



Interpersonal and Self-Directed Violence Among Sexual and Gender Minority Populations: Moving Research from Prevalence to Prevention

John R. Blosnich^{1,2}

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Abstract

Purpose of review This scoping review of reviews aimed to detail the breadth of violence research about sexual and gender minorities (SGMs) in terms of the three generations of health disparities research (i.e., documenting, understanding, and reducing disparities).

Recent Findings Seventy-three reviews met inclusion criteria. Nearly 70% of the reviews for interpersonal violence and for self-directed violence were classified as first-generation studies. Critical third-generation studies were considerably scant (7% for interpersonal violence and 6% for self-directed violence).

Summary Third-generation research to reduce or prevent violence against SGM populations must account for larger scale social environmental dynamics. Sexual orientation and gender identity (SOGI) data collection has increased in population-based health surveys, but administrative datasets (e.g., health care, social services, coroner and medical examiner offices, law enforcement) must begin including SOGI to meet the needs of scaled public health interventions to curb violence among SGM communities.

Keywords Violence · Suicide · Sexual and gender minorities · Health inequities

Introduction

Violence, both interpersonal and self-directed, is an enduring public health problem in the USA. In 2019 alone, 66,652 people died from violence, incurring approximately \$672 billion in costs to society [1]. However, violence does not affect all communities equally, and a considerable amount of research reveals disproportionate rates of violence affecting people who identify as lesbian, gay, bisexual, or transgender (LGBT). In recent years, the LGBT abbreviation has broadened to sexual and gender minority (SGM) to encompass the heterogeneity of identities and experience, such as people who identify as gender non-binary or gender

non-conforming or identify as queer or pansexual [2]. For the purposes of this review, SGM will be used unless referring to studies that focused on specific sub-populations.

Interpersonal violence against SGM people, driven by bias, is a well-known phenomenon [3], but most research has been limited to convenience-based sampling. From Miller and Humphries' initial attempt in 1980 to stoke empirical study in gay men's victimization [4], nearly four decades would pass before sexual orientation data were gathered in the National Crime Victimization Survey (NCVS) for the first time in 2017. The results from the NCVS [5], utilizing robust nationally representative sampling, corroborated findings from numerous studies about interpersonal violence among sexual minorities gathered through convenience samples.

Similarly for self-directed violence, in 1999, Remafedi questioned whether the scientific community could end equivocal questions about disparities in suicide risk for sexual minorities, with the evidence at that time seemingly compelling and concordant [6]. Here again, it would take 16 years for sexual orientation data collection to be added to the National Survey of Drug Use and Health [7], the only ongoing population-based survey in the USA that includes

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✉ John R. Blosnich
blosnich@usc.edu

¹ Suzanne Dworak-Peck School of Social Work, University of Southern California, 669 W 34th St, Los Angeles, CA 90089, USA

² Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, PA 15240, USA

surveillance of suicidal ideation and attempt. Concomitantly, additions of sexual orientation items to the Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Survey in 2015 finally equipped researchers to examine both suicidal ideation, suicide attempt, and peer victimization among sexual minority adolescents [8].

Thus, disparities in violence have been clarified through the gold standard of probability-based sampling, but largely only within the last 5 years in the USA and after decades of research by scientists forced to use convenience samples due to lack of available data from national surveys [9]. Consequently, framing violence research among SGM populations remains unclear despite a flurry of individual studies and seemingly numerous reviews of them.

One framework for health disparities research created by Kilbourne and colleagues outlines a three-generation approach [10]. In the first generation, disparities are detected, i.e., evidence *that* a disparity exists. Subsequent second-generation studies aim to understand the factors driving disparities, which then informs third-generation studies that target those driving forces through interventions to reduce the disparities. By placing research studies along this continuum, one can observe both where progress occurs and where research seemingly has stalled.

This scoping review was guided with the question “What is the breadth of research reviews about violence among SGM populations?” There were two main reasons for conducting a scoping review rather than a systematic review of reviews. First, the intent of the review was not to answer specific questions about prevalence or incidence of violence or effectiveness of interventions. Second, within the two main categories of interpersonal and self-directed violence, there are further categories of violence, (e.g., within interpersonal violence, there is intimate partner violence, peer victimization, childhood abuse). Thus, a scoping review aligned best with an endeavor “to provide an overview or map of the evidence.”[11]

Methods

The author conducted an initial search on December 1, 2021 to review titles and abstracts and repeated the search on February 1, 2022 to assure no new reviews had been published in the time during the manuscript development. January 1, 1990 was selected as the starting point because it was unlikely that the literature on SGM individuals was populated or developed enough by that time point to lend itself for reviews. A simultaneous search of several databases was conducted, including Scopus, IngentaConnect, Medline, ProQuest, SAGE Premier, Web of Science, JSTOR, and LGBTQ + Source.

Based on the overarching research question, the literature search consisted of three main terms for: *population* (“sexual minority” OR “sexual minorities” OR “gender minority” OR “gender minorities” OR transgender OR nonconform* OR lesbian* OR gay* OR bisexual* OR lgb* OR “men who have sex with men” OR “women who have sex with women” OR MSM OR WSW OR “same-sex” OR “sexual orientation” OR “gender identity”), *type of study* (review OR meta-analysis), and *topical focus* (violen* OR abuse OR victim* OR suic* OR harm OR injury OR assault OR crime OR injury OR homicide).

Inclusion criteria were as follows: (a) must be a scientific review (e.g., systematic, meta-analysis, scoping); (b) explained search criteria (e.g., databases, search terms, time period searched); (c) written in English; (d) published in a peer-reviewed journal. Despite limiting inclusion to studies published in English, there was no exclusion based on country or locale. The references of included articles were scanned for any studies potentially missed in the initial search.

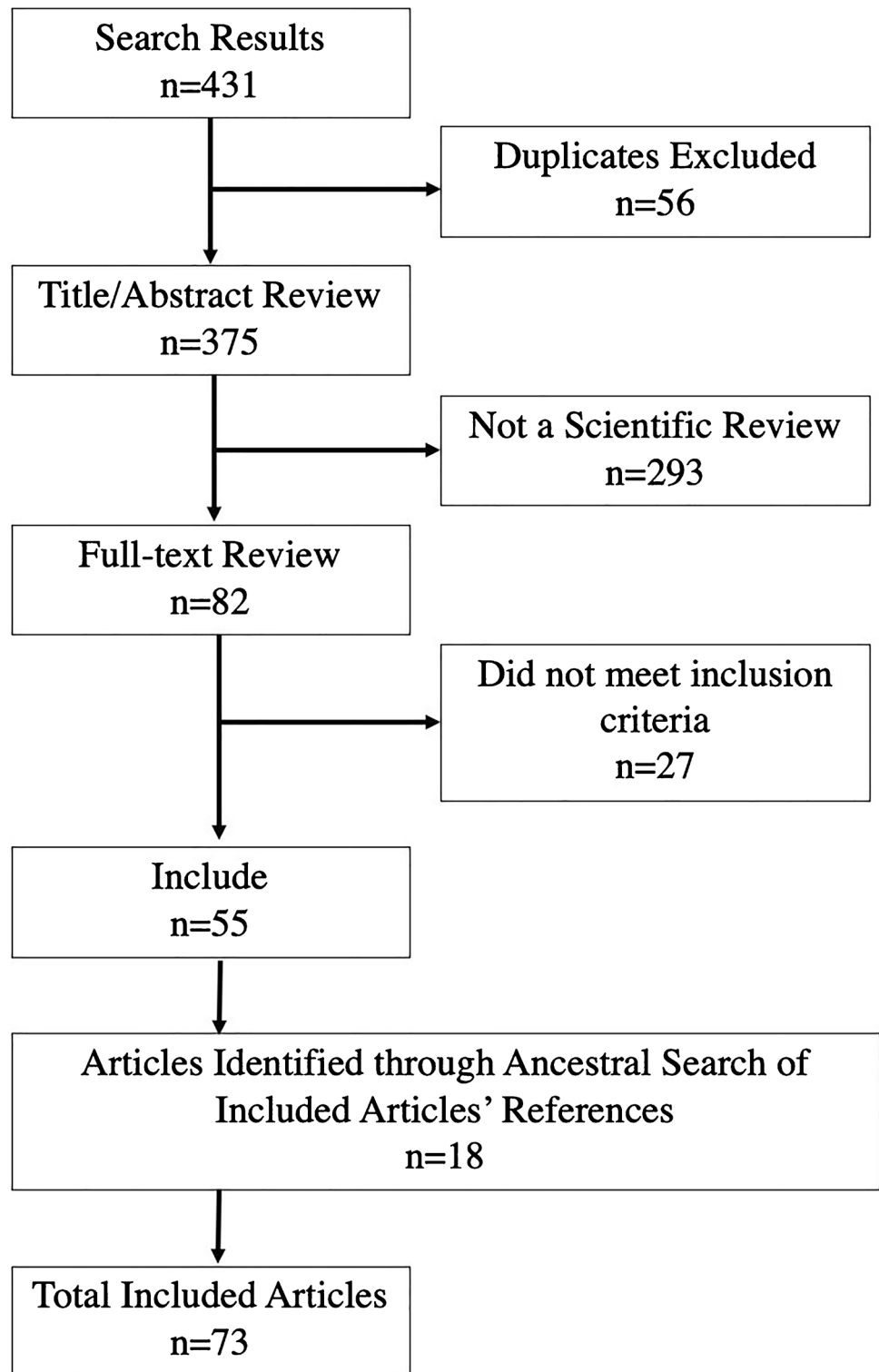
In addition to key characteristics of each review to assess the breadth of research (e.g., years of search, number of studies included, countries included in the review), each review was coded regarding whether its scope aligned with first-generation (i.e., documenting), second-generation (i.e., understanding), or third-generation (i.e., reducing) health disparities research [10]. Lastly, key findings of each review are summarized based on data supplied in each original study: for first-generation studies, summaries of prevalence were extracted; for second-generation studies, examples of risk factors identified by each review were extracted; for third-generation studies, narrative summaries of findings were extracted.

Results

The search produced 431 results, and after de-duplication, there were 375 unique citations to review. After reviewing the titles and abstracts, 293 were not scientific reviews (e.g., book reviews), leaving 82 papers for full-text review of which 29 did not meet the inclusion criteria. Fifty-three reviews met the inclusion criteria, and 18 additional reviews were recovered from those papers' reference lists and met the inclusion criteria, producing a total of 73 review studies (Fig. 1). One review included outcomes for both interpersonal and self-directed violence [12], so that study was included within both of the two major categories of violence. In total, there were 32 reviews related to self-directed violence [12–43] and 42 reviews related to interpersonal violence [12, 44–84].

In terms of the type of disparities research, the majority of reviews focused on summarizing first generation research (Tables 1 and 2). For self-directed violence, 69% were first

Fig. 1 Search and screening process



generation, 53% were second generation, and 6% were third generation. Interpersonal violence reviews followed a similar cascade, with 67% first generation, 43% second generation, and 7% third generation. Within the interpersonal violence reviews, 6 reviews (14%) could not be categorized within the generations of disparities research framework because

their foci were either summaries of methodologies (rather than prevalence, risk factors/correlates, or interventions) or theoretical synthesis of reviews [53, 65, 71, 75, 82, 83].

For specific topics within each of the two major types of violence, most reviews in self-directed violence combined suicidal ideation and attempt ($n = 18$; 56%), and most reviews of

Table 1 Reviews of self-directed violence among sexual and gender minority populations, 1990–2022

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Adams	2019	1997–2017	108	SI/SA	Gender Minority	1	Canada, USA	Average across studies: lifetime SI 47% (18–95%); lifetime SA 27% (9–52%)
Batejan	2015	2005–2012	15	NSSI	Sexual Minority	1	England, USA	Average lifetime NSSI across studies: 40% (9–75%)
Coulter	2019	2000–2019	9	SI/SA	SGM	3	England, Netherlands, New Zealand, USA	Most (5/9) interventions used 1-group pre/post design; findings showed efficacy but rigor of methodology was weak
Di Giacomo	2018	1986–2017	22	SA	Sexual minority	1	Canada, China, Iceland, Ireland, Korea, New Zealand, Norway, Switzerland, Taiwan, USA	Weighted odds of SA: transgender OR = 5.87, 95% CI = 3.51–9.82; gay/lesbian OR = 3.71, 95% CI = 3.15–4.37; bisexual OR = 3.69, 95% CI = 2.96–4.61
Dunlop	2020	2005–2019	24	NSSI	Bisexual	1,2	Australia, Canada, New Zealand, UK, USA	Odds (outliers removed) for bisexuals of past-year NSSI OR = 5.52, 95%CI=4.34–7.03; lifetime NSSI OR = 3.85, 95%CI = 3.00–4.94; Risk factors: perceived heterosexism, restricted eating, substance use, being bullied, physical assault, depression, anxiety
Gorse	2020	2009–2019	NS	SI/SA	SGM	2	USA	Examples of risk factors: stress from coming out, peer victimization, depression, low self-esteem, hopelessness, partner violence
Gosling	2021	2017–2021	28	SI/SA	Gender Minority	2	Australia, New Zealand, Pakistan, USA	Examples of risk factors: victimization, discrimination, perceived stigma, internalized trans-negativity, lack of access to care, substance use, lack of social support
Hatchel	2021	1990–2017	44	SI/SA	SGM	2	Netherlands, New Zealand, USA	Examples of risk factors: stigma, discrimination, victimization, depression, substance use, hopelessness
Hottes	2016	1994–2014	30	SA	Sexual minority	1	Australia, Austria, France, Canada, Netherlands, New Zealand, UK, USA	Pooled estimates of lifetime SA for sexual minorities: 17% (14–20%)

Table 1 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Jackman	2016	2005–2015	26	NSSI	SGM	1,2	Canada, England, Japan, UK, USA	Range of NSSI among sexual minority 5–47% and among gender minority 17–42%; risk factors: victimization, discrimination, concealing identities, heterosexism/homophobia Discrimination, victimization, harassment
Kaniuka	2020	2015–2019	11	SI/SA	Gender minority	2	USA	
King	2008	1966–2005	28	SI/SA	Sexual minority	1	Australia, Canada, Netherlands, New Zealand, Norway, UK, USA	Lifetime SA (pooled): OR = 2.47, 95% = 1.87–3.28
Liu	2019	2007–2019	51	NSSI	SGM	1,2	NS	Average across studies: for LGB, lifetime NSSI 30% (24–36%) and past-year NSSI 25% (19–33%); for transgender, lifetime NSSI for transgender 47% (39–54%) and past-year NSSI 47% (35–58%); risk factors: aggression/hostility, depression, anxiety, stigma, discrimination, victimization
Luo	2017	2000–2017	51	SI	MSM	1	Burkina Faso, Canada, China, Estonia, Gambia, Laos, Nepal, Netherlands, Switzerland, Togo, Uganda, UK, USA	Lifetime SI (pooled): 35% (28–42%)
Luong	2018	2000–2017	14	SI/SA	MSM	1,2	NS	Range of SI 10–71% and SA 4–44%; risk factors: substance use, peer victimization, physical and sexual abuse
Mann	2019	2000–2017	7	SI/SA	Gender Minority	1	UK	Range of lifetime SI/SA 18–96%
Marshal	2011	1995–2009	24	SI/SA	Sexual Minority	1	NS	Average across studies lifetime SI/SA 28% (15–49%)
Marshall	2016	1966–2015	31	SI/SA/NSSI	Gender minority	1	Australia, Belgium, Canada, Denmark, Ireland, Netherlands, Sweden, UK, USA	Range of NSSI 5–66%; SI 45–81%, SA 5–41%
Matarazzo	2014	1991–2012	117	SI/SA	SGM	1,2	NS	Range of lifetime SI 21–91%; lifetime SA 5–42%; risk factors: victimization, lack of social support, trauma, mental health disorders, substance use

Table 1 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
McNeil	2017	2003–2016	30	SI/SA	Gender minority	1,2	Argentina, Belgium, Brazil, Canada, Japan, Germany, Italy, Norway, UK, USA	Range of SI 37–83%; lifetime SA 10–44%; risk factors: history of incarceration, low SES, abuse, substance use, discrimination, peer victimization
Miranda-Mendizabal	2017	1995–2015	14	SA	Sexual Minority	1	New Zealand, Norway, UK, USA	SA for LGB (pooled): OR = 2.26, 95%CI = 1.60–3.20
Pellicane	2022	2000–2021	85	SI/SA	Gender minority	2	NS	Risk factors: distal stressors (e.g., providers lack competence or knowledge in gender-affirming care; insurance denial of gender-affirming care), expectations of rejection, internalized transphobia, and concealment
Phillip	2022	2000–2020	30	SI/SA	Gender minority	1,2	NS	Risk factors: thwarted belongingness, perceived burdensomeness, discrimination, family rejection
Pompili	2014	1987–2012	19	SI/SA	Bisexual	1,2	NS	Bisexuals had greater SI/SA than heterosexuals in 13/15 studies; risk factors: victimization, family rejection, discrimination
Rogers	2020	2015–2020	97	SI/SA	SGM	1,2	Australia, Canada, China, Iceland, Mexico, New Zealand, Philippines, South Korea, UK, USA	For sexual minorities, range of past-year SI 31–46%; past-year SA 10–30%; for gender minorities past-year SA 15–36%; risk factors: peer victimization, family rejection, depression, substance use
Russon	2021	2000–2020	3	SI/SA	SGM	3	USA	Identified 3 SGM-tailored interventions with efficacy data
Salway	2019a	1995–2016	46	SI/SA	Bisexual	1	NS	Lifetime SI (pooled): OR = 4.31, 95%CI = 3.23–5.74 Past-year SI (pooled): OR = 3.96, 95%CI = 3.17–4.95 Lifetime SA (pooled): OR = 4.44, 95%CI = 3.52–5.60 Past-year SA (pooled): OR = 4.81, 95%CI = 3.68–6.29
Salway	2019b	1985–2013	39	SA	Sexual minority	1	Australia, Austria, Canada, Denmark, France, Netherlands, Sweden, Switzerland, UK, USA	Lifetime SA RR = 3.38, 95%CI = 2.65, 4.32

Table 1 (continued)

Lead author	Year published	Years searched	No. of articles Included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Surace	2021	2007–2018	10	SI/SA	Gender minority	1	Australia, Japan, UK, USA	Average across studies: NSSI 28% (15–47%); SI 28% (15–46%); SA 15% (8–26%)
Vigny-Pau	2021	1990–2020	52	SI/SA/NSSI	Gender minority	2	Argentina, Australia, Canada, China, Japan, Thailand, Sweden, UK, USA	Risk factors: discrimination, victimization, transphobic experiences, exposure to gender identity conversion efforts, peer victimization, family rejection, depression, housing instability, substance use, internalized transphobia
Williams	2021	2002–2020	40	SI/SA	SGM	2	China, UK, USA	Risk factors: victimization, low self-esteem, bullying, depression, substance use, anxiety, parental rejection
Wolford-Clevenger	2018	1991–2017	45	SI/SA	Gender Minority	2	Argentina, Australia, Belgium, Canada, Germany, Japan, Netherlands, New Zealand, Norway, Sweden, Thailand, Turkey, USA	Risk factors: substance use, harassment, discrimination, internalized transphobia, family rejection, depression, PTSD

SI suicidal ideation, SA suicide attempt, NSSI non-suicidal self-injury, SGM sexual and gender minority, MSM men who have sex with men, NS not specified

Table 2 Reviews of interpersonal violence among sexual and gender minority populations, 1990–2022

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Alessi	2021	2000–2020	26	Violence	SGM	1	USA	Only 8 quantitative studies; Prevalence of sexual violence ranged 23–66% Average across studies: lifetime IPV 48% (44–52%); current IPV 15% (5–30%)
Badenes-Ribera	2015	1990–2013	8	IPV	Lesbians	1	USA	Risk factors: alcohol use, low self-esteem, fusion levels, family history of violence
Badenes-Ribera	2016	1990–2013	14	IPV	Lesbians	2	USA	Risk factor: internalized homophobia
Badenes-Ribera	2019	2005–2015	8	IPV	Sexual minority	2	Canada, China, USA	Narrative summary of findings indicated consistent increased prevalence of IPV for bisexual women.
Bermea	2019	2000–2017	36	IPV	Bisexual women	1,2	NS	Risk factor: internalized homophobia, substance use, risky sexual behavior, mental illness, discrimination
Blondeel	2018	2000–2016	76	Violence	SGM	1	Argentina, Australia, Belgium, Brazil, Chile, Colombia, Cote d'Ivoire, Croatia, France, Germany, Ireland, Italy, Mexico, New Zealand, Netherlands, Rwanda, Singapore, Spain, UK, USA	Range physical violence 6–25%; range sexual violence 6–11%
Buller	2014	2000–2013	19	IPV	MSM	1	Canada, China, South Africa, USA	Pooled prevalence of any violence (physical, sexual, emotional) 48% (32–82%)
Burke	1999	1978–1994	19	IPV	Lesbian and gay	1,2	USA	Narrative summary that “prevalence rates of same-sex partner abuse are high and its correlates [are similar to heterosexuals]”

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Callan	2021	1931–2019	28	IPV	Gay and bisexual men	1,2	Australia, Canada, China, Namibia, UK, USA	Range sexual violence 4–73% Risk factor: internalized homophobia, substance use, risky sexual behavior, mental illness, discrimination
Collier	2013	1995–2012	39	Peer violence	SGM	0	Australia, Austria, Belgium, Canada, Israel, Japan, Netherlands, New Zealand, Norway, South Africa, UK, USA	Did not summarize prevalence or risk factors; “peer victimization is correlated with a variety of negative psychosocial and health outcomes”
Coulter	2019	2000–2019	9	Violence	SGM	3	England, Netherlands, New Zealand, USA	Most (5/9) interventions used 1-group pre/post design; findings showed efficacy but rigor of methodology was weak; only one intervention focused on victimization
Dame	2020	2009–2019	10	Sexual violence	MSM	2	Mongolia, New Zealand, UK, USA	Risk factors: age, belonging to a minoritized group, prejudice, history of sexual abuse or violence
Decker	2018	2015–2018	35	IPV	SGM	1,2	NS	Narrative summary of prevalence, risk factors: belonging to a minoritized group, risky sexual behavior, history of abuse, housing instability, discrimination

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Edwards	2015	1999–2014	96	IPV	Sexual minority	1,2	NS	IPV prevalence varied based on definition, from 1% for forced sex perpetration to 97% for any lifetime IPV; risk factors: belonging to a minoritized group, low SES, age, disability status, substance use, low self-esteem, risky sexual behavior
Fedewa	2011	1980–2010	18	School violence	Sexual minority	1	Canada, USA	Bullying/peer victimization for LGB (pooled): OR = 2.24, 95%CI = 1.63–3.08
Feijoo	2021	2008–2020	24	School violence	SGM	1	Spain	Bullying victimization (pooled) 51% (40–62%)
Finneran	2012	1990–2011	28	IPV	MSM	1,2	USA	Range of lifetime IPV 30–78%; risk factors: substance use, belonging to a minoritized group
Friedman	2009	1980–2009	37	Childhood and school violence	Sexual minority	1	Canada, USA	CSA OR = 3.94, 95% CI = 3.45–4.57; Physical abuse OR = 2.34, 95% CI = 2.11–2.60; Peer victimization OR = 2.68, 95% CI = 2.40–2.98
Jeffries	2008	1996–2006	26	IPV	Same-sex partnered men	1,2	Australia, Canada, Venezuela, UK, USA	Range emotional abuse 34–83%; range physical violence 22–44%; range sexual violence 5–57%; risk factors: substance use, historical abuse, internalized homophobia, mental health conditions
Katz-Wise	2012	1992–2009	386	Violence	Sexual minority	1	NS	Range of victimization 5–55%; in US studies only, victimization range 9–56%

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Kimmes	2019	1980–2016	24	IPV	Sexual minority	2	NS	Risk factors: internalized homophobia, substance use, history of abuse, level of outness, stigma consciousness, relationship fusion
Kirk-Provencher	2021	Through 2020	28	Sexual violence	SGM	3	NS	Three studies include SGM content; no study reported outcomes specifically among SGM individuals
Laskey	2019	2006–2016	106	IPV	SGM	0	NS	Only 9/100 articles include SGM samples
Longobardi	2017	2005–2015	10	IPV	Sexual minority	2	Canada, China, USA	Risk factors: internalized homophobia, discrimination, stigma consciousness, outness
Martin-Castillo	2020	2009–2018	19	School violence	Gender minority	1,2	Netherlands, New Zealand, USA	Narrative summary that peer victimization is higher among transgender than cisgender youth; risk factors: lack social support, family rejection, depression
Mason	2014	1997–2013	44	IPV	Sexual minority	1,2	NS	Range of psychological aggression GB men 12–100%, LB women 3–92%; risk factors: discrimination, relationship satisfaction, victimization
McGeough	2018	1980–2016	32	Family violence	Sexual minority	1,2	USA	SM higher rates of physical abuse in 12/14 studies, sexual abuse in 13/13 studies, emotional abuse in 6/7 studies; risk factors: sexual orientation disclosure, gender non-conformity, parental substance use

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Mendes	2020	2000–2019	16	Homicide	SGM	1	Australia, Brazil, Italy, England/Wales, Mexico, UAS	Reviewed characteristics of 2,921 LGBT homicides; no comparisons with non-LGBT homicides
Murray	2009	1995–2006	17	IPV	Sexual minority	0	NS	Assessed methodological strengths/weaknesses
Myers	2020	1998–2018	55	School violence	SGM	1	Canada, Belgium, Netherlands, Northern Ireland, USA	Overall mean effect size across studies for LGBTQ .15 (.13–17); LGBTQ identification is moderate, consistent risk factor for school victimization
Nadal	2016	2010–2015	35	Microaggressions	SGM	1	NS	Narrative summary of studies on microaggressions against LGBTQ individuals
Peitzmeier	2020	2000–2019	85	IPV	Gender minority	1,2	Australia, Brazil, Canada, France, Haiti, India, Jamaica, Latin America, Mexico, Spain, South Africa, Thailand, USA	Any IPV (RR = 1.66, 95%CI = 1.36–2.03); physical IPV (RR = 2.19, 95%CI = 1.66–2.88); sexual IPV (RR = 2.46, 95%CI = 1.64–3.69); risk factors: disability, housing instability, immigration status, race/ethnicity, victimization, discrimination
Penone	2018	2000–2018	100	IPV	Same-sex partnered people	0	NS	Narrative summary; prevalence estimates/ranges not specified
Rolle	2018	1995–2017	119	IPV	Sexual minority	2,3	NS	Few studies on treatments and interventions for LGB IPV compared of counseling and therapy; heterosexism is major barrier
Rothman	2011	1989–2009	75	Sexual violence	Sexual minority	1	USA	Range lifetime sexual assault for LB women 16–85%, for GB men 12–54%

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Schneeberger	2014	1990–2013	73	Childhood violence	Sexual minority	1	Australia, Brazil, Canada, China, Germany, Italy, Turkey, USA	Median prevalence in non-probability sampling of child sexual abuse 33%, child physical abuse 24%, child emotional abuse 49%; in probability sampling child sexual abuse 21%, child physical abuse 29%, child emotional abuse 48%
Stile-Shields	2015	1998–2014	NS	IPV	Sexual minority	1,2	NS	Narrative summary: prevalence of same-sex domestic violence are similar to slightly higher than opposite-sex domestic violence; internalized and externalized stressors elevate risk for sexual minorities
Tobin	2019	1989–2018	14	Childhood violence	Gender minority	1	NS	Narrative summary: transgender and gender nonconforming identities are associated with greater risk for child abuse
Toomey	2016	1993–2011	18	School violence	Sexual minority	1	Austria, Canada, Ireland, UK, USA	School-based victimization greater for sexual minorities than heterosexuals $d=0.33$, 95%CI = 0.23–0.42
Tran	2022	2010–2020	18	Micro-aggressions	SGM	0	Australia, Canada, USA	Narrative summary: power dynamics drive in-group microaggressions within LGBTQ + communities
Westwood	2019	2010–2017	NS	Elder abuse	SGM	0	NS	Narrative summary: multiple vulnerabilities can intersect to create complex forms of abuse for older LGBT people

Table 2 (continued)

Lead author	Year published	Years searched	No. of articles included	Outcome	Focus population	Disparities research generation	Countries included in review	Brief summary of findings
Xu	2015	1980–2013	65	Childhood violence	Sexual minority	I	Argentina, Australia, Brazil, Canada, China, Germany, Netherland, New Zealand, USA	Pooled Prevalence child sexual abuse among LB 28% (26–31%) among GB 24% (21–27%)

IPV intimate partner violence, *SGM* sexual and gender minority, *MSM* men who have sex with men, *NS* not specified, *LB* lesbian/bisexual, *GB* gay/bisexual

interpersonal violence focused on intimate partner violence ($n = 20$; 48%). The majority of reviews across both major types of violence included studies between 2000 and 2020. To better depict the breadth of current reviews, Supplemental Figs. 2 and 3 illustrate reviews according to type of violence and timespans of the review by specific population.

Tables 1 and 2 also depict that although there was a varied landscape of risk factors identified across reviews, some risk factors were applicable to all populations (e.g., substance use, depression, history of victimization). Other reviews highlighted risk factors that were more unique to SGM populations, which most centered around minority stressors (e.g., family rejection, internalized homophobia or transphobia, discrimination). The scant reviews of intervention studies were concordant in emphasizing the overall lack of research for addressing violence-related health disparities for SGM populations.

Discussion

This scoping review of reviews of both interpersonal and self-directed violence illustrates many key points about the breadth of research reviews on violence among SGM populations. First, the reviews included in this scoping review contained a total of 1148 articles on self-directed violence and 1895 articles on interpersonal violence, suggesting a substantial amount of research, most of which being first-generation disparity research. Some of these studies are likely repeated because of reviews’ overlapping topics and time spans, but it was beyond the scope of the present review to critically analyze all of the reference lists across the 73 reviews for duplication. Still, the concordance across studies, which substantiates disparities across multiple forms of violence, from microaggressions to intimate partner violence to suicide attempt, echoes a simple question posed by Fish in a recent commentary: what now? [85] There is ample epidemiologic evidence of violence disparities — 72 reviews’ worth of hundreds of studies — so how does the field of health equity sail beyond the eddies of documenting prevalence and risk factors and into the uncharted waters of reducing disparity?

Future Directions

The reviews by Coulter et al. (12) and Russon et al. (38) are the rare examples that summarized the literature about intervention studies to reduce or prevent violence for SGM individuals, both of which found sparse results. There are three main challenges that may be scientific barriers to developing and testing violence intervention and prevention efforts for SGM populations.

First, despite minority stress being a major theoretical underpinning for the production of SGM-related health disparities [86], specific *measurement* of SGM minority stress to operationalize it in research has been a relatively recent development [87, 88]. Thus, with the proliferation of more specific measurement of key intervenable risk factors, researchers can identify salient prevention points.

Second, in terms of interpersonal violence, the majority of research focuses on victims or survivors, and there is a clear paucity of research about perpetrators and primary prevention efforts [89]. Moreover, extant programs and efforts to combat intimate partner violence are too frequently limited by not understanding dynamics of or adequately serving individuals who are in same-sex relationships or in relationships that are not characterized with socially constructed binary gender identities [90–92]. For self-directed violence, the scope of inquiry has historically relied on individual-level psychopathology (e.g., depression, bipolar disorder) [93], with considerably less focus on the role of life disruption and other social environmental factors germane to distress in SGM populations (i.e., family rejection, discrimination).

Third, the roots of violence often trace to “wicked problems,” such as intergenerational poverty, historical abuse and trauma, and institutionalized racism, homophobia, sexism, and heterosexism. Thus, attacking the roots of violence require broader application of monetary, social, and intellectual resources to foster the interdisciplinary capacity to meet such lofty challenges [94, 95]. However, large-scale public health interventions for violence are few in comparison to individual-level interventions [94]. By bolstering efforts in these arenas, new avenues of intervention and prevention — at both individual *and* structural levels — may eventually build a critical mass to answer the disparities in violence experienced by SGM communities.

Related to interventions, there remains a clear unmet need for ongoing population-base surveillance of violence for SGM individuals. For instance, the NCVS, YRBS, and NSDUH surveys only added sexual orientation and gender identity to their data collection relatively recently; thus, monitoring national prevalence of interpersonal and self-directed violence for SGM individuals — a population with known disparities in risk for violence — has scant data to estimate population-level trends over time. However, there is a more insidious consequence of historical exclusion of SOGI data from federal health surveillance. The lack of data to monitor trends of violence among SGM communities leaves prevention without a benchmark: even if the aforementioned need for interventions could be fulfilled, how would their effectiveness be evaluated without data to determine if rates of violence decrease?

In addition to violence as outcomes, epidemiologic data help to uncover novel risk and protective factors, necessary second-generation studies. One example to underscore the necessity of inclusion of SOGI information is Clark and colleagues’ analysis of the General Social Survey (GSS) [96], a robust dataset

used to learn about Americans’ attitudes about firearms as well as their ownership of firearms [97, 98]. When the GSS added sexual orientation to the survey in 2008, it finally afforded an opportunity to examine potential sexual orientation–related differences in the presence of firearms in the home, which is of crucial importance for suicide prevention because access to firearms is a major moderator of suicide fatality [99]. The results of Clark et al.’s investigation revealed an interesting negative association of sexual orientation and firearms; sexual minorities were less likely to report having a firearm in the home [96]. These findings were recently replicated with BRFSS data from two US states (California and Texas), which both happened to gather SOGI and firearms ownership data in 2017 [100]. Together, the findings raise important future directions for violence prevention research. For example, does less access to firearms protect sexual minority populations from suicide? Would suicide prevention efforts focused on firearm safety [101] be less impactful for sexual minority populations?

As much as self-reported survey data play a role in population health surveillance, so too do administrative datasets, which largely lack SOGI data. For example, the CDC’s National Syndromic Surveillance Program gathers emergency department data to monitor national trends in suicide attempt injuries [102], but because SOGI data are largely missing in health care, these data cannot provide information about SGM communities. Thus, to fill gaps in intervention work to reduce violence among SGM communities, various sectors that generate administrative data — health care, social service agencies, and law enforcement — must begin to gather SOGI data alongside other demographic data they currently collect, such as age and race/ethnicity, which are typically used to monitor trends in indicators of population risk and health.

A specific form of administrative data that is paramount for monitoring violence outcomes for SGM communities is mortality surveillance. Because SOGI data are not identified in a standardized way at the time of a violent death [103], there is currently no way to determine if homicide and suicide rates are greater for SGM communities than their non-SGM peers, despite hundreds of articles suggesting SGM individuals have disproportionate rates of major predictors of violent deaths (e.g., rates of assault, rates of suicide attempt). Limited evidence from the National Violent Death Reporting System (NVDRS) suggests that, among youth, SGM people may die by suicide at higher rates [104], but importantly, NVDRS is missing SOGI data for nearly 80% of decedents. Can key questions about potential mortality disparities among SGM people be answered with only 20% of data? Efforts are underway to increase the likelihood for SOGI data to enter the mortality information pipeline by training death investigators to collect SOGI data, but this endeavor is still in its pilot phase [105]. Equal efforts will be needed across the aforementioned sectors (e.g., health care, social services, law enforcement) to discover ways to

structurally change data systems, as well as the training and institutional culture around SOGI data collection.

Limitations

As with any scoping review, there are several limitations to note. Principally, relevant reviews may have been missed due to search criteria and parameters. For example, some highly cited review papers, such as Haas et al. [106] and Stotzer [107], were excluded due to a priori decisions for inclusion criteria requiring articles explain their search methodology. Additionally, because publication bias is a threat to review studies, this review of reviews may inherently have publication bias encoded within it due both to the original reviews' methodologies and the inclusion criterion of reviews published in peer-reviewed journals. The restriction of studies to being published in English limited discovering the broader international scope of studies.

Conclusion

Violence is perhaps the most infuriating and puzzling threats to public health because rather than the culprit being a virus, bacterium, environmental toxin or disaster, cells that have turned against the body, or internal organs that fail, we only have ourselves and each other to hold to account. This first review of reviews about violence research on SGM communities revealed a surprising breadth of studies, albeit mostly focused on identifying disparities. There is some progress in second-generation studies to help understand disparities and identify potential targets for intervention, but the field clearly has quite far to go for generating evidence about efficacious and effective interventions to reduce violence. Researchers are quickly capitalizing on newly available population-based datasets that include SOGI data and violence-related outcomes [5, 7]. However, we must also focus attention to developing collection of SOGI data in administrative datasets, which are necessary to foster data infrastructures that facilitate evaluation for interventions at scale.

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Declarations

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