethics and dissemination:** Ethics approval is not required as there will be no human participants
9 and no protected data will be used in this study. We will disseminate findings through peer-
10 reviewed manuscripts, conferences and webinars.
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14 15 16 17 **Strengths and limitations of the study:**

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19 ● This scoping review is reinforced by the comprehensive search strategy designed by an
20 experienced public health librarian, peer reviewed by an independent medical librarian
21 and supplemented with citation chaining
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 - 24 ● The novel approach to this research topic is a strength as it will enable us to highlight the
25 current status of intersectional stigma as a key determinant of access to HIV prevention
26 and care among key populations
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 - 29 ● A limitation of this review is the focus on Sub-Saharan Africa, as it restricts
30 generalizability to the experiences of MSM and WSW globally
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42 **Introduction**

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44 Human immunodeficiency virus (HIV) remains one of the leading causes of death
45 worldwide, with the majority of global cases concentrated in sub-Saharan Africa (1, 2). Though
46 sub-Saharan Africa comprises 12% of the world population, this region accounted for 75% of
47 HIV-related deaths and 65% of new HIV infections globally in 2017 (1, 2). Rates of HIV
48 infections are particularly high in Eastern and Southern Africa, with nine countries in this region
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3 accounting for nearly 50% of the global total of people living with HIV (3). In any global
4 context, men who have sex with men (MSM) stand at a heightened risk for HIV infection (4, 5).
5
6 Within sub-Saharan Africa, HIV prevalence among MSM is three times as high as HIV
7 prevalence in the general male population (5). Also, despite the disproportionate burden of HIV
8 among women in sub-Saharan Africa, limited research examines the prevalence of HIV among
9 women who have sex with women (WSW) in this region (3, 6). There exists a long-standing
10 assumption that WSW do not face a high-risk of HIV infection, yet some existing research has
11 drawn contrary conclusions, supporting the need for investigating the risks of HIV infection and
12 barriers to HIV prevention and care services among WSW in sub-Saharan Africa (6, 7, 8). While
13 MSM and WSW populations constitute a small percentage of the overall population, they have
14 an extremely high risk for HIV transmission with estimated prevalence in Sub-Saharan countries
15 ranging from 12% to as high as 30% (9). MSM and WSW face several barriers to HIV
16 prevention and treatment, from community-wide issues (e.g. inadequate financial resources, lack
17 of convenient access to healthcare clinics) to specific barriers that arise as a result of their HIV
18 status and/or from their identity as MSM or WSW (e.g. stigma) (5, 7, 10).
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37 Stigma emanates from a construct of psychological, social, and societal factors that
38 engender and enforce inequalities between groups of people (11). The social ecological model
39 emphasizes the multi-layered manner in which people conceive and enact stigma, as well as the
40 important role power structures play in maintaining it (12). Stigmas are commonly associated
41 with certain socio-demographic characteristics, behaviours, experiences and health conditions.
42 Stigma can be manifested and experienced on the individual, interpersonal, institutional and
43 societal level. Drivers (such as stereotypes and lack of awareness) cause stigma on an individual
44 level, while facilitators (such as laws, culture and gender norms) cause it at a societal level (13).
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3 Intersectional stigma occurs when an individual or group experience(s) multiple stigmas
4 that are not only overlapping but also co-constitutive. It denotes the synergistic effect produced
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6 by systems of oppression at the intersection of these stigmatized identities, behaviours, and/or
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8 conditions on wellbeing and health (14-16). HIV scholars predominantly examine stigma and
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10 marginalized identities in a piecemeal way by mainly focusing on single factors such as: gender,
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12 sexual orientation, profession, race, socioeconomic status, etc. (17-19). MSM in Sub-Saharan
13
14 Africa have been reported to experience intersectional stigma with regards to same-sex
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16 attraction, gender-non-conforming behaviour, actual or perceived HIV status, etc. (20) At health-
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18 care facilities, MSM experience treatment refusal, verbal abuse, and avoidance behaviours (like
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20 double gloving) and on the social level, they experience physical and verbal harassment, social
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22 isolation and discrimination (21-24). For the sake of preserving interpersonal relationships, many
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24 MSM avoid HIV-related care out of fear of others suspecting that they have sex with men and
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26 this anticipated stigma is further compounded by a fear of discriminatory treatment at healthcare
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28 facilities (25, 26). These are just some of the reasons for which fear of stigmatization and
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30 discrimination are key determinants of voluntary HIV testing, care-seeking, and linkage to care
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32 among MSM (27, 28). By viewing stigma through an intersectional lens, researchers are able to
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34 gain a more comprehensive view of the impact of HIV/AIDS on lived experience, to identify
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36 synergies between risk factors that may allow for development of more impactful and efficient
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38 solutions and to develop multi-faceted solutions.
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47 Different forms of stigma, while often analyzed individually, do not exist singularly.
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49 While MSM and WSW experience intersectional forms of stigma, the ways in which
50
51 intersectional stigma affects health outcomes for these groups remain poorly understood (29). In
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53 Sub-Saharan Africa specifically, there are a limited number of studies on intersectional stigma
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3 and its implications for HIV-related health outcomes. The primary objective of this study is to
4 assess the state of science with regards to HIV-related stigma research on MSM and WSW
5 populations in Sub-Saharan Africa. It aims to investigate the common presentations of stigma in
6 HIV research and how often stigma is discussed and conceptualized in research as an
7 intersectional experience. The secondary objective of this study is to evaluate how the
8 experience of intersectional stigma is shown to affect HIV prevention and care for MSM and
9 WSW in literature. Overall, this study intends to provide an overview of intersectional
10 experiences of stigma among MSM and WSW and its effects on HIV-related health outcomes.
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22 **Methods and Analysis**

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24 To develop the protocol for this scoping review, we used the guideline for scoping
25 reviews; the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for
26 Scoping Reviews (PRISMA-ScR) (30). As explained by Tricco et al., (2018), before a scoping
27 review, the research team needs to develop a protocol to explain the intent and processes of the
28 scoping review (30). Such a protocol, when reviewed and published, will ensure transparency of
29 the process and avoidance of duplication of efforts.
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38 **Ethics and dissemination**

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40 There will be no human participants and no data collection in this study. As such, ethics
41 approval is not required (31). The findings from this study will be disseminated through
42 conferences, webinars, peer-reviewed manuscripts and could inform the policies and practices of
43 government health agencies and healthcare facilities.
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49 **Patient and Public Involvement**

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51 We will not engage MSM and WSW when conducting this scoping review. We however
52 anticipate to disseminate findings to the public, with special attention to audiences involved in
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3 HIV research and practice in order to inform decision making in health care practice and policy
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5 (32).

8 **Criteria for Study Inclusion**

10 For an article to qualify for inclusion in this scoping review it must discuss at least one or
11 more types of stigma related to HIV-risk factors, prevention, intervention, or care. The study
12 must also present primary or secondary data involving MSM or WSW and be conducted in one
13 or more sub-Saharan African countries. The United Nations defines sub-Saharan African
14 countries to include all countries south of the Sahara, namely; Angola, Benin, Botswana, Burkina
15 Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Eritrea,
16 Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar,
17 Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal,
18 Sierra Leone, Somalia, South Africa, United Republic of Tanzania, Togo, Uganda, Zaire,
19 Zambia, and Zimbabwe (33). To ensure an extensive inclusion of articles from as many parts of
20 sub-Saharan Africa as possible, we will include studies written in English and French.
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35 As literature that evaluates stigma related to HIV prevention and care among MSM and
36 WSW in an intersectional manner remains limited, in order to meet our primary objective of
37 evaluating how stigma is discussed in HIV research, we will also include studies that examine a
38 single stigma in our analysis. However, these single-stigma studies will not be included in the
39 full data extraction process (only basic information and the type of stigma studied will be
40 extracted) and will instead only be used to assess what proportion of the literature evaluates
41 stigma intersectionally. (34). Keeping articles that discuss single stigmas will enable the team to
42 quantify and compare studies on intersectional stigma with those on individual stigmas. We will
43 exclude studies published before 1991 as we identified the first peer-reviewed journal article
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3 focused on intersectional HIV stigma was published in this year We will exclude studies that
4 combine data from sub-Saharan African countries with data from other countries in a way that
5 the team cannot extract the data on sub-Saharan African countries distinctively.
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10 **Types of studies.** Both experimental and observational studies will be considered in this
11 review. Studies will not be excluded based on methodological approaches; quantitative,
12 qualitative, and mixed methods studies will be considered. Articles synthesizing existing
13 literature, such as reviews, will not be included in analysis but will be used for citation chaining.
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17 **Search Strategy**

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22 **Identifying sources.** Author KN, a research librarian for the Yale University School of
23 Public Health, will lead the search for articles; authors GMRA, LEN, and DD will support KN in
24 identifying sources of grey literature from reports of organizations that examine HIV in sub-
25 Saharan African countries.
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32 **Electronic database searching.** We will search for relevant documents in key public
33 health sources MEDLINE (Ovid), Global Health (Ovid), and Embase (Ovid), and bibliographic
34 databases that index content across disciplines: Scopus, Web of Science Core Collection (as
35 licensed at Yale). We will also search regional literature databases: Africa-Wide Information and
36 Africa Index Medicus (through Global Index Medicus). See example (supplementary file)
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45 **Grey literature searching.** To identify other pertinent documents not found in the
46 electronic search of bibliographic databases, we will search for theses, dissertations, and
47 conference papers in the databases ProQuest Dissertations and Theses Global, Open Access
48 Theses and Dissertations, and Networked Digital Library of Theses and Dissertations. We will
49 also search on organizational websites, such as the United Nations Program on HIV/AIDS –
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3 UNAIDS, the Global Fund, International AIDS Society, and the World Health Organization –
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5 WHO. Additionally, we will identify and contact key scholars who examine HIV in sub-Saharan
6
7 African countries on possible reports and sources of articles that examine stigma, and
8
9 unidentified by the team through other search strategies. Finally, we will supplement our
10
11 searches of traditional bibliographic databases by searching Google Scholar and screening results
12
13 until the Google Scholar relevance ranking order shows us 20 results that are not relevant.
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17 18 **Data Screening**

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20 Studies will be imported into EndNote and duplicates will be removed. The remaining
21
22 citations and abstracts, as well as inclusion and exclusion criteria, will be added to Covidence
23
24 Systematic Review Software (35). Using Covidence Systematic Review Software, four reviewers
25
26 will screen the title and abstract of the first 50 articles in pairs, as recommended in the PRISMA-
27
28 ScR guideline, to ensure clarity of the inclusion and exclusion criteria (30). Inter-rater reliability
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30 (IRR) will be estimated using Cohen's kappa. Acceptable agreement will be considered at $k=0.80$
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32 (36). If we cannot determine study eligibility from the title and abstract alone, the full text will
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34 be screened to determine eligibility. After IRR is determined, each of the remaining articles will
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36 be reviewed by two independent reviewers. Disagreements will be resolved by GMRA, DD or
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38 AO.
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43 **Data Extraction**

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45 **Content.** After screening articles for eligibility, we aim to extract the data on publication
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47 information, conceptualization components, methodology, and results. On **publication**
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49 **information**, we will extract author names, year of publication, the journal of publication, and
50
51 funding source, when applicable. On **conceptualization components**, we will extract information
52
53 on the research questions or hypothesis, theoretical or conceptual frameworks used and variables
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(e.g. types of stigma measured, condom use, sex episodes). Concerning the *methodology*, we will extract information on the study design (e.g. qualitative design, mixed-method design, quantitative design), sampling and recruitment techniques (e.g. simple random sampling, snowball sampling), and methods of data collection (e.g. interviews, surveys, focus group discussion). We will also extract information on the analytical techniques (e.g. correlation, qualitative coding). Additionally, we will extract data on the *setting of the study* (e.g. country, cardinal point location, rural/urban areas, if identified). For the *results*, we will first extract the participant information (MSM, WSW, number of participants, socio-economic characteristics, such as age range, income, education). We will then extract findings of the study on intersectional stigma and its impact on HIV prevention and care in the population. For each finding, we will extract information, such as main thematic areas, quotes, measures of central tendency, and statistical findings, when applicable. We will not extract data from single stigma article beyond identifying the type of stigma examined (e.g. gender, HIV)

Process. To enable a systematic and coordinated approach to data extraction, we will use a data extraction Google Form with questions for each extractor to enter the findings from the study. The tool has specific questions that extractors need to answer. At least two authors will extract data from each article to ensure consistency. The two authors will meet to discuss and evaluate the extracted data for missing information or contradicting reports. Authors GMRA and LEN will meet with extractors to reach consensus on contradictory information if the primary reviewers could not arrive at a decision.

Analyses and reporting

We will report the findings from the extracted data based on PRISMA-ScR guidelines (30). We will use a table to report the results based on the questions. We will then provide a

narrative synthesis of the findings based on the common themes that answer the specific research questions.

Outcome

The primary outcome of this study is investigating the nature of intersectional stigma associated with HIV risk factors experienced by MSM and WSW living in Sub-Saharan Africa as well as evaluating the scope of and gaps in existing literature on stigma associated with these populations. The secondary outcome of this study is investigating the impacts of intersectional stigma on access to HIV prevention and care services among our target population.

DISCUSSION

Sexual minorities in Sub-Saharan African countries, including MSM and WSW, experience various forms of stigma that have effects on their health and wellbeing (37). The intersectional stigma faced by these groups can greatly impact their access to HIV prevention and care services (38, 39). Studying the effect of intersectional stigma in this region is of particular importance because HIV transmission and HIV-related mortality is elevated (40). Many interventions have been initiated in this region to expand access to HIV treatment and prevention services (41), but a limited number of studies have investigated the role of that intersectional stigma might play in limiting access to these interventions. While there are many studies from a variety of disciplines that have established social determinants of health such as social-economic status, race, and sex can privilege or disadvantage people at the individual and societal level (33), there has been limited investigation on the manner in which intersectional stigma might privilege or disadvantage people and have effects on the HIV burden in this region.

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3 Specifically, more research is needed to understand and to reduce the intersectional stigma
4 creating barriers to accessing HIV services.
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7 This scoping review will contribute important knowledge to HIV prevention, but it is not without
8 limitations. Its specificity to the Sub-Saharan African region may reduce its generalizability to
9 other parts of the world. Nevertheless, given intersectional stigma exists across geopolitical
10 contexts and this scoping review includes an extensive search on current literature, we believe
11 that the knowledge it generates could be applied globally.
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19 **Ethical Consideration**

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21 Considering that we will not engage patients or the public in the scoping review, we do
22 not need to seek ethical approval from our Institutional Review Board.
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26 **Dissemination Plan**

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28 We will publish the scoping review findings in a peer-reviewed journal to ensure that
29 other scholars, practitioners, and the general public can access it for use. We will also present the
30 findings at HIV and stigma conferences and other spaces when the opportunity arises.
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32 Additionally, we will use the findings to conceptualize new studies to fill in the scholarly gaps
33 identified.
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42
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46 Team at the Yale Institute of Global Health for their support in the preparation of our data
47 extraction form.
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Author Contribution Statement

GMRA is the first and corresponding author; GMRA, LEN and LN conceived the study; GMRA, DD, JDN, DT, LT, KN and LEN conducted initial review, finalized the focus of the study and designed the study; KN, GMRA and DD established the search strategy. All authors (GMRA, DD, JDN, DT, AO, LT, ZN, IWM, KN, LN and LEN) contributed to drafting the manuscript; GMRA and DD performed critical revisions of the manuscript. All authors approved the final version of the manuscript.

Author Competing Interest Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

1. James SL, Abate D, Abate KH, *et al.* Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018;392(10159):1789-858.
2. Roth GA, Abate D, Abate KH, *et al.* Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018;392(10159):1736-88.
3. UN Joint Program on AIDS (UNAIDS). *The Gap Report*. Geneva: United Nations; 2014.
4. Baral S, Sifakis F, Cleghorn F, *et al.* Elevated Risk for HIV Infection among Men Who Have Sex with Men in Low- and Middle-Income Countries 2000–2006: A Systematic Review. *PLOS Medicine*. 2007;4(12):e339.
5. Beyrer C, Baral SD, van Griensven F, *et al.* Global epidemiology of HIV infection in men who have sex with men. *The Lancet* 2012;380(9839):367-77.
6. Tat SA, Marrazzo JM, Graham SM. Women Who Have Sex with Women Living in Low- and Middle-Income Countries: A Systematic Review of Sexual Health and Risk Behaviors. *LGBT Health*. 2015;2(2):91-104.
7. Poteat TC, Logie CH, Adams D, *et al.* Stigma, sexual health, and human rights among women who have sex with women in Lesotho. *Reprod Health Matters*. 2015;23(46):107-16.

- 1
2
3 8. Marrazzo, J. M. (2000). Sexually transmitted infections in women who have sex with
4 women: who cares? *Sexually Transmitted Infections*, 76(5), 330–332.
5
6 doi:10.1136/sti.76.5.330
7
8
- 9
10 9. Samuel, K. MSM living in African countries that criminalise gay sex are at a much
11 higher risk of getting HIV. NAM AIDSMAP. 2020;[https://www.aidsmap.com/news/jul-](https://www.aidsmap.com/news/jul-2020/msm-living-african-countries-criminalise-gay-sex-are-much-higher-risk-getting-hiv)
12
13 2020/msm-living-african-countries-criminalise-gay-sex-are-much-higher-risk-getting-
14
15 hiv.
16
17
- 18
19
20 10. Croome N, Ahluwalia M, Hughes LD, *et al*. Patient-reported barriers and facilitators to
21 antiretroviral adherence in sub-Saharan Africa. *AIDS*. 2017;31(7):995-1007.
22
23
- 24
25 11. "Tackling HIV Stigma: What Works? Using the Global Evidence Base to Reduce the
26 Impact of HIV Stigma." National AIDS Trust. FCB Health Network, June 2016. Web.
27
28
- 29
30 12. Baral S, Logie CH, Grosso A, Wirtz AL, Beyrer C. Modified Social Ecological Model: A
31 Tool to Guide the Assessment of the Risks and Risk Contexts of HIV Epidemics. *BMC*
32
33 *Public Health*. 2013;13(1): 482. doi: 10.1186/1471-2458-13-482
34
35
- 36
37 13. Stangl A, Brady L, Fritz K. STRIVE Technical Brief: Measuring HIV stigma and
38 discrimination; International Center for Research on Women, Washington D.C., USA;
39
40 2012 (updated in 2018).
41
42
- 43
44 14. Turan, J.M., Elafros, M.A., Logie, C.H. et al. Challenges and opportunities in examining
45 and addressing intersectional stigma and health. *BMC Med* 17, 7 (2019).
46
47 <https://doi.org/10.1186/s12916-018-1246-9>
48
49
- 50
51 15. Bowleg L. The problem with the phrase women and minorities: intersectionality-an
52 important theoretical framework for public health. *Am J Public Health*.
53
54 2012;102(7):1267–73.
55
56
57
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59

- 1
2
3 16. Sangaramoorthy T, Jamison AM, Dyer TV. HIV stigma, retention in care, and adherence
4 among older black women living with HIV. *J Assoc Nurses AIDS Care*. 2017;28(4):518–
5 31.
6
7
8
9
10 17. Jackson-Best F, Edwards N. Stigma and intersectionality: a systematic review of
11 systematic reviews across HIV/AIDS, mental illness, and physical disability. *BMC*
12 *Public Health*. 2018;18(1). doi:10.1186/s12889-018-5861-3
13
14
15
16
17 18. Mburu G, Ram M, Siu G, Bitira D, Skovdal M, Holland P. Intersectionality of HIV
18 stigma and masculinity in eastern Uganda: implications for involving men in HIV
19 programmes. *BMC Public Health*. 2014;14(1). doi:10.1186/1471-2458-14-1061
20
21
22
23
24 19. Hargreaves JR, Busza J, Mushati P, Fearon E, Cowan, FM. Overlapping HIV and sex-
25 work stigma among female sex workers recruited to 14 respondent-driven sampling
26 surveys across Zimbabwe, 2013. *AIDS Care*. 2016;29(6):675–685.
27
28
29
30
31
32
33 20. Gu LY, Zhang N, Mayer KH, McMahon JM, Nam S, Conserve DF, Moskow M, Brasch
34 J, Adu-Sarkodie Y, Agyarko-Poku T, Boakye F, Nelson LE. Autonomy-Supportive
35 Healthcare Climate and HIV-Related Stigma Predict Linkage to HIV Care in Men Who
36 Have Sex With Men in Ghana, West Africa. *J Int Assoc Provid AIDS Care*. 2021 Jan-
37 Dec;20:2325958220978113. doi: 10.1177/2325958220978113. PMID: 33733909.
38
39
40
41
42
43
44 21. Kushwaha S, Lalani Y, Maina G, *et al*. “But the moment they find out that you are
45 MSM...”: a qualitative investigation of HIV prevention experiences among men who
46 have sex with men (MSM) in Ghana’s health care system. *BMC Public Health*.
47
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46
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50
51
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53
54
55
56
57
58
59
60
22. Kennedy CE, Baral SD, Fielding-Miller R, *et al.* “They are human beings, they are Swazi”: intersecting stigmas and the positive health, dignity and prevention needs of HIV-positive men who have sex with men in Swaziland. *Journal of the International AIDS Society.* 2013;16(4 Suppl 3):18749. doi:10.7448/ias.16.4.18749
 23. Cloete A, Simbayi LC, Kalichman SC, Strebel A, Henda N. Stigma and discrimination experiences of HIV-positive men who have sex with men in Cape Town, South Africa. *AIDS Care.* 2008;20(9):1105–1110. doi:10.1080/09540120701842720
 24. Anderson AM, Ross MW, Nyoni JE, McCurdy SA. High prevalence of stigma-related abuse among a sample of men who have sex with men in Tanzania: implications for HIV prevention. *AIDS Care.* 2014;27(1):63–70. doi:10.1080/09540121.2014.951597
 25. Kim HY, Grosso A, Ky-Zerbo O, *et al.* Stigma as a barrier to health care utilization among female sex workers and men who have sex with men in Burkina Faso. *Ann Epidemiol.* 2018;28(1):13-9.
 26. Bwambale FM, Ssali SN, Byaruhanga S, Kalyango JN, Karamagi CA. Voluntary HIV Counselling and Testing among Men in Rural Western Uganda: Implications for HIV Prevention. *BMC Public Health.* 2008; 8(1):263-276.
 27. Nelson LE, McMahon J, Zhang N, Adu-Sarkodie Y, Mayer KH. Exploring HIV, same-sex and gender non-conformity stigmas and delays in HIV diagnosis, linkage and retention for MSM in Ghana. National Institute of Mental Health; 2016.
 28. Holtzman S, Landis L, Walsh Z, Puterman E, Roberts D, Saya-Moore K. Predictors of HIV testing among men who have sex with men: a focus on men living outside major urban centres in Canada. *AIDS care.* 2016;28(6):705-11.

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53
54
55
56
57
58
59
60
29. Turan JM, Elafros MA, Logie CH, *et al.* Challenges and opportunities in examining and addressing intersectional stigma and health. *BMC medicine*. 2019;17(1):7-7. <https://doi.org/10.1186/s12916-018-1246-9>
30. Tricco AC, Lillie E, Zari W, *et al.* PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med*. 2018;169(7):467-473. doi:10.7326/M18-0850.
31. Yale University Institutional Review Boards. IRB Policy 100 Institutional Review Board (IRB) Review of Human Subject Research Protocols or FDA- Regulated Activities Involving Human Participants. New Haven: USA; 2018.
32. Mburu G, Igbinedion E, Lim SH, *et al* Outcomes of HIV treatment from the private sector in low-income and middle-income countries: a systematic review protocol *BMJ Open*. 2020;10:e031844. doi: 10.1136/bmjopen-2019-031844
33. UNICEF. The State of the World's Children 1996 Report. New York: USA; 1996. Available at <https://www.unicef.org/sowc96/groups.htm>.
34. Grossman AH. Gay men and HIV/AIDS: understanding the double stigma. *J Assoc Nurses AIDS Care*. 1991;2(4):28-32.
35. Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org. 2019.
36. Belur J, Tompson L, Thornton A, Simon M. Interrater Reliability in Systematic Review Methodology: Exploring Variation in Coder Decision-Making. *Sociological Methods & Research*. September 2018. doi:10.1177/0049124118799372

- 1
2
3 37. Risher K, Adams D, Sithole B, *et al.* Sexual stigma and discrimination as barriers to
4 seeking appropriate healthcare among men who have sex with men in Swaziland. *Journal*
5 *of the International AIDS Society.* 2013;16(3 Suppl 2):18715-18715.
6
7
8
9
10 38. Turan JM, Elafros MA, Logie CH, *et al.* Challenges and opportunities in examining and
11 addressing intersectional stigma and health. *BMC medicine.* 2019;17(1):7-7.
12
13
14 39. Eichenberger A, Weisser M, Battegay M. [HIV in Sub-Saharan Africa: Where Are We
15 Today?]. *Praxis (Bern 1994).* Nov 2019;108(15):971-976.
16
17
18
19 40. Kharsany ABM, Karim QA. HIV Infection and AIDS in Sub-Saharan Africa: Current
20 Status, Challenges and Opportunities. *The open AIDS journal.* 2016;10:34-48.
21
22
23
24 41. Ortblad KF, Baeten JM, Cherutich P, Wamwicwe JN, Wasserheit JN. The arc of HIV
25 epidemics in sub-Saharan Africa: new challenges with concentrating epidemics in the era
26 of 90-90-90. *Current opinion in HIV and AIDS.* 2019;14(5):354-365.
27
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Ovid MEDLINE(R) ALL <1946 to November 23, 2020>

Search history sorted by search number ascending

#	Searches	Results
1	[Gamji MEDLINE draft 20201124]	0
2	[queries from Kate's project with Sarah Abboud project, edited to focus on MSM, WSW]	0
3	bicurious.mp.	3
4	bisexual*.mp.	10791
5	gay.mp.	11636
6	gays.mp.	460
7	gender minorit*.mp.	4618
8	gender queer.mp.	17
9	GLB.mp.	409
10	GLBQ.mp.	3
11	GLBs.mp.	16
12	GLBT.mp.	101
13	GLBTQ.mp.	14
14	heteroflexible.mp.	3
15	homosexual*.mp.	35679
16	lesbian*.mp.	7061
17	lesbigay*.mp.	5
18	LGB.mp.	1038
19	LGBQ.mp.	112
20	LGBS.mp.	68
21	LGBT*.mp.	2652
22	men who have sex with men.mp.	11941
23	mostly-heterosexual.mp.	124
24	MSM.mp.	10713
25	MSMW.mp.	121
26	nonheterosexual*.mp.	151
27	non-heterosexual*.mp.	279
28	queer.mp.	1400
29	queers.mp.	26
30	same gender loving.mp.	7
31	same sex couple*.mp.	359
32	same sex relations*.mp.	324
33	same-sex attract*.mp.	297
34	sexual identit*.mp.	1865
35	sexual minorit*.mp.	2860
36	sexual orientation*.mp.	6157
37	sexual preference*.mp.	639
38	SGM.mp.	603
39	women loving women.mp.	8
40	women who have sex with women.mp.	179
41	WSW.mp.	153

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2	42	WSWM.mp.	18
3	43	"sexual and gender minorities"/	4045
4	44	bisexuality/	4227
5	45	exp homosexuality/	30137
6	46	or/2-45 [population terms]	54126
7	47	stigma*.mp.	40591
8	48	social stigma/	8811
9	49	exp shame/	2458
10	50	[terms from https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009453.pub2/appendices#CD009453-sec1-0012 , Clement 2013, with my edits]	0
11	51	stereotyping/	11095
12	52	(stereotyp* or stigma* or label* or negative image* or ignoran* or misconception* or misperception* or ((public* or community or social or popular) adj perception*)).mp.	753541
13	53	social perception/	23528
14	54	public opinion/	18779
15	55	prejudice/ or homophobia/	25301
16	56	((public* or community or social or popular or religious) adj attitude*).mp.	3305
17	57	((negative or positive or chang*) adj3 attitude*) or prejudice* or hostile* or intoleran*).mp.	120023
18	58	social distance/	3087
19	59	(social adj1 (distance or acceptance or rejection)).mp.	5379
20	60	rejection, psychology/	1605
21	61	(discriminat* or marginali* or rejecting behavi* or injustice* or (social adj (distance or justice or rejection or acceptance or exclusion or inclusion))).mp.	296664
22	62	[additions based on https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-018-5861-3 , Jackson-Best 2018]	0
23	63	social discrimination/	1281
24	64	or/47-63 [stigma terms]	1154251
25	65	[the Sub-Saharan Africa hedge from the Canadian Health Libraries Association https://extranet.santecom.qc.ca/wiki/!biblio3s/doku.php?id=concepts:afrique-subsaheienne]	0
26	66	Africa South of the Sahara/ or Angola/ or Benin/ or Botswana/ or Burkina Faso/ or Burundi/ or Cameroon/ or Cape Verde/ or Central African Republic/ or Chad/ or Comoros/ or Congo/ or Brazzaville/ or Cote d'Ivoire/ or Djibouti/ or Equatorial Guinea/ or Eritrea/ or Ethiopia/ or Gabon/ or Gambia/ or Ghana/ or Guinea/ or Bissau/ or Kenya/ or Lesotho/ or Liberia/ or Madagascar/ or Malawi/ or Mali/ or Mauritania/ or Mauritius/ or Mozambique/ or Namibia/ or Niger/ or Nigeria/ or Rwanda/ or Sao Tome e Principe/ or Senegal/ or Seychelles/ or Sierra Leone/ or Somalia/ or South Africa/ or South Sudan/ or Sudan/ or Swaziland/ or Tanzania/ or Togo/ or Uganda/ or Western Sahara/ or Zaire/ or Zambia/ or Zimbabwe/ or (Angola or Benin or Botswana or Bobo-Dioulasso or Burkina Faso or Burundi or Cameroon or Cape Verde or Central African Republic or Chad or Comoros or Congo or Brazzaville or Cote d'Ivoire or Djibouti or Equatorial Guinea or Eritrea or Ethiopia or Gabon or Gambia or Ghana or Guinea or Bissau or Kenya or Lesotho or Liberia or Madagascar or Malawi or Mali or Mauritania or Mauritius or Mozambique or Namibia or Niger or Nigeria or Rwanda or Sao Tome e Principe or Senegal or Seychelles or Sierra Leone or Somalia or South Africa or South Sudan or Sudan or Swaziland or Tanzania or Togo or Uganda or Western Sahara or Zaire or Zambia or Zimbabwe or "Africa South of the Sahara" or "Sub-Saharan Africa").tw,kw.	397719
27	67	[adjustments]	0
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2	68	(Angola* or Benin* or Botswana* or Bobo-Dioulasso or Burkin* or Burundi* or Camero* or	
3		Cape Verdean* or Cabo Verde* or Central African* or Chad* or Comoros or Congo* or	
4		Brazzaville or Cote d'Ivoire* or Ivory Coast or Djibouti* or Equatorial Guinea* or Eritrea* or	
5		Ethiopia* or Gabon* or Gambia* or Ghana* or Guinea* or Kenya* or Lesoth* or Liberia* or	
6		Malagas* or Malawi* or Mali* or Mauritania* or Mauriti* or Mozambic* or Namibia* or Niger*	1115946
7		or Nigeria* or Rwanda* or Sao Tomean* or Santomean* or Senegal* or Seychelloi* or	
8		Sierra Leone* or Somalia* or South Africa* or South Sudan* or Sudan* or Swazi* or	
9		Tanzania* or Togol* or Uganda* or Western Sahara or Zair* or Zambia* or Zimbabwe* or	
10		"Africa South of the Sahara" or Sub-Saharan or subsaharan or west africa* or east	
11		africa*).mp,jw.	
12	69	exp africa south of the sahara/	213254
13	70	or/65-69 [geography terms]	1136991
14	71	46 and 64 and 70	439
15	72	"Stigma and discrimination experiences of HIV-positive men who have sex with men in	1
16		Cape Town, South Africa ".ti.	
17	73	"intersecting stigmas and the positive health, dignity and prevention needs of HIV-positive	1
18		men who have sex with men in Swaziland".ti.	
19	74	"Sexual behavior stigma and depression among transgender women and cisgender men	1
20		who have sex with men".ti.	
21	75	"Stretching the Boundaries: Tanzanian Pharmacy Workers' Views and Experiences of	1
22		Providing STI Services for Men Who Have Sex with Men".ti.	
23	76	"Healthcare experiences of lesbian and bisexual women in Cape Town, South Africa".ti.	1
24	77	"Suicidal ideation among MSM in three West African countries: Associations with stigma	1
25		and social capital".ti.	
26	78	or/72-77 [validation articles from Dada and Kate]	6
27	79	78 and 71	6
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Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	



SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	
Limitations	20	Discuss the limitations of the scoping review process.	
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	

JBI = Joanna Briggs Institute; PRISMA-ScR = Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

* Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and Web sites.

† A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

‡ The frameworks by Arksey and O'Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting.

§ The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion, and policy document).

From: Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med.* 2018;169:467–473. doi: 10.7326/M18-0850.



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