EMPIRICAL RESEARCH



Long-Term Effects of Homophobic Stigmatization During Adolescence on Problem Behavior in Emerging Adult Offspring of Lesbian Parents

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Abstract

The long-term impact of homophobic stigmatization on adolescents with lesbian parents has not been explored. This longitudinal study investigated the effects of homophobia experienced during adolescence on problem behavior among emerging adult offspring of lesbian parents. The 72 offspring (37 females and 35 males; all cisgender and 25 years old) were predominantly White, heterosexual, and highly educated. As 17-year-old adolescents, 40.3% (n = 29) reported that they had been treated unfairly because of having lesbian parents. Experienced homophobia during adolescence was indirectly associated with internalizing problems during emerging adulthood through psychological problems during adolescence and meaning in life in emerging adulthood. Adolescent experiences of homophobia were also indirectly related to externalizing problems during emerging adulthood through adolescent psychological problems, but not through meaning in life in emerging adulthood. These findings indicate that long-term effects of homophobic stigmatization during adolescence persist into adulthood. School and community interventions should include all types of families in their diversity appreciation programs.

Keywords Emerging adulthood · Homophobic stigmatization · Lesbian-parent families · Problem behavior · Psychological problems · Meaning in life

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Introduction

Since the 1980s, when assisted reproductive technologies (ARTs) made it possible for lesbian women to become parents through sperm banks or private arrangements with donors, planned lesbian-parent families have become increasingly visible. For many decades, researchers have used between-group studies to compare the mental health of the offspring in lesbian parent and different-sex parent families (e.g., Fish and Russell 2018). Based on these studies there is an overwhelming consensus that children, adolescents, and young adults who were born and grew up in lesbian-parent families are well-adjusted, and do not differ from those born and raised in different-sex parent families on internalizing (such as anxious, depressive, or withdrawn symptoms) and externalizing (such as inappropriate conduct or aggressive behavior) problems (e.g., Fedewa et al. 2015; Gartrell et al. 2018).

In the wake of these findings, some studies were designed from a within-group approach that focused on the conditions under which children of lesbian parents might



struggle or thrive, as well as on experiences that are related to unique family processes for same-sex parent families (Fish and Russell 2018). One such experience is stigmabased bullying, or bullying that is motivated by stigma (Earnshaw et al. 2018). Stigma refers to a devalued characteristic within and across social interactions (Goffman 1963); sexual stigma refers to all facets of stigma associated with same-sex sexuality and sexual minority communities (Herek 2016). The few existing studies on experienced homophobic stigmatization (a specific form of stigma-based bullying) in lesbian-parent families showed that not only did the parents face stigma, overt discrimination, and/or microaggressions (i.e., subtle or more indirect negative comments), but also that their offspring had similar exposures due to their parents' sexual orientation (Bos and Gartrell 2020). The present study investigates the effects of adolescent homophobic stigmatization on problem behaviors in emerging adulthood via psychological problems and meaning in life among the 25-year-old offspring of the ongoing U.S. National Longitudinal Lesbian Family Study (NLLFS)—the largest, longest-running, prospective investigation on planned lesbian families (Gartrell et al. 2018).

Developmental Context for Associations Between Homophobic Stigmatization and Problem Behaviors in Offspring of Lesbian Parents

During elementary school it is not unusual for children of lesbian parents to be teased or bullied due to their parents' sexual orientation. For example, 57% of 49 school-aged children adopted by same-sex parents (27 gay and 22 lesbian couples) in the U.S. reported experiences of microaggression, including heterosexism, public outing by others, and teasing because of their family type (Farr et al. 2016). In the Netherlands, which is ranked as one of the most accepting countries for lesbian and gay people (Flores 2019), children (aged 8–12) of lesbian parents reported that peers made jokes (60%), asked annoying questions (56.7%), used abusive language (45.2%), or gossiped (30.6%) about their mothers' sexual orientation (Bos and Van Balen 2008). Despite experiencing microaggressions or feelings of difference, these children also report positive perceptions of their family and navigate experiences of difference with resilience (Farr et al. 2016).

As peers and peer acceptance become increasingly important during adolescence (Wainright and Patterson 2008), offspring of lesbian parents are faced with new challenges in relation to their family. They may worry about losing friends or being judged by peers, even if they do not actually experience teasing or rejection (Golombok 2020). Further, in becoming increasingly aware that their parents are stigmatized for being sexual minorities, they may feel uneasy or anxious about the prospect of stigma-based

bullying (Gartrell et al. 2012). For example, interviews of 30 U.S. emerging adults with lesbian parents revealed that most had been subjected to negative comments about their mothers' lesbianism when they were adolescents (Kuvalanka et al. 2014). Another qualitative study suggested that adolescents with lesbian parents may be more secretive with their peers about the nature of their family constellation due to societal, peer, and developmental pressures and their desire to appear "normal" (Perlesz et al. 2006). Yet, in other circumstances, adolescents' responses to sexual stigma varied, with some responding fearfully, others defiantly, or still others remaining mostly detached from the sexual stigma they experienced, thereby deflecting its negative impact (Kuvalanka et al. 2014).

Studies based on a between-difference approach found that having sexual minority parents is not in itself a risk factor for psychological problems (e.g., Carone et al. 2018). However, children and adolescents in lesbian-parent families who reported being stigmatized because of their parents' sexual orientation had lower scores on self-esteem and showed more behavioral problems than those who were not stigmatized (e.g., Van Rijn-Van Gelderen et al. 2015). Among offspring who were stigmatized, having a close and loving relationship with their parents (Bos and Gartrell 2010), open discussions about homophobic stigmatization (Wyman Battalen et al. 2019), and social supports pertaining to this form of discrimination (Van Gelderen et al. 2012) have been shown to serve as protective factors and promote coping skills.

The period of emerging adulthood (18–29 years) is a time when young adults are expected to become self-sufficient, engage in mature and committed relationships, assume more adult roles and responsibilities, and obtain a level of education and training that sets the foundation for employment and career (Arnett et al. 2014). In addition, the setbacks along the circuitous paths to adulthood may be stressful and lead to increased risk taking and externalizing behaviors (Arnett et al. 2014). Thus, homophobic stigmatization experienced at earlier ages may add a further burden to emerging adults' healthy development.

To date, the NLLFS is the only investigation in which offspring of lesbian parents have been followed from birth to emerging adulthood and thus it is possible to test the effect of homophobic stigmatization on behavioral adjustment beyond adolescence. A recent cross-sectional study found that when the offspring of the NLLFS parents were 25 years old, the most frequently mentioned experience of homophobic stigmatization was being asked annoying questions (72.8%) and hearing jokes (58.2%) related to their parents' sexual orientation (Koh et al. 2019). Offspring who reported stigmatization had higher rates of behavioral and emotional problems than those who did not (Bos et al. 2019). However, it should be mentioned that all of the



above-mentioned studies were cross-sectional, and thus there is a lack of knowledge about the long-term effects of homophobic stigmatization in adolescence on adjustment in emerging adulthood. Furthermore, studies on the long-term consequences of stigma-based bullying toward sexual minorities are very rare. Most of these investigations were retrospective and found that bias-based victimizations during adolescence were related to psychological distress and overall poorer well-being in emerging adulthood (Toomey et al. 2011).

In contrast to research on homophobic stigmatization, there have been some studies on the long-term effects of bullying in general. Most studies on victims of bullying have focused on short-term consequences, such as those that followed children for several months or years (e.g., Copeland et al. 2013). The few studies focusing on the long-term associations between adolescent victimization and mental health outcomes have shown that those who were bullied in adolescence had an increased risk of developing high levels of psychological distress in emerging adulthood (e.g., Sigurdson et al. 2015). These findings persisted even after controlling for family hardship and childhood psychological problems (Wolke et al. 2013).

Theoretical Frameworks for Psychological Problems and Meaning in Life as Mediators

The social ecological theory is an important framework for understanding the long-term consequences of stigma-based bullying, including homophobic stigmatization. This theory proposes that an individual's development throughout the life course depends on processes between individuals and their social environment (Bronfenbrenner 2001). Homophobic stigmatization associated with parental sexual orientation is a specific form of stigma-based bullying that can be understood within this theory as it represents an environmental circumstance that could influence the offspring's development. Stigma-based bullying and homophobic stigmatization are also in line with the minority stress theory based on the premise that individuals with a sexual minority identity or membership—as offspring of lesbian parents are—experience specific stressors related to their minority status in addition to daily stressors that individuals experience independently of their sexual orientation (Meyer 2003). Additionally, there is evidence that bullying directed against an individual's particular characteristic has more impact than general bullying (Russell et al. 2012). Finally, it is possible that reduced psychological functioning in emerging adulthood is associated with higher levels of psychological problems during adolescence (Kessler et al. 2007).

The psychological mediation framework (Hatzenbuehler 2009), which is a refinement of the minority stress theory,

focuses on both inter- and intrapersonal processes through which minority stressors might affect problem behaviors. Based on this framework, specific stigma-based bullying during adolescence may elevate intrapersonal cognitive processes that ultimately result in higher risk for the development of problem behavior. In this regard, meaning in life is a key cognitive personality trait and a basic psychological need related to well-being (Hadden and Smith 2019). It includes a set of beliefs and expectations about one's life that provide purpose and order, and affect a person's interpretation of experiences. Meaning in life comprises two components (Park 2010): the search for meaning in life and the presence of meaning in life, the latter of which refers to having attained a clear sense of purpose and order (Szymanski and Mikorski 2016). Both components are related to mental health outcomes in different ways. While individuals searching for meaning may experience distress because they are trying to make sense of their life and the world, individuals who have attained meaning in life may experience less distress and greater well-being because they have a set of beliefs about their life that gives them order, direction, purpose, and determination (Park 2010). However, the two components should not be viewed as independent, insofar as the perception of the absence of, or struggles for, meaning in life may lead an individual to search for meaning.

Meaning in life has often been investigated as a moderator of the relation between adverse life circumstances and mental health (Park 2010). However, from a life course perspective (Elder 1998), it seems likely that meaning in life in emerging adulthood is related to prior developmental stages as well as the responses of the social environment during those stages (Johnson et al. 2011). Thus, adolescents of lesbian parents who experienced stigmatization due to their family type might be more vulnerable to psychological problems in the short-term, in addition to adverse consequences on their expectations and interpretation of future experiences in the longer term, as well as on problem behaviors in emerging adulthood. In other words, even when emerging adult offspring of lesbian parents do not necessarily experience the same minority group identity as their parents, or are well equipped to deal with homophobic stigmatization due to earlier positive socialization practices around family diversity (Wyman Battalen et al. 2019), they might still struggle with why they themselves are stigmatized due to their parents' sexual orientation. Thus, those who suffered psychological problems in adolescence due to stigmatization might be more likely to dwell on homophobic experiences and less able to use cognitive restructuring or positive reinterpretations to process such negative experiences. In all these circumstances, the expected outcome would be an exacerbation of the negative effects of homophobic stigmatization on problem behaviors. A previous



study on the NLLFS adolescent offspring found that perceived homophobic stigmatization was associated with more psychological problems (Gartrell and Bos 2010); however, the long-term effect of these experiences on behavioral adjustment later in life has not yet been studied. Although another investigation found that lower scores on meaning in life were associated with more problem behavior in the 25-year-old NLLFS offspring (Bos et al. 2020), there has been no prior research on whether meaning in life could be a mediator between homophobic stigmatization during adolescence and problem behavior in emerging adulthood.

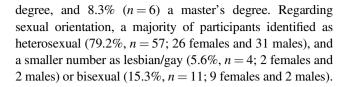
Current Study

There is a research gap concerning the long-term impact of homophobic stigmatization on adolescents with lesbian parents. The aim of the present study is to explore internalizing and externalizing problem behavior in NLLFS emerging adult offspring by examining the indirect effect of perceived homophobic stigmatization during their adolescence, via psychological problems when they were 17 years old and meaning in life when they were 25 years old. Examining the long-term effects of stigmatization occurring during adolescence is particularly relevant for offspring of lesbian parents since that is a stage of life in which the prospect of being rejected or bullied by peers due to their family structure is a matter of concern and a source of uneasiness and anxiety (Golombok 2020). It was hypothesized that among offspring in planned lesbian-parent families, the association between perceived homophobic stigmatization during adolescence, and internalizing and externalizing problem behavior during emerging adulthood, would be mediated by a serial path through psychological problems during adolescence and meaning in life during emerging adulthood.

Methods

Participants

A total of 72 emerging adults (37 females and 35 males, all cisgender) participated in the present study; all were 25 years old, born in the U.S., and had been conceived through donor insemination by lesbian-identified parents. In terms of race/ethnicity, 90.3% identified as White (n=65) and 9.8% (n=7) as people of color: African American/Black (n=3), Latina/o or Hispanic (n=1), or other/mixed (n=3). A majority (69.4%, n=50) had completed a bachelor's or registered nurse degree, 12.5% (n=9) reported some college but no college degree, 1.4% (n=1) an associate's degree, 8.3% (n=6) some graduate school but no graduate



Procedure

The NLLFS started in 1986 (Wave 1) with 84 lesbianidentified prospective parents who became pregnant through donor insemination. The prospective mothers were recruited through announcements at lesbian events, women's bookstores, and in lesbian/gay publications. After the first wave, the mothers were interviewed again when their children were 2 (Wave 2), 5 (Wave 3), 10 (Wave 4), 17 (Wave 5), and 25 (Wave 6) years old. In Waves 4, 5, and 6 the offspring were also included in the study. The offspring were interviewed after obtaining parental consent at Waves 4 and 5, and the offspring provided their own written informed consent as legal adults at Wave 6. At Waves 5 and 6, each offspring who completed the survey received the equivalent of \$60 compensation (e.g., gift card). Data collection at Waves 5 and 6 took place through a protected online survey, completed in May 2009 and October 2017, respectively. The family retention rate since Wave 1 was 92%. For the current study, the data were drawn from the adolescent offspring at Wave 5 and the emerging adult offspring at Wave 6, because at both intervals the data were collected from offspring about perceived homophobic stigmatization and psychological problems (Wave 5), and meaning in life, internalizing and externalizing problems (Wave 6). The current analyses included only those offspring who had no missing data on any of the studied variables (homophobic stigmatization and psychological problems at Wave 5, and meaning in life, internalizing and externalizing problems at Wave 6). The Institutional Review Board at Sutter Health approved this study (Project Title: The National Longitudinal Lesbian Family Study, #20.070-2; IRBNet# 348911-15).

Measures

Perceived homophobic stigmatization during adolescence (Wave 5)

The 17-year-old offspring were asked, "Have you been treated unfairly because of having a lesbian mom?" (0 = no, 1 = yes).

Psychological problems during adolescence (Wave 5)

Three subscales (trait anxiety, trait anger, trait depression) of the State-Trait Personality Inventory (STPI; Spielberger



et al. 1995) were used to measure the offspring's psychological problems when they were 17 years old. Each subscale consisted of 10 items rated on a 4-point Likert scale $(1 = not \ at \ all, 4 = very \ much \ so)$; example items are "I feel anger", "I feel gloomy". The mean total score of the 30 items was calculated, and higher scores indicated more psychological problems. Cronbach's alpha for the total scale was 0.91.

Meaning in life during emerging adulthood (Wave 6)

Three items from the Meaning in Life Scale (Steger et al. 2006) were used to investigate the extent to which the offspring perceived their lives as meaningful and worthwhile (e.g., "My life has a clear sense of purpose"). Participants responded to each of these items on a 5-point Likert scale ($1 = not \ all \ true$, $5 = completely \ true$). The total mean score was used, with higher scores reflecting a greater perception of meaningfulness in life. Cronbach's alpha was 0.82.

Internalizing and externalizing problem behavior during emerging adulthood (Wave 6)

To measure internalizing and externalizing problems, two broadband scales of the Achenbach Adult Self-Report were used (Achenbach and Rescorla 2003). The offspring were asked to specify the extent to which a series of statements was true for them during the prior six months (0 = not true, 1 = somewhat true, 2 = very true or often true). The scores on the 39 items related to internalizing behavioral problems (e.g., "I am afraid I might think or do something bad" or "I feel worthless or inferior") and the 35 items pertaining to externalizing behavioral problems (e.g., "I argue a lot" or "I steal") were tabulated, with higher scores indicating more behavioral problems. Cronbach's alphas for the Internalizing and Externalizing Scales were 0.89 and 0.86, respectively.

Demographics

Participants were asked whether they identified as African American/Black, Asian, Latina/o or Hispanic, Native American, Pacific Islander, White (non-Latina/o or Hispanic), or other/mixed. Participants were also asked about their educational level (1 = no high school diploma and no general equivalency diploma, 2 = general equivalency diploma, 3 = high school graduate, 4 = some college but no college degree, 5 = associate's degree, 6 = bachelor's or registered nurse degree, 7 = some graduate school but no graduate degree, 8 = master's degree, 9 = doctoral or law degree, 10 = other education). Regarding sexual orientation, participants were asked the following question, "Do you think of yourself as..." (1 = heterosexual or straight, 2 = lesbian, gay, or homosexual, 3 = bisexual).

Analytic Strategy

All analyses were conducted in SPSS version 26. Descriptive statistics were used to report figures such as percentages, means, and standard deviations of the variables that were included in the serial-mediation models (i.e., homophobic stigmatization and psychological problems during adolescence, meaning in life and internalizing and externalizing problems during emerging adulthood). Preliminary analyses were conducted to assess the relationship of demographic characteristics on these variables. For these preliminary analyses, the findings on race/ethnicity, education, and sexual orientation were recoded due to the small cell sizes for the response categories on these variables. Race/ethnicity was recoded into two categories: 1 = People of color (i.e., African American/Black, Latina/o or Hispanic, or other/mixed) and 2 = White (i.e., non-Latina/o or Hispanic). Education was recoded into 1 = No college degree (i.e., no high school diploma and no general equivalency diploma, general equivalency diploma, high school graduate, and some college but no college degree) and 2 = College degree or higher (i.e., associate's degree, bachelor's or registered nurse degree, some graduate school but no graduate degree, master's degree, and doctoral or law degree). None of the participants checked the answer category "other education". Participants who identified as lesbian/gay/homosexual or bisexual were pooled (sexual orientation: 1 = heterosexual and 2 = lesbian/gay/homosexual or bisexual).

Chi-square tests were used to investigate whether the offspring's gender, race/ethnicity, educational level, and sexual orientation were related to perceived homophobic stigmatization during adolescence. Analyses of variance (ANOVAs) were used to assess gender differences in psychological problems during adolescence, and meaning in life and internalizing and externalizing problems during emerging adulthood. Nonparametric tests were employed to assess race/ethnicity, education, and sexual orientation in relation to psychological problems during adolescence, and meaning in life and internalizing and externalizing problems during emerging adulthood. This was done because even after recoding, the cell sizes for the categories on the demographic variables were too small to use standard ANOVAs. Bivariate analyses were used to examine associations between the variables. Finally, the hypotheses were tested by using two serial-multiple mediation models, one for each outcome (internalizing and externalizing problem behavior), which was done through a bootstrapping method. Investigating indirect effects through bootstrapping requires no assumption regarding the shape of the sampling distribution of the indirect effect and random samples are generated based on the original data (Hayes 2017). In the current analysis, the bootstrapped mediation was done with



5,000 resamples. For each random sample, the serialmultiple mediated effects were computed. The distribution of these effects was then used to obtain 95% confidence intervals (CI) for the size of indirect effects of psychological problems during adolescence (mediator 1) and meaning in life during emerging adulthood (mediator 2) on the relation between homophobic stigmatization and internalizing and externalizing problems. The indirect effect for a serialmultiple mediation is significant when the obtained CI does not contain the value 0 (Hayes 2017). Based on the findings, a post-hoc Monte Carlo power simulation was computed to obtain the statistical power of the results for the indirect effects (Schoemann et al. 2017). In cases where demographic variables were significantly associated with one or more variables, they were included as covariates in all the above-mentioned analyses.

Results

Descriptive and Preliminary Analyses

In the current study of 72 NLLFS offspring, 40.3% (n = 29) reported as adolescents (Wave 5) that they had been treated unfairly because of having (a) lesbian mom(s). The mean score of their psychological problems at Wave 5 was 1.85 (SD = 0.43; range 1.10-2.87) on a scale from 1 to 5. When these offspring were emerging adults (Wave 6), the mean scores on meaning in life, and internalizing and externalizing problems were 3.92 (SD = 0.81; range 2.00-5.00), 13.33 (SD = 8.82; range 0-44), and 8.75 (SD = 6.41; range 1-30), respectively. As shown in Table 1, regarding demographics, only educational level was significantly related to internalizing problem behavior, with participants who lacked a college degree reporting significantly more internalizing problems than those who had a college degree.

Partial correlations with education as a covariate, showed a significant association between homophobic stigmatization and psychological problems during adolescence. Analysis of covariance (with education as a covariate) revealed that stigmatized adolescents had more psychological problems (M = 2.02, SD = 0.43) compared to those who were not stigmatized (M = 1.71, SD = 0.40), F(1, 71) = 9.17,p = 0.003. Perceived homophobic stigmatization during adolescence was not significantly related to any of the variables that were measured during emerging adulthood (i.e., meaning in life, and internalizing and externalizing problems), whereas adolescents with more psychological problems also had lower scores on meaning in life, and more internalizing and externalizing problems as emerging adults. Lower scores on meaning in life were significantly correlated with more internalizing problems, but were not associated with externalizing problems; furthermore, more internalizing problems were significantly associated with more externalizing problems (see Table 2)

Serial-Multiple Mediation Analyses

To determine the serial-multiple mediation of psychological problems (reported during adolescence) and meaning in life (reported during emerging adulthood) in the association between homophobic stigmatization during adolescence and internalizing and externalizing problem behaviors during emerging adulthood, regression analyses with a bootstrap method were used (Hayes 2017).

Internalizing problems

Bootstrapping analysis showed that the total indirect effect of homophobic stigmatization through psychological problems and meaning in life on internalizing problem behavior was significant (point estimate = 0.361, SE = 0.151, 95% CI [0.082-0.684]). The path from homophobic stigmatization to internalizing problem behavior through psychological problems and meaning in life was significant, with a point estimate for the effect of 0.060 (SE = 0.034) and a 95% confidence interval between 0.005 and 0.139. This suggested evidence for serial-multiple mediation. Figure 1 shows that the associations of the serial-multiple mediation were in the expected directions: Adolescents experiencing homophobic stigmatization had more psychological problems, which in turn were associated with lower scores on meaning in life during emerging adulthood, which were associated with more internalizing problems during this phase of life. Monte Carlo simulation for posthoc power analysis based on a serial mediation showed a moderate power of 43% (based on 95% CI).

Externalizing problems

Bootstrapping analysis also showed a significant indirect effect of homophobic stigmatization during adolescence on externalizing problem behavior during emerging adulthood (point estimate = 0.330, SE = 0.149, 95% CI [0.080– 0.656]). The inspection of the 95% CI of the serial mediation showed that the value 0 was in the 95% CI interval (point estimate = 0.010, SE = 0.034, 95% CI [-0.055 to 0.091]), implying that the path from homophobic stigmatization to externalizing problem behavior through psychological problems and meaning in life was not significant. However, the 95% CI of the single mediation path from homophobic stigmatization to externalizing problem behavior through psychological problems was significant (point estimate = 0.319, SE = 0.148, 95% [CI 0.074-0.640]). Figure 2 shows that this single mediation was in the expected direction: Adolescents experiencing homophobic



Table 1 Participant Characteristics and Bivariate Associations with Homophobic Stigmatization and Psychological Problems during Adolescence (Wave 5), and Meaning in Life, Internalizing and Externalizing Problem Behavior during Emerging Adulthood (Wave 6)

	Gender			Race/ethnicity				
	Female $n = 37$	Male $n = 35$	F	p	People of color	White	X ² /Mann–Whitney <i>U</i> test	р
Adolescence								
Homophobic stigmatization			1.02	0.313			2.18	0.140
No, % (n)	54.1 (20)	65.7 (23)			56.9 (37)	85. 7 (06)		
Yes, % (n)	45.9 (17)	34.3 (12)			43.1 (28)	14.3 (01)		
Psychological problems			2.73	0.103			175.50	0.313
M	01.92	01.75			1.98	01.82		
SD	00.43	00.43			0.34	00.44		
Emerging adulthood								
Meaning in life			0.13	0.718			205.00	0.665
M	3.95	3.88			3.90	3.91		
SD	0.78	0.85			0.32	0.85		
Internalizing problems			0.01	0.930			135.50	0.080
M	13.24	13.43			8.14	13.89		
SD	09.99	07.53			6.41	08.90		
Externalizing problems			0.22	0.642			126.00	0.053
M	08.41	09.11			04.43	09.22		
SD	05.42	07.37			02.70	06.53		
	Educational level				Sexual orientati	ion		
	No college degree	College degree or higher	X ² /Mann–Whitney U test	p	Hetero-sexual	Lesbian/Gay	X ² /Mann–Whitney <i>U</i> test	p
Adolescence								
Homophobic stigmatization			1.00	0.318			1.34	0.247
No, % (n)	44.4 (04)	61.9 (39)			63.2 (36)	46.7 (07)		
Yes, % (n)	55.6 (05)	38.1 (24)			36.8 (21)	53.3 (08)		
Psychological problems			229.00	0.353			297.50	0.071
M	02.02	01.81			1.79	2.01		
SD	00.64	00.40			0.42	0.48		
Emerging adulthood								
Meaning in life			240.50	0.459			292.00	0.057
M	03.52	03.97			3.99	3.62		
SD	01.24	00.73			0.82	0.72		
Internalizing problems			145.50	0.019			414.00	0.851
M	20.22	12.35			13.11	14.20		
SD	10.17	08.82			07.82	12.21		
Externalizing problems			176.50	0.068			419.00	0.906
0.1								
M	13.00	08.14			08.79	08.60		

stigmatization had more psychological problems, which were significantly associated with more externalizing problems as emerging adults. Monte Carlo simulation for posthoc power analysis based on a single mediation showed an adequate power of 84% (based on 95% CI).

Discussion

Research has found that children, adolescents, and emerging adults who were born and raised in lesbian-parent families experience homophobic stigmatization (Bos and

Gartrell 2020), but no prior study has examined its long-term effects on problem behavior. The current investigation used data from the U.S. National Longitudinal Lesbian Family Study to explore the indirect effect of homophobic stigmatization during adolescence on problem behavior in emerging adulthood, via psychological problems at age 17 and meaning in life at age 25, among NLLFS offspring of lesbian parents. The findings showed an indirect (but not direct) long-term effect of experienced homophobic stigmatization during adolescence on internalizing (i.e., problems within the individual) and externalizing (i.e., problems directed towards others) problem behavior among



offspring in planned lesbian-parent families. The study also uncovered potential mechanisms for these effects by focusing on a serial mediation through psychological problems during adolescence and meaning in life during emerging adulthood. Previously, neither the association between homophobic stigmatization and behavior problems, nor possible mechanisms underlying this relation, had been investigated from a longitudinal perspective. The results of the present investigation underscore the

 Table 2
 Associations
 Among Homophobic
 Stigmatization
 and

 Psychological Problems (during Adolescence), Meaning in Life and Internalizing and Externalizing Problems (during Emerging Adulthood), After Controlling for Education
 (during Emerging Emerging Adulthood)

	(1)	(2)	(3)	(4)			
Adolescence (Wave 5)							
Homophobic stigmatization	n –						
Psychological problems	0.34*	* -					
Emerging adulthood (Wave 6)							
Meaning in life	-0.15	-0.35	** -				
Internalizing problems	0.16	0.52	***-0.41*	** -			
Externalizing problems	0.14	0.49	***-0.21	0.57***			

Spearman r correlations were used for the associations among homophobic stigmatization and psychological problems, meaning in life, and internalizing and externalizing problems. Pearson r correlations were used for the associations among psychological problems and meaning in life, internalizing and externalizing problems

importance of preventing the homophobic stigmatization of adolescents based on the sexual orientation of their parents.

These findings are not surprising when considering that the offspring of sexual minority parents do not grow up in a vacuum, but in a society in which they encounter predominant values and norms, including heteronormativity. In this vein, the combination of the sexual minority stress model (Mever 2003), the ecological theory (Bronfenbrenner 2001), and the life course perspective (Elder 1998) were appropriate and relevant frameworks for this study (Farr et al. 2017), insofar as they emphasized that values and norms from the broader society may have a long-term influence on the outcomes and experiences among offspring of lesbian parents. Of relevance, these findings should also be contextualized within the evidence that the large majority of the NLLFS emerging adult offspring did not report a sexual minority identity (Gartrell et al. 2019). Given that the current study spanned more than eight years, the findings suggest that the longterm effect of homophobic stigmatization is still detrimental for behavioral adjustment even though the general attitudes toward same-sex parent families have become more accepting. For example, in a U.S. population-based study from 1992, 29% of participants reported that samesex couples should have the legal right to adopt a child, whereas by 2014 this had increased to 63% of participants (Gallup 2014).

This study confirmed its hypothesis that NLLFS adolescent experiences of homophobic stigmatization associated with parental sexual orientation would negatively

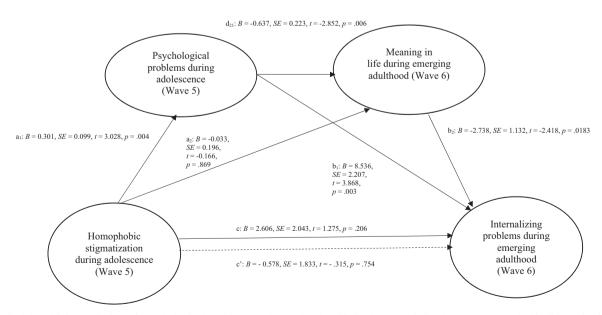


Fig. 1 Serial-multiple Mediation of Psychological Problems and Meaning in Life in the Association between Homophobic Stigmatization and Internalizing Problems (Non-Standardized Beta's)



^{**}p < 0.01, ***p < 0.001

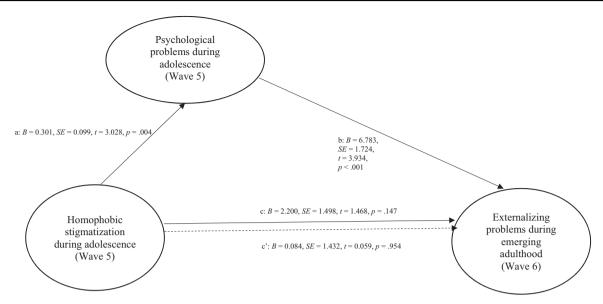


Fig. 2 Single Mediation of Psychological Problems in the Assocation between Homophobic Stigmatization and Externalizing Problems (Non-Standardized Beta's)

affect their internalizing problem behavior in emerging adulthood via increase in adolescent psychological problems and lower adult meaning in life. An explanation of the crucial role of meaning in life for this path model aligns with the rationale that there is an association between disillusioning experiences and meaning in life, through psychological distress (Heine et al. 2006). In other words, because of negative experiences such as parent-associated homophobic stigmatization, individuals are likely to feel distressed, which in turn diminishes their sense of meaning in life. The significance of psychological problems and meaning in life as mediators also provides evidence for the psychological mediation framework (Hatzenbuehler 2009). This framework indicates that intra-psychological processes that exist within the self or within one's mind (such as psychological problems and meaning in life), play a role, among other things, in how minority stressors can influence problem behaviors.

Regarding externalizing problem behavior, the study hypothesis was partially supported since only adolescent psychological problems, but not meaning in life, mediated the relation between adolescent experiences of homophobic stigmatization and externalizing problems during emerging adulthood. A possible explanation for these results is that the current study focused only on the presence of meaning in life, rather than the search for meaning in life; the latter may have led to a different result given that previous research suggests that searching for meaning is related to aggressive behavior (Van Tilburg et al. 2019), which is a specific form of externalizing problem.

Although the effect of experienced homophobic stigmatization during adolescence on internalizing and externalizing problems in emerging adulthood was indirect, the results are in line with what is known about the longterm effects of bullying in general. In a similar vein, while most longitudinal studies on the impact of bullying concentrate on short-term effects by following children either for a few months or for a few years into adolescence (e.g., Copeland et al. 2013), more recent findings have pointed towards a long-lasting effect of bullying beyond the childhood and adolescent periods (Arseneault 2017). These few long-term effect studies on bullying conducted thus far indicated that young victims of bullying showed higher rates of anxiety and depression (internalizing problem behavior) and anger (externalizing problem behavior) during their early to mid-20s compared to those who had not previously experienced bullying (e.g., Sigurdson et al. 2015). It remains to be seen how the long-term effects of bullying in general are related to stigmatization associated with parental sexual orientation. However, based on crosssectional investigations, some scientific evidence indicates that bullying directed against a certain trait (for example a person's sexual or gender identity) has more impact than general bullying (e.g., Russell et al. 2012).

Several study limitations are notable. First, this study used a single-item measure of experiences of homophobic stigmatization during adolescence rather than a multi-item scale. A second limitation is that the NLLFS is a nonrandom sample. When the study was initiated in 1986, it was unrealistic to recruit a representative sample because of longstanding discrimination against lesbian parents and an unwillingness of sexual minority parents to be identified for fear of losing child custody (Gartrell et al. 1996; Golombok 2020). An additional limitation is that the offspring were



predominantly White and well educated, with most growing up in middle-class families. As such, the study needs replication with larger and more diverse samples, ideally in longitudinal population-based studies with multiple informants and carried out internationally. Also, given the gap between Wave 5 (age 17) and Wave 6 (age 25), other constructs or unmeasured pathways may explain the association observed between the variables.

On the other hand, the NLLFS is the only investigation that has longitudinally followed offspring conceived through donor insemination by sexual minority parents from conception to emerging adulthood. As such, its findings are not influenced by overrepresentation of offspring who volunteered as adolescents for a study after they were already functioning well. Furthermore, the current 92% retention rate of NLLFS participants implies that the results are not biased by the attrition of offspring who were experiencing psychological difficulties (Golombok 2020).

Conclusion

Despite the fact that rates of bullying against sexual minority youth decrease over the course of adolescence (Robinson et al. 2013), findings of this study indicate that some emerging adult offspring of lesbian parents are still vulnerable to the homophobic stigmatization they experienced in the past due to their parents' sexual orientation. Since the current study spanned more than eight years (from adolescence to emerging adulthood), the results add evidence that adolescent homophobic stigmatization may further encumber the normative developmental tasks emerging adults must face (Arnett et al. 2014). This study also suggests that the long-term effects of experienced homophobia on the behavioral adjustment of offspring of lesbian parents should not be underestimated. To this end, it would be beneficial for school and community programs to intervene to prevent stigmatization not only of sexual and gender minority persons, but also of individuals raised by sexual minority parents.

Authors' Contributions H.B. conceived of the study, coordinated its design, conducted the statistical analyses, interpreted the data, and drafted and revised the manuscript; N.C. participated in the study design, statistical analyses, the interpretation of the data, manuscript drafting, and manuscript revision; E.D.R. and A.K. participated in the study design, interpretation of data, and revision of the manuscript; N.G. collected the data, participated in the study design, interpretation of data, and revision of the manuscript. All authors read and approved the final manuscript.

Data Sharing and Declaration The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding author on reasonable request.



Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in this study were carried out in accordance with the ethical standards of the Sutter Health Institutional Review Board.

Informed Consent Informed consent was obtained from the parents for the participation of their offspring when they were minors, and assent was obtained from these minors. When the offspring were legal adults, they provided informed consent to participate.

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