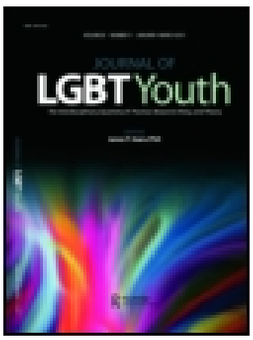

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Sexual and gender minoritized youth in christian home schools: Perceptions of climate and support

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ABSTRACT

In 2014, Leelah Alcorn, a homeschooled transgender teenager in the United States, died by suicide after enduring months of social isolation and her parent's repeated efforts to change her gender identity. Sexual and gender minoritized (SGM) youth who are, like Leelah, homeschooled in the U.S. do not have access to the institutional and relational supports afforded to SGM youth in public schools. This study examines how variations in educational setting, family support, internet access, and peer relationships influence mental health outcomes in a sample of 651 sexual and gender minoritized (SGM) young adults who were primarily homeschooled in Christian homes. Participants reported extremely high rates of mental illness (87%) suicidal ideation (72%), suicide attempts (22%) self-harm (66%), and substance abuse (29%). Regression analysis revealed that a positive family attitude toward SGM people (although rare) and access to the internet were the most significant protective factors against negative mental health outcomes in this sample. This study explores the unique vulnerabilities of SGM youth in Christian homeschool settings and has implications for educators, policy makers, health care providers, and mental health and social service professionals. To our knowledge, this is the first study to explore the experiences of homeschooled SGM youth.

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In the United States, a growing number of children are withdrawn each year from the public-school system and educated primarily or exclusively at home (Noel, Stark, Redford, & Zuckerberg, 2013). Parents have a variety of motives for choosing to homeschool, but a leading motivation for homeschooling has always been a desire to impart Christian religious instruction and protect children from secular influences (Cai, Reeve, & Robinson, 2002; Averett, 2016; Redford, Battle & Bielick, 2016). Although research has begun to explore the mental health outcomes of young adults who were raised in Christian homeschool environments (Green-Hennessy, 2014; Vaughn et al., 2015), there has been no published academic exploration of

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these outcomes among Sexual and Gender Minoritized (SGM) young adults from these same environments. This is a particularly relevant intersection because research suggests that religious families are more likely to reject their SGM children (Shilo & Savaya, 2012; Hoffarth, Hodson, & Molnar, 2018) and because SGM youth typically receive much of their identity-specific support from their schools (Hatzenbuehler, Birkett, Van Wagenen, & Meyer, 2014). The goal of this study was to understand the experiences of SGM youth who were raised in Christian home schools including the attitudes of their families toward SGM identities, their access to potential identity-specific supports, and their mental health outcomes. Throughout this article we use the acronym "SGM" (which stands for "Sexual and Gender Minoritized") as an umbrella term to refer to people who do not identify as both cisgender and heterosexual. The participants of the sample in this study used over 50 different identity labels including multiple monosexual, plurisexual, and asexual labels for sexuality and multiple transgender, gender non-conforming, and gender diverse labels for gender. Rather than choosing a set of letters that might exclude or unnecessarily categorize individual identities, we chose a phrase that centers their shared experience of marginalization.

Minority stress in SGM youth

Regardless of where they grow up or go to school, SGM youth face identity specific stressors as they move through the world in addition to the typical day-to-day stressors that are also faced by their cisgender and heterosexual peers. According to Meyer's (2010) Minority Stress Theory, experiences and anticipation of victimization, microaggressions, and discrimination, (i.e., *minority stress*) contribute to a pervasive negative impact on the mental and physical health of the SGM person (Mustanski, Andrews, & Puckett, 2016; Kwon, 2013; Meyer, 2015; Testa, Habarth, Peta, Balsam, & Bockting, 2015). SGM youth are significantly more likely to be victimized and bullied than their heterosexual or cisgender peers (Mustanski et al., 2016; McGuire, Anderson, Toomey, & Russell, 2010) and this victimization is even more pervasive for SGM youth of color (Meyer, 2010; Bostwick et al., 2014). Non-affirming religious affiliation has also been shown to contribute to minority stress among SGM young people (Barnes & Meyer, 2012).

Protective factors

The unrelenting pressure of minority stress can lead to negative mental and physical health outcomes for SGM youth. These outcomes can include anxiety (Hamblin & Gross, 2013), depression (Jiang, Perry, & Hesser,

2010), suicidality (Haas et al., 2010), internalized homophobia and low self-esteem (Barnes & Meyer, 2012; Kralovec, Fartacek, Fartacek, & Plöderl, 2014), drug use (Shields, Whitaker, Glassman, Franks, & Howard, 2012; Corliss, Rosario, Wypij, Wylie, Frazier, & Austin, 2010; Russell, Driscoll, & Truong, 2002), risky sexual behavior (Bontempo & D'Augelli, 2002; Herrick, Marshal, Smith, Sucato, & Stall, 2011), and general, poor mental health (Mustanski et al., 2016). However, according to Minority Stress Theory, certain supports can serve as protective factors against these negative outcomes (Meyer, 2003). Meyer proposes that supportive environments (such as supportive family, church, peer groups, etc) "allow stigmatized persons to experience social environments in which they are not stigmatized by others and … provide support for negative evaluation of the stigmatized minority group … " (2003, p. 677). These types of protective factors help to relieve the impact of minority stress, thus resulting in improved mental health outcomes. To date, research has identified a) school support, b) peer support, c) other adult, d) online support, and e) family support as some of the relevant protective factors for SGM youth (Russell & Fish, 2016). These protective factors have been categorized below based on the location in which an SGM youth might access that type of support: school, home, and online.

School based support

SGM youth receive support and affirmation from several different sources that are accessible through school including SGM and allied peers, formal support groups like Gay-Straight Alliances (GSAs), and supportive teachers and administrators. Schools are critical institutions that can provide access to meaningful communities of support and connection to a wider world of social supports and identity-specific protective factors. Although schools can also be a site of harassment and bullying for SGM youth (Toomey, Ryan, Diaz, & Russell, 2011) a supportive school environment has been shown to improve several mental health outcomes for SGM youth including reduced risk of suicidal ideation and attempts (Hatzenbuehler, Birkett, Van Wagenen, & Meyer, 2014; Eisenberg & Resnick, 2006). A growing number of schools provide training to personnel on SGM issues and have programs specifically designed to meet the needs of SGM youth (Greytak, Kosciw, & Boesen, 2013; Kosciw, Greytak, Giga, Villenas, & Danischewski, 2016). SGM students report feeling safe and connected to school personnel in schools where the administration is active in confronting and ending identity-specific harassment in school (McGuire et al., 2010). These supportive school environments can lead to students experiencing less

psychological distress and being less likely to use alcohol (Heck, Flentje, & Cochran, 2013).

Peer support

Formal and informal peer support are both powerful protective factors for SGM youth—and many of those peer relationships are formed in school (Roe, 2015). Supportive peer relationships with allies and other SGM young people can protect against negative mental health outcomes for youth experiencing minority stress (Mills-Koonce, Rehder, & McCurdy, 2018). In one study of bisexual youth, a sense of social support from peers and friends predicted lower levels of depression, higher life satisfaction, and less identity-specific negativity (Sheets & Mohr, 2009). Formal peer support, in the form of GSAs, also plays a role in health and wellbeing of SGM youth. Participation in a school GSA has been associated with reduced truancy, smoking, drinking, and attempted suicide (Poteat, Sinclair, DiGiovanni, Koenig, & Russell, 2013). The relationships that SGM youth form in these groups, as well as the allyship they might foster in a school environment, can reduce the impact of minority stressors and increase wellbeing in SGM youth (Toomey et al., 2011).

Other adult support

Having non-parent adults who are supportive and affirming can buffer the effects of minority stress for SGM youth. In a school setting, these adults can include teachers, school counselors, social workers and school administrators. Caring adult support both in and outside of school has been associated with fewer suicide thoughts, plans, and attempts (Coulter, Kessel Schneider, Beadnell, & O'Donnell, 2017; Eisenberg & Resnick, 2006). Inclusive and affirming teachers are a significant protective factor against the stress of bullying and harassment for SGM youth, and contribute to a greater sense of belonging (Murdock & Bolch, 2005). This support can be especially beneficial if SGM youth can build relationships with adults who are also within the SGM community. One study found that youth who have support from adults in the SGM community are less likely to engage in risky sexual behavior or to use illicit drugs (Wright & Perry, 2006).

This body of research demonstrates that for SGM youth: a supportive school environment that includes formal and informal peer relationships, and supportive non-parental adult relationships is a significant potential protective factor against the negative mental health impact of minority stress. If an SGM youth is enrolled in a public school, they have the option to access these resources regardless of whether or not their family is supportive of their identity. Conversely, an SGM youth who is homeschooled

is completely beholden to the choices and beliefs of their family. Even if opportunities for support and peer relationships exist outside of a school setting, those supports are only accessible for youth whose families will support their participation. Homeschooled SGM youth from Christian families, like the sample in this study, may have extremely limited access to peer and other adult support as a result of their unique positionality.

Online support

Access to the internet opens up a whole new world of resources, supports, and connections for SGM youth. SGM youth use the internet to make friends, explore their identities, find local resources, and even fill in the gaps left by a cisheterosexist sexual health curriculum (DeHaan, Kuper, Magee, Bigelow, & Mustanski, 2013). Although in-person friendships are more likely to protect against victimization, online friendships provide essential identity-specific peer support for SGM youth (Ybarra, Mitchell, Palmer, & Reisner, 2015). SGM youth use the internet to find help, advice, support, and friendship—especially when those needs are not being met in their physical worlds (Cipolletta, Votadoro, & Faccio, 2017). Even in the absence of in-person supports and friendships, homeschooled SGM youth may be able to access resources, peer supports, and community through the internet. Participants in this study ranged from age 18 to 47 at the time of the survey. Consequently, access to the internet at home varied widely from person to person. Not every family had a computer in the home, and even when they did—not every family allowed unmonitored internet access. For homeschooled SGM youth in Christian homes, the internet might be among the only possible opportunities to receive identity-specific information, resources, and support outside the context of their families.

Home based support

The last two decades of research with SGM youth has demonstrated that support, affirmation, and advocacy from parents and family are essential to the development and wellbeing of SGM youth (Mills-Koonce, Rehder, & McCurdy, 2018). Above and beyond other types of support (i.e., peer support and significant other support), support from families has been associated with lower levels of hopelessness, depression, anxiety, suicidality (McConnell, Birkett, & Mustanski, 2015). Identity-specific family support actively reduces the impact of minority stressors such as discrimination (Mustanski, Newcomb, & Garofalo, 2011) and can lead to better physical and mental health, greater self-esteem, and lower risk of depression, suicidal thoughts and behaviors, and substance abuse (Ryan, Russell, Huebner,

Diaz, & Sanchez, 2010). While family support and affirmation have a positive impact on SGM youth, family rejection or lack of support have a reciprocal negative effect. Family rejection can contribute to internalized homophobia and a negative sense of identity (Willoughby, Doty, & Malik, 2010). It has also been found to be predictive of increased psychological symptoms including depression, anxiety, and somatization in SGM young adults (Kibrik et al., 2018).

This literature clearly demonstrates that proactive, identity specific support from family has a powerful impact on SGM youth. It serves as a protective factor against myriad negative mental health outcomes, improves self-esteem, and reduces internalized homophobia. A supportive school environment, material and digital communities, family, and non-parent adults are all significant protective factors for SGM youth; but for homeschooled SGM youth, family may be the only accessible potential protective factor. This situation is further complicated by the fact that the majority of homeschooling families are highly religious (Cooper & Sureau, 2007). Homeschooling families that ascribe to religious ideologies that do not affirm sexual and gender minoritized identities may pose unique risks for SGM youth, as these youth will not have access to protective supports outside of the home that other SGM youth in public or private school environments might have to buffer the negative impact of a disaffirming family.

Christianity and SGM identity

The sample in this study is comprised entirely of homeschooling families that identify as Christian. Consequently, an investigation of the intersection between SGM identities and Christianity is critical for understanding the study sample, as well as for interpreting findings from this study. As a result of unrestrictive government oversight of homeschooling practices, there are no concrete statistics on the demographics of homeschooling families (Huseman, 2015). However, it is commonly suggested that around 75% of homeschooling families in the United States identify as evangelical Christians (Cooper & Sureau, 2007). Although somewhat dated, a study of parental motivation conducted in 2001 also indicated that around 75% of homeschool educators identified as conservative Christians who stress biblical education as a core piece of their curriculum (Cai, Reeve, & Robinson, 2002). A more recent doctoral dissertation study reflected these findings by showing that the religious and politically conservative homeschooling parents that made up half (50%) of the sample ($n = 335$) were statistically more likely to endorse religious education as their primary motivation for

homeschooling than their non-religious or politically moderate/liberal peers (Averett, 2016).

Religion, across cultures and contexts, is one of the primary contributors to anti-LGBT sentiment (Hoffarth, Hodson, & Molnar, 2018). Across all religions in the United States, only 23% of people who attend religious services at least once a week believe that homosexuality should be accepted (Pew Research Center, 2014). This research suggests that for many homeschooled SGM youth, receiving identity-specific support from family members may not be an option. Without access to school, it is possible that homeschooled SGM youth could have limited access to peer support, other adult support, and school-based supports such as GSAs and school counselors. This body of research begs the following questions: 1). Do homeschooled SGM youth have access to the essential, identity specific supports they need to protect them from the negative impact of minority stress? 2.) How does access to support (or lack thereof) impact the mental health outcomes of homeschooled SGM youth?

Research aims

Although previous research illustrates many of the negative experiences faced by SGM youth, it has not examined the experiences of SGM youth educated outside of a traditional schooling context. As a first step to fill this gap, this study seeks to describe the prevalence of SGM youth in Christian home schools and assess family-based attitudes toward SGM youth. It further aims to assess the degree to which these youth have access to protective factors that may help to moderate the deleterious effects of minority stress on their mental health. Reports by youth of mental illness, suicidal thoughts, suicide attempts, substance abuse or self-harm are all indications of poorer mental health as defined in this analysis. Based on previous empirical findings of social supports for SGM youth in conjunction with Minority Stress Theory, we hypothesized that the protective factors of having: (a) supportive family attitudes, (b) non-sibling friends, (c) internet access, and (d) available supports of multiple school settings, would all protect against poor mental health outcomes.

Methods

Design and sample

Data for this secondary data analysis were extracted from the 2014 Survey of Adult Alumni of the Modern Christian Homeschool Movement which was written and disseminated by the Homeschool Alumni Reach Out (HARO). HARO is a 501(c)(3) nonprofit whose mission is "to advocate for

Table 1. Demographic data of the sample.

	Full sample ($n = 3703$)		SGM subsample ($n = 651$)	
	Frequency	Percent	Frequency	Percent*
Sex assigned at birth				
Male	981	26.5%	137	21.0%
Female	2715	73.3%	508	78.0%
Other	7	0.2%	6	0.9%
Racial/ethnic heritage (select all that apply)				
White/Caucasian	3424	92.5%	590	90.6%
Black/African American	31	0.8%	7	1.1%
Latino/Hispanic American	146	3.9%	40	6.1%
East Asian/Asian American	76	2.1%	6	0.9%
South Asian/Indian American	13	0.4%	1	0.2%
Middle Eastern/Arab American	22	0.6%	6	0.9%
Native American/Alaskan Native	148	4.0%	28	4.3%
Hawaiian/Pacific Islander	19	0.5%	3	0.5%
Sexual orientation (select all that apply)				
Heterosexual/straight	3137	84.7%	85**	13.1%
Bisexual	350	9.5%	350	53.8%
Pansexual	90	2.4%	90	13.8%
Gay	60	1.6%	60	9.2%
Lesbian	54	1.5%	54	8.3%
Asexual	96	2.6%	96	14.7%
Gender identity				
Cisgender	3618	97.7%	566	86.9%
Transgender (nonbinary, genderfluid, etc)	85	2.3%	85**	13.1%

*Numbers may not total 100% due to rounding.

**With equal frequencies in the heterosexuals and transgender categories, it might appear that all transgender participants identified as heterosexual. In reality, participants selected multiple options for sexual orientation, (e.g., someone might identify as asexual and gay, etc). Thus, equal frequencies in these categories is a coincidence.

the wellbeing of homeschool students and improve homeschooling communities through awareness, peer support, and resource development" (HARO, 2016, *Mission and Vision*, para. 2). During the fall of 2015, HARO surveyed homeschooled alumni aged 18 and older who had been homeschooled for at least seven years. The survey was first promoted through an online homeschool alumni community, from which it snowballed across the country through online social networks (primarily *Facebook*). Survey respondents were required to affirm that they were homeschooled in an environment which was classifiable as Christian (including Christian-influenced new religious movements), and were completing the survey for the first time. The survey was fully anonymous and participants reviewed and endorsed an informed consent page at the beginning of the survey. Participants were not offered any compensation for their participation. The authors requested and received access to the de-identified survey data via a data-sharing agreement with HARO. The authors obtained approval from the University Institutional Review Board (IRB) to conduct secondary analysis on these data.In total, 6,249 individuals began the survey and 3,703 adult alumni completed it. Only completed responses were included in the HARO dataset.

Sample

The subsample used in the analysis consisted of 651 homeschool alumni (15% of the overall sample) who were identified as Sexual and/or Gender Minoritized individuals. Participants were asked to endorse a sexual orientation (straight, gay, lesbian, bisexual, pansexual, or asexual) or write in their own response. Additionally, participants were asked to identify their assigned sex and then given the option to write in their gender. Any participant who indicated a sexual orientation or gender other than cisgender and heterosexual was included in the subsample. There were over 50 different identity labels and combinations of labels in this subsample. The subsample used for this study was over half (56%) homeschooled for 12 years or more, mostly white (90%), mostly assigned female at birth (78%), and mostly cisgender (92%). Participants ranged in age from 19 to 47 ($m = 27$). Participants indicated their racial and/or ethic affiliation by endorsing one or more of the provided options (White, Black/African American, Hispanic/Latino, East Asian, South Asian or Indian, Arab or North African, Indigenous or Native American, Hawaiian/Pacific Islander) and/or writing in additional information. All participants were homeschooled at least partially in the United States. Table 1 displays the demographic data of the full- and sub-sample.

Analysis

A set of five multivariate logistic regression analyses examined the relationships between five self-reported binomial mental health: outcomes (a) mental illness, (b) suicidal thoughts, (c) suicide attempts, (d) substance abuse, and (e) self-harm;, along with key independent variables hypothesized to influence these mental health outcomes: (a) family attitudes toward sexual and gender minoritized (SGM) people, (b) educational supplementation, (c) internet access, and (d)non-sibling friendships during childhood and adolescence.

Mental health

All five mental health outcomes were self-reported. Survey participants were asked respectively: "have you ever suffered from a mental illness?" "have you ever struggled with suicidal thoughts?" "have you have attempted suicide?" "have you ever struggled with any form of self-injury?" and "have you ever struggled with substance abuse? (In this context, 'substance abuse' means that you personally believe or feel that you used the substance in an unhealthy way or developed an addiction that you consider(ed) unhealthy)." Results were coded as "No" (0) and "Yes" (1). After selecting yes, participants were given the option to further specify the nature and severity of their experiences.

Protective factors

Potential protective factors (independent variables) were also coded into binomial responses. When survey participants were asked to report on their school settings, answer choices included ordinal responses: "homeschooled only, part-time public school, part-time private school, full-time public school, and full-time private school." Results were recoded as homeschooled only (0) and multiple school settings (1). Survey participants were also asked to rate on a five point scale the attitudes of their family toward SGM people during when they were still living in the home. Answer options were recoded as "negative or very negative" (0) and "neutral or positive" (1). Answer options asking whether the respondents had friends other than their siblings while growing up were coded "No" (0) and "Yes" (1). Sex assigned at birth was coded as male (0) or female (1). Finally, survey participants were asked to report whether or not they had access to the internet during their childhood or adolescence. Answer options were coded "No" (0) and "Yes" (1).

Results

The results of the analysis show that SGM youth in the sample experienced a variety of mental health challenges, and had limited access to many of the predicted protective factors.

Mental health outcomes

Findings indicate that, similar to their SGM peers in traditional school settings (Mustanski et al., 2016; McGuire et al., 2010), SGM youth in home schools reported the following indicators of poor mental health: mental illness, suicidal ideations and attempts, substance abuse, and self-harm. In this study, 72% of participants reported suicidal thoughts and 22% had attempted suicide. Sixty percent of participants had engaged in self-harming behaviors and 29% reported having struggled with some kind of substance abuse. Overall, 87% of participants reported that have had a mental illness at some point in their lifetime.

Risk and protective factors

Multiple school settings

More than half (51%) of SGM youth reported having multiple school settings throughout their education (i.e., they were not exclusively homeschooled). Multiple school settings was significantly associated with four outcomes: increased mental illness (B = .89, Wald $\chi^2 = 8.18$, $p < .01$), attempted suicide (B = .53, Wald $\chi^2 = 4.80$, $p < .05$), suicidal thoughts (B

= .50, Wald χ^2 = 4.92, $p < .05$), and self-harm (B = .52, Wald χ^2 = 6.12, $p < .01$).

Family attitudes toward SGM people

The vast majority of youth (90%) reported that their family had negative or very negative attitudes toward SGM people during the time that they lived in the home. This is an important statistic because a positive family attitude toward SGM people was significantly associated with four outcomes: decreased mental illness (B = −1.12, Wald χ^2 =11.76, $p < .01$), decreased suicidal thoughts (B = −1.24, Wald χ^2 = 19.94, $p < .01$), decreased substance abuse (B = −1.36, Wald χ^2 = 10.58, $p < .01$), and decreased self-harm (B = −.97, Wald χ^2 = 1.80, $p < .01$). A negative family attitude toward SGM people also trended toward significance in predicting attempted suicide (B = −.68, Wald χ^2 = 2.98, $p < .10$).

Internet access

Ninety-eight participants (15%) reported that they had no access to the internet during their childhood or adolescence. Access to the internet was significantly associated with decreased mental illness (B = −1.06, Wald χ^2 = 4.62, $p < .05$). Access to the internet also trended toward significance in decreasing attempted suicide (B = −.48, Wald χ^2 = 3.53, $p < .10$) and suicidal thoughts (B = −.57, Wald χ^2 = 3.66, $p < .10$).

Non-sibling friends

Although 48 participants (7%) reported having no friends other than their siblings during the time they lived in their parent's home, lack of non-sibling friends was not significantly associated with any mental health outcome.

Control and demographic variables

Gender and assigned sex

The majority of participants (78%) were assigned female at birth. Being assigned female at birth was significantly associated with two outcomes: higher mental illness (B = .65, Wald χ^2 = 6.03, $p < .01$), and self-harm (B = .91, Wald χ^2 = 20.70, $p < .01$). The sample included 85 transgender participants (8%) but transgender identity was not significantly associated with any outcome.

Race: Non-hispanic white

The majority (90.6%) of participants identified their race/ethnicity to be non-Hispanic White. Being non-Hispanic white was significantly associated with higher mental illness (B = .87, Wald χ^2 = 5.87, $p < .05$).

Table 2. Results of multivariate regressions on negative mental health outcomes.

	Mental illness			Attempted suicide			Suicidal thoughts			Substance abuse			Self-harm		
	B	Wald	*p*	B	Wald	*p*	B	Wald	*p*	B	Wald	*p*	B	Wald	*p*
Sex at birth (Female)	.65**	6.03	.01	.14	.32	.57	.24	1.30	.26	−.35	2.79	.10	.91**	20.70	.001
Race (White)	.87*	5.87	.02	−.09	.08	.78	.25	.66	.42	−.39	1.65	.19	−.33	1.16	.28
Years of homeschool	.08	1.14	.29	.03	.30	.59	.04	.48	.49	−.02	.12	.73	.09*	3.70	.05
School settings (multiple)	.89**	8.18	.004	.53*	4.80	.03	.50*	4.92	.03	.417	3.57	.06	.52**	6.12	.01
Non-sibling friends	−.14	.06	.81	−.49	2.16	.14	−.28	.51	.47	−.37	1.27	.26	−.32	.93	.33
Internet access	−1.06*	4.62	.03	−.48	3.53	.06	−.57	3.66	.06	.00	.00	.99	.06	.06	.81
Positive family attitudes	−1.12**	11.76	.001	−.68	2.98	.09	−1.24**	19.94	.001	−1.36**	10.58	.001	−.79**	8.16	.004
Constant	.59	.29	.59	−1.02	1.61	.21	.76	.91	.34	.12	.02	.88	−.97	1.80	.18

*$p < .05$,
**$p < .01$.

Number of years homeschooled

Over half (56%) of participants reported being homeschooled for 12 or more years. Although years homeschooled was only included in the model as a control variable, increased number of years homeschooled was significantly associated with self-harm (B = .09, Wald $\chi^2 = 3.70$, $p < .05$). For a summary of results, see Table 2.

Discussion

This study takes a deeper look at mental health among a select group of SGM youth- those who were homeschooled as part of a Christian philosophy of upbringing. By examining within-group variability, we are able to look at the distinct factors that may contribute to comparatively worse mental health within a context that is overwhelmingly non-affirming of SGM adolescent identities. Consistent with Meyer's Minority Stress Theory (2003), this study confirmed the importance of positive family attitudes toward SGM people and internet access (which can provide access to online communities) as protective factors for the mental health of SGM youth in Christian home schools.

Family support

Perhaps the most significant result of this study are the findings linking family attitudes to mental health outcomes. In this study, 90% of participants reported that the family attitude toward SGM people in their homes during childhood and adolescence was either negative or very negative. This represents a significant difference from normative attitudes toward SGM people in the United States. Data from the Pew Research Center (2015) show that 57% of American parents report that they "would not be upset" if their child came out to them as a sexual minority. Even in the most socially conservative religious segments of American society, 25% of White Evangelical Protestants see no conflict between religion and LGBT identities (Pew Research Center, 2015).

The disparity between attitudes toward SGM people in Christian homeschool families in this study (90% negative) and comparable attitudes in other types of American families (43% negative) is striking. The literature on SGM youth definitively shows that a supportive home environment is a major contributor to the mental and physical health of SGM youth. The results of this study suggest that SGM youth in Christian home schools are at a greater risk for poor mental health outcomes as a result of greater negativity toward SGM people in their homes and families.

Internet access

The second finding of significance in this study is the association between lack of internet access and poor mental health. Internet access appeared to be a significant protective factor for the mental health of homeschooled SGM youth. This finding suggests that, in the absence of in-person peers and school-based supports, access to internet resources and communities becomes even more essential. SGM youth in home schools without access to the internet are at an even greater risk of mental illness. While the majority of participants had at least some access to the internet, a sizeable 15% did not.

Multiple school settings

One hypothesized protective factor actually emerged as a negative stressor in this study. Multiple school settings predicted worse mental health, increased suicide attempts, and intensified substance abuse. Three plausible explanations may help to clarify this result: First, school mobility (changing school settings) may be a confounding factor because it is a known stressor for children and adolescents (Gasper, DeLuca, & Estacion, 2010). As a stressor, school mobility can result in myriad negative mental health outcomes (Winsper, Wolke, Bryson, Thompson, & Singh, 2016). It is possible that this could explain some of the variation in mental health outcomes. Second, although much of the literature identifies school programs and personnel as protective factors for SGM youth, it also identifies school as a source of stress and victimization for those same youth. Much of the bullying and discrimination SGM youth experience happens at school. It is possible that some of this result could be explained by the possibility that SGM youth who did not attend schools were not exposed to the victimization and negativity frequently present in school settings. Lastly, it is also possible that the negative mental health outcomes are the result of leaving public/private school in order to enter home school, rather than being the result of affiliation with a school.

About half (51%) of participants reported having attended public or private school full or part time at some point during their primary or secondary education. The data were not clear on the order or duration of the participants' school settings. It is possible that many of the participants attended school and then were taken out to be homeschooled by parents. However, if any of the participants attended public or private school during or after the time they were being homeschooled, they may have had access to school counselors, social workers and other school support staff. This has important implications for school personnel who need to be aware of the increased risk factors faced by homeschooled SGM youth. An understanding of this population's specific needs will help school personnel to

better serve homeschooled SGM youth. Further research should examine the relationship between school settings and mental health outcomes for homeschooled SGM youth. Although the relationship between various protective factors and improved mental health outcomes were significant in this study, it is not possible to understand the implications of this relationship in depth without further research.

Gender

Female assigned sex was significantly associated with mental illness and self-harm. This is consistent with national population statistics which indicate that women are over-represented in every category of mental illness in the United States (Weissman, Pratt, Miller, & Parker, 2015). However, it is also potentially relevant that women in religiously fundamentalist contexts are typically subject to greater social restriction and punishment than their male counterparts (Pearce & Thornton, 2007). Gendered religious ideology might contribute to greater religious ambivalence which could potentially impact mental health outcomes (Bulanda, 2011). Future research should examine the potential impact of religious gender roles on the lives of young women who are homeschooled.

Although this sample had 85 transgender participants (8%), there were no significant findings for this population when examined independently. This phenomenon is a result of extremely limited variability within the transgender sub sample. The most significant predictor of mental health in this sample was family attitudes toward SGM identity. In the transgender subsample, only two participants (2%) reported that their families had neutral or positive attitudes toward SGM identities—as opposed to 10% in the SGM sample as a whole. This floor effect eliminated the possibility to statistically test for differences within the transgender subsample.

Limitations

The survey was distributed via social media, which limited control over survey distribution and likely created a sampling and response bias. Only individuals with access to the internet and a social media presence would have had access to the survey. In addition, all data are based on self-report, which could limit the validity and integrity of reported outcomes. Another possible limitation is that nearly 8 out of 10 survey participants were female. Because the population demographics are impossible to fully know, and some known groups appear to be underrepresented, this likely results in a somewhat skewed narrative of homeschooling and its effect on sexual

minority youth. Future research on this population may need to employ quota sampling in order to obtain a race and gender diverse sample.

Research on children and adolescents in home schools is challenging for several reasons. A number of U.S. states, including Texas (which has the largest proportion of homeschooling families), do not require parents to notify the school district when they homeschool their children (Huseman, 2015). In addition, only 13 of 50 states require any kind of academic testing for homeschool children (Huseman, 2015). Loose regulations like these mean that there are few reliable points of contact with homeschoolers, making research very challenging. Therefore, although a survey distributed via social media has its challenges, it allows researchers to start investigating questions that have long been under-researched due to complications of access to a hard-to-reach population. These findings represent a foundation upon which future research can build.

Implications

For SGM youth who receive their education at home, support from family, peers, and other adults are vital for their mental health. Given the methodological challenges associated with the data that inform these findings, more robust research is required to bring to light the specific challenges facing this hard-to-reach but previously invisible population, along with the protective strategies that can be employed to help them along their journey.

Practice implications

SGM youth in Christian homeschools report extremely high levels of mental illness, suicidal ideation/attempts, self-harm, and substance abuse. This finding suggests clear implications for mental health providers, health care providers, educators, and any other professional who might come into contact with homeschooled SGM youth. Professional knowledge of this uniquely vulnerable population could lead to better and more thorough mental health screening at annual doctor visits, educational progress evaluations, or any other points of contact between homeschooling families and the outside world. This study also found that among homeschooled SGM youth in Christian families, supportive family attitudes toward identity is the strongest predictor of reduced mental health symptoms. Thus, efforts to remove negativity around SGM identities within homeschool networks environments may help to mitigate the risk for young people. Finally, internet access was shown to protect against negative mental health outcomes for SGM youth in homeschools. Public libraries and homeschool cooperative groups should make an

effort to provide internet access for homeschooled youth. This access could be an essential protective factor for SGM youth who are seeking community, support, and education.

Research implications

In this study, the experience of multiple school settings was the strongest predictor of increased mental health symptoms, when all else was held constant. Because the types of school transitions in this sample were not clear, these findings require further exploration in additional studies to fully interpret. Research with adolescents who are currently being homeschooled may require creative recruitment strategies. Because most of the participants in this study reported having internet access while they were still being homeschooled, recruitment through the internet might be the most effective method. However, future researchers should consider quota sampling in order to collect a diverse and representative sample.

Policy implications

This highly vulnerable population exists almost entirely outside of the social safety nets created to protect SGM youth. Therapists, teachers, doctors, social workers, and other professionals who might be trained to recognize and address distress in adolescents cannot perform this essential role if they never come into contact with these youth. State and federal policies that govern the oversight of homeschooling in the United States should be expanded to consider mental health. Currently, the majority of homeschooled youth in the U.S. have no mandatory point of contact with any persons or institutions outside of their own homes. This study demonstrates that isolation could be dangerous to SGM youth in homeschools and supports a more proactive approach to homeschool oversight.

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