

University of Groningen

## Family Belongingness Attenuates Entrapment and Buffers Its Association with Suicidal Ideation in a Sample of Dutch Sexual Minority Emerging Adults

Parra, Luis A.; van Bergen, Diana D.; Dumon, Eva; Kretschmer, Tina; La Roi, Chaïm; Portzky, Gwendolyn; Frost, David M.

*Published in:*  
 Archives of Sexual Behavior

*DOI:*  
[10.1007/s10508-020-01838-0](https://doi.org/10.1007/s10508-020-01838-0)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
 Publisher's PDF, also known as Version of record

*Publication date:*  
 2021

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

Parra, L. A., van Bergen, D. D., Dumon, E., Kretschmer, T., La Roi, C., Portzky, G., & Frost, D. M. (2021). Family Belongingness Attenuates Entrapment and Buffers Its Association with Suicidal Ideation in a Sample of Dutch Sexual Minority Emerging Adults. *Archives of Sexual Behavior*, 50, 983–1001. <https://doi.org/10.1007/s10508-020-01838-0>

### Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

### Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.



# Family Belongingness Attenuates Entrapment and Buffers Its Association with Suicidal Ideation in a Sample of Dutch Sexual Minority Emerging Adults

Luis A. Parra<sup>1,2,3</sup> · Diana D. van Bergen<sup>4</sup> · Eva Dumon<sup>5</sup> · Tina Kretschmer<sup>4</sup> · Chaïm La Roi<sup>6,7</sup> · Gwendolyn Portzky<sup>5</sup> · David M. Frost<sup>8</sup>

Received: 2 July 2019 / Revised: 7 September 2020 / Accepted: 9 September 2020 / Published online: 4 January 2021  
© Springer Science+Business Media, LLC, part of Springer Nature 2021

## Abstract

Sexual minority emerging adults are more likely to engage in suicidal ideation than their heterosexual counterparts. Experiences of homophobic violence are associated with suicidal ideation. Yet, the specific mechanisms linking homophobic violence to suicidal ideation remain unclear. Entrapment and social belongingness were tested to determine their relevance for understanding the link between homophobic violence and suicidal ideation. A sample of sexual minority Dutch emerging adults ( $N = 675$ ; ages 18–29,  $M = 21.93$  years,  $SD = 3.20$ ) were recruited through online platforms and flyers. Homophobic violence was expected to be positively associated with suicidal ideation and entrapment. The association between homophobic violence and suicidal ideation was expected to be indirectly linked through entrapment. We explored whether various sources of social belongingness moderated the path between entrapment and suicidal ideation and whether those sources of social belongingness moderated the indirect effect of homophobic violence on suicidal ideation through entrapment. Results showed that homophobic violence and entrapment were positively associated with suicidal ideation and that family belongingness was negatively associated with suicidal ideation. Homophobic violence and suicidal ideation were not indirectly linked through entrapment. The interaction effect between entrapment and family belongingness was significant, suggesting that, on average, the effect of entrapment on suicidal ideation decreased when family belongingness was high. These results suggest that family belongingness may reduce the association between entrapment and suicidal ideation while adjusting for homophobic violence. Reducing entrapment and improving family belongingness may be useful targets for programs aimed at preventing suicidal ideation among sexual minority emerging adults.

**Keywords** Homophobic violence · Entrapment · Social belongingness · Suicidal ideation · Sexual orientation · Minority stress

**Electronic supplementary material** The online version of this article (<https://doi.org/10.1007/s10508-020-01838-0>) contains supplementary material, which is available to authorized users.

✉ Luis A. Parra  
luis.parra@usc.edu

<sup>1</sup> Suzanne Dworak-Peck School of Social Work, University of Southern California, Los Angeles, CA 90089, USA

<sup>2</sup> Department of Human Ecology, University of California, Davis, Davis, CA, USA

<sup>3</sup> Center for Mind and Brain, University of California, Davis, Davis, CA, USA

<sup>4</sup> Department of Behavioral and Social Sciences, University of Groningen, Groningen, The Netherlands

<sup>5</sup> Department of Head and Skin, Centre of Expertise in Suicide Prevention, Ghent University, Ghent, Belgium

<sup>6</sup> Institute for Futures Studies, Stockholm, Sweden

<sup>7</sup> Swedish Institute for Social Research, Stockholm University, Stockholm, Sweden

<sup>8</sup> Department of Social Science, University College London, London, UK

## Introduction

Sexual minority youth and emerging adults (i.e., people who self-identify as lesbian, gay, bisexual, pansexual, queer, people who engage in non-heterosexual sexual behaviors or who have non-heterosexual sexual attractions) in the European countries and in the U.S. are five times more likely to develop suicidal thoughts (Almeida, Johnson, Corliss, Molnar, & Azrael, 2009; Baiocco, Ioverno, Lonigro, Baumgartner, & Laghi, 2015) and three to five more times likely to attempt suicide (Kuyper, 2015; Russell & Fish, 2016) than their heterosexual counterparts. The minority stress framework (e.g., Meyer, 1995, 2003) suggests that sexual minority people experience homophobic violence (i.e., a form of minority stress) because of their stigmatized social status as non-heterosexual people. Although the Netherlands is considered a country with progressive attitudes and laws that protect the human rights of its sexual minority Dutch citizens, as demonstrated by being the first country in the world to legally support same-sex marriages in 2001 (Freedom to Marry, 2019), Dutch sexual minority people remain vulnerable to the adverse psychological effects of homophobic violence. In a Dutch national study, 40% of sexual minority youth and emerging adults (ages 16–25) reported one or more experiences of homophobic violence within a twelve-month interval (Kuyper, 2015). This is concerning because experiences of homophobic violence are associated with negative psychological processes and poor mental health outcomes, including suicidal ideation (Hatzenbuehler, 2009). Despite the high risk for suicidal ideation, the mechanisms linking sexual minority status and suicidal ideation are not well understood (Hatzenbuehler, 2009; Plöderl et al., 2013, 2014).

The integrated motivational–volitional model of suicidal behavior (IMV; O’Connor, 2011; O’Connor & Kirtley, 2018) suggests that suicidal ideation is associated with negative life experiences (e.g., violence; O’Connor & Portzky, 2018) and detrimental psychological processes. These mental health challenges include entrapment (i.e., perceptions of no escape from psychosocial contexts that promote psychological pain) (Williams, 2001) and negative interpersonal processes (e.g., low perceived social belongingness, which encompass social support and social connectedness) (Joiner, 2005; van Orden et al., 2010). However, it is unknown if and how social belongingness as a “rescue factor” (i.e., the role of social belongingness in attenuating risk for suicide; O’Connor, 2003; Williams, 2001) is interrelated with violence and entrapment, and of these constructs’ relevance for understanding suicidal ideation in homophobic social contexts. Thus, the overarching scope of this study was to test the relevance of entrapment and social belongingness for understanding the association between homophobic violence and suicidal ideation in a sample of sexual minority Dutch emerging adults.

## Understanding Suicidal Ideation from a Minority Stress Perspective

The minority stress framework (Meyer, 1995, 2003) posits that sexual minority people experience and anticipate homophobic discrimination and violence and/or internalize negative societal attitudes about their non-heterosexual identities, attractions, or behaviors. Experiences of homophobic violence are associated with suicidal ideation and behavior (Almeida et al., 2009; Kuyper, 2015; Russell & Fish, 2016) and with psychological distress such as anxiety (Reitzel, Smith, Obasi, Forney, & Leventhal, 2017) and depressive symptoms (Parra, Benibgui, Helm, & Hastings, 2016). Moreover, sexual minority youth and emerging adults may experience negative reactions from their family and others when disclosing their non-heterosexual orientations (i.e., coming out; D’Augelli, Grossman, & Starks, 2008; D’Augelli, Hershberger, & Pilkington, 1998; Potoczniak, Crosbie-Burnett, & Saltzburg, 2009). These negative reactions to disclosure are positively associated with suicidal ideation (Hill & Pettit, 2012).

The minority stress framework also suggests that social support (a key component of social belongingness) is associated with suicidal ideation and behaviors (Meyer, 1995, 2003; Russell & Fish, 2016). Empirical evidence suggests that lack of social support from family of origin and friends is associated with suicidal ideation in sexual minority youth and emerging adults (Liu & Mustanski, 2012; Ryan, Huebner, Diaz, & Sanchez, 2009). Ryan et al. reported that sexual minority people who were unsupported by their families of origin because of their sexual orientation were 8.4 times more likely to attempt suicide when compared to sexual minority people who were supported by their families. This is of particular concern given that social support networks for some sexual minority people tend to contain fewer family members who provide major forms of support than of heterosexual people (Frost, Meyer, & Schwartz, 2016). The minority stress framework, however, does not specify comprehensive psychological and interpersonal pathways by which experiences of homophobic violence are associated with specific forms of mental health. Our understanding of the etiology of various forms of adverse mental health outcomes, including suicidal ideation, is therefore limited (Hatzenbuehler, 2009; Meyer, 2010; Plöderl et al., 2013).

## The Integrated Motivational–Volitional Model of Suicidal Behavior

The IMV model of suicidal behavior posits that negative life events, psychosocial processes such as entrapment, and social belongingness are key factors associated with suicidal ideation (O’Connor, 2011; O’Connor & Kirtley, 2018). Negative life events such as experiences of violence may impact mental

health as these experiences are hypothesized to be associated with entrapment and suicidal ideation (O'Connor & Portzky, 2018). In suicide research, links between experiences of violence and suicidal ideation are documented in adult survivors of domestic violence (Wolford-Clevenger, Elmquist, Brem, Zapor, & Stuart, 2016).

The IMV model places entrapment as a central process between negative life experiences and suicidal ideation. Entrapment is both external and internal. External entrapment can be defined as a state in which people may feel trapped by psychologically painful experiences caused by others (e.g., experiences of violence); and internal entrapment can be defined as a state in which people feel trapped in their mental pain or problems (Gilbert, 1989; Gilbert & Allan, 1998; Williams, 2001). Entrapment also captures people's feelings of no longer being able to cope with their psychological pain and to not see or seek rescue factors such as social belongingness. Suicidal ideation and behavior are hypothesized perceived "solutions" for escaping entrapment (Williams, 2001). Empirical studies of people in clinical contexts report a positive association between entrapment and suicide behaviors. In the posttraumatic stress disorder literature, Panagioti, Gooding, and Tarrrier (2012) reported a moderate correlation ( $r = .42$ ) between entrapment and suicidal behaviors in survivors of traumatic life events after adjusting for comorbid depression.

Key aspects of the IMV model may complement the minority stress framework by positing entrapment as a plausible psychological mechanism linking negative life events, such as experiences of homophobic violence, and suicidal ideation (O'Connor, 2011; O'Connor & Kirtley, 2018; Williams, 2001). To our knowledge, there is only one published study that focused on men who engage in same-sex sexual behavior (Li, Cai, Wang, Gan, & Shi, 2016) which reported a positive association between entrapment and suicidal ideation. Yet, this body of work does not address whether experiences of homophobic violence are associated with suicidal ideation through entrapment and whether social belongingness (from various sources) can influence the degree to which entrapment is associated with suicidal ideation.

### The Importance of Interpersonal Relationships for Sexual Minority People

Positive and meaningful interpersonal relationships promote healthy psychosocial adjustment; and the lack thereof seems to be detrimental for a person's mental health (Cohen, 2004; Uchino, 2004). IMV suggests that interpersonal sources of social belongingness may strengthen or weaken (i.e., moderate) the association between entrapment and suicidal ideation (O'Connor, 2011; O'Connor & Kirtley, 2018). In the minority stress literature, social belongingness may buffer against negative health outcomes in homophobic social

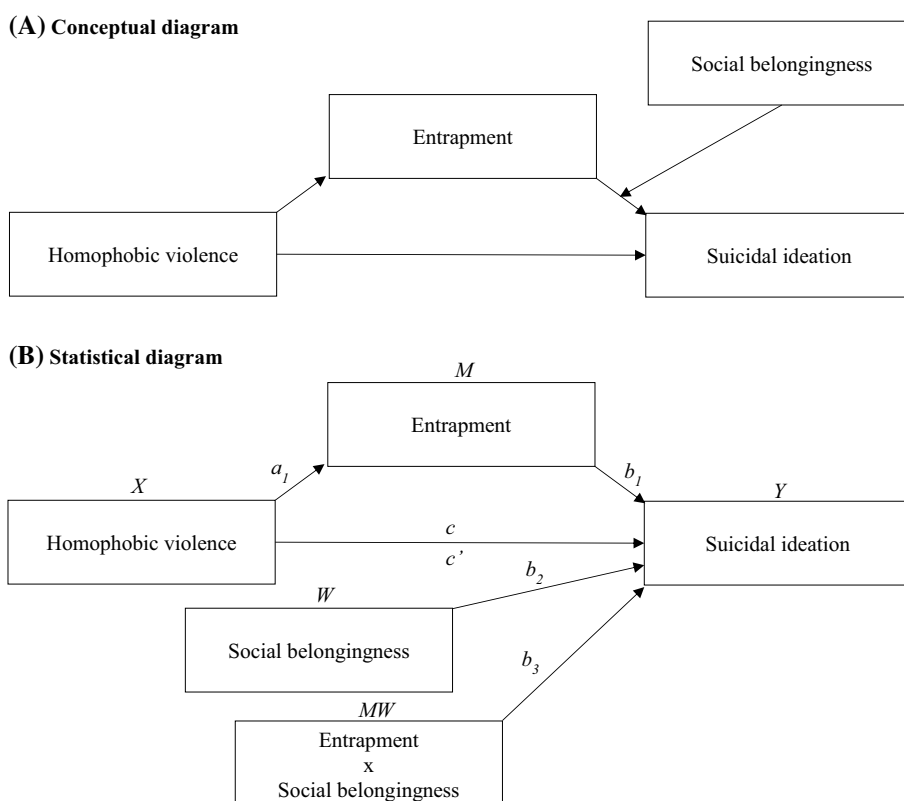
contexts (Kwon, 2013). Having a sense of social belongingness with families of origin, friends, peers at school and at the workplace, sexual minority friends, and sexual minority communities is associated with healthy psychosocial adjustment (Huffman, Watrous-Rodriguez, & King, 2008; Sheets & Mohr, 2009; Shilo & Savaya, 2011; Snapp, Watson, Russell, Diaz, & Ryan, 2015; Watson, Grossman, & Russell, 2019).

Empirical evidence for positive associations among social belongingness to parents and family of origin with mental health in sexual minority people is abundant (Lazarevic, Holman, Oswald, & Kramer, 2015; Needham & Austin, 2010; Shilo, Antebi, & Mor, 2015; Tabaac, Perrin, & Rabinovitch, 2015; Teasdale & Bradley-Engen, 2010; Williams, Connolly, Pepler, & Craig, 2005). Social support from family of origin for sexual minority youth and emerging adults is associated with less suicidal ideation (Button, 2015 for review; Eisenberg & Resnick, 2006; Ryan, Russell, Huebner, Diaz, & Sanchez, 2010). Although disclosure of sexual orientation (i.e., coming out) to parents and family may be a significant hurdle for sexual minority people, for those who are more fortunate to have loving and accepting families, positive parental and family responses may foster feelings of safety and confidence (Pollitt, Muraco, Grossman, & Russell, 2017; Rothman, Sullivan, Keyes, & Boehmer, 2012). Studies suggest that support from parents may stimulate feelings of social belongingness in sexual minority youth, which may promote healthy psychosocial adjustment (Detrie & Lease, 2007). For some sexual minority adults in supportive social contexts, being out is associated with higher self-esteem and lower depressive symptoms (Legate, Ryan, & Weinstein, 2012).

Although family support has been demonstrated to have the greatest influence against mental health challenges and suicide among sexual minority youth and emerging adults (e.g., McConnell, Birkett, & Mustanski, 2015; Mustanski & Liu, 2013), support from friends has also been shown to have a positive impact on psychological adjustment for sexual minority emerging adults (Snapp et al., 2015). Having more support from friends is associated with low depressive symptoms (Watson et al., 2019) and sexuality-based victimization (Mustanski & Liu, 2013). Research on sexual minority emerging adults has shown that sexual minority friends are more capable than family as providers of support for sexuality-related stressors, which can reduce the association between minority stress and emotional distress (Doty, Willoughby, Lindahl, & Malik, 2010; Ueno, 2005). Moreover, support from classmates (Watson et al., 2019) and colleagues (Huffman et al., 2008; Melton & Cunningham, 2014) is associated with healthy psychosocial adjustment among sexual minority youth and adults.

Sexual minority communities function as sources of social support that may interrupt the negative impact of minority stress on health. Several studies have shown that feeling connected to a community of other sexual minority people

**Fig. 1** Conceptual and statistical diagrams of moderated mediation with main predictor and outcome variables. *Notes* As shown in this figure, panel A represents the conceptual model for the moderated mediation analysis. As shown in this figure, panel B represents the statistical model testing direct ( $c'$ ), indirect ( $a_1*b_1$ ), and total ( $c$ ) effects linking the association between homophobic violence and suicidal ideation indirectly through entrapment; and the index of moderated mediation ( $a_1*b_3$ ) to determine whether the hypothesized indirect effect of homophobic violence and suicidal ideation through entrapment was contingent on social belongingness



can play a health-enhancing role (e.g., Frost & Meyer, 2012; McConnell, Janulis, Phillips, Truong, & Birkett, 2018; Ramirez-Valles, Fergus, Reisen, Poppen, & Zea, 2005). In particular, having a supportive sexual minority community has been linked to lower risk for suicidal ideation through heightened social belongingness among sexual minority emerging adults (Hill, Rooney, Mooney, & Kaplow, 2017).

## The Current Study

Collectively, the few pioneering studies (e.g., Baams, Grossman, & Russell, 2015; Fulginiti et al., 2020; Hill & Pettit, 2012; Li et al., 2016) that have integrated the minority stress framework with theoretical models of suicide suggest that various forms of minority stress, entrapment, and social belongingness are critical factors that may be interrelated for understanding suicidal ideation in sexual minority emerging adults. These existing studies, however, do not offer empirical support for social belongingness as an independent mediating factor between minority stress and suicidal ideation and behaviors (e.g., Baams et al., 2015; Cramer, Burks, Stroud, Bryson, & Graham, 2015; Fulginiti et al., 2020; Hill & Pettit, 2012). We expand on this current body work by considering that the propensity to engage in suicidal ideation when experiencing homophobic violence may be explained through feeling entrapped; and these associations may be enhanced

(moderated) when social belongingness scarce (O'Connor & Nock, 2014). We further consider that sexual minority people may have access to their families of origin, straight friends, classmates/colleagues, sexual minority friends, and sexual minority communities from which they can seek and receive social support and connections to establish a sense of social belongingness. Conversely, these interpersonal sources that can foster a sense of social belongingness and healthy psychosocial adjustment may also augment the risk for suicidal ideation when and if these interpersonal sources of social belongingness are not available. Thus, the current study aimed to identify which sources of social belongingness, if any, could buffer against suicidal ideation in the context of homophobic violence and entrapment.

## Hypotheses

As shown in Fig. 1, panel A provides a conceptual diagram of the following hypotheses. Homophobic violence was expected to be positively associated with entrapment and greater risk for suicidal ideation. Entrapment, in turn, was expected to be associated with greater risk for suicidal ideation. We also expected the association between homophobic violence and suicidal ideation to be indirectly linked through entrapment. Across five moderated mediation

models (one model for each source of social belongingness), we expected associations between homophobic violence and entrapment with suicidal ideation to be buffered by more social belongingness or augmented by less social belongingness.

The predicted indirect association of homophobic violence on suicidal ideation through entrapment, and the exploratory tests of moderated mediation were expected to remain robust after adjusting for age, education, sexual orientation, outness about sexual orientation, and psychological distress. These five covariates were included in our models because younger (Fish, Rice, Lanza, & Russell, 2019) and both-sex-attracted people (Haas et al., 2010; Plöderl & Tremblay, 2015; Ross et al., 2017) report more suicidal ideation than their older and same-sex attracted counterparts. In the general population, low education attainment is linked with higher risk for suicide (Li, Page, Martin, & Taylor, 2011; Nock et al., 2008). Sexual minority people who conceal their sexual orientation report more psychological distress (Pachankis, 2007) when compared to sexual minority people who disclose their sexual orientation (Legate et al., 2012). Psychological distress has consistently been associated with homophobic violence (Woodford, Han, Craig, Lim, & Matney, 2014), and psychological distress is shown to be co-current with suicidal ideation (Baiocco et al., 2015; O'Connor & Nock, 2014 for review).

## Method

### Participants

A sample of Dutch sexual minority emerging adults ( $N=675$ ; ages 18–29 years,  $M=21.9$ ,  $SD=3.20$ ; 64.1% cisgender female) were recruited through online advertisements circulated across sexual diversity and social networking online platforms in the Netherlands. Recruitment efforts also relied on advertisements on suicide prevention forums. Participants reported same-sex attractions (75.3%), both-sex attractions (23.5%), and non-exclusively opposite sex attractions (i.e., mostly heterosexual people; 1.2%) (please see Measures for a description of sexual attractions group composition). The majority of the sample had attained post-secondary higher education (76.6%), had come out to at least one parent (87.7%), and disclosed their same-sex attractions to others (97.5%). Participants with mostly heterosexual attractions ( $n=8$ ) were removed from subsequent analyses because of low representation and because research suggests these participants could not be categorized as both-sex-attracted people (Krueger, Meyer, & Upchurch, 2018; Savin-Williams, Rieger, & Rosenthal, 2013; Savin-Williams & Vrangalova, 2013; Thompson & Morgan, 2008). Thus, the final sample size used in all subsequent analyses was 667.

### Procedure

Online data collection in the Netherlands took place between October 2016 and February 2017. Ethics approval was obtained at the host university in the Netherlands. Participants gave informed consent online prior to completing the questionnaires. The online study was conducted in the Dutch language, and all questionnaire items and response options were translated to English for publication.

### Measures

#### Homophobic Violence

Lifetime homophobic violence was measured with a single item created by the research team, “Have you ever been a victim of homophobic-related violence?”<sup>1</sup> Response options ranged from 1 = Never, 2 = Only once, 3 = About once a month, 4 = Multiple times per month, 5 = About once a week, 6 = Multiple times per week, 7 = Daily. To more clearly distinguish among response options 4–7, homophobic violence was dichotomized such that 0 = Never and 1 = Yes (response options 2–7).<sup>2</sup>

#### Entrapment

The Entrapment Scale (Gilbert & Allan, 1998) is a 16-item measure that assesses the extent to which participants experience cognitions of feeling trapped in their lives and current situations or circumstances. The scale consists of two subscales: external entrapment and internal entrapment. Example items for external entrapment included, “I am in a situation I feel trapped in” ( $\alpha=.92$ ). Example items for internal entrapment included, “I would like to get away from who I am and start again” ( $\alpha=.94$ ). Response options ranged for each item from 0 = Not at all like me to 4 = Extremely like me. Similar to other studies (e.g., Taylor, Wood, Gooding, & TARRIER, 2010), the external and internal entrapment subscales were combined. For this study, both subscales were highly

<sup>1</sup> In a subsequent question, participants were asked to “Please specify type of violence (sexual/physical/verbal). Check all options that apply” from a list of violence-related events (e.g., damage to personal possessions or property; verbal, physical, or sexual harassment, threats). Participants endorsed experiences of homophobic violence across various domains at the following frequencies: damage to personal possessions or property (2.7%) ( $n=18$ ), verbal (49%) ( $n=327$ ), physical (5.8%) ( $n=39$ ), or sexual harassment (2.5%) ( $n=17$ ), relational aggression (33.6%) ( $n=224$ ); bullying (28.8%) ( $n=192$ ), exclusion/rejection (25%) ( $n=167$ ), ignored (15.4%) ( $n=103$ ), and threats (12.1%) ( $n=81$ ). These responses were used for descriptive purposes and were not used as predictors in subsequent analyses.

<sup>2</sup> The main analyses yielded a similar pattern of results when using the seven-point Likert scale. Please see Supplementary Table 1.

correlated  $r(667) = .79, p < .001$  and higher averaged scores represented more entrapment. The Cronbach alpha from the English to Dutch translated measure used in this study was  $\alpha = .95$ , which replicated the alpha coefficient reported in Taylor et al. (2010) ( $\alpha = .95$ ) that used the original English version.

### Social Belongingness

Perceptions of social support and social connectedness across multiple interpersonal sources were assessed with two items developed by the research team. The first item asked participants “To what extent do you feel supported by the groups of people detailed in the table below?” Participants were asked to report their perceived social support from various sources: family of origin, straight friends, sexual minority friends, classmates/colleagues, and sexual minority communities. For each source of social support, participants responded from 1 = Very unsupportive to 5 = Very supportive, or 6 = Not applicable. The second item asked participants “To what extent do you feel connected with the groups of people detailed in the table below?” from the same social support source options. Responses options ranged from 1 = Very unconnected to 5 = Very connected, or 6 = Not applicable. The two items for each source of social support and connectedness pertaining to each social source were, respectively, correlated (all  $r$ 's  $> .528, p$ 's  $< .001$ ) and were combined. Response options 1–5 were averaged to create indices of social belongingness. Thus, higher averaged scores represented more perceived belongingness. The Cronbach alpha for each source of social belongingness was as follows: family of origin ( $\alpha = .85$ ), straight friends ( $\alpha = .75$ ), classmates/colleagues ( $\alpha = .79$ ), sexual minority friends ( $\alpha = .69$ ), and sexual minority community ( $\alpha = .78$ ). The handling of Not applicable responses is described below.

### Suicidal ideation

Lifetime suicidal ideation was assessed with a single item, “Have you ever thought seriously about ending your life?” This single item has been previously used to assess lifetime suicide ideation in the adult population of a European country (Gisle & Van Oyen, 2013). Response options ranged from 0 = No, never, 1 = Yes, once, and 2 = Yes, multiple times. Response options were dichotomized such that 0 = No, and responses options 1 and 2 were coded as 1 = Yes.

### Covariates

#### Sexual Attractions

Both-sex and same-sex attractions were assessed with a single item, “To whom do you feel sexually attracted?”

Response options ranged from 1 = Only women, 2 = Mostly to women, rarely to men, 3 = More to women than to men, 4 = As much to men as to women, 5 = More to men than to women, 6 = Mostly to men, rarely to women, and 7 = Only to men. Sexual attractions were coded in two categories: Female participants who endorsed 1 and 2 and male participants who endorsed 6 and 7 were grouped as same-sex-attracted people (0 = same-sex attracted), and both female and male participants who endorsed 3–5 were grouped as both-sex-attracted people (1 = both-sex attracted), following a similar convention as done in previous research (e.g., Morandini, Blaszczynski, & Dar-Nimrod, 2017; Rieger, Savin-Williams, Chivers, & Bailey, 2016). Seven ( $n = 7$ ) female participants endorsed 6 (Mostly to men, rarely to women), and one ( $n = 1$ ) male participant endorsed 2 (Mostly to women, rarely to men). These eight ( $n = 8$ ) participants were excluded from subsequent analyses because non-exclusively opposite-sex-attracted people fall within a heterosexual range (e.g., sexually attracted exclusively to opposite sex or sexually attracted to opposite sex mostly; Morandini et al., 2017) and may constitute their own sexual orientation group that differs from both-sex-attracted people (Krueger et al., 2018; Savin-Williams et al., 2013; Savin-Williams & Vrangalova, 2013; Thompson & Morgan, 2008).

### Outness

Participants were asked if they had disclosed their sexual orientation to others with a single item, “Have you told at least one person that you are not straight?” Responses were coded as 0 = No and 1 = Yes.

### Psychological Distress

The 12-Item General Health Questionnaire (GHQ-12) (Goldberg & Williams, 1988) assessed participants' psychological distress symptoms. Response options inquired whether participants had “Been feeling unhappy and depressed?” or “Lost much sleep over worry?” Likert-type response options for each item ranged from 0 = Not at all to 3 = Much more than usual. Positive framed items were reverse coded. Higher summed scores suggested more psychological distress. The Cronbach alpha for this scale was  $\alpha = .92$ .

### Analytical Plan

The conceptual model guiding our analyses is depicted in Fig. 1, panel A, and panel B depicts the statistical translation of this model. In detail, after examining bivariate associations among the predictor, outcome, and control variables, we tested whether homophobic violence and suicidal ideation were indirectly associated through entrapment (paths  $a_1$  and  $b_1$ ). We calculated indirect effects by multiplying

the effect of homophobic violence on entrapment by the effect of entrapment of suicidal ideation ( $a_1*b_1$ ). The indirect association between homophobic violence on suicidal ideation through entrapment met mediation criteria if the bias-corrected accelerated confidence intervals (BCa CIs) of the tested indirect effect did not include zero. Then, we tested in five separate models whether each source of social belongingness moderated the link between entrapment and suicidal ideation through adding an interaction term between entrapment and each source of social belongingness. All continuous variables were mean centered prior to creating interaction terms. We evaluated the significance of the interaction effect ( $b_2$ ) (Entrapment  $\times$  Social belongingness) by testing the equality of average marginal effects, with the second differences (cross-derivatives) test (Ai & Norton, 2003; Berry, DeMerrit, & Esarey, 2010; Long & Mustillo, 2018; Mize, 2019; Mustillo, Lizardo, & McVeigh, 2018; Rainey, 2016) at  $\pm 1$  standard deviation (SD) of the moderator (i.e., social belongingness). Interaction effects were considered statistically significant if the second differences test indicated that the CIs did not include zero.

Finally, we tested whether each source of social belongingness moderated the indirect effect of heterosexual violence on suicidal ideation via entrapment. This test shows whether the strength of the indirect effect is dependent on the moderator (sources of social belongingness). Conditional indirect effects of homophobic violence on suicidal ideation via entrapment as a function of each source of social belongingness (at various levels of the moderator, e.g.,  $\pm 1$  SD) were calculated if the path between entrapment and suicidal ideation was moderated by social belongingness ( $b_3$ ). This second stage moderated mediation model quantifies the association of an indirect effect as a function of a moderator with an index of moderated mediation (Hayes, 2015). The index of moderated mediation was calculated by multiplying the path between homophobic violence and entrapment with the coefficient of the interaction product term of entrapment with social belongingness ( $a_1*b_3$ ).

Each model was tested using diagonally weighted least squares (DWLS) estimation to yield more precise estimates of the predicted probit link path coefficients when the outcome variable is dichotomous. All models were fitted as path models in the lavaan package (Rosseel, 2012) in R Version 3.6.2 (R Core Team, 2019), adjusting for all associated covariates. We used this approach to accommodate the more complex moderated mediation models and obtained 95% BCa CIs for the model's estimates using bootstrapping (see notes in Table 2; MacKinnon, 2008; MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2008). We used bootstrapping because Shapiro–Wilk tests of normality indicated that the predictor and outcome variables were not normally distributed, all  $ps < .001$  and because bootstrapping is robust against nonnormality of the sampling distribution

of the indirect effect (MacKinnon, 2008; Montoya & Hayes, 2017). Lastly, we used the *secondDiff* function of the DAMisc package (Armstrong, 2020) in R to evaluate the significance of the nonlinear interaction effect (second differences test) between entrapment and social belongingness on suicidal ideation in their respective models.

## Missing Data

Overall, we had complete data for all variables included in our main analyses with the exception outness, a control variable, which had one missing case.

## Not Applicable Responses

Participants had the option to select “not applicable” (N/A) to items on the social belongingness scale items. In general, participants selected N/A for family of origin belongingness (.3%) ( $n = 2$ ), straight friend belongingness (.3%) ( $n = 2$ ), classmate/colleague belongingness (2.8%) ( $n = 19$ ), sexual minority friend belongingness (12%) ( $n = 80$ ), and sexual minority community belongingness (10.8%) ( $n = 72$ ). Responses for belongingness with sexual minority friends and sexual minority community had sufficient N/A responses to detect statistically meaningful effects. We conducted  $\chi^2$  and  $t$ -tests to determine whether N/A responses were associated with all variables included in the subsequent models. N/A responses were associated with age, education, outness, homophobic violence, and belongingness with classmates/colleagues, sexual minority friends, and sexual minority community (please refer to Supplemental Results). It was likely that participants selected N/A because they had no (or no close ties) with family, straight friends, classmates/colleagues, sexual minority friends, or the sexual minority community; thus, N/A responses were imputed with the lowest response option of the 5-item Likert scale (1 = Very unsupported/unconnected). Furthermore, dummy variables were created to identify 0 = N/A and 1 = Applicable item responses. These dummy variables for identifying N/A responses were used as a covariate in all subsequent analyses as a conservative effort to yield more precise estimates in the moderated mediation models by accounting for all the associations related to N/A responses presented in the Supplemental Results.

## Results

### Descriptive Analyses

Table 1 displays the means, standard deviations (SD), and zero-order correlations for all main measures in this study. A majority of participants endorsed experiencing homophobic violence (59.8%) ( $n = 399$ ) and suicidal ideation (56.7%)



( $n = 378$ ). Participants who endorsed experiences of homophobic violence were more likely to endorse suicidal ideation,  $\chi^2(1, N = 667) = 17.01, p < .001$ , and to report more entrapment ( $M = 2.08, SD = .95$ ) and social belongingness to sexual minority friends ( $M = 4.13, SD = 1.22$ ) when compared to participants who did not endorse experiences of homophobic violence ( $M_s = 1.90, 3.91; SD_s = .94, 1.38$ ),  $t_s(665) > |2.19|, p_s < .05$ . Entrapment was negatively associated with all sources of social support (Pearson  $r$ 's ranged from  $-.12$  to  $-.35$ , all  $p_s < .05$ ). Participants who endorsed suicidal ideation reported less belongingness to family of origin ( $M = 3.66, SD = 1.09$ ), straight friends ( $M = 4.17, SD = .80$ ), and classmates/colleagues ( $M = 3.28, SD = 1.00$ ); and reported more psychological distress ( $M = 16.60, SD = 7.60$ ) when compared to participants who did not endorse suicidal ideation ( $M_s = 4.12, 4.36, 3.65, 12.02; SD_s = .94, .72, .78, 5.89$ ),  $t_s(665) > |3.15|, p_s < .01$ . Participants' age, education, gender, sexual attractions, outness, and psychological distress were associated with the main predictor and outcome variables (please refer to Table 1 and Supplemental Results) and therefore were included as covariates in the subsequent analyses.

**Associations Between Homophobic Violence, Entrapment, Social Belongingness, and Suicidal Ideation: Moderated Mediation**

We used mediation analysis (Hayes, 2015) to test whether the association between homophobic violence and suicidal ideation was indirectly associated through entrapment, and moderated mediation to test whether the indirect effect of homophobic violence on suicidal ideation through entrapment was dependent on the strength of social belongingness across family of origin, straight friends, classmates/colleagues, sexual minority friends, and sexual minority community. These associations were tested while adjusting for participants' age, education, sexual attractions, outness, and psychological distress. The unstandardized probit and linear regression coefficients for total, direct, indirect effects, and the index of moderated mediation are reported in Table 2 for the five models pertaining to each source of social belongingness.

**Model 1: Family belongingness** Overall, the model showed a good fit to the data ( $\chi^2 = 9.16, df = 7, p = .241$ ;  $\chi^2/df = 1.31$ ; CFI = .998; TLI = .984; RMSEA = .022, 90% BCa CIs = [.000, .055], SRMR = .014), accounting for 56.2% and 33.7% of the variability in entrapment and suicidal ideation, respectively. To facilitate interpretation, standardized probit and linear coefficients are provided in path diagram form for Model 1 in Fig. 2. As expected, the total effect ( $c$ ) between homophobic violence and suicidal ideation was significant ( $b = .352, SE = .090, 95\% BCa CI = [.168, .522]$ ), suggesting that endorsing homophobic violence was associated with greater risk for

**Table 1** Descriptive statistics, zero-order correlations among main predictor, outcome, and control variables

	M	SD	Min	Max	1	2	3	4	5	6	7	8
1. Age	21.94	3.22	18.00	29.00	–	–	–.039	.103**	–.031	–.029	–.026	–.057
2. Psychological distress	14.61	7.27	0.00	36.00		–	.737**	–.274**	–.240**	–.081*	–.267**	–.114**
3. Entrapment	2.01	0.95	1.00	5.00			–	–.346**	–.276**	–.115**	–.331**	–.147**
4. Family belongingness	3.86	1.05	1.00	5.00				–	.347**	.151**	.343**	.171**
5. Straight friend belongingness	4.25	0.77	1.00	5.00					–	.222**	.427**	.110**
6. Classmate/colleague belongingness	3.44	0.92	1.00	5.00						–	.128**	.384**
7. Sexual minority friend belongingness	4.04	1.29	1.00	5.00							–	.172**
8. Sexual minority community belongingness	3.08	1.27	1.00	5.00								–

$N = 667$ ; \* $p < .05$ ; \*\* $p < .01$  (all tests were two-tailed)

**Table 2** Moderated mediation analyses

Model 1. Homophobic violence, entrapment, family belongingness, and suicidal ideation <sup>a</sup>								
Outcome	Predictor	Label	$\beta$	$b$	SE	95% Bca LCI	95% Bca UCI	
<i>a</i> paths								
Entrapment	Homophobic violence	$a_1$	0.038	0.036	0.027	-0.017	0.089	
	Age	$a_2$	0.026	0.004	0.004	-0.004	0.012	
	Gender	$a_3$	0.019	0.019	0.028	-0.038	0.072	
	Education	$a_4$	-0.051	-0.057	0.030	-0.118	0.001	
	Sexual attractions	$a_5$	0.013	0.015	0.049	-0.080	0.112	
	Outness	$a_6$	-0.114	-0.392	0.168	<b>-0.725</b>	<b>-0.067</b>	
	Psychological distress	$a_7$	0.735	0.481	0.019	<b>0.442</b>	<b>0.517</b>	
Outcome	Predictor	Label	Probit $\beta$	Probit $b$	$p$	SE	95% Bca LCI	95% Bca UCI
<i>b</i> , <i>c</i> , and <i>c'</i> probit link paths								
Suicidal ideation	Homophobic violence	$c'$	0.155	0.315	0.087	<b>0.136</b>	<b>0.475</b>	
	Entrapment	$b_1$	0.482	1.015	0.166	<b>0.690</b>	<b>1.346</b>	
	Family belongingness	$b_2$	-0.118	-0.113	0.049	<b>-0.211</b>	<b>-0.021</b>	
	Entrapment $\times$ Family belongingness	$b_3$	0.121	0.211	0.081	<b>0.055</b>	<b>0.372</b>	
	Age	$b_4$	-0.059	-0.018	0.014	-0.045	0.010	
	Gender	$b_5$	-0.024	-0.050	0.099	-0.245	0.150	
	Education	$b_6$	-0.098	-0.231	0.111	<b>-0.442</b>	<b>-0.009</b>	
	Sexual attractions	$b_7$	0.033	0.078	0.113	-0.137	0.304	
	Outness	$b_8$	0.004	0.028	0.510	-0.937	0.825	
Psychological distress	$b_9$	0.007	0.010	0.104	-0.202	0.212		
Intercept/threshold			0.166	0.166	.753	0.528	-0.683	1.172
Indirect effect	$a_1 \times b_1$		0.018	0.037		0.028	-0.015	0.095
Total effects	$c' + (a_1 \times b_1)$	$c$	0.173	0.352		0.090	0.168	0.522
Index of moderated mediation	$a_1 \times b_3$		0.005	0.008		0.007	-0.002	0.026
Model 2. Homophobic violence, entrapment, straight friend belongingness, and suicidal ideation <sup>b</sup>								
Outcome	Predictor	Label	$\beta$	$b$	SE	95% Bca LCI	95% Bca UCI	
<i>a</i> paths								
Entrapment	Homophobic violence	$a_1$	0.038	0.036	0.027	-0.015	0.091	
	Age	$a_2$	0.026	0.004	0.004	-0.004	0.012	
	Gender	$a_3$	0.019	0.019	0.028	-0.035	0.073	
	Education	$a_4$	-0.051	-0.057	0.030	-0.118	4.89E-04	
	Sexual attractions	$a_5$	0.013	0.015	0.050	-0.081	0.119	
	Outness	$a_6$	-0.114	-0.392	0.165	<b>-0.724</b>	<b>-0.076</b>	
	Psychological distress	$a_7$	0.735	0.481	0.019	<b>0.442</b>	<b>0.519</b>	

**Table 2** (continued)

Outcome	Predictor	Label	Probit $\beta$	Probit $b$	$p$	SE	95% Bca LCI	95% Bca UCI
<i>b, c, and c' probit link paths</i>								
Suicidal ideation	Homophobic violence	$c'$	0.156	0.317		0.088	<b>0.140</b>	<b>0.484</b>
	Entrapment	$b_1$	0.490	1.031		0.158	<b>0.711</b>	<b>1.333</b>
	Straight friend belongingness	$b_2$	-0.017	-0.022		0.069	-0.165	0.104
	Entrapment $\times$ Straight friend belongingness	$b_3$	0.062	0.131		0.094	-0.063	0.315
	Age	$b_4$	-0.068	-0.021		0.014	-0.048	0.007
	Gender	$b_5$	-0.027	-0.056		0.100	-0.258	0.132
	Education	$b_6$	-0.106	-0.250		0.109	<b>-0.460</b>	<b>-0.035</b>
	Sexual attractions	$b_7$	0.031	0.074		0.116	-0.152	0.294
	Outness	$b_8$	0.005	0.037		0.524	-0.994	0.778
Psychological distress	$b_9$	0.018	0.025		0.105	-0.189	0.225	
Intercept/threshold			0.151	0.151	.781	0.543	-0.635	1.228
Indirect effect	$a_1 \times b_1$		0.018	0.038		0.028	-0.015	0.095
Total effects	$c' + (a_1 \times b_1)$	$c$	0.174	0.355		0.092	<b>0.169</b>	<b>0.523</b>
Index of moderated mediation	$a_1 \times b_3$		0.002	0.005		0.005	-0.002	0.022

**Model 3. Homophobic violence, entrapment, classmate/colleague belongingness, and suicidal ideation<sup>c</sup>**

Outcome	Predictor	Label	$\beta$	$b$	SE	95% Bca LCI	95% Bca UCI
<i>a paths</i>							
Entrapment	Homophobic violence	$a_1$	0.039	0.037	0.027	-0.016	0.090
	Age	$a_2$	0.021	0.003	0.004	-0.005	0.011
	Gender	$a_3$	0.023	0.023	0.028	-0.032	0.078
	Education	$a_4$	-0.037	-0.042	0.030	-0.102	0.016
	Sexual attractions	$a_5$	0.008	0.009	0.049	-0.089	0.104
	Outness	$a_6$	-0.111	-0.382	0.167	<b>-0.717</b>	<b>-0.064</b>
	Psychological distress	$a_7$	0.733	0.480	0.019	<b>0.443</b>	<b>0.516</b>
	Classmate/colleague belongingness N/A dummy	$a_8$	0.073	0.213	0.096	<b>0.036</b>	<b>0.410</b>

Outcome	Predictor	Label	Probit $\beta$	Probit $b$	$p$	SE	95% Bca LCI	95% Bca UCI
<i>b, c, and c' probit link paths</i>								
Suicidal ideation	Homophobic violence	$c'$	0.157	0.320		0.089	<b>0.138</b>	<b>0.493</b>
	Entrapment	$b_1$	0.468	0.986		0.165	<b>0.666</b>	<b>1.309</b>
	Peer belongingness	$b_2$	-0.036	-0.039		0.076	-0.193	0.094
	Entrapment $\times$ Classmate/colleague belongingness	$b_3$	0.102	0.214		0.098	-0.001	0.385
	Age	$b_4$	-0.075	-0.023		0.014	-0.050	0.005
	Gender	$b_5$	-0.012	-0.026		0.100	-0.224	0.172
	Education	$b_6$	-0.077	-0.181		0.115	-0.412	0.043
	Sexual attractions	$b_7$	0.018	0.043		0.114	-0.173	0.271
	Outness	$b_8$	0.006	0.041		0.531	-0.903	0.836
	Psychological distress	$b_9$	0.031	0.043		0.107	-0.182	0.243
Classmate/colleague belongingness N/A dummy	$b_{10}$	0.169	1.043		0.801	<b>0.084</b>	<b>2.600</b>	
Intercept/threshold			0.079	0.079	.886	0.551	-0.745	1.150
Indirect effect	$a_1 \times b_1$		0.018	0.037		0.027	-0.015	0.093
Total effects	$c' + (a_1 \times b_1)$	$c$	0.175	0.357		0.093	<b>0.168</b>	<b>0.533</b>
Index of moderated mediation	$a_1 \times b_3$		0.004	0.008		0.008	-0.003	0.027

**Table 2** (continued)

Model 4. Homophobic violence, entrapment, sexual minority friend belongingness, and suicidal ideation<sup>d</sup>

Outcome	Predictor	Label	$\beta$	$b$	SE	95% Bca LCI	95% Bca UCI	
<i>a</i> paths								
Entrapment	Homophobic violence	$a_1$	0.039	0.038	0.027	-0.015	0.090	
	Age	$a_2$	0.026	0.004	0.004	-0.004	0.012	
	Gender	$a_3$	0.021	0.020	0.028	-0.033	0.077	
	Education	$a_4$	-0.051	-0.057	0.030	-0.118	0.002	
	Sexual attractions	$a_5$	0.015	0.017	0.050	-0.080	0.116	
	Outness	$a_6$	-0.112	-0.385	0.167	<b>-0.723</b>	<b>-0.069</b>	
	Psychological distress	$a_7$	0.733	0.480	0.019	<b>0.442</b>	<b>0.516</b>	
	Sexual minority friend belong- ingness N/A dummy	$a_8$	0.023	0.034	0.041	-0.043	0.119	
Outcome	Predictor	Label	Probit $\beta$	Probit $b$	$p$	SE	95% Bca LCI	95% Bca UCI
<i>b</i> , <i>c</i> , and <i>c'</i> probit link paths								
Suicidal ideation	Homophobic violence	$c'$	0.152	0.311	0.089	<b>0.135</b>	<b>0.482</b>	
	Entrapment	$b_1$	0.490	1.032	0.157	<b>0.722</b>	<b>1.342</b>	
	Sexual minority friend belongingness	$b_2$	-0.017	-0.013	0.071	-0.154	0.125	
	Entrapment × Sexual minority friend belongingness	$b_3$	0.067	0.095	0.058	-0.017	0.205	
	Age	$b_4$	-0.071	-0.022	0.014	-0.050	0.004	
	Gender	$b_5$	-0.026	-0.055	0.101	-0.248	0.143	
	Education	$b_6$	-0.109	-0.258	0.111	<b>-0.472</b>	<b>-0.038</b>	
	Sexual attractions	$b_7$	0.024	0.057	0.115	-0.164	0.285	
	Outness	$b_8$	-0.002	-0.012	0.516	-0.999	0.747	
	Psychological distress	$b_9$	0.020	0.027	0.105	-0.183	0.235	
Sexual minority friend belongingness N/A dummy	$b_{10}$	-0.054	-0.166	0.277	-0.702	0.387		
Intercept/threshold			0.226	0.226	.671	0.531	-0.569	1.250
Indirect effect	$a_1 * b_1$		0.019	0.039	0.028	-0.015	0.095	
Total effects	$c' + (a_1 * b_1)$	$c$	0.172	0.350	0.092	<b>0.168</b>	<b>0.530</b>	
Index of moderated mediation	$a_1 * b_3$		0.003	0.004	0.004	-0.001	0.015	

Model 5. Homophobic violence, entrapment, sexual minority community belongingness, and suicidal ideation<sup>e</sup>

Outcome	Predictor	Label	$\beta$	$b$	SE	95% Bca LCI	95% Bca UCI
<i>a</i> paths							
Entrapment	Homophobic violence	$a_1$	0.039	0.038	0.027	-0.018	0.089
	Age	$a_2$	0.027	0.004	0.004	-0.004	0.012
	Gender	$a_3$	0.02	0.020	0.028	-0.034	0.076
	Education	$a_4$	-0.049	-0.055	0.031	-0.117	0.003
	Sexual attractions	$a_5$	0.014	0.016	0.049	-0.075	0.113
	Outness	$a_6$	-0.114	-0.393	0.166	<b>-0.732</b>	<b>-0.076</b>
	Psychological distress	$a_7$	0.735	0.481	0.019	<b>0.445</b>	<b>0.519</b>
	Sexual minority community belongingness N/A dummy	$a_8$	0.016	0.025	0.038	-0.049	0.100

**Table 2** (continued)

Outcome	Predictor	Label	Probit $\beta$	Probit $b$	$p$	SE	95% Bca LCI	95% Bca UCI
<i>b, c, and c' probit link paths</i>								
Suicidal ideation	Homophobic violence	$c'$	0.156	0.319		0.087	<b>0.143</b>	<b>0.483</b>
	Entrapment	$b_1$	0.481	1.012		0.160	<b>0.698</b>	<b>1.325</b>
	Sexual minority community belongingness	$b_2$	0.005	0.004		0.044	-0.081	0.090
	Entrapment $\times$ Sexual minority community belongingness	$b_3$	0.016	0.025		0.068	-0.103	0.160
	Age	$b_4$	-0.072	-0.022		0.014	-0.051	0.005
	Gender	$b_5$	-0.028	-0.059		0.102	-0.260	0.139
	Education	$b_6$	-0.112	-0.265		0.108	<b>-0.473</b>	<b>-0.050</b>
	Sexual attractions	$b_7$	0.029	0.068		0.115	-0.158	0.294
	Outness	$b_8$	0.006	0.045		0.536	-0.960	0.816
	Psychological distress	$b_9$	0.018	0.024		0.102	-0.170	0.226
Sexual minority community belongingness N/A dummy	$b_{10}$	-0.019	-0.062		0.183	-0.410	0.313	
Intercept/threshold			0.151	0.151	.782	0.545	-0.649	1.192
Indirect effect	$a_1 * b_1$		0.019	0.039		0.028	-0.016	0.095
Total effects	$c' + (a_1 * b_1)$	$c$	0.175	0.358		0.090	<b>0.175</b>	<b>0.531</b>
Index of moderated mediation	$a_1 * b_3$		0.001	0.001		0.003	-0.003	0.011

All models are based on  $N=666$ , one participant ( $n=1$ ) had missing data and removed via listwise deletion.  $\beta$ =standardized coefficients;  $b$ =unstandardized coefficients;  $p$ =intercept/threshold of suicidal ideation transformed into a probability score; SE applies to the unstandardized coefficients. 95% Bca LCI and UCI: 95% bias-corrected accelerated lower and upper confidence intervals. CIs were calculated with 5000 bootstrap samples. Significant BCa CIs are presented in bold font

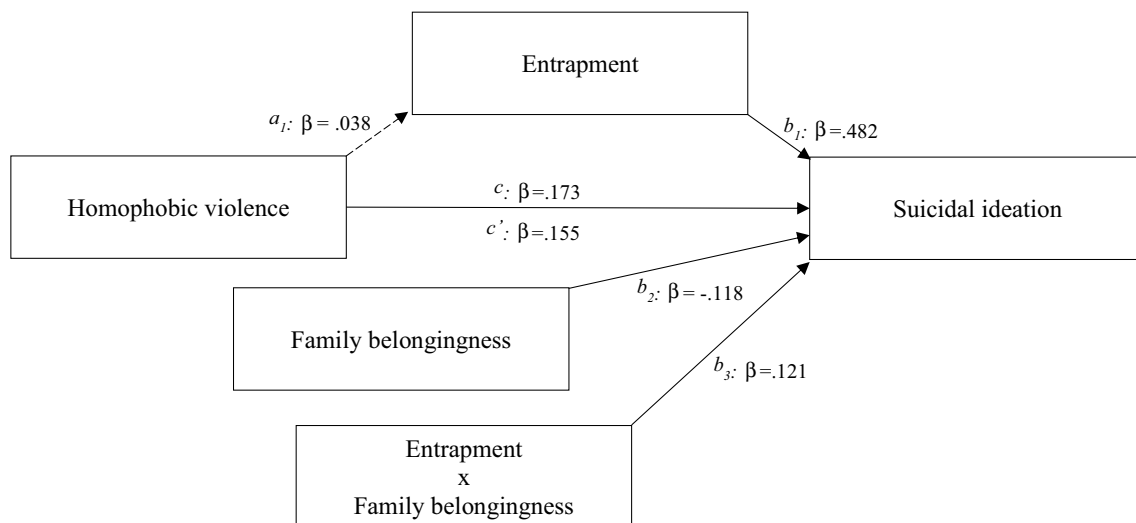
<sup>a</sup> $\chi^2(7)=9.17, p=.241$ ; CFI=0.998, TLI=0.984, NIF=0.992, RMSEA=0.022 [90% CI (0.00, 0.055)], SRMR=0.014

<sup>b</sup> $\chi^2(7)=9.17, p=.241$ ; CFI=0.998, TLI=0.985, NIF=0.992, RMSEA=0.022 [90% CI (0.00, 0.055)], SRMR=0.014

<sup>c</sup> $\chi^2(7)=9.17, p=.241$ ; CFI=0.998, TLI=0.985, NIF=0.994, RMSEA=0.022 [90% CI (0.00, 0.055)], SRMR=0.012

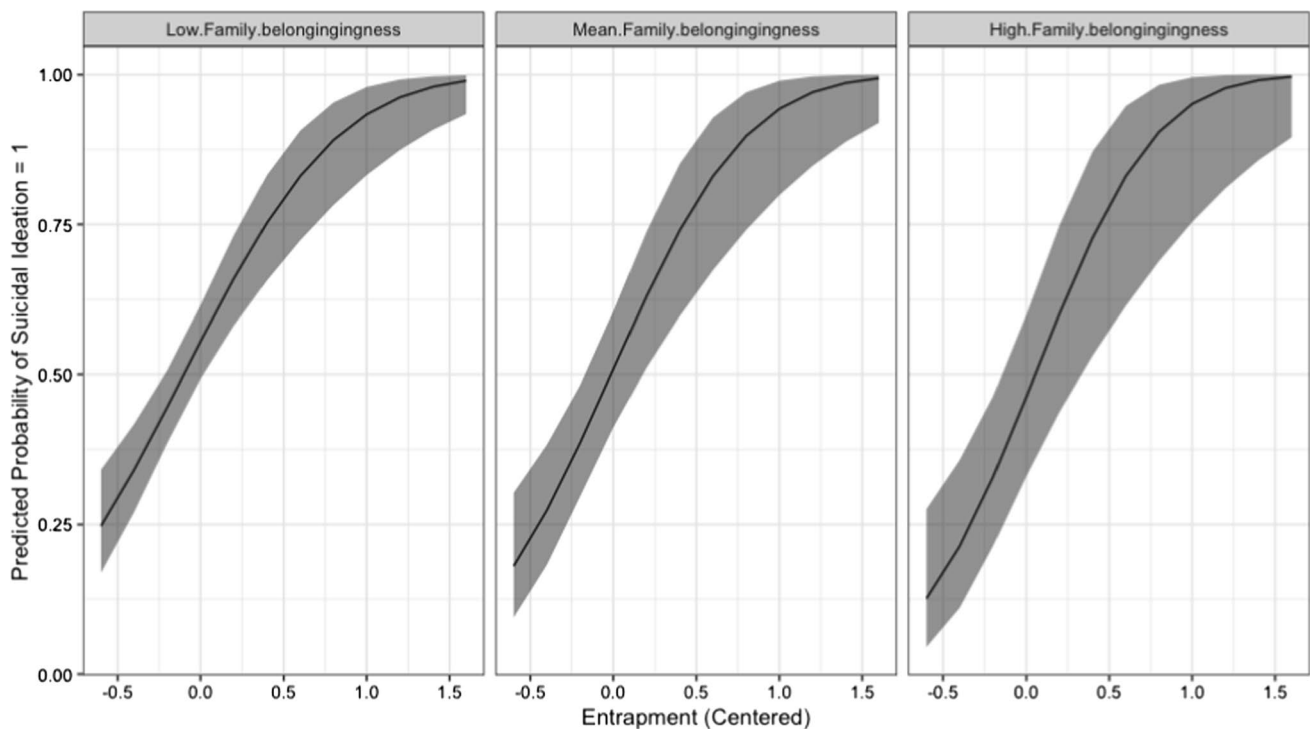
<sup>d</sup> $\chi^2(7)=9.17, p=.241$ ; CFI=0.998, TLI=0.984, NIF=0.993, RMSEA=0.022 [90% CI (0.00, 0.055)], SRMR=0.012

<sup>e</sup> $\chi^2(7)=9.17, p=.241$ ; CFI=0.998, TLI=0.977, NIF=0.990, RMSEA=0.022 [90% CI (0.00, 0.055)], SRMR=0.012



**Fig. 2** Moderated mediation analysis. *Notes* Solid arrows represent statistically significant pathways. The betas ( $\beta$ ) are standardized coefficients. Homophobic violence and suicidal ideation were not indirectly associated through entrapment ( $a_1 * b_1$ ). Family belongingness was negatively associated with suicidal ideation ( $b_2$ ). The interaction product term between entrapment and family belongingness was

associated with suicidal ideation ( $b_3$ ). Family belongingness did not moderate the indirect effect of homophobic violence on suicidal ideation through entrapment (index of moderated mediation;  $a_1 * b_3$ ). For simplicity, covariates and covariances are not shown in diagram form and are presented in Table 2



**Fig. 3** Nonlinear interaction effect between entrapment and family belongingness on suicidal ideation. *Notes* The change across the range of entrapment (mean centered) was larger when family belong-

ingness was +1SD above its mean than when it was at the mean or –1SD below the mean, while adjusting for all covariates in the model

suicidal ideation. Homophobic violence was not associated with entrapment ( $a_1$ ) ( $b = .036$ ,  $SE = .027$ , 95% BCa CI =  $[-.017, .089]$ ). Entrapment was positively associated with suicidal ideation ( $b_1$ ) ( $b = 1.015$ ,  $SE = .166$ , 95% BCa CI =  $[.690, 1.346]$ ). The specific indirect effect ( $a_1 * b_1$ ) of homophobic violence on suicidal ideation through entrapment was nonsignificant ( $b = .037$ ,  $SE = .028$ , 95% BCa CI =  $[-.015, .095]$ ). These findings indicate that homophobic violence and suicidal ideation were not indirectly associated through entrapment.

The main effect of family belongingness on suicidal ideation was negative and significant ( $b_2$ ) ( $b = -.113$ ,  $SE = .049$ , 95% BCa CI =  $[-.211, -.021]$ ). This main effect may suggest that family belongingness is a protective factor, such that increases in family belongingness decrease the risk for suicidal ideation. The coefficient of the interaction product term (Entrapment  $\times$  Family belongingness) was statistically significant ( $b_3$ ) ( $b = .211$ ,  $SE = .081$ , 95% BCa CI =  $[-.055, .372]$ ), and the second differences test indicated that the nonlinear interaction effect was significant,  $.382$  CI  $[.075, .749]$ . As illustrated in Fig. 3, on average, the risk for suicidal ideation was lower when entrapment was low at high values of family belongingness. These findings further suggest that family belongingness may not only be a protective factor, but that family belongingness can buffer against suicidal ideation

when sexual minority emerging adults are entrapped but feel supported by and connected to their families of origin, while adjusting for experiences of homophobic violence and covariates. The direct effect ( $c'$ ) of homophobic violence on suicidal ideation, while accounting for the indirect effect remained significant ( $b = .315$ ,  $SE = .087$ , 95% BCa CI =  $[.136, .475]$ ). Lastly, the index of moderated mediation ( $a_1 * b_3$ ) was nonsignificant ( $b = .008$ ,  $SE = .007$ , 95% BCa CI =  $[-.002, .026]$ ).

**Models 2–5: Straight friends, classmates/colleagues, sexual minority friends, and sexual minority community, respectively** Similar to Model 1, Models 2–5 (please refer to Table 2 for full results) indicated that homophobic violence and entrapment were independently associated with greater risk for suicidal ideation. Homophobic violence was not associated with entrapment. The association between homophobic violence and suicidal ideation was not indirectly linked through entrapment. Social belongingness with straight friends, classmates/colleagues, sexual minority friends, and sexual minority community was not associated with suicidal ideation. These sources of social belongingness did not moderate the path between entrapment and suicidal ideation (the interaction effects tested with the second differences test were nonsignificant; all CIs included zero). The index of moderated mediation in these models was also nonsignificant.

## Discussion

Theoretically guided by the IMV model of suicidal ideation and behavior (O'Connor, 2011) and the minority stress framework (Meyer, 1995, 2003), the current study showed that experiences of homophobic violence, entrapment, and family belongingness were associated with suicidal ideation in a sample of sexual minority Dutch emerging adults. As expected, homophobic violence was associated with a greater risk for suicidal ideation. These findings corroborate existing work indicating that experiences of homophobic violence are associated with suicidal ideation among groups of sexual minority youth and emerging adults (e.g., Almeida et al., 2009; Kuyper, 2015; Russell & Fish, 2016).

Our results suggested that entrapment was also associated with greater risk for suicidal ideation. These findings corroborate the only existing study, to our knowledge, that reports a positive association between entrapment and suicidal ideation in a group of sexual minority adults (Li et al., 2016). Entrapment has been implicated with suicidal ideation and behaviors in clinical contexts (O'Connor, 2003) and to date, it appears to be a more novel construct to the study of suicidal ideation among sexual minority people. The IMV model suggests that entrapment can mediate the link between negative life events, which could include experiences of homophobic violence, and suicidal ideation (O'Connor, 2011; O'Connor & Kirtley, 2018). Although the preliminary analyses in this study indicated that, on average, sexual minority emerging adults who endorsed experiencing homophobic violence reported more entrapment than those who did not endorse homophobic violence, that association was not robust in the main path analyses. Moreover, the hypothesized indirect effect of homophobic violence on suicidal ideation through entrapment was nonsignificant.

To date, there are few empirically identified psychological mechanisms linking homophobic discrimination and violence to suicidal ideation for sexual minority people (Hatzenbuehler, 2009; Plöderl et al., 2013, 2014) that are guided through integrating explanatory theories of suicide with the minority stress framework (e.g., Baams et al., 2015; Fulginiti et al., 2020; Hill & Pettit, 2012). Both Baams et al. (2015) and Hill and Pettit (2012) tested constructs from the interpersonal psychological theory of suicide (IPTs; Joiner, 2005) and reported that experiences of minority stress were associated with suicidal ideation through perceived burdensomeness (e.g., perceptions that one is a drain on others' resources or perceiving that others would be "better off without me") but not through thwarted belongingness (e.g., perceptions of not being supported by, and connected to others) (Joiner, 2005; van Orden et al., 2010). In a more recent study, Fulginiti et al. (2020) reported that thwarted belongingness was not an independent interpersonal mechanism linking minority

stress and suicidal ideation among sexual minority youth. While IPTs suggests interpersonal processes and capability for suicide are linked to suicidal ideation (Joiner, 2005) and Hatzenbuehler's (2009) psychological mediation framework posits that interpersonal processes such as social belongingness mediate links between sexual minority-related violence and risk for suicide, the available empirical evidence, to our knowledge, has not supported social belongingness (including thwarted belongingness) as an independent mechanism linking minority stress to suicidal ideation.

In accordance with previous studies, suicidal ideation was associated with less belongingness to family of origin, straight friends, and classmates/colleagues in the preliminary analyses. Social belongingness is critical for the well-being of sexual minority people (Kwon, 2013). These findings are corroborated by previous work indicating that being supported by, and feeling connected to family of origin, straight friends, and classmates/colleagues, promote healthy psychosocial adjustment of sexual minority people (Huffman et al., 2008; McConnell et al., 2018; Melton & Cunningham, 2014; Oswald, 2002; Ryan et al., 2010; Sheets & Mohr, 2009; Snapp et al., 2015; Watson et al., 2019). Moreover, the negative association between family belongingness and suicidal ideation remained robust in its respective path analysis. Those main effects suggested that the risk for suicidal ideation decreased when participants reported high family belongingness. This finding also corroborates existing studies suggesting that positive interpersonal relationships with family of origin are associated with less suicidal ideation (Button, 2015; Eisenberg & Resnick, 2006; Ryan et al., 2010).

We explored whether each source of social belongingness would moderate the path between entrapment and suicidal ideation. Family belongingness was the only source of social belongingness that moderated the path between entrapment and suicidal ideation. The significant interaction effect suggested that the influence of entrapment on risk for suicidal ideation was attenuated when family belongingness was high than when family belongingness was low. These findings provide new insights to our understanding that not only are entrapment and social belongingness associated with one another and independently associated with suicidal ideation (e.g., Li et al., 2016; Panagioti et al., 2012; Taylor et al., 2010), but that both constructs interact. Specifically, the detrimental effect of entrapment on risk for suicidal ideation may be lessened by supportive and inclusive families of origin. Lastly, the index of moderated mediation was nonsignificant. This is unsurprising given that the tested indirect effect of homophobic violence on suicidal ideation through entrapment was nonsignificant.

## Limitations and Future Directions

We interpret all statistically significant associations reported in this study with caution because these data are cross-sectional and therefore, causality cannot be inferred. The current study did not include a measure of sexual identity beyond sexual attractions which did not allow us to assess for disparities in suicidal ideation (Haas et al., 2010; Kerr, Santurri, & Peters, 2013; Pompili et al., 2014; Salway et al., 2019; Swannell, Martin, & Page, 2016), including associations between outness and psychological distress (e.g., depressive symptoms; Feinstein et al., 2019), which are known to vary among gay, lesbian, and bisexual (LGB) emerging adults. Comprehensive measures of homophobic violence would have allowed for more precise assessments of frequency, valence, and severity of homophobic violence experienced by the participants. Moreover, the construct of entrapment is also closely related to defeat, and both are often included as a single latent factor in research studies (Johnson, Gooding, & Tarrier, 2008; Li et al., 2016; Panagioti et al., 2012). IMV suggests that defeat precedes entrapment, thus, having had assessed for defeat would have allowed to test those associations more comprehensively. Additionally, our existing measure of social belongingness did not capture the complexity of informal support seeking behaviors and reciprocity which are known to contribute to a sense of belonging and lower risk for suicidal ideation (Lytle, Silenzio, Homan, Schneider, & Caine, 2018; Rickwood, Deane, & Wilson, 2007). Future work could test other models linking entrapment and social belongingness to suicidal ideation (e.g., the schematic appraisals model of suicide; Johnson et al., 2008). Lastly, the current study relied on non-probability sampling methods commonly used with hard-to-reach populations such as groups of sexual minority people. In efforts to reduce sampling bias, we used a combination of sampling strategies (Bonevski et al., 2014; Ellard-Gray, Jeffrey, Choubak, & Crann, 2015) by targeting both sexual minority relevant websites and online sources focused on suicide prevention and mental health. Despite these limitations, our measures of homophobic violence, entrapment, and family belongingness were robustly associated with suicidal ideation after adjusting for age, education, sexual orientation, outness, and psychological distress.

Aside from not being able to infer causality or direction of effects with cross-sectional study designs, pursuing prospective studies would help to advance research in this area substantially. Longitudinal designs may potentially reveal the temporal order of effects between experiences of homophobic violence, entrapment, and suicidal ideation over time. Prospective studies may also assess whether efforts of sexual minority people to seek positive family relationships, if at all possible, at earlier ages during which feeling supported

by and connected with one's family of origin may be most essential for protecting against the entrapment, and or from developing suicidal thoughts. Empirical evidence suggests lasting effects of family relationships on the mental health of sexual minority youth and emerging adults. Ryan et al. (2009) showed that sexual minority people who were rejected by their families of origin during adolescence because of their sexual minority status reported more suicide attempts when they were emerging adults when compared by sexual minority people with more accepting families of origin.

Despite the high risk for suicidal ideation and behaviors among sexual minority people, there is a lack of targeted suicide prevention strategies focusing on sexual minority people with proven effectiveness (Meyer, Teylan, & Schwartz, 2015). In order to prevent suicide, targeting specific risk factors such as homophobic violence, entrapment, and unsupportive family relationships that place sexual minority people at elevated risk for suicidal ideation and behaviors is necessary. On a preventive level, combating homophobic violence and entrapment as well as fostering social belongingness, particularly with families of origin, may be helpful for suicide prevention efforts. It is also likely that reducing sexual minority people's suicidal thoughts might improve their perceptions of social belongingness and may help reduce the extent to which they feel entrapped. The aforementioned associations, however, require rigorous empirical examination.

On a clinical level, clinicians should be aware of the increased risk of homophobic violence and suicidal ideation and behaviors in sexual minority people and monitor this in their patients. Furthermore, entrapment should be perceived as an important psychological construct closely associated to suicidal ideation (O'Connor & Kirtley, 2018). Exploring and assessing perceptions of entrapment, namely the way in which and the extent to which individuals feel trapped, is a crucial part of suicide risk detection and assessment, and an important element to be targeted in psychotherapeutic interventions (O'Connor & Portzky, 2018). In therapy, entrapment could be tackled by using cognitive-behavioral techniques such as shifting cognitions surrounding particular experiences or events, reorganizing untenable goals and values individuals may have, and focusing on resilience and coping strategies as protective factors (Taylor, Gooding, Wood, & Tarrier, 2011). More research is needed, however, on specific psychotherapeutic approaches and on the potential effect existing psychotherapeutic interventions might have on entrapment. Interventions such as dialectical behavior therapy, cognitive-behavioral therapy, and problem-solving therapy have proven to be effective in reducing suicide risk (Winter, Bradshaw, Bunn, & Wellsted, 2013). Mindfulness-based cognitive therapy (Chesin et al., 2016) may also a direct effect on perceptions of entrapment. Furthermore, there should be a focus on LGBTQ parent/



family–child relationships, coping with entrapment, and teaching healthy informal and formal help-seeking behaviors to minimize mental health challenges, including suicidal ideation and behaviors.

## Conclusion

Sexual minority youth and emerging adults continue to be at higher risk of experiencing homophobic violence (Meyer, 2003) and developing suicidal thoughts (Almeida et al., 2009; Baiocco et al., 2015) relative to their straight counterparts. These disparities are concerning, and theory-guided studies are necessary to understand associations among homophobic violence, entrapment, social belongingness, and suicidal ideation to improve suicide interventions. The findings reported in this study indicated that homophobic violence, entrapment, and family belongingness were associated with suicidal ideation in a group of sexual minority Dutch emerging adults. These findings also suggested that the effect of entrapment on risk for suicidal ideation was reduced when the sexual minority emerging adults in the study reported feeling highly supported by and connected to their families of origin. Thus, we make potentially meaningful contributions to research on suicidal ideation in sexual minority groups of people, and to suicide prevention programs by demonstrating that entrapment and family belongingness are possible points of intervention for emerging adults who are systematically stigmatized and placed at elevated risk for suicide because of their non-heterosexual status.

**Acknowledgements** We thank the participants of this study for sharing their lived experiences, time, and efforts. We also thank Joz Motmans Ph.D., University of Ghent for sharing these data to make this publication possible. We also thank Derek de Beurs, Ph.D. and Kat Clarijs, M.Sc for their contributions to this project. This research was supported funding from the NSF Graduate Research Fellowship Program (Grant No. 1650042), the NSF Worldwide fellowship, the Netherlands Organization for Scientific Research, and the Department of Pedagogy and Educational Sciences at the University of Groningen, awarded to the first author, Luis A. Parra, Ph.D. Any opinions, findings, conclusions, and recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF, or other funding agencies.

## Compliance with Ethical Standards

**Conflict of interest** The authors have no potential conflict of interest pertaining to this submission.

**Ethics Approval** This research was conducted in accordance with the ethics principles at the universities where this study took place.

**Informed Consent** Participants gave informed consent prior to participating in the study.

## References

- Ai, C., & Norton, E. C. (2003). Interaction terms in logit and probit models. *Economics Letters*, *80*(1), 123–129.
- Almeida, J., Johnson, R. M., Corliss, H. L., Molnar, B. E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth and Adolescence*, *38*(7), 1001–1014.
- Armstrong, D. (2020). *R Package 'DAMisc'*. Dave Armstrong's miscellaneous functions. Retrieved April 13, 2020 from <https://cran.r-project.org/web/packages/DAMisc/index.html>.
- Baams, L., Grossman, A. H., & Russell, S. T. (2015). Minority stress and mechanisms of risk for depression and suicidal ideation among lesbian, gay, and bisexual youth. *Developmental Psychology*, *51*(5), 688–696.
- Baiocco, R., Ioverno, S., Lonigro, A., Baumgartner, E., & Laghi, F. (2015). Suicidal ideation among Italian and Spanish young adults: The role of sexual orientation. *Archives of Suicide Research*, *19*(1), 75–88.
- Berry, W. D., DeMerrit, J. H. R., & Esarey, J. (2010). Testing for interaction in binary logit and probit models: Is a product term essential? *American Journal of Political Science*, *54*, 248–266.
- Bonevski, B., Randell, M., Paul, C., Chapman, K., Twyman, L., Bryant, J., ... Hughes, C. (2014). Reaching the hard-to-reach: A systematic review. *BMC Medical Research Methodology*, *14*, 42. <https://doi.org/10.1186/1471-2288-14-42>.
- Button, D. M. (2015). A general strain approach comparing the effects of victimization, social support, and perceived self-efficacy on LGBQ and heterosexual youth suicidality. *Criminal Justice Studies*, *28*(4), 484–502.
- Chesin, M., Interian, A., Kline, A., Benjamin-Phillips, C., Latorre, M., & Stanley, B. (2016). Reviewing mindfulness-based interventions for suicidal behavior. *Archives of Suicide Research*, *20*(4), 507–527.
- Cohen, S. (2004). Social relationships and health. *American Psychologist*, *59*(8), 676–684.
- Cramer, R. J., Burks, A. C., Stroud, C. H., Bryson, C. N., & Graham, J. (2015). A moderated mediation analysis of suicide proneness among lesbian, gay, and bisexual community members. *Journal of Social and Clinical Psychology*, *34*(7), 622–641.
- D'Augelli, A. R., Grossman, A. H., & Starks, M. T. (2008). Families of gay, lesbian, and bisexual youth: What do parents and siblings know and how do they react? *Journal of GLBT Family Studies*, *4*(1), 95–115.
- D'Augelli, A. R., Hershberger, S. L., & Pilkington, N. W. (1998). Lesbian, gay, and bisexual youth and their families: Disclosure of sexual orientation and its consequences. *American Journal of Orthopsychiatry*, *68*(3), 361–371.
- Detrie, P. M., & Lease, S. H. (2007). The relation of social support, connectedness, and collective self-esteem to the psychological well-being of lesbian, gay, and bisexual youth. *Journal of Homosexuality*, *53*(4), 173–199.
- Doty, N. D., Willoughby, B. L. B., Lindahl, K. M., & Malik, N. M. (2010). Sexuality related social support among lesbian, gay, and bisexual youth. *Journal of Youth and Adolescence*, *39*(10), 1134–1147.
- Eisenberg, M. E., & Resnick, M. D. (2006). Suicidality among gay, lesbian and bisexual youth: The role of protective factors. *Journal of Adolescent Health*, *39*(5), 662–668.
- Ellard-Gray, A., Jeffrey, N. K., Choubak, M., & Crann, S. E. (2015). Finding the hidden participant: Solutions for recruiting hidden, hard-to-reach, and vulnerable populations. *International Journal of Qualitative Methods*, *14*(5), 1609406915621420.
- Feinstein, B. A., Dyar, C., Li, D. H., Whitton, S. W., Newcomb, M. E., & Mustanski, B. (2019). The longitudinal associations between

- outness and health outcomes among gay/lesbian versus bisexual emerging adults. *Archives of Sexual Behavior*, 48(4), 1111–1126.
- Fish, J. N., Rice, C. E., Lanza, S. T., & Russell, S. T. (2019). Is young adulthood a critical period for suicidal behavior among sexual minorities? Results from a US national sample. *Prevention Science*, 20(3), 353–365.
- Freedom to Marry. (2019). *The freedom to marry internationally*. Retrieved March 15, 2019, from <http://www.freedomtomarry.org/landscape/entry/c/international>.
- Frost, D. M., & Meyer, I. H. (2012). Measuring community connectedness among diverse sexual minority populations. *Journal of Sex Research*, 49(1), 36–49.
- Frost, D. M., Meyer, I. H., & Schwartz, S. (2016). Social support networks among diverse sexual minority populations. *American Journal of Orthopsychiatry*, 86(1), 91–102.
- Fulginiti, A., Goldbach, J. T., Mamey, M. R., Rusow, J., Srivastava, A., Rhoades, H., ... Marshal, M. P. (2020). Integrating minority stress theory and the interpersonal theory of suicide among sexual minority youth who engage crisis services. *Suicide and Life-Threatening Behavior*, 50, 601–616.
- Gilbert, P. (1989). *Human nature and suffering*. London: Lawrence Erlbaum Associates.
- Gilbert, P., & Allan, S. (1998). The role of defeat and entrapment (arrested flight) in depression: An exploration of an evolutionary view. *Psychological Medicine*, 28(3), 585–598.
- Gisle, L., & Van Oyen, H. (2013). Household composition and suicidal behaviour in the adult population of Belgium. *Social Psychiatry and Psychiatric Epidemiology*, 48(7), 1115–1124.
- Goldberg, D. P., & Williams, P. (1988). *A user's guide to the GHQ*. Windsor, ON: NFER-Nelson.
- Haas, A. P., Eliason, M., Mays, V. M., Mathy, R. M., Cochran, S. D., D'Augelli, A. R., ... Russell, S. T. (2010). Suicide and suicide risk in lesbian, gay, bisexual, and transgender populations: Review and recommendations. *Journal of Homosexuality*, 58, 10–51.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychological Bulletin*, 135(5), 707–730.
- Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50(1), 1–22.
- Hill, R. M., & Pettit, J. W. (2012). Suicidal ideation and sexual orientation in college students: The roles of perceived burdensomeness, thwarted belongingness, and perceived rejection due to sexual orientation. *Suicide and Life-Threatening Behavior*, 42(5), 567–579.
- Hill, R. M., Rooney, E. E., Mooney, M. A., & Kaplow, J. B. (2017). Links between social support, thwarted belongingness, and suicide ideation among lesbian, gay, and bisexual college students. *Journal of Family Strengths*, 17(2), 6.
- Huffman, A. H., Watrous-Rodriguez, K. M., & King, E. B. (2008). Supporting a diverse workforce: What type of support is most meaningful for lesbian and gay employees? *Human Resource Management*, 47(2), 237–253.
- Johnson, J., Gooding, P., & Tarrier, N. (2008). Suicide risk in schizophrenia: Explanatory models and clinical implications, the schematic appraisal model of suicide (SAMS). *Psychology and Psychotherapy: Theory, Research and Practice*, 81(1), 55–77.
- Joiner, T. (2005). *Why people die by suicide*. Cambridge, MA: Harvard University Press.
- Kerr, D. L., Santurri, L., & Peters, P. (2013). A comparison of lesbian, bisexual, and heterosexual college undergraduate women on selected mental health issues. *Journal of American College Health*, 61(4), 185–194.
- Krueger, E. A., Meyer, I. H., & Upchurch, D. M. (2018). Sexual orientation group differences in perceived stress and depressive symptoms among young adults in the United States. *LGBT Health*, 5(4), 242–249.
- Kuyper, L. (2015). *Young people and sexual orientation: experiences and opinions about lesbian, gay, bisexual and heterosexual young people*. The Hague, the Netherlands: Social and Cultural Planning Office.
- Kwon, P. (2013). Resilience in lesbian, gay, and bisexual individuals. *Personality and Social Psychology Review*, 17(4), 371–383.
- Lazarevic, V., Holman, E. G., Oswald, R. F., & Kramer, K. Z. (2015). Relations between economic well-being, family support, community attachment, and life satisfaction among LGBTQ adults. *Journal of Family and Economic Issues*, 37(4), 594–606.
- Legate, N., Ryan, R. M., & Weinstein, N. (2012). Is coming out always a “good thing”? Exploring the relations of autonomy support, outness, and wellness for lesbian, gay, and bisexual individuals. *Social Psychological and Personality Science*, 3(2), 145–152.
- Li, R., Cai, Y., Wang, Y., Gan, F., & Shi, R. (2016). Psychological pathway to suicidal ideation among men who have sex with men in Shanghai, China: A structural equation model. *Journal of Psychiatric Research*, 83, 203–210.
- Li, Z., Page, A., Martin, G., & Taylor, R. (2011). Attributable risk of psychiatric and socio-economic factors for suicide from individual-level, population-based studies: A systematic review. *Social Science & Medicine*, 72(4), 608–616.
- Liu, R. T., & Mustanski, B. (2012). Suicidal ideation and self-harm in lesbian, gay, bisexual, and transgender youth. *American Journal of Preventive Medicine*, 42, 221–228.
- Long, J. S., & Mustillo, S. A. (2018). Using predictions and marginal effects to compare groups in regression models for binary outcomes. *Sociological Methods & Research*. <https://doi.org/10.1177/0049124118799374>.
- Lytle, M. C., Silenzio, V. M., Homan, C. M., Schneider, P., & Caine, E. D. (2018). Suicidal and help-seeking behaviors among youth in an online lesbian, gay, bisexual, transgender, queer, and questioning social network. *Journal of Homosexuality*, 65(13), 1916–1933.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. Mahwah, NJ: Lawrence Erlbaum.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39(1), 99–128.
- McConnell, E. A., Birkett, M. A., & Mustanski, B. (2015). Typologies of social support and associations with mental health outcomes among LGBT youth. *LGBT Health*, 2(1), 55–61.
- McConnell, E. A., Janulis, P., Phillips, I. I., Truong, R., & Birkett, M. (2018). Multiple minority stress and LGBT community resilience among sexual minority men. *Psychology of Sexual Orientation and Gender Diversity*, 5(1), 1–12.
- Melton, E. N., & Cunningham, G. B. (2014). Examining the workplace experiences of sport employees who are LGBT: A social categorization theory perspective. *Journal of Sport Management*, 28(1), 21–33.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, 36(1), 38–56.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697.
- Meyer, I. H. (2010). The right comparisons in testing the minority stress hypothesis: Comment on Savin-Williams, Cohen, Joyner, and Rieger (2010). *Archives of Sexual Behavior*, 39(6), 1217–1219.
- Meyer, I. H., Teylan, M., & Schwartz, S. (2015). The role of help-seeking in preventing suicide attempts among lesbians, gay men, and bisexuals. *Suicide and Life-Threatening Behavior*, 45(1), 25–36.
- Mize, T. D. (2019). Best practices for estimating, interpreting, and presenting nonlinear interaction effects. *Sociological Science*, 6, 81–117.

- Montoya, A. K., & Hayes, A. F. (2017). Two-condition within-participant statistical mediation analysis: A path-analytic framework. *Psychological Methods, 22*(1), 6–27.
- Morandini, J. S., Blaszczyński, A., & Dar-Nimrod, I. (2017). Who adopts queer and pansexual sexual identities? *Journal of Sex Research, 54*(7), 911–922.
- Mustanski, B., & Liu, R. T. (2013). A longitudinal study of predictors of suicide attempts among lesbian, gay, bisexual, and transgender youth. *Archives of Sexual Behavior, 42*(3), 437–448.
- Mustillo, S. A., Lizardo, O. A., & McVeigh, R. M. (2018). Editors' comment: A few guidelines for quantitative submissions. *American Sociological Review, 83*, 1281–1283.
- Needham, B. L., & Austin, E. L. (2010). Sexual orientation, parental support, and health during the transition to young adulthood. *Journal of Youth and Adolescence, 39*(10), 1189–1198.
- Nock, M. K., Borges, G., Bromet, E. J., Alonso, J., Angermeyer, M., Beautrais, A., ... De Graaf, R. (2008). Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. *British Journal of Psychiatry, 192*(2), 98–105.
- O'Connor, R. C. (2003). Suicidal behaviour as a cry of pain: Test of a psychological model. *Archives of Suicide Research, 7*(4), 297–308.
- O'Connor, R. C. (2011). Towards an integrated motivational–volitional model of suicidal behaviour. In R. C. O'Connor, S. Platt, & J. Gordon (Eds.), *International handbook of suicide prevention: Research, policy and practice* (pp. 181–198). New York: John Wiley.
- O'Connor, R. C., & Kirtley, O. J. (2018). The integrated motivational–volitional model of suicidal behaviour. *Philosophical Transactions of the Royal Society B: Biological Sciences, 373*(1754), 20170268.
- O'Connor, R. C., & Nock, M. K. (2014). The psychology of suicidal behaviour. *The Lancet Psychiatry, 1*(1), 73–85.
- O'Connor, R. C., & Portzky, G. (2018). The relationship between entrapment and suicidal behavior through the lens of the integrated motivational–volitional model of suicidal behavior. *Current Opinion in Psychology, 22*, 12–17.
- Oswald, R. F. (2002). Inclusion and belonging in the family rituals of gay and lesbian people. *Journal of Family Psychology, 16*(4), 428–436.
- Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin, 133*(2), 328–345.
- Panagioti, M., Gooding, P. A., & Tarrrier, N. (2012). Hopelessness, defeat, and entrapment in posttraumatic stress disorder: Their association with suicidal behavior and severity of depression. *Journal of Nervous and Mental Disease, 200*(8), 676–683.
- Parra, L. A., Benibgui, M., Helm, J. L., & Hastings, P. D. (2016). Minority stress predicts depression in lesbian, gay, and bisexual emerging adults via elevated diurnal cortisol. *Emerging Adulthood, 4*(5), 365–372.
- Plöderl, M., Sellmeier, M., Fartacek, C., Pichler, E. M., Fartacek, R., & Kralovec, K. (2014). Explaining the suicide risk of sexual minority individuals by contrasting the minority stress model with suicide models. *Archives of Sexual Behavior, 43*(8), 1559–1570.
- Plöderl, M., & Tremblay, P. (2015). Mental health of sexual minorities. A systematic review. *International Review of Psychiatry, 27*(5), 1–19.
- Plöderl, M., Wagenmakers, E. J., Tremblay, P., Ramsay, R., Kralovec, K., Fartacek, C., & Fartacek, R. (2013). Suicide risk and sexual orientation: A critical review. *Archives of Sexual Behavior, 42*(5), 715–727.
- Pollitt, A. M., Muraco, J. A., Grossman, A. H., & Russell, S. T. (2017). Disclosure stress, social support, and depressive symptoms among cisgender bisexual youth. *Journal of Marriage and Family, 79*(5), 1278–1294.
- Pompili, M., Lester, D., Forte, A., Seretti, M. E., Erbutto, D., Lamis, D. A., ... Girardi, P. (2014). Bisexuality and suicide: A systematic review of the current literature. *Journal of Sexual Medicine, 11*(8), 1903–1913.
- Potoczniak, D., Crosbie-Burnett, M., & Saltzburg, N. (2009). Experiences regarding coming out to parents among African American, Hispanic, and White gay, lesbian, bisexual, transgender, and questioning adolescents. *Journal of Gay & Lesbian Social Services, 21*(2–3), 189–205.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891.
- R Core Team. (2019). *R: A language and environment for statistical computing* (Version 3.6.0) [Computer software]. Vienna, Austria: R Foundation for Statistical Computing.
- Rainey, C. (2016). Compression and conditional effects: A product term is essential when using logistic regression to test for interaction. *Political Science Methods and Research, 4*, 621–639.
- Ramirez-Valles, J., Fergus, S., Reisen, C. A., Poppen, P. J., & Zea, M. C. (2005). Confronting stigma: Community involvement and psychological well-being among HIV-positive Latino gay men. *Hispanic Journal of Behavioral Sciences, 27*(1), 101–119.
- Reitzel, L. R., Smith, N. G., Obasi, E. M., Forney, M., & Leventhal, A. M. (2017). Perceived distress tolerance accounts for the covariance between discrimination experiences and anxiety symptoms among sexual minority adults. *Journal of Anxiety Disorders, 48*, 22–27.
- Rickwood, D. J., Deane, F. P., & Wilson, C. J. (2007). When and how do young people seek professional help for mental health problems? *Medical Journal of Australia, 187*(S7), S35–S39.
- Rieger, G., Savin-Williams, R. C., Chivers, M. L., & Bailey, J. M. (2016). Sexual arousal and masculinity–femininity of women. *Journal of Personality and Social Psychology, 111*(2), 265–283.
- Ross, L. E., Salway, T., Tarasoff, L. A., Hawkins, B. W., MacKay, J. M., & Fehr, C. P. (2017). Mental health outcomes among bisexual people compared to gay, lesbian and heterosexual individuals: A systematic review and meta-analysis. *Journal of Sex Research, 48*(1), 89–111.
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling and more. Version 0.5–12 (BETA). *Journal of Statistical Software, 48*(2), 1–36.
- Rothman, E. F., Sullivan, M., Keyes, S., & Boehmer, U. (2012). Parents' supportive reactions to sexual orientation disclosure associated with better health: Results from a population-based survey of LGB adults in Massachusetts. *Journal of Homosexuality, 59*(2), 186–200.
- Russell, S. T., & Fish, J. N. (2016). Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annual Review of Clinical Psychology, 12*, 465–487.
- Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. *Pediatrics, 123*(1), 346–352.
- Ryan, C., Russell, S. T., Huebner, D., Diaz, R., & Sanchez, J. (2010). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing, 23*(4), 205–213.
- Salway, T., Ross, L. E., Fehr, C. P., Burley, J., Asadi, S., Hawkins, B., & Tarasoff, L. A. (2019). A systematic review and meta-analysis of disparities in the prevalence of suicide ideation and attempt among bisexual populations. *Archives of Sexual Behavior, 48*(1), 89–111.
- Savin-Williams, R. C., Rieger, G., & Rosenthal, A. M. (2013). Physiological evidence for a mostly heterosexual orientation among men. *Archives of Sexual Behavior, 42*(5), 697–699.

- Savin-Williams, R. C., & Vrangalova, Z. (2013). Mostly heterosexual as a distinct sexual orientation group: A systematic review of the empirical evidence. *Developmental Review, 33*(1), 58–88.
- Sheets, R. L., Jr., & Mohr, J. J. (2009). Perceived social support from friends and family and psychosocial functioning in bisexual young adult college students. *Journal of Counseling Psychology, 56*(1), 152–163.
- Shilo, G., Antebi, N., & Mor, Z. (2015). Individual and community resilience factors among lesbian, gay, bisexual, queer and questioning youth and adults in Israel. *American Journal of Community Psychology, 55*(1–2), 215–227.
- Shilo, G., & Savaya, R. (2011). Effects of family and friend support on LGB youths' mental health and sexual orientation milestones. *Family Relations, 60*(3), 318–330.
- Snapp, S. D., Watson, R. J., Russell, S. T., Diaz, R. M., & Ryan, C. (2015). Social support networks for LGBT young adults: Low cost strategies for positive adjustment. *Family Relations, 64*(3), 420–430.
- Swannell, S., Martin, G., & Page, A. (2016). Suicidal ideation, suicide attempts and non-suicidal self-injury among lesbian, gay, bisexual and heterosexual adults: Findings from an Australian national study. *Australian and New Zealand Journal of Psychiatry, 50*(2), 145–153.
- Tabaac, A. R., Perrin, P. B., & Rabinovitch, A. E. (2015). The relationship between social support and suicide risk in a national sample of ethnically diverse sexual minority women. *Journal of Gay & Lesbian Mental Health, 20*(2), 116–126.
- Taylor, P. J., Gooding, P., Wood, A. M., & Tarrier, N. (2011). The role of defeat and entrapment in depression, anxiety, and suicide. *Psychological Bulletin, 137*(3), 391.
- Taylor, P. J., Wood, A. M., Gooding, P., & Tarrier, N. (2010). Appraisals and suicidality: The mediating role of defeat and entrapment. *Archives of Suicide Research, 14*(3), 236–247.
- Teasdale, B., & Bradley-Engen, M. S. (2010). Adolescent same-sex attraction and mental health: The role of stress and support. *Journal of Homosexuality, 57*(2), 287–309.
- Thompson, E. M., & Morgan, E. M. (2008). “Mostly straight” young women: Variations in sexual behavior and identity development. *Developmental Psychology, 44*(1), 15–21.
- Uchino, B. (2004). *Social support and physical health: understanding the health consequences of relationships*. New Haven, CT: Yale University Press.
- Ueno, K. (2005). Sexual orientation and psychological distress in adolescence: Examining interpersonal stressors and social support processes. *Social Psychology Quarterly, 68*(3), 258–277.
- van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E. (2010). The interpersonal theory of suicide. *Psychological Review, 117*, 575–600.
- Watson, R. J., Grossman, A. H., & Russell, S. T. (2019). Sources of social support and mental health among LGB youth. *Youth & Society, 51*(1), 30–48.
- Williams, J. M. G. (2001). *The cry of pain*. London: Penguin.
- Williams, T., Connolly, J., Pepler, D., & Craig, W. (2005). Peer victimization, social support, and psychosocial adjustment of sexual minority adolescents. *Journal of Youth and Adolescence, 34*(5), 471–482.
- Winter, D., Bradshaw, S., Bunn, F., & Wellsted, D. (2013). A systematic review of the literature on counselling and psychotherapy for the prevention of suicide: 1. Quantitative outcome and process studies. *Counselling and Psychotherapy Research, 13*(3), 164–183.
- Wolford-Clevenger, C., Elmquist, J., Brem, M., Zapor, H., & Stuart, G. L. (2016). Dating violence victimization, interpersonal needs, and suicidal ideation among college students. *Crisis: Journal of Crisis Intervention and Suicide Prevention, 37*(1), 51–58.
- Woodford, M. R., Han, Y., Craig, S., Lim, C., & Matney, M. M. (2014). Discrimination and mental health among sexual minority college students: The type and form of discrimination does matter. *Journal of Gay & Lesbian Mental Health, 18*(2), 142–163.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.