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REVIEW ARTICLE



Risk and protective factors for suicidality among lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people, from countries with a high global acceptance index (GAI), within the context of the socio-ecological model: A scoping review

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Abstract

Introduction: Lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people experience higher prevalence rates of suicidality than their heterosexual and/or cisgender peers. However, there is limited research that can inform suicide prevention efforts. Our aim was to synthesize quantitative, qualitative, and mixed methods research on risk and protective factors among LGBTQ+ young people, from countries with a high Global Acceptance Index.

Methods: A scoping review guided by Arksey and O'Malley's five-stage framework, using the Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews protocol. Five databases and grey literature were searched for relevant studies. Identified factors were clustered by thematic type, according to the socio-ecological model to identify empirical trends and knowledge gaps. The mixed methods appraisal tool was used for quality assessment of studies. Results: Sixty-six studies met our inclusion criteria. Overall, 59 unique risk factors and 37 unique protective factors were identified. Key risk factors include past suicidality, adverse childhood experiences, internalized queerphobia, minority stress, interpersonal violence, bullying, familial conflict, and anti-LGBTQ+ policies/ legislation. Key protective factors include self-affirming strategies, adult/peer support, at-school safety, access to inclusive healthcare, family connectedness, positive coming out experiences, gender-affirming services and LGBTQ+ inclusive policies and legislation.

Conclusions: Overall, our findings affirm that multiple risk and protective factors, at all levels of the socio-ecological model, interact in complex, unique and diverse ways upon suicidality among LGBTQ+ young people. Implications for suicide prevention are discussed. Further empirical studies are required, particularly at the communities, policies, and societal levels of the socio-ecological model, and these studies should include a focus on protective factors and significant within-group differences.

KEYWORDS

LGBTQ+, protective factors, risk factors, socio-ecological model, suicide prevention, young people

Emma Rebecca Wallace PhD researcher under a joint fellowship.

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1 | INTRODUCTION

Suicide is a global public health concern, representing the fourth leading cause of death among 15-29 years old worldwide, with high prevalence rates among marginalized groups such as LGBTQ+ individuals (WHO, 2023). Indeed, a prominent feature of suicide incidence and epidemiology is that its distribution reflects systemic inequalities, exemplified by the experiences of LGBTQ+ young people who are significantly more likely to be impacted by suicidality than the general population (Williams et al., 2021). More specifically, a systematic review and meta-analysis found that LGBTQ+ young people were over three times more likely than their heterosexual and/or cisgender peers to have made a suicide attempt in their lifetime (Di Giacomo et al., 2018). However, there remains a lack of comprehensive evidence on prevalence rates of suicidality among LGBTQ+ young people, with a dearth of existing literature identifying within-group differences across the LGBTQ+ community. Despite this, it should be noted that within-group differences do exist, and prevalence rates are often shaped by differences in specific risk and protective factors for suicidality across the LGBTQ+ community since the population is nonhomogenous. For example, Di Giacomo et al. (2018) reported that lesbian and gay youths were 3.71 times more likely to have attempted suicide than their heterosexual and/or cisgender peers, bisexual youths were 3.69 times more likely, and trans youths were 5.87 times more likely. Notably, in a review on suicide risk among LGBTQ+ populations it was found that 27% of all suicide attempts occurred among young people before the age of 21 (Haas et al., 2011). As such, it follows that knowledge of LGBTQ+ specific risk and protective factors, including within-group differences, are crucial to effective policy making, early intervention, and suicide prevention strategies.

Importantly, not only do LGBTQ+ youths need to contend with emerging adulthood and significant transitional phases, but they must do so while navigating the development of identity, sexuality, and intimacy (Hatchel et al., 2021). Although one of the most prominent risk factors or predictors for suicidality is a previous suicide attempt or history of suicidal behavior (Lin et al., 2022), it is widely accepted that suicide is a complex, multifactorial, and highly contextual phenomenon (White & Morris, 2019). Despite this, the vast majority of existing research has focused on individual-level risk factors for suicide, rather than exploring the importance of socio-cultural histories, contexts, and structural inequalities that contribute to suicidal distress. The fact that multiple risk and protective factors interact in complex, unique and diverse ways means that it is impossible to identify or describe a singular profile of a typical suicidal youth, thus creating significant challenges for early identification, intervention, and suicide prevention. More generally, risk factors for suicidal youth include sociodemographic characteristics, mental illness and previous suicide attempt, adverse childhood experiences (ACEs), social isolation and thwarted belonging, bullying, hopelessness, perceived burdensomeness, and acquired capability for suicide (Hawton et al., 2012). Protective factors for suicidal youth tend to focus on individual attributes such as adaptability and sociability, self-regulation, temperament, problem solving, and coping skills, as well as a positive outlook or hopefulness (Beautrais et al., 2005). However, the quality of parenting and familial connectedness, close friendships, social support, school connectedness and meaningful community involvement are all associated with a decreased risk of suicidality among young people (Wasserman et al., 2021).

In understanding LGBTQ+ youth suicide, the impact of queerphobia, societal stigma, marginalization, and discrimination must be highlighted as important contributory factors to the disproportionate burden of suicidal distress among LGBTQ+ youths (De Lange et al., 2022). Critically then, it should be recognized that LGBTQ+ young people are not inherently prone to suicide risk due to their sexual orientation and/or gender identity. Rather, queer young people are impacted by sociocultural factors associated with being LGBTQ+, and often share difficult and traumatic lived experiences that increase the likelihood of suicide risk (Stenersen et al., 2019). For example, the seminal work of Brooks' "Minority Stress and Lesbian Women" considered how exposure to cultural, social, and economic stressors resulted in psychological stress for sexual minority women (Brooks, 1981). Building upon this, the Minority Stress Theory (Meyer, 1995) describes how external (distal) stressors such as microaggressions, discriminatory policies and legislation, or interpersonal violence, and internal (proximal) stressors such as internalized queerphobia, or concealment of one's minority identity impacts mental health outcomes, including pathways to suicide (Meyer et al., 2021; Rogers et al., 2021). Importantly, for a young person growing up in an environment where their sexual orientation and/or gender identity does not confirm to societal expectations or norms there is a high probability that trauma and identity will intersect (Alessi & Martin, 2017). Existing literature on LGBTQ+ specific protective factors is more limited, and there remains a need for future research that can inform suicide prevention efforts. However, a recent literature review reported on a range of protective factors associated with lower rates of suicidality. For example, the importance of a LGBTQ+ inclusive curriculum with affirming and protective school policies, familial and peer support, and early mental health interventions that can reduce suicide risk among LGBTQ+ young people (Gorse, 2022).

Previous suicide prevention reviews recommended that future research should focus on multilevel approaches to suicide, the inclusion of transgender and gender diverse young people, and within group differences among the LGBTQ+ community (Hatchel et al., 2021; Standley & Foster-Fishman, 2021; Williams et al., 2021). As such, the purpose of this scoping review is to provide a comprehensive overview of the current nature and extent of knowledge of both risk and protective factors for suicidality among LGBTQ+ young people, including significant within-group differences. In doing so, we aimed to synthesize, organize, and understand review findings from a socio-ecological perspective, which provides theoretical



grounding and a comprehensive framework for multilevel understanding of suicidality and therefore also suicide prevention (Cramer & Kapusta, 2017). This includes risk and protective factors for suicidality from the intrapersonal level, the interpersonal level, organizational level, communities level, policies level, and the societal level of the socio-ecological model.

2 | METHODS

In undertaking this scoping review, we employed the methodological framework developed by Arskey and O'Malley (2005). Despite being a relatively new approach to evidence synthesis, scoping reviews are frequently selected when studies in the review process are likely to have employed a range of methodologies, with varying data collection and analysis techniques. As such, scoping reviews allow for breadth of evidence, scoping a diverse body of literature on a specific topic, while identifying knowledge gaps which can guide the focus of future research. For this review, a comprehensive protocol was developed using the Preferred Reporting Items for Systematic Reviews and Meta-analysis Protocols (PRISMA-ScR), and it was registered prospectively with OSF (https://osf.io/s9qta/). The research question guiding this scoping review was:

RQ1: What is known from existing research about the risk and protective factors for suicidality among LGBTQ+ young people?

2.1 Defining key concepts and terms

Importantly, while the scoping review may be broad in terms of its search strategy, the key characteristics or terms are not, and should be defined. In the context of this review, we understand "suicidality" to mean suicidal ideation, suicide plan or suicide attempt. A "risk factor" for suicidality refers to a factor that increases risk, a determinant variable associated with suicidality. Similarly, a "protective factor" refers to a factor that reduces the likelihood of this risk, either a characteristic or condition associated with reduced risk of suicidality. The acronym LGBTQ+ includes lesbian, gay, bisexual, transgender, and queer individuals; the word "queer" being re-claimed and used as a more inclusive term for anyone who identifies as nonheterosexual and/or not cisgender. The term "young people" refers to individuals aged between 14 and 25 years old; the developmental period which includes the critical period of adolescence, youth, and the challenging transition into adulthood (Sawyer et al., 2018).

2.2 | Identification and selection of studies

Arksey and O'Malley (2005) recommend that broad keywords and search terms are adopted to identify relevant studies from the breadth of available research. As such, search terms were developed to represent four key categories that related to the research question: (a) suicidality, (b) risk and protective factors, (c) LGBTQ+ populations, and (d) young people aged 14–25 years old. As such, we searched PsycINFO, PsycArticles, EBSCO, PubMed, and Web of Science using our keyword strategy, which can be seen in File S5, with different Boolean operators used according to the requirements of each database.

2.3 | Inclusion criteria

Records were first imported into Zotero referring software to remove duplicates, and following this, into Rayyan systematic review software (Ouzzani et al., 2016) to screen and record all inclusion and exclusion decisions, based on the following criteria: (a) paper must report either primary or secondary data using any study design, including randomized control trials (RCT), nonrandomized control trials, quantitative descriptive studies, qualitative studies, and mixed methods studies; (b) paper must be published in the English language, between the period of 2013 to 2023, and from a countries with a similar LGBTQ+ Global Acceptance Index (GAI) as the United Kingdom (UK) and Republic of Ireland (ROI) (Flores, 2021); (c) paper must investigate the risk and/or protective factors associated with suicidality; (d) study participants must be LGBTQ+ young people aged 14–25 years old. Grey literature reports from government, service-providers, or LGBTQ+ youth organizations were also included from the UK and ROI. This included databases from the British Psychological Society, Psychological Society of Ireland, Web of Science, Google Scholar, and known LGBTQ+ youth third sector organizations and community groups. The purpose of the grey literature search was to identify any additional local evidence, relevant to the authors, that may address the existing research and evidence gaps in the UK and ROI. The full list of included countries, according to their GAI scores are available in Table S3.



2.4 | Charting the data

In accordance with Arksey and O'Malley's framework (2005), relevant data from included studies were extracted and charted using the following categories: author/date, study design, data collection method, sample description and size, key points, findings, and comments. Following this, the frequency of key characteristics, distribution, and descriptive data was recorded and analyzed, including the geographical location of the studies, study design, sample characteristics, outcome measures, and list of risk and protective factors. The risk and protective factor findings were initially recorded within the margins of each paper before being added to a spreadsheet, cross-referenced, and organized by ecological domains where we noted any repeated findings and theorized factors relating to existing literature. To visualize this information, two socio-ecological models were created, one for risk factors and one for protective factors associated with suicidality among LGBTQ+ young people. Following this, the mixed methods appraisal tool (MMAT) (Hong et al., 2018) was used to critically appraise the methodological quality of all empirical studies, with five different questions based on the category of study design (qualitative, quantitative RCTs, quantitative non-RCTs, quantitative descriptive, and mixed methods). This critical appraisal tool was chosen because it provides a single, systematic and time efficient framework for assessing core quality criteria across different study designs.

3 | RESULTS

In total, 2497 articles were initially found across five databases: PsycInfo (n = 265), PsycArticles (n = 184), EBSCO (n = 666), PubMed (n = 502), and Web of Science (n = 808). First, 1277 duplicates were removed. Following this, the title and abstracts of all remaining articles were screened to determine their relevance to the review, and 594 studies were excluded based on population, outcome and/or publication eligibility. Next, the full texts of 626 selected papers were further assessed against the eligibility criteria. From this, papers were excluded because they targeted the wrong population (n = 286), were concerned with a different outcome (n = 142), the wrong publication type (n = 56), because they were not published within the specified timeframe (n = 58) or were not published in the English language (n = 20). Following this process, a comprehensive hand search of the citations of selected papers was conducted, although no additional studies were found. Finally, an online grey literature search was conducted within the UK and ROI to identify any reports from government, service-providers, or LGBTQ+ youth advocacy groups, where one report met the criteria for inclusion. In total, 66 papers were selected for inclusion in this scoping review. The summary of studies and findings, including key points, results and comments can be seen in Table S1. Additionally, a comprehensive table of risk and protective factor definitions, examples of available evidence, and a strength rating for each factor is available in Table S4.

3.1 | Study characteristics

In total, 66 papers were identified that reported on findings for risk and/or protective factors of suicidality among LGBTQ+ young people, aged 14–25 years old. The studies originated from 12 countries: from the United States (n = 50), United Kingdom (n = 6), Australia (n = 3), the Netherlands (n = 2), Sweden (n = 1), Canada (n = 1), Finland (n = 1), Iceland (n = 1), and Europe (n = 1) which included Estonia, Hungary, Italy, Spain, Sweden, and the United Kingdom. From this, and according to the MMAT categorization of studies, two papers used qualitative methods (grounded theory and narrative analysis), two papers employed randomized control trials (RCTs), 58 papers employed a nonrandomized control trial (longitudinal and cross-sectional analysis), and four papers used mixed methodologies. In total, 33 papers analyzed secondary data and from this, 18 studies used data from the "Youth Risk Behaviour Surveillance System" (YRBSS), a high to middle school survey recorded every 2 years by the "Centers for Disease Control and Prevention" (CDC). In terms of study participants, the age range typically spanned from early adolescence including participants aged 14-17 years old in 19 papers, 16-20 years old in 34 papers, and the period of emerging adulthood which included young people up to 25 years old in 13 papers. The majority of participants were recruited at school, but multiple sampling strategies were used including community, hospital-based, LGBTQ+ organization venues, and through online recruitment. The vast majority of studies were located in urban areas, and only two studies specifically examined risk and protective factors for suicidality among LGBTQ+ young people of color. In total, there were 32 studies that examined suicidality among lesbian, gay and bisexual populations, excluding trans or gender-diverse young people. A total of eight studies specifically examined suicidality among trans and gender diverse young people, and one study examined suicidality among bisexual youths exclusively. Across all studies, a total of 59 unique risk factors were identified, and 36 unique protective factors (Figures 1-3).

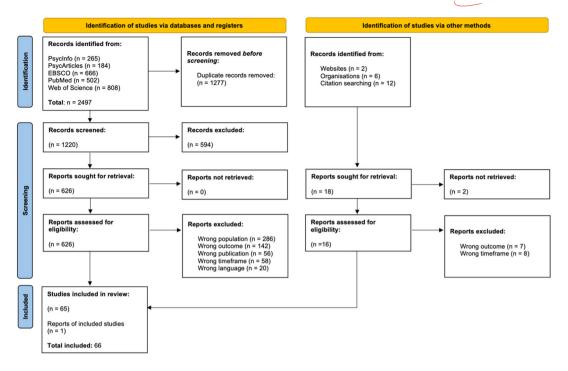


FIGURE 1 Preferred reporting items for scoping reviews (PRISMA-ScR) flowchart. PRISMA-ScR flowchart depicting the identification, screening, eligibility, and inclusion of articles within the scoping review. [Color figure can be viewed at wileyonlinelibrary.com]

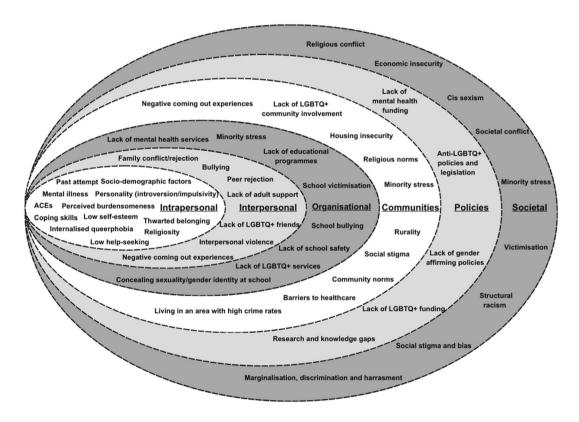


FIGURE 2 Identified risk factors for suicidality among lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people. Socio-ecological model depicting all identified risk factors associated with suicidality among LGBTQ+ young people, organized according to socio-ecological level.

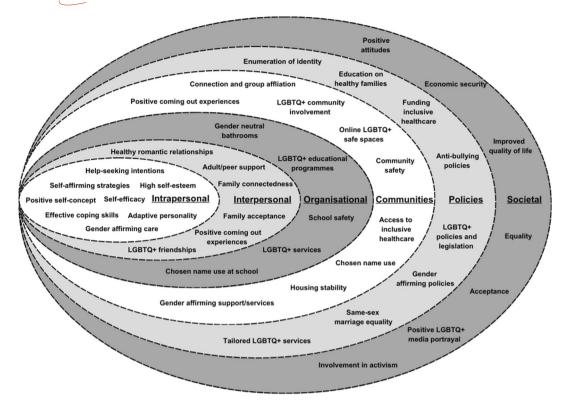


FIGURE 3 Identified protective factors for suicidality among lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people. Socio-ecological model depicting all identified protective factors associated with suicidality among LGBTQ+ young people, organized according to socio-ecological level.

3.2 | Quality of the included studies

As discussed, the MMAT (Hong et al., 2018) was used to critically appraise the methodological quality of all empirical studies, according to study design. The overall quality score was comprised from the sum of scores from five questions for each paper, and the critical appraisal table (including questions) are available in Table S2. An example of some of these questions: "Are the participants representative of the target population?," "Is there complete outcome data?," "Is the risk of nonresponse bias low?," "Is the statistical analysis appropriate to answer the research question?," "Is randomization appropriately performed?," and "Are the measurements appropriate?."

Overall, the majority of the 66 papers were of fair to excellent quality, with 19 papers meeting 60% of the quality criteria, 11 papers meeting 80%, and 36 papers meeting 100% of the defined quality criteria. The use of secondary data from the "Youth Risk Behaviour Surveillance System" (YRBSS) in 18 quantitative studies represented the most significant reduction of quality in terms of sample representativeness (LGBTQ+ sub-sample). Critically, the use of public-school data excludes private-school students, and students who may be dealing with long-term absence or chronic illness issues, which means that at-risk youth are likely to be underrepresented. The YRBSS survey-items only included five questions related to suicidality, which is a significant limitation in studies focused on suicidal behavior and risk/protective factors. Moreover, despite internal "test-retest" studies (Eaton et al., 2010), there have been no empirical studies conducted to assess the reliability and validity of all self-reported behaviors and outcome measures on the YRBSS (Brener et al., 2004). Despite sexual orientation and gender identity being multifaceted constructs, only one measure of sexual orientation was included in the YRBSS datasets. Additionally, gender diversity is not recorded in the vast majority of all secondary datasets, except for those specifically examining suicidality among trans young people. Among studies that did sample trans or gender diverse youth, smaller sample sizes resulted in underpowered statistical power, limiting the studies' effectiveness in addressing the research question. Finally, 16 papers did not report the studies response or drop-out rates, and two studies reported a response rate of <60%.

3.3 | Risk factors for suicidality among LGBTQ+ young people

In total, 59 unique risk factors were found, including 22 at the intrapersonal level, nine at the interpersonal, seven at the organizational, eight at the communities, five at the policies, and eight at the societal level of the socio-ecological model.

3.4 Intrapersonal level

Findings at the intrapersonal level of the socio-ecological model reflect key individual characteristics, personal histories of mental illness, hospitalization and trauma exposure, as well as socio-demographic differences associated with suicidality. For example, Arnarsson et al. (2015) found that among lesbian, gay, and bisexual adolescents, males were 17 times more likely to have experienced frequent suicide attempts in comparison to their heterosexual peers. Conversely, being female was significantly associated with higher odds of suicidal ideation among bisexual, transgender, and questioning students (Rivas-Koehl et al., 2022). Regarding within-group differences, a number of studies reported that being bisexual (Aivadyan et al., 2023; Coulter et al., 2017) or transgender (Jones & Hillier, 2013) was a LGBTQ+ specific risk factor for suicidal ideation and behavior. More specifically, among bisexual young people, the prevalence of biphobia, identity erasure, and invisibility as well as a lack of bisexual-affirmative support was found to explain this disparity (Gnan et al., 2019). Moreover, rising transphobia and identity non-affirmation coupled with concealment of one's identity was associated with increased odds for non-suicidal self-injury, suicidal behavior, and hospitalization for such (Heino et al., 2023). A history of mental illness, including depression, anxiety, and posttraumatic stress was significantly associated with suicidal behavior (Smith et al., 2016; Turpin et al., 2020; Wilson et al., 2016), and inextricably connected to internalized heterosexism, homophobia, and selfstigma or shame (Austin et al., 2022; Puckett et al., 2017). Additionally, it was found that a religious upbringing with unresolved internal conflict was associated with suicidal ideation, with internalized homophobia fully mediating the relationship between parental antihomosexual religious beliefs and chronic suicidal ideation (Gibbs & Goldbach, 2015). On individual differences, Livingston et al. (2015) found that young people with higher neuroticism, lower extroversion, and openness, who were most likely to conceal their sexuality, were at greater risk of suicide attempt. Regarding traumatic experiences, a graded relationship between cumulative ACEs and suicidal behavior was also reported (Clements-Nolle et al., 2018). However, no interaction between sexual orientation and ACEs was found. Several studies found that low selfesteem and poor self-concept, with increased depressive symptoms, mediated complex pathways to suicidality (Oginni et al., 2019; Perales & Campbell, 2019). Notably, this pathway between self-esteem and depressive symptoms was significantly moderated by biological sex, considerably affecting female youths (Oginni et al., 2019). Moreover, perceived burdensomeness and thwarted belonginginess were found to be critical mechanisms associated with increased suicidality, significantly reducing help-seeking intentions for suicidal distress (Baams et al., 2015; English et al., 2022).

3.5 | Interpersonal level

Findings at the interpersonal level underscore how experiences of discrimination, harassment, and interpersonal violence (enacted stigma) are positively associated with mental health problems and suicidality (Rimes et al., 2019; Szlyk, 2020; Veale et al., 2017; Wilson et al., 2016). For example, two qualitative studies highlighted how suicidal distress could be understood as a response to stigma, discrimination and harassment, exemplified by negative coming out experiences, rejection, entrapment, and isolation (Johnson et al., 2020; Marzetti et al., 2022). Among LGBTQ+ higher-education students, interpersonal violence including both physical and sexual abuse was associated with mental health difficulties, use of mental health services, nonsuicidal self-injury and suicide risk (Gnan et al., 2019). Several studies found that bullying, including cyber-bullying, was significantly associated with suicidal ideation and attempt among all LGBTQ+ youths (Arnarsson et al., 2015; Duong & Bradshaw, 2014; Lett et al., 2022). Regarding within-group differences, Dunn et al. (2017) reported that among those recently bullied, lesbian and bisexual young women had the highest adjusted odds of depression and suicidal ideation. Srivastava et al. (2023) found that digital sexual violence, the posting of sexually explicit materials without consent, was associated with higher odds of suicidal ideation, plan, and attempt. Familial emotional neglect, familial rejection, estrangement, and nonacceptance of sexual orientation, and lack of trusted adult support were all significant predictive factors associated with poorer mental health outcomes and suicidal behavior (Austin et al., 2022; Van Bergen et al., 2013). Additionally, LGB youths who had lost close friendships as a result of coming out were 27 times more likely to report a recent suicide attempt, and a lack of meaningful LGBTQ+ friendships were also associated with increased suicidality among young people (Kuyper & Bos, 2016; Puckett et al., 2017).

3.6 Organizational and communities' level

Findings at the organizational and communities' level report on risk factors including minority stress at-school and within the wider community, significant barriers to inclusive healthcare and a lack of mental health services for LGBTQ+ young people. Several studies found that minority stress was associated with poorer mental health outcomes, non-suicidal self-injury, and suicidality (Kuper et al., 2018; Perales & Campbell, 2019; Smith & Reidy, 2021; Veale et al., 2017). In fact, Goldbach et al. (2017) developed the "sexual minority adolescent stress inventory" (SMASI) specifically for young people,

highlighting that minority stress was significantly associated with depressive symptoms and suicidal behavior. In congruence, a number of studies found that at-school bullying, victimization, and discrimination were positively correlated with increased risk of suicidality, with sexual orientation mediating this association (Lardier et al., 2020; Turpin et al., 2019; Van Bergen et al., 2013). Further, school connectedness moderated the association between sexual orientation and suicidal ideation, with LGBQ disabled students reporting the highest levels of suicidal ideation (King et al., 2018). Concealing one's sexual orientation and/or gender identity at school, and conversely, early-age coming out or negative coming out experiences at school or within the community were also found to be LGBTQ+ specific risk factors for suicidality (Gnan et al., 2019; Rimes et al., 2019). Similarly, a lack of LGBTQ+ community involvement was found to increase the risk of suicidal ideation and behavior (Kuyper & Bos, 2016). Notably, a lack of mental health interventions and LGBTQ+ specific services within both schools and the community, reflected limited access to inclusive healthcare, which was a significant predictive factor for increased suicidality among young people (Rivas-Koehl et al., 2022). More broadly, housing insecurity, living in an area with high LGBTQ+ related crime rates and rurality were also found to be risk factors for suicidal behavior among LGBTQ+ young people (Duncan & Hatzenbuehler, 2014; Lett et al., 2022).

3.7 | Policies and societal level

Findings at the policies and societal level incorporate broader and intersecting risk factors for suicidality, including minority stress resulting from queerphobia, structural racism, social stigma and prejudice, religiosity, and anti-LGBTQ+ policies or legislation. For example, English et al. (2022) found that structural racism, oppression, and anti-LGBTQ+ policies were significantly associated with perceived burdensomeness, thwarted belongingness and suicide attempt among black gay youths. Moreover, among trans young people it was reported that experiences of transphobia, cis sexism, and social rejection were positively correlated with increased risk for suicide attempt, despite the use of self-affirming and coping strategies (Jones & Hillier, 2013). In congruence, several studies highlighted the pervasive impact of societal stigmatization, victimization, and discrimination on mental health outcomes and suicidality, including the internalization of stigma (self-stigma), poor self-concept and self-esteem (Austin et al., 2022; Van Bergen et al., 2013; Veale et al., 2017). Gibbs and Goldbach (2015) also found that religiosity, cultural norms, and negative attitudes toward homosexuality were significantly associated with internalized religious conflict and internalized homophobia, increasing the risk for suicidal ideation and attempt. Further, a comprehensive latent class analysis identified groups of young people with distinctive patterns of self-reported substance use, depressive symptoms, and suicidality. More specifically, Lett et al. (2022) found an interaction between interpersonal factors such as bullying, and structural or societal factors such as food and housing insecurity, which increased the severity of suicidality among trans young people.

3.8 Protective factors for suicidality among LGBTQ+ young people

In total, 37 unique protective factors were found, including eight at the intrapersonal level, seven at the interpersonal, four at the organizational, five at the communities, seven at the policies, and six at the societal level of the socio-ecological model.

3.9 Intrapersonal level

Findings at the intrapersonal level of the socio-ecological model highlight key individual characteristics, such as higher help-seeking intentions, emotional regulation, self-affirming coping strategies, and gender-affirming care as significant protective factors for reducing suicidality. For example, Livingston et al. (2015) found that young people with adaptive personalities, lower neuroticism, and higher extroversion were at decreased risk of suicidality, despite experiencing similar rates of discrimination, victimization, and internalized heterosexism. Resilience factors such as high self-esteem, self-efficacy, and positive academic self-concept were all associated with decreased vulnerability to external stressors, and therefore reduced suicidal ideation, after controlling for student demographics (Oginni et al., 2019; Szlyk, 2020). Two quantitative studies underscored the importance of willingness to seek help for depressive symptoms, non-suicidal self-injury, and suicidal behavior (Colvin et al., 2019; Rivas-Koehl et al., 2022). More specifically, Colvin et al. (2019) found that higher help-seeking intentions among students positively correlated with inclusive and positive school environments as well as adult support, despite internalized self-stigma associated with both mental illness and LGBTQ+ status. For trans young people, the personal decision to undertake gender-affirming care significantly improved psychological functioning, including the reduction of internalization of problems, emotional and behavioral difficulties and suicidal ideation, plan, and attempt (van der Miesen et al., 2020). Moreover, it was reported that many trans youths were able to effectively reframe the social rejection of their



identity, and the abuse they experienced, with self-affirming coping strategies which improved mental wellbeing and reduced the likelihood of future suicide attempt (Jones & Hillier, 2013).

3.10 Interpersonal level

Findings at the interpersonal level reflect the importance of familial connectedness, cohesion, acceptance, and social support (Austin et al., 2022; Lardier et al., 2020; Lytle et al., 2018), with positive coming out experiences, and LGBTQ+ friendships significantly protective against suicidality. For example, Lytle et al. (2018) found that family support and acceptance was significantly associated with fewer experiences of suicidal behavior among LGB young adults. However, the presence of LGBTQ+ friendships were found to be more beneficial for help-seeking, in comparison to family support, since the majority of youth preferred to seek support from their friends. In congruence, family cohesion and other social supports moderated the effect that school bullying victimization had on suicidal ideation, highlighting that queer youth who had access to family support were less likely to experience adverse mental health outcomes, including suicidality (Lardier et al., 2020). Further, Taliaferro and Muehlenkamp (2017) reported that parent connectedness was a robust protective factor for both non-suicidal self-injury and suicidal behavior across all LGB groups. Similarly, Rivas-Koehl et al. (2022) found that higher family support was associated with lower odds of making a suicide plan among gay, lesbian, bisexual, and questioning students. Notably, the Positive Futures (Just Like Us, 2023) report highlighted that support from families fostered increased optimism and hope for the future, and that transgender and nonbinary young people experienced the lowest rates of family support (13%). Additionally, higher peer support was significantly associated with lower odds of suicide attempt among questioning youths, and having friendships with trusted adults was associated with lower odds of suicide attempt among transgender youths (Rivas-Koehl et al., 2022).

3.11 | Organizational and communities' level

Findings at the organizational and communities' level report on protective factors including at-school and community safety, at-school, and community LGBTQ+ services and resources, access to inclusive healthcare, LGBTQ+ group affiliation, and chosen name use both at-school and within the wider community. Five quantitative studies, including a RCT, highlighted the importance of the school environment including adult support, safety, supportiveness, and diversity (Colvin et al., 2019; Coulter et al., 2017; Duong & Bradshaw, 2014; Eisenberg et al., 2021; Whitaker et al., 2016). More specifically, Colvin et al. (2019) found that anxiety and depressive symptoms were significantly negatively correlated with the school climate measure (supportiveness and safety) and help-seeking intentions for both personal problems and suicidal thoughts. Further, while atschool bullying was associated with increased suicidality among LGB youth, feeling connected to an appropriate and trusted adult at school moderated these associations, reducing the likelihood of suicidal behavior (Duong & Bradshaw, 2014; Veale et al., 2017). Notably, having outside-school adult support was associated with lower odds of suicidal ideation, plan and attempt, compared to within-school adult support, but both were independently associated with lower odds of suicide attempts among lesbian and gay students (Coulter et al., 2017). Moreover, the availability and accessibility of school and community wide LGBTQ+ resources, such as gender-neutral bathrooms and accessible healthcare, was associated with lower risk of suicide attempt (Eisenberg et al., 2021; Rivas-Koehl et al., 2022). In mediating the impact of minority stress on mental health outcomes, it was reported that LGB community involvement was significantly protective across all LGB groups (Kuyper & Bos, 2016). For trans young people, chosen name use both at-school and within the wider community was associated with the gender affirmation process, and therefore with improved mental health outcomes and reduced suicidality (Pollitt et al., 2021; Russell et al., 2018). Finally, Austin et al. (2020) found that the internet offered a safe and affirming space for trans and gender diverse youth, which fostered meaningful peer engagement with an "escape from stigma and violence" that enabled experiences or feelings of belonging, hope and recovery.

3.12 | Policies and societal level

Findings at the policies and societal level reflect broader and intersecting protective factors for suicidality, including inclusive LGBTQ+ policies and legislation, funding for mental health services, anti-bullying policies, societal acceptance, and individual engagement with activism. Three studies highlighted that countries or states with more inclusive LGBTQ+ legislation, including same-sex marriage legislation, were associated with reduced suicidality among young people (Aivadyan et al., 2023; Meyer et al., 2019; Raifman et al., 2017). More specifically, it was found that same-sex marriage policies were associated with a 0.6 percentage point reduction in suicide attempts, representing a 7% relative reduction in the proportion of high school students attempting suicide owing to same-sex marriage implementation (Raifman et al., 2017). Moreover,

Meyer et al. (2019) reported that anti-bullying laws that enumerate sexual orientation within state legislation were associated with reduced stressors and therefore lowered risk for suicide attempts among LGB young people. Notably, Gnan et al. (2019) emphasized the importance of inclusive, culturally sensitive, and effective mental health services for LGBTQ+ young people, particularly because LGBTQ+ youth face additional challenges or barriers in accessing mental health support (McDermott et al., 2018). For trans young people, a significant protective relationship was found in young people's response to transphobia and abuse. For example, an increased involvement in activism exemplified that trans-spectrum youth possessed resilience, felt empowered and knew their rights within society, fostering hope for individual recovery and social change (Jones & Hillier, 2013).

4 DISCUSSION

The unique focus of this scoping review—a socio-ecological approach to understanding the current quantitative, qualitative, and mixed methods literature relating to risk and protective factors for suicidality among LGBTQ+ young people—has bridged an important gap in the literature. The findings from our comprehensive review highlight some important considerations for future research, and policymaking, as well as clinical implications for tailored approaches to LGBTQ+ suicide prevention. Overall, our findings underscore that risk and protective factors for LGBTQ+ suicidality are not static nor singular, but rather reflect broader, dynamic, and intersecting factors from individual, interpersonal, organizational, communities, policies, and societal socio-ecological levels. Notably, while contemporary theories of suicide recognize that suicidal behavior does not emanate solely from individual-level risk factors (O'connor & Nock, 2014), over one-third (37.2%) of all studies focused on individual-level risk factors for LGBTQ+ suicidality. Our findings identified 37 unique protective factors, across all socio-ecological levels, which is significant given that protective factors are under-researched in suicidology (Cramer & Tucker, 2021). Importantly, it is evident from our findings that the LGBTQ+ community is not a homogenous group, and that LGBTQ+ young people are not inherently prone to suicidality due to their sexual orientation and/or gender identity, but rather there are LGBTQ+ specific risk factors and unique lived experiences that increase the likelihood of suicide risk. Critically then, these factors must be recognized, understood, and addressed at all levels of the socio-cultural environment to reduce suicidality among LGBTQ+ young people.

Significantly, our findings affirm support for the continued relevance and impact of minority stress (Frost & Meyer, 2023; Meyer, 1995) on the lives of LGBTQ+ young people, including the impact of bullying, victimization, interpersonal violence, marginalization, and discrimination on suicide risk. To address the prevalence and impact of minority stressors, particularly at school and within communities, the importance of anti-bullying policies and legislation cannot be overstated. The finding that perceived burdensomeness mediates the relationship between interpersonal victimization and suicidal ideation is notable (Baams et al., 2015), and in congruence with existing literature (Meng et al., 2023; Wolff et al., 2014). Moreover, it highlights that perceived burdensomeness may represent a significant target for individual-level intervention, and therefore suicide prevention efforts (Crowell-Williamson et al., 2019). Despite not being specifically mentioned, there is also evidence of what Meyer describes as "minority resilience" (Meyer, 2015) which is reflected in key protective factors which can be strengthened, including self-affirming strategies, involvement in LGBTQ+ activism (Jones & Hillier, 2013), positive self-concept, LGBTQ+ friendships and meaningful peer support (Kuyper & Bos, 2016). Although a number of studies reported on the pervasive impact of bullying, both within the school environment and within communities, it should be noted that there is a real need for intersectional approaches to minority stress research (Smith & Reidy, 2021). Indeed, this is particularly important for LGBTQ+ young people with multiple marginalized identities who may have experienced multiple and unique forms of discrimination, marginalization or oppression (Crenshaw, 1989). For example, only two studies examined race, ethnicity, and suicidal behavior (Baiden et al., 2020; Shadick et al., 2015), reporting that LGB students of color were at elevated risk of suicidality, and crucially, less likely to seek help for their suicidal distress. Our review examined within group differences of risk and protective factors among LGBTQ+ young people, which is an emerging area of research. However, much of the included evidence relates to prevalence rates and risk factors for suicidal behavior, with fewer protective factors identified. As discussed, there remains a dearth of existing literature on within-group differences among the LGBTQ+ community, which ultimately reflects missed opportunities for early intervention and suicide prevention.

Despite this limitation, our findings illuminate the intersection of sexual orientation and/or gender identity, and structural racism, cissexism, transphobia, and biphobia, arguably accounting for differences in suicidal behavior among LGBTQ+ individuals. For example, the finding that structural racism is associated with perceived burdensomeness, thwarted belongingness, and suicide attempt among LGB adolescents (English et al., 2022) underscores that we must move beyond a singular focus on sexual orientation and/or gender identity to understand the complex nature of suicidality among LGBTQ+ young people (Cover, 2016). Certainly, this evidence highlights how multiple forms of oppression, which systematically values certain identities over others, exacerbates negative mental health outcomes including suicidal behavior (Balsam et al., 2011; Cyrus, 2017). Exemplifying this, a number of studies found that transgender, gender diverse and bisexual youths were at increased risk of suicidal ideation, plan, and attempt (Gnan et al., 2019; Taliaferro et al., 2018). Following this, the

finding that gender-affirming care improves psychological and emotional functioning, reducing suicide risk, remains a challenge for suicide prevention efforts considering the current state of restrictive legislation and policies for gender-affirming care (CNN Politics, 2023). It is also important to note that there has been a significant rise in the prominence of transphobia across Western countries (Price et al., 2023; Turnbull-Dugarte & McMillan, 2023), significantly impacting the lives of trans and gender-diverse young people. As such, an important identified protective factor relates to the use of internet forums which can provide an inclusive, affirming and safe space for trans and gender-diverse youth, reducing suicide risk (Austin et al., 2020). Significantly, there are also within group differences with regard to help-seeking intentions, with a large proportion of LGBTQ+ youths reluctant to seek help for suicidal behavior; 73% of gay men, 42% of bisexual women, 41% of queer youth, and 33% of bisexual men (Lytle et al., 2018). In congruence with existing literature (Lynch et al., 2018; Meyer et al., 2015; Pentaraki, 2017), one of the reviewed qualitative studies emphasized that LGBTQ+ youths will often not seek help until they are experiencing a suicidal crisis, due to normalization of emotional distress and continued self-reliance (McDermott et al., 2018). Crucially, despite LGBTQ+ young people facing additional barriers to help-seeking for suicidal distress, there has been limited research focused on developing tailored interventions which can address this issue (Han et al., 2023).

Individual level (intrapersonal) risk and protective factors for suicidality among LGBTQ+ people, including effective coping strategies, self-affirming strategies, positive self-concept, and self-efficacy are useful for individual level interventions. Indeed, these findings are well supported by existing literature (Reyes et al., 2015; Garr-Schultz & Gardner, 2021; Toomey et al., 2018). However, it is important to note that individualistic approaches to suicide prevention cannot address the complex interplay between psychological, environmental, and socio-cultural factors that contribute to suicidality (O'Connor & Kirtley, 2018). For example, our findings highlighted the substantial impact of ACEs, including domestic violence, familial neglect and rejection, bullying, and negative coming out experiences (Austin et al., 2022; Clements-Nolle et al., 2018). In fact, ACEs are widely recognized as significant predictors of suicidal behavior, and higher prevalence rates of ACEs are reported within LGBTQ+ populations (Askew, 2022; Fuller-Thomson et al., 2016; Schnarrs et al., 2019). Critically, to our knowledge, there is limited research on why this may be the case among LGBTQ+ populations, nor how to address this disparity. Further, the finding that posttraumatic stress is associated with depressive symptoms and substance use, significantly increasing the likelihood of suicide attempt is notable (Smith et al., 2016). Among trans young people, trans-specific discrimination was also significantly associated with posttraumatic stress, depression, and suicidal ideation (Wilson et al., 2016), exemplifying the need for trauma-informed psychological therapies for LGBTQ+ youths. At the interpersonal level, our findings affirm the protective nature of healthy relationships, family connectedness and acceptance, as well as positive coming out experiences with adult and peer support. Interestingly, outside-school adult support was associated with lower suicidality for all youth but was significantly less protective for bisexual and questions youths (Coulter et al., 2017), which is perhaps best understood in relation to social stigma and minority stress theories (Hatzenbuehler, 2011; Meyer, 2003). It follows then that governmental programs or policies, including educational programs, which focus on promoting healthy relationships, family connection and cohesion, and peer support can help reduce suicide risk among this population (Table 1).

At the organizational level, specifically within the school environment, our findings underscore the significant risks associated with a lack of safety for LGBTQ+ young people at school, evident from widespread at-school bullying, exclusion, victimization, and discrimination (Duong & Bradshaw, 2014; Gambadauro et al., 2020; Lardier et al., 2020). These traumatic experiences coupled with a lack of mental health and LGBTQ+ specific resources illustrates the necessity for substantial investment, and improvement within our education systems. Arguably, these experiences matter not merely because of their significant impact upon mental health and suicidality, but because peer education should be an opportunity for the practice of inclusion, diversity, and preventative care (Ellis, 2009; Gnan et al., 2019). The importance of inclusion is further exemplified by our findings that concealing one's identity at school is associated with increased suicidality, whereas chosen name use at school is associated with reduced depressive symptoms and suicidal ideation among trans youth (Russell et al., 2018). It follows then that schools have a responsibility to promote and ensure inclusion, leading by example with regard to gender diversity and chosen name use within classrooms. Similarly, at the community level, limited access to inclusive and gender-affirming healthcare, LGBTQ+ services and support were all associated with increased suicidality (Rivas-Koehl et al., 2022), in congruence with existing literature on pervasive health disparities (Table et al., 2021). These findings emphasize the protective nature of LGBTQ+ community involvement, social integration and cohesion, and conversely, the detrimental impact of exclusion and isolation on suicide risk (Joiner, 2007; Klonsky & May, 2015; O'Connor & Kirtley, 2018). More broadly, it is important to highlight our findings on non-LGBTQ+ specific risk factors for suicidality, including housing insecurity, economic uncertainty, deprivation and rurality, which are all well established by existing research on health inequalities and suicidal behavior (Fetzer et al., 2019; Vandoros & Kawachi, 2021).

At the policies level, the finding that inclusive, affirming LGBTQ+ policies and legislation, including same-sex marriage equality, reduces suicidality among LGBTQ+ young people may be expected; however, it is an important finding which remains under-researched. In fact, existing literature has emphasized the lack of research seeking to understand how LGBTQ + suicidality is represented in political and policy spheres (Marzetti et al., 2023). Similarly, the fact that anti-bullying laws that

TABLE 1 Summary of studies examining factors associated with suicidality among lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people (n = 66).

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|----------------------------|--|---------------------|-----------------|---|---|--|
| Aivadyan et al. (2023) | Relationship between recent suicide attempts among young people, and the state equality index (SEI) | United States | QT-R | Secondary data (YRBS) | n = 70,599 Aged 14–18 | SEI moderated the positive association between LGBQ status ($n = 10,988$) and suicide attempts (<1 year), with reduced suicidality in states with more inclusive legislation. Strongest effect for bisexual males. |
| Arnarsson et al. (2015) | Suicide risk and sexual orientation among adolescents | Iceland | QT-R | Secondary data (HBSC) | n = 3813 Aged 15–16 | LGB youths (<i>n</i> = 119) were more likely to report suicidal ideation, particularly male participants. Bullying was a significant risk factor associated with suicide risk. |
| Austin et al. (2020) | Online experiences which may be protective against psychological distress among transgender and gender diverse youth | United States | ММ | Secondary QT, grounded theory QL | n = 6309 QT n = 260 QL Aged 14-22 | The internet offered a safe, affirming space which did not exist in YP's offline lives. Enabled youth to engage meaningfully with their peers which fostered greater wellbeing, resilience, growth and an escape from stigma and violence. Protective role, reducing suicide risk. |
| Austin et al. (2022) | The influence of interpersonal risk factors, and adverse childhood experiences, as well as protective factors on suicide attempts | United States | QT-C | Self-report questionnaire | n = 372 Aged 14–18 | Interpersonal microaggressions made a unique contribution to lifetime suicide attempts. School belonging, familial emotional neglect and internalized self-stigma were also significantly associated with past 6-month suicidality. Interpersonal factors important. |
| Baams et al. (2015) | Mental health and psychological adjustment of LGB youth, minority stress theory and the interpersonal- psychological theory of suicide | United States | QT-L | Self-report questionnaire | n = 876 Aged 15–21 | Perceived burdensomeness mediated relationship between depression and suicidal ideation. Coming-out stress same. As such, perceived burdensomeness is critical mechanism associated with suicidality. |
| Baiden et al. (2020) | The intersection of sexual orientation and race/ ethnicity on suicidal behaviors among adolescents | United States | QT-C | Secondary data (YRBS) | n = 13,597 Aged 14–18 | Nonwhite LGB youths were less likely to report suicidal ideation. However, Hispanic LGB youths had higher odds of suicide attempt. A history of sexual assault, bullying, depression, and drug use were significant predicators of suicidal behavior across all groups. |
| Berona et al. (2021) | The transition from suicidal ideation to suicide attempt among sexual | United States | QT-L | Computerized adaptive test (CAT-SS) | <i>n</i> = 1006 Aged 17–24 | CAT-SS predicted future suicide attempts in the overall sample. Among youths without a |



TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|---------------------------------------|--|------------------|-----------------|--|------------------------------|--|
| Button (2015) | and gender minority youths A general strain approach on the effects of | United States | QT-R | Secondary data | n = 2639 | history of suicidal ideation, social support reduced suicide risk. Among youths with a history of suicidality, baseline CAT-SS score, and SMG-related victimization predicted future suicidality. Victimization, as a source of strain (Agnew's general strain |
| | victimization, social support, and perceived self-efficacy on LGBQ suicidality | | | (YRBS-HS) | Aged 14–17 | theory) was a risk factor for suicidality among both LGBQ (<i>n</i> = 158) youths. Social support and perceived selfefficacy reduced the risk of suicidality among heterosexual youths, but not among LGBQ youths. |
| Clements-Nolle et al. (2018) | The influence of sexual orientation and adverse childhood experiences (ACEs) on suicidal behavior | United States | QT-R | Secondary data (YRBS) | n = 4955 Aged 14–17 | LGB youths (<i>n</i> = 494) higher odds of ideation and attempt. Graded relationship between cumulative ACE exposure and suicidality. No interaction between sexual orientation and ACEs. However, LGB youths who experienced high number of ACEs were disproportionately affected. |
| Colvin et al. (2019) | Supportive school climates, and help-seeking is associated with positive mental health outcomes | United States | QT-RCT | Secondary data | n = 240 Aged 14–18 | Supportive school climate was associated with lower anxiety and depressive symptoms. Fewer depressive symptoms were associated with higher help-seeking intentions for suicidal thoughts. |
| Coulter et al. (2017) | Associations between outside and within school adult support with suicidality among LGB youths | United States | QT-C | Self-report questionnaire | n = 22,834 Aged 14–17 | LGB youths (<i>n</i> = 1826) were less likely to report having outside-school adult support. Sexual orientation moderated the protective effects of outside-school adult support, with support being less protective for bisexual and questioning youths. |
| Duncan and Hatzenbuehler (2014) | Suicidality among LGB adolescents was associated with LGB- related neighborhood hate crimes | United States | QT-R | Secondary data (BYS), and local police stats | n = 1292 Aged 14–17 | LGBT youths (<i>n</i> = 108) residing in neighborhoods with higher rates of LGBT-related hate crimes were more likely to report suicidality. No relationship between overall neighborhood violence and property crimes with suicidality; therefore, specific to LGBT hate crime. |
| Dunn et al. (2017) | Relationship between sexual history, bullying victimization and poor | United States | QT-R | Secondary data (RI YRBS) | n = 9300 Aged 14–17 | LGB (<i>n</i> = 350). Sexual minority boys reported the highest odds of being recently bullied, compared with heterosexual |

TABLE 1 (Continued)

| | | Setting, | Study | Data collection | Sample description, | Key points, results, and |
|---------------------------------|---|---------------------|--------|--|--------------------------|--|
| Authors, date | Study purpose | country | design | methods | size (n) | comments |
| Duong & Bradshaw (2014) | mental health outcomes using feminist theory Association between bullying and suicidality among LGB youths | United States | QT-R | Secondary data (NYC YRBS) | n = 951 Aged 14–17 | boys. Among those recently bullied, sexual minority girls reported the highest adjusted odds of depression and suicidal ideation. School and cyber bullying was associated with engaging in aggressive and suicidal behaviors among LGB youth. However, feeling connected to an appropriate adult at school moderated these associations and reduced both aggressive and suicidal behavior. |
| Eisenberg et al. (2021) | Whether living in supportive communities and attending supportive schools reduces risk | United States | QT-R | Secondary data (RESPEQT) | n = 20,790 Aged 14–17 | LGBT youth (<i>n</i> = 635). The availability of school and community-wide LGBTQ+ supportive resources were associated with lower risk of suicide attempt. For example, gender-neutral bathrooms protective factor. |
| English et al. (2022) | Association between intersecting structural racism, oppression, anti-LGBTQ policies, and suicide risk | United States | QT-L | Secondary data (UNITE), State Racism Index (SRI) data, and SEI | n = 2033 Aged 16-25 | For black youths (n = 497), structural racism, and anti-LGBTQ+ policies were significantly associated with depressive symptoms, perceived burdensomeness, thwarted belongingness, self-harm, and suicide attempt. Result not supported among white youths (n = 1536). |
| Gambadauro et al. (2020) | Association between sexual minority status, and suicidality | Sweden, & 6 Euro | QT-L | Self-report questionnaire | n = 2046 Aged 15–17 | When compared to heterosexual youths, LGB youths ($n = 214$) were significantly more likely to be exposed to substance abuse, bullying, school-related stress, and lower economic status. |
| Giano et al. (2020) | Establish identity profiles across multiple dimensions of youth behaviors associated with suicide | United States | QT-R | Secondary data (YRBS) | n = 2738 Aged 14–17 | High-risk classes of YP had multiple factors contributing to suicidality, inc. alcohol use, bullying, electronic use, and poor academic grades. More likely to have attempted suicide, and highest rates of bullying. |
| Gibbs and Goldbach (2015) | Understanding the relationship between religiosity, LGBT identity and suicidal behavior | United States | QT-C | Self-report questionnaire | n = 2949 Aged 18–24 | Internalized homophobia associated with suicidal ideation, but not attempt. Religious upbringing with unresolved conflict, parental antihomosexual religious beliefs, and leaving one's religion due to conflict were all associated with suicidal ideation. Internalized |



TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|---------------------------|--|---------------------|-----------------|--|------------------------------|---|
| | | | | | | homophobia fully mediated the relationship between parental antihomosexual religious beliefs and chronic suicidal ideation. |
| Gnan et al. (2019) | General and LGBTQ specific factors associated with mental health difficulties, use of mental health services, suicide risk and self-harm | United Kingdom | QT-R | Secondary data (YCP) | n = 1948 Aged 16–25 | Gender (female), sexual abuse, interpersonal violence and being transgender was associated with all four outcomes. Other risk factors included being bisexual, not feeling accepted, early age coming out, and experiences of queerphobic hate crime. |
| Goldbach et al. (2017) | Validity of the sexual minority adolescent stress inventory (SMASI) | United States | QT | Self-report questionnaire | n = 346 Aged 14–17 | Minority stress theory was developed for adults, so the present study sought to validate a newly development instrument to measure minority stress. Minority stress associated with depressive symptoms, suicidality and self-harm, as well as youth problem behaviors. |
| Guz et al. (2021) | Mental health, depressive symptoms, and suicide risk of LGBT youths | United States | QT-C | Self-report questionnaire | n = 5110 Aged 14-18 | In comparison to heterosexual and/or cis gender youths, LGBT youths reported higher prevalence of depression and suicide risk associated with minority stress and queerphobia. |
| Heino et al. (2023) | Whether transgender identity is associated with severe suicidal ideation, even after controlling for associated gender minority risk factors | Finland | QT-C | Self-report questionnaire | n = 1425 Aged 15–16 | Findings support significant association between transgender identity (<i>n</i> = 41) and severe suicidal ideation, even after controlling for prominent covariates or risk factors of suicidal behavior, including peer rejection and victimization. |
| Jacobson et al. (2023) | Whether sexual minority status is associated with greater suicide risk and non-suicidal self-injury | United States | QT-C | Self-report questionnaire | n = 1994 Aged 18–25 | There was no significant interaction effect indicating that non-suicidal self-injury severity did not amplify the effect of sexual orientation on suicide risk. Rather, NSSI predicted the same level of increased suicidality across both LGB ($n = 424$) and heterosexual youths. |
| Johnson et al. (2020) | Parental behaviors that trans youths perceive as rejecting, supportive or mixed, and mental health outcomes | United States | QL | Interviews using lifeline and photo elicitation | n = 24 Aged 16–20 | Parental rejection and mixed responses contributed to a range of psychosocial problems, including depression and suicidal ideation, while supportive |

TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|-----------------------------|--|-------------------|-----------------|------------------------------|---|--|
| Jones and Hillier (2013) | Trans-spectrum and same sex attracted youth, associated risk factors inc. identity disclosure, abuse, suicide, and self-harm | Australia | QT-C | Self-report questionnaire | n = 3000 Aged 14–21 | parental behavior increased positive wellbeing. Trans-spectrum youths (n = 91) reported experiences of abuse, and suicide attempts in response to queerphobia and cissexism. Many trans youths were able to reframe the social rejection of their identities using self-affirming strategies. They were also more likely to respond to discrimination through activism, holding hope for future. |
| Just Like Us (2023) | Unique and disproportionate challenges faced by young LGBTQ+ people in the UK | United Kingdom | QT-C | Self-report questionnaire | n = 3695 Aged 18–25 | LGBTQ+ youths who grew up in unsupportive environments were more than twice as likely to have experienced suicidal ideation. Family and school support associated with more positive mental health outcomes, including suicidality and shame. Discrimination, bullying and victimization significantly associated with suicidality. |
| King et al. (2018) | The intersection of non- heterosexuality and disability with regard to peer victimization, school connectedness, and suicidality | United States | QT-C | Self-report questionnaire | n = 11,364 Aged 14–18 | LGBQ students ($n = 730$) higher levels of suicidal ideation. School connectedness and peer victimization each moderated the association with suicidal ideation. Additionally, students who identified as LGBQ and disabled ($n = 250$) reported the highest levels of suicidal ideation. |
| Kuyper and Bos (2016) | Whether mostly heterosexual individuals differ in mental health outcomes from lesbian and gay individuals, and whether sexual minority risk and protective factors can explain any mental health disparities | United States | QT-C | Self-report questionnaire | n = 427 mostly hetero- sexual n = 153 lesbian/gay Aged 16–25 | MH participants reported higher levels of psychological distress, suicidality, and drug use than lesbian/gay participants with higher levels of internalized negativity to same-sex attraction, less openness to family members, less community involvement, and fewer LGBT friendships. Minority stress risk and protective factors did not mediate most associations, however higher levels of psychological distress were mediated by higher levels of internalized negativity. |
| Lardier et al. (2020) | The relationship between queer identity, social connection, school | United States | QT-R | Secondary data (DFC) | n = 687 Aged 16–18 | Queer identity status was positively correlated with suicidal ideation and school |



TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|--|--|-------------------|-----------------|---|------------------------------|---|
| Lett et al. (2022) | bullying and suicidal ideation among youth of color The syndemic relationship of depressive symptoms, substance use and suicidality in trans youths | · | | Secondary data (YRBSS) | n = 2680 Aged 14–17 | bullying victimization, and negatively correlated with family cohesion and social support. Protective factors inc. school importance, family cohesion and social support. A three-class LCA solution was identified, with "high-class" group = high substance misuse and depressive symptoms. Online bullying and housing insecurity were associated with |
| Livingston et al. (2015) | The relationship between minority-based victimization, and identifying resilience through personality profile analysis | United States | QT-R | Secondary data | n = 412 Aged 18–25 | increased odds of suicidality. YP classified as adaptive (higher extroversion, agreeableness, conscientiousness, and openness), or at-risk. Adaptive individuals were less likely to conceal their sexual orientation, but reported similar rates of victimization, discrimination, and internalized heterosexism. |
| Lowry et al. (2018) | The association of nonconforming gender expression (GNC) with mental distress and substance use | United States | QT-R | Secondary data (YRBS) | n = 6082 Aged 14–17 | Among female students, moderate GNC was associated with feelings of sadness and hopelessness, suicide plan and attempt. Among male students, moderate GNC was associated with sadness and hopelessness, and high GNC associated with suicide plan and attempt. |
| Lytle et al. (2014) | Intersecting identities on self-harm, suicidal behavior, and depression among LGB young people | United States | QT-R | Secondary data (ACHA) | n = 89,199 Aged 18–24 | LGB young adults (<i>n</i> = 4321) suicidality higher than non-LGB individuals. Internalized racism and heterosexism also had negative affect on selfesteem, and psychological distress. Religiosity protective for some. |
| Lytle et al. (2018) | Suicidal and help seeking behaviors among youth in an online LGBTQ social network | United States | QT-C | Self-report questionnaire | n = 203 Aged 18–24 | Reduced help seeking—73% gay men, 33% bisexual men, 42% bisexual women, 14% lesbian women and 41% of queer youths. Those that did seek help, most likely to reach out to a friend. Family support was significantly associated with fewer suicidal behaviors (protective). |
| Marzetti, McDaid, O'Connor (2022) | Lived experiences of suicidal distress, making sense of the relationship between queerphobia and suicidality | United Kingdom | QL | Interviews using narrative analysis | n = 24 Aged 16–24 | Suicide can be understood as a response to stigma, discrimination, and harassment. YP's experiences of entrapment, rejection, and |

TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|------------------------------|---|-------------------|-----------------|---|---------------------------------------|--|
| McDermott et al. (2018) | LGBTQ+ suicidality, and help-seeking behaviors | United Kingdom | ММ | Interviews, and self-report questionnaire | n = 29 QL n = 789 QT Aged 16–25 | isolation leads to suicidal behavior. LGBTQ+ youths only asked for help while at a crisis point, due to normalizing emotional distress. Reluctance to seek help associated with negotiating sexuality, gender, mental health, age norms, being unable to talk about emotions, coping and self-reliance. |
| Meyer et al. (2019) | Associations of anti-bullying state statutes concerning sexual orientation with exposure to bullying, and suicidality | United States | QT-R | Secondary data (YRBS) | n = 15,624 Aged 14–17 | Enumeration of sexual orientation (n = 1999) was associated with reduced stressors and suicide attempts, but insufficient to remove disparities based on sexual orientation. Additional policies and procedures are required to address disparities, both bullying and suicidality. |
| Miller et al. (2021) | Mental health disparities and outcomes that exist for LGBTQ youths compared to heterosexual youths | Australia | QT-L | Self-report questionnaire | n = 1933 Aged 16–25 | LGBTQ young people ($n = 676$) reported higher levels of depression, anxiety, stress, and risk for suicide than their heterosexual peers. Bisexual youths were most likely to have experienced mental health hospitalization. Queer youth did not differ from heterosexual youths on previous hospitalization but did so for risk of suicide. |
| Liu & Mustanski (2012) | Relative contributions of gender and LGBT- specific risk and protective factors for suicidal ideation and self-harm in LGBT youth | United States | QT-L | Structured interviews, and self-report questionnaire | n = 246 Aged 16–20 | A history of attempted suicide, impulsivity, LGBT-related victimization, and low social support = increased risk for suicidal ideation. Further sensation-seeking, female gender, childhood GNC, hopelessness and victimization were associated with greater risk of suicidal behavior. |
| O'Malley et al. (2022) | Moderating role of covitality, representing the co- occurrence of youth psychological strengths, and its relationship between queerphobic bullying and suicidality | United States | QT-R | Secondary data (CHKS) | n = 74,501 Aged 14–17 | Both transgender ($n = 730$) and LGB ($n = 7242$) students reported the highest rates of bias-based bullying and suicidal thoughts. Increases in covitality were associated suicidal ideation. However, no significant moderating effects were found, suggesting that the psychological impact of bias-based bullying is difficult to counteract through resilience alone. |



TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|-----------------------------------|--|---------------------|-----------------|---|------------------------------|--|
| O'Reilly et al. (2021) | Co-twin control study examining sexual orientation and adolescent suicide attempt and self-harm | Sweden | QL-L | DNA, structured interview— suicide data at aged 18 | n = 13,850 Aged 9–18 | LGBQ youth (n = 496) twice as likely to report suicide attempt, and non-suicidal self-injury, even after adjusting for unmeasured genetic and environmental factors shared by twins, and childhood psychopathology. Environmental factors specifically associated with sexual minority status likely increases risk for suicide attempt and non-suicidal self-harm. |
| Oginni et al. (2019) | Self-esteem and depressive symptoms as mediators of increased rates of suicidal ideation and self-harm | United Kingdom | QT-C | Self-report questionnaire | n = 4274 Aged 15–19 | Suicidal ideation and self-harm three times more likely among LGB youths. Self-esteem mediated pathway involving self-esteem and depressive symptoms. Childhood GNC did not moderate pathways. Lower self-esteem and depressive symptoms = increased suicidality. |
| Perales and Campbell (2019) | Health disparities between sexual orientation, health and wellbeing including suicidality | Australia | QT-C | Secondary data | n = 3318 Aged 14–15 | LGB and questioning youths $(n = 231)$ reported poorer health and wellbeing compared to heterosexual peers. Largest differences in the domains of self-harm, suicidality, peer problems and emotional problems. Minority stress impactful risk factor for suicidality among all. |
| Pollitt et al. (2021) | Predictors and mental health benefits of chosen name use as a protective factor among transgender youths | United States | QT-L | Self-report questionnaire | n = 129 Aged 15–21 | Chosen name was associated with significant reductions in negative mental health outcomes, including suicidal behavior. Chosen name use associated with gender affirmation process, and therefore better mental health overall. |
| Puckett et al. (2017) | The interpersonal and intrapersonal variables that predict psychological distress including self-reported suicide attempts | United States | QT-C | Administered questionnaire | n = 61 Aged 14–23 | Youths who lost friendships were 29 times more likely to report suicide attempts, and those who experienced psychological maltreatment from caregivers were 9.5 times more likely. Internalized heterosexism, feelings of guilty or shame were also significant predictors of suicidality. |
| Raifman et al. (2017) | The association between same-sex marriage policies and adolescent suicide attempts | United States | QT-R | Secondary data (YRBSS) | n = 762,678 Aged 14–17 | National same-sex marriage policies (<i>n</i> = 546,276) were associated with a reduction of youths reporting suicide |

TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|------------------------------|---|-------------------|-----------------|------------------------------|------------------------------|--|
| Rimes et al. (2019) | LGB specific, and general factors associated with suicide ideation, attempt, and future suicide risk | United Kingdom | QT-R | Secondary data (YC) | n = 3275 Aged 16–25 | attempts and mental health difficulties, Sexual minority youths (<i>n</i> = 217,363) reported history of suicide attempt before same-sex marriage policies implemented. Stigma and discrimination experiences significantly associated with suicidality. Including school stigma factors, negative coming-out experiences, harassment, bisexuality, nonacceptance, and younger LGB identification. General factors included being female, lower social support, anxiety, depression, and reduced help seeking. |
| Rivas-Koehl et al. (2022) | Associated factors for suicidality antd depression among sexual and gender minority adolescents | United States | QT- RCT | Self-report questionnaire | n = 1078 Aged 14–15 | Significant predictive factors of suicidality and depression include family support, peer support, help seeking, access to healthcare, healthy relationships and having a trusted adult; all protective factors. |
| Russell et al. (2018) | The relationship between chosen name use, as a proxy for youths' gender affirmation, and mental health | United States | QT-C | Self-report questionnaire | n = 129 Aged 15–21 | Chosen name was associated with lower depressive symptoms, suicidal ideation and behavior when controlling for social support. There were no differences in depressive symptoms or suicidality by personal characteristics inc. gender identity, ethnicity, or sexual orientation. |
| Scoggins et al. (2022) | Disparities in suicidal outcomes, and the intersection of sexual minority status and gender among youth | United States | QT-R | Secondary data (YRBS) | n = 14,108 Aged 14–17 | Predictors of suicidal behavior included short sleep duration, use of illicit drugs, being bullied, and feeling sad or hopeless. Implications of mental health disparities among LGBQ youths (<i>n</i> = 2096). |
| Shadick et al. (2015) | Suicide risk among college students, and explore the intersection of sexual orientation and race | United States | QT-C | Self-report questionnaire | n = 4345 Aged 18 | LGB identification ($n = 868$) associated with higher suicide risk than heterosexual peers. LGB students of color had elevated suicide risk, indicating that belonging to multiple marginalized groups increases risk. |
| Smith and Reidy (2021) | Whether multiple forms of bullying mediate the r'ship between sexual | United States | QT-R | Secondary data (YRBS) | n = 5967 Aged 16 | All forms of bullying were associated with suicide risk. After controlling for bullying, females remained at greater |



TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|---|---|---------------------|-----------------|-------------------------------|------------------------------|---|
| Smith et al. (2016) | substance use, PTSD symptoms, depressive symptoms, and suicidality among | United States | QT | Self-report questionnaire | n = 102 Aged 16–24 | risk. Findings congruent with minority stress theory, with a need for future intersectional research. Substance use and depressive symptoms were positively associated with prior suicide attempts. A significant threeway interaction highlighted |
| | traumatized LGB youths | | | | | that substance use interacted with both PTSS and depressive symptoms to increase the likelihood of a suicide attempt. |
| Smith et al. (2020) | Longitudinal predictors of self-injurious thoughts and behaviors | United States | QT-L | Self-report questionnaire | n = 252 Aged 14–15 | Youths reported attitudes and behaviors based on LGBT identity, suicidal behaviors, depression, self-criticism, body image, family support and strain, and experiences of discrimination. Models resulted in excellent predictive accuracy of NSSI and suicidal ideation. |
| Srivastava et al. (2023) | The association between digital sexual violence and suicidal behavior, as well as non-suicidal self- injury | United States | QT-R | Secondary data | n = 970 Aged 14–17 | Threat to post sexually explicit media without consent (digital sexual violence) was associated with higher odds suicidal ideation, suicide plan and suicide attempt. Further, nonconsensual posting of sexually explicit media was associated with suicidal ideation, and suicide attempt. |
| Szlyk (2020) | The impact of student identity, external stressors, and academic self-concept on suicidal ideation | United States | MM | Administered questionnaire | n = 103 Aged 15–20 | Nonheterosexual ($n = 35$) students experienced discrimination associated with higher rates of suicidal ideation. Positive academic self-concept was associated with lower reports of suicidal ideation. |
| Taliaferro and Muehlenkamp (2017) | Prevalence of suicidal behavior, and impact of social connection on suicidality among LGB youths | United States | QT-R | Secondary data (YRBS) | n = 77,758 Aged 14–16 | LGB youths (<i>n</i> = 3110) more likely to report repetitive NSSI and suicidality compared to heterosexual youths. Parent connectedness, nonparental adult support, and feeling safe at school all reduced NSSI and suicidality. |
| Taliaferro et al. (2018) | Depression and suicidality among bisexual youth | United States | QT-R | Secondary data (YRBS) | n = 922 Aged 14–17 | Bisexual youths reported high prevalence of depression and suicidal behavior. Study also examined behavioral risk and protective factors, with fewer youths reporting high protective factors. |

(Continues)

TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|---------------------------------|--|---------------------|-----------------|-------------------------------|------------------------------|--|
| Turpin et al. (2019) | Whether sexual orientation modified the association between bullying at school and suicidality among youths | United States | QT-R | Secondary data (YRBS) | n = 924 Aged 14–17 | Sexual orientation modified the association between at-school bullying and suicidality. Highest association among bisexual youths. At school, anti-homophobic messaging and interventions needed to reduce risk. |
| Turpin et al. (2020) | Whether victimization and depression were associated with suicidality at each step of a suicide cascade; ideation, plan, to attempt | United States | QT-R | Secondary data (YRBS) | n = 3357 Aged 14–17 | Depression was associated with suicidal ideation and behavior in successive subsamples. Victimization measures had different associations with suicidality at each successive stage, strongest with suicidal ideation in the general sample, and suicide attempts (history of). |
| Van Bergen et al. (2013) | Victimization and suicidality among LGB youths | Netherlands | QT-R | Secondary data | n = 274 Aged 16 | Victimization at school was associated with suicidal ideation and suicide attempt. Homophobic rejection by family members also associated with suicide attempt. Suicidality may be reduced with increased coping strategies and skills developed by LGB young people. |
| Van der Miesen et al. (2020) | To compare transgender adolescents psychological functioning before and after gender-affirmative care compared with cisgender general population peers | Netherlands | QT-C | Self-report questionnaire | n = 1101 Aged 14–16 | Before treatment ($n = 272$), young people reported increased internalization of problems, increased self-harm, suicidality, and poorer peer relations. Trans youths who received treatment ($n = 178$) experienced fewer emotional and behavioral problems, including self-harm and suicidality, compared to their cisgender peers ($n = 651$). |
| Veale et al. (2017) | Assessing the minority stress model, inc. stress of experiencing stigma leading to adverse mental health outcomes, and impact social support | Canada | QT-C | Self-report questionnaires | n = 923 Aged 14–25 | Discrimination, harassment, and violence (enacted stigma) were positively associated with mental health difficulties, and suicidality. Social support was negatively associated with same. Among 14-18 years old, family connectedness was the strongest protective factor. |
| Whitaker et al. (2016) | At-school protective factors and decreased suicidal ideation among LGB youths | United States | QT-R | Secondary data (SFUSD) | n = 356 Aged 14–16 | Higher levels of school connectedness and support predicted reduced suicidal ideation, acting as a protective factor for suicidality. |
| Wilson et al. (2016) | Mental health disparities based on exposure to | United States | QT-C | Self-report questionnaires | n = 300 Aged 16–24 | Trans-based discrimination significantly associated with |

TABLE 1 (Continued)

| Authors, date | Study purpose | Setting, country | Study design | Data collection methods | Sample description, size (n) | Key points, results, and comments |
|---------------|---|---------------------|-----------------|-------------------------|------------------------------|---|
| | discrimination among transgender youths | | | | | PTSD, depression, stress, suicidal ideation. Parental closeness related to significantly lower odds of all mental health outcomes, and resiliency positively reduced risk for psychological stress, PTSD, and suicidal ideation among young people. |

Abbreviations: QL, qualitative; QT, quantitative; QT-C, cross-sectional study; QT-R, retrospective study; QT-L, longitudinal study.

enumerate sexual orientation were associated with lower risk for suicide attempts, but failed to address existing disparities based on sexual orientation, underscores the need for comprehensive anti-bullying legislation and policies (Meyer et al., 2019). Additionally, there are significant calls for LGBTQ+ specific tailored services and support, including crisis services (Goldbach et al., 2018). At the societal level, we have discussed the impact of queerphobia and minority stress on suicidal behavior, emphasizing that minority stress originates from societal prejudice, discrimination and stigma in relation to a person's minoritised identity. Indeed, there are vast amounts of international evidence which have highlighted the importance of minority stress theory as a theoretical framework for explaining high prevalence rates of suicidality among LGBTQ+ populations (Fulginiti et al., 2021; Green et al., 2022; Toomey et al., 2018). More critically though, we must be cautious of deterministic, reductionist or over-simplistic explanations that situate LGBTQ+ people either as risks from internal/psychological factors, or at risk from external/societal factors (Marzetti et al., 2023). As such, an important limitation of minority stress is that it only addresses part of the problem; the external societal issues of queerphobia, and its detrimental internalization within LGBTQ+ individuals. In addressing this, it may be useful to consider Hatzenbuehler's theoretical framework which integrates minority stressors with mediating psychological processes, such as emotional regulation, rumination, and perceived social support (Hatzenbuehler, 2009, 2011). Moreover, it could be argued that what is lacking from our understanding of minority stress or societal risk factors is in fact "social safety" which is described as, "Reliable social connection, inclusion and protection, which are core human needs that are imperilled by stigma" (Diamond & Alley, 2022, p.1).

5 | STRENGTHS AND LIMITATIONS

To the authors' knowledge, this is the first scoping review to synthesize quantitative, qualitative, and mixed methods data on the risk and protective factors associated with suicidality among LGBTQ+ young people, including within-group differences. Further, the first scoping review to organize, integrate and discuss review findings from a socio-ecological perspective which has resulted in a more comprehensive, holistic understanding of factors associated with suicidality. Some limitations to our scoping review exist that are worth noting. First, the review process itself was conducted by one lead researcher. However, strict criteria and processes for inclusion or exclusion of articles, data extraction, and critical quality appraisal were followed throughout. Further, an experienced academic supervisory team were involved in providing guidance throughout, informing decisions about the research question and its scope, inclusion/exclusion criteria, grey literature, and quality assurance. Second, scoping reviews have inherent limitations due to their focus on breadth of knowledge rather than depth of information on a specific topic. However, utilizing the socio-ecological model to review our findings has allowed for breadth and depth in our review. Moreover, although scoping reviews do not typically include a critical appraisal, it has been included here. Third, there are limitations relating to the breadth of available evidence. For example, 75% of all studies originated from North America, and 50% analyzed secondary data with the majority of studies sampling young people within school settings. A large number of studies used cross-sectional cohort design; thus, causality cannot be drawn from the findings (Szlyk, 2020), and there were only 12 longitudinal studies in total. As such, the inclusion of more longitudinal studies would have been useful to help illuminate how suicidal behavior changes over time, and how these lifespan changes increase or reduce the risk of suicidality. Fourth, a grey literature search was conducted in the author's origin countries, the UK and ROI, to address the local research and evidence gaps in these countries. However, we recognize that the vast majority of studies originated from the United States and recommend that future research should focus on the available grey literature in the United States. As discussed, there were limited qualitative and mixed methods studies that met the criteria for inclusion. Thus, this review may

be missing important evidence, reflections and lived experiences that could have deepened our understanding of suicidality among LGBTQ+ young people and informed suicide prevention strategies.

6 | CONCLUSIONS

Overall, our findings affirm that multiple risk and protective factors, at all levels of the socio-ecological model, interact in complex, unique, and diverse ways upon suicidality among LGBTQ+ young people. Mapping factors from quantitative, qualitative and mixed-methods research within the socio-ecological model provided a theoretically driven framework for identifying factors that have to date received inadequate attention, thus highlighting areas for further empirical investigation. As the first scoping review synthesizing risk and protective factors for the entire LGBTQ+ community, our findings may be useful for policymakers, practitioners working directly with LGBTQ+ young people, and for those interested in early intervention and suicide prevention strategies. Additionally, our findings underscore the importance of educational settings as an opportunity for the practice of inclusion, diversity, support, and preventative care which can reduce suicide risk among LGBTQ+ young people. Further empirical studies are required, specifically qualitative and mixed-methods studies, and those that focus on both risk and protective factors at the communities, policies, and societal level of the socio-ecological model. Moreover, it may be useful for future reviews to broaden search criteria, focusing on community-based samples which examine within group differences among LGBTQ+ young people, particularly from an intersectional theoretical perspective.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

This review was registered prospectively with OSF (https://osf.io/s9qta/). All additional materials are available as Supporting Information Materials. Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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