

The Family Environment and Its Relation to Health and Well-Being Among Sexual and Gender Minority Youth

Taylor L. Rathus^a and Ryan J. Watson^a

We examined youth-reported family environments using multiple indicators (parent education, participants' first language spoken, and parent immigration status) to consider the family environment and its links to youth health and well-being. To do so, we utilized cluster analysis methodology to identify potential groupings of family environments among a national sample of 14,578 sexual and gender minority (SGM) youth from the *LGBTQ National Teen Survey*, collected in 2017. Three distinct clusters of SGM youth emerged, labeled "College-educated, U.S.-born parents," "High school-educated, U.S.-born parents," and "College-educated, immigrant parents." "A series of one-way between-subjects ANCOVAs revealed each cluster significantly differed from each other on health and family outcomes, indicating that parent immigration status, parent education, and youth first spoken language are uniquely and collectively imperative for SGM youths' health and well-being." Of note, despite reporting parents with the highest level of post-high school education, SGM youth in the "College-educated, immigrant parents" cluster reported the lowest levels of parental acceptance and the lowest levels of outness in comparison to the youth in the other two clusters. In light of these results, we review the importance of the need for more nuanced ways of defining the family context among vulnerable youth—in particular for SGM youth. Given that much of the research to date defines the family environment by single indicators (e.g., parent education), we review the importance of broadening our conceptualization and measurement of the "family environment."

Keywords: family; mental health; human development; LGBTQ health

Statement of Public Health Significance: We found SGM youth with college-educated, immigrant parents face more challenges than SGM youth with high school-educated, U.S.-born parents. This scholarship underscores the necessity of utilizing multiple indicators of the family environment in order to better understand SGM health.

^aUniversity of Connecticut, Department of Human Development and Family Sciences, Storrs, CT, USA

INTRODUCTION

Research has illustrated that the family environment often explains differences in health and well-being for youth.¹ For example, youth living with vulnerable families (e.g., lower socioeconomic environments) experience higher levels of depression,² shorter lifespans,³ lower levels of familial support,⁴ and negative educational outcomes.⁵ However, there are often multiple indicators utilized to measure the family environment in developmental research.⁶ This is problematic because the use of unidimensional measures of the family environment, which may differ across studies, cannot adequately uncover the relations between adolescents' home environments and their subsequent health and well-being. This fluctuation in measurement is coupled with the limitation that few studies examine how the family environment may differentially impact sexual and gender minority (SGM) youth—a group with unique challenges and stigmas often linked to health disparities.⁷ It may be that challenges unique to SGM youth intersect with differences in the family environment such that, explored together, we may better understand health and well-being among SGM youth.

Health disparities among SGM youth are well documented.^{8–10} Minority stress frameworks are commonly utilized to explain compromised health experiences and outcomes among SGM individuals.¹¹ Minority stress theory posits that sexual minorities are exposed to greater stress due to their sexual minority status.¹¹ Stressors can place sexual minority individuals at disproportionate risk for negative mental health outcomes.¹¹ Although many current studies focus on contexts that produce or enhance stigmas (e.g., school), fewer studies have examined minority stress related to the family environment outside of interpersonal acceptance and support provided by family members to SGM youth.

In addition to minority stress frameworks, Bronfenbrenner's Ecological Systems Theory can be applied to examine the microsystem level contexts in which SGM youth develop. Ecological Systems Theory posits that there are layers of context—or "ecosystems"—that intersect with each other. The most proximal context—the microsystem—refers to the child's immediate environment such as their family.¹² The present study interrogates how the micro-level proximal experiences—such as families' spoken language, education, and immigration status—influence SGM youths' development. Because Bronfenbrenner's model explains how larger cultural influences shape individuals' development, we are specifically attuned to how parental educational and immigration experiences shape the environment in which SGM youth develop.

Operationalization of the Family Environment and SGM Populations

The family environment is pertinent to SGM youths' development, and multiple indicators are used to assess the family environment in developmental research. Common indicators examined by scholars to study the family environment are income and parental education levels.^{13,14} Researchers who have examined income (e.g., free- or reduced-price lunch) have not found significant associations between income and the health and well-being of SGM youth.¹⁵ Ryan and colleagues,¹³ who examined the role of family acceptance among Latinx and White SGM youth, found that family socioeconomic status (as measured by primary occupation of each parent or caregiver) was associated with better health outcomes, higher social support, and less depression.

Immigration status can broadly shape the family environment as well. For example, education, occupational skill level, and English-language ability are determinants of economic opportunity that may encompass unique challenges for immigrants as compared to their U.S.-born counterparts.¹⁶ Transcultural stressors such as economic pressure and neighborhood disadvantage—experienced disproportionately by immigrant families in the United States as compared to U.S.-born families—can impact adolescents' mental health.¹⁷ There is evidence that Latinx immigrant families, in particular, appear to be less accepting of their SGM youth in comparison to White U.S.-born families. In a sample of Latinx and white SGM participants, 19% of whom were born outside the United States, White participants reported higher levels of family acceptance than did Latinx participants, and U.S.-born participants reported higher levels of family acceptance in comparison to immigrant participants.¹³ Taken together, studies have demonstrated that the family environment is complex for immigrant families in particular and warrants further investigation. If we are to better understand the documented differences in experiences for immigrant versus nonimmigrant SGM youth, we need to first acknowledge that the challenges immigrant families face are multifaceted and often attributed to xenophobia and racism.¹⁷ Potential health-related differences across diverse SGM youth who come from immigrant families should also be documented.

Multiple indicators of the family environment may differ in utility and precision when it comes to explaining the health and well-being of SGM youth. The use of one measure alone eliminates the opportunity to gain a fuller understanding of individuals' environmental circumstances and elucidates only a partial picture of the larger family environment. Utilizing multiple indicators of the family environment may allow for a more nuanced view of how it influences health outcomes which, in turn, may have implications for policy and potential interventions.¹⁸

SGM Family-Related Research

Extant research has explored family relationships as important in the development of SGM youth. However, much of the research to date has focused on interpersonal relationships with family, such as acceptance and support. It is known that acceptance from parents and the quality of family relationships are protective for SGM youths' health and well-being.¹³ However, research has been slow to rigorously investigate whether other factors relevant to the family environment might impact health and well-being for SGM youth.

The family environment may help to explain the health experiences that are specifically related to interpersonal interactions with family members for SGM youth. For example, a growing body of research demonstrates that youth of higher socioeconomic status (who have parents with a combination of a lucrative occupation, high education, and high income) are more likely to receive support from family, peers, and significant others whereas youth of lower socioeconomic status are less likely to receive social support.^{13,19} Subsequently, youth of lower socioeconomic status may be at risk for a multitude of negative mental health outcomes.¹⁹ In a study of 245 LGBT young adult California residents between 21 and 25 years of age, 51.4% of whom were Latinx, for example, depression was higher among immigrants and among participants from low socioeconomic status families.²⁰

Current Study

The present study utilizes cluster analysis and ANCOVAs to investigate how intersections in indicators of family environments may be related to health and family experiences among SGM youth. We examined these experiences of SGM youth by triangulating a more nuanced operationalization of the family environment, utilizing several measures (i.e., parent education, participants' first language spoken, and parent immigration status), and by examining potential relations to the youths' self-reported levels of outness to parents, perceptions of family acceptance, and depressive symptoms.

METHODS

Sample

Data were drawn from the *LGBTQ National Teen Survey*, collected in partnership with the Human Rights Campaign (HRC) in 2017. Participants were 13–17 years of age, identified as sexual and/or gender minorities, were English-speaking, and resided in the United States. SGM youth participated in an anonymous, online, self-report survey hosted by the survey website Qualtrics. Participants were recruited via social media (Twitter, Facebook, Instagram, Reddit, and Snapchat) and via HRC's wide-reaching network of community partners. HRC partner organizations (e.g., Youth Link, Trevor Project, Advocates for Youth, Planned Parenthood, and Big Brother / Big Sisters) helped disseminate the survey to their networks via e-mail or direct communication. All study procedures were approved by the University of Connecticut IRB; all youth provided assent to participate, and researchers obtained a parental waiver of consent.

Ineligible responders and *bots* were prevented from completing the survey through a multi-step consent and sorting process. This process included a response tree protocol that diverted participants who were ineligible (e.g., due to age or country of residence). A post hoc mischievous responder's sensitivity analysis was then conducted. Information on all study procedures can be found elsewhere.²¹

The present study includes 14,578 SGM youth. Participants represented diverse subgroups of SGM youth across the United States. See Table 1 for complete demographics of the analytic sample.

Measures

Parental Education. Participants were asked to indicate the highest level of education of their first parent/primary caregiver and their second parent/primary caregiver. Response options were "Less than high school or GED," "High school or GED," "Vocational/Technical School (2 years)," "Some college," "College graduate," "Postgraduate degree or higher," "Do not know," or "Does not apply." The item was recoded to reflect the highest education level of either the primary or secondary caregiver. If a participant responded that they did not know their parents' educational attainment, or the item did not apply to them, the participant's value on this item was set to missing.

Participant Spoke English as First Language. Participants were asked, "Is English your first language?" Response options were "no" and "yes."

TABLE 1. Participant Demographic Information

	Analytic Sample
	<i>N</i> = 14,578
	<i>M</i> (<i>SD</i>)
Age	15.63 (1.25)
	<i>n</i> (%)
Sexual Orientation	
Gay or Lesbian	5,487 (37.6)
Bisexual	5,072 (34.8)
Straight	233 (1.6)
Queer	627 (4.3)
Pansexual	1,888 (13.0)
Asexual	635 (4.4)
Questioning	344 (2.4)
Other	292 (2.0)
Transgender (ref: cisgender)	4,759 (32.6)
Region of United States	
Northeast	2,657 (18.2)
Midwest	3,344 (22.9)
South	5,359 (36.8)
West	3,218 (22.1)
Ethnoracial Identity	
White	9,159 (62.8)
Black	819 (5.6)
Native American	73 (0.5)
Asian	583 (4.0)
Hispanic/Latino	1,586 (10.9)
Bi/Multiracial	2,072 (14.2)
Something else	273 (1.9)

Parents Born in the United States. Participants were asked, “Were both/all of your parents born in the United States?” Response options were “none,” “some,” “both/all,” and “not sure.” If a participant responded that they were not sure where their parents were born, the participant’s value on this item was set to missing.

Outness to Family. Participants were asked how many family members/parents they think currently know of their sexual orientation. Response options were “none,” “a few,” “some,” “most,” and “all.”

Family Acceptance. Family Acceptance was assessed using an 8-item measure on a Likert scale from 0 to 4 (0 = *strongly disagree*, 4 = *strongly agree*) that assessed both family acceptance and family rejection. An example item included “How much do you feel that your family taunts or mocks you because you are an LGBTQ person?” Higher values indicate higher levels of family acceptance ($\alpha = 0.84$).

Depressive Symptoms. To measure depressive symptoms, we used 10 of the 11 items as part of the Kutcher Adolescent Depression scale,²² excluding an item related to suicidality. Participants were asked the frequency within the past week with which they felt symptoms indicative of depression. Participants responded on a Likert scale from 0 to 3 (0 = *hardly ever*, 1 = *much of the time*, 2 = *most of the time*, 3 = *all of the time*). All depression items were added such that higher scores indicate higher levels of depressive symptoms ($\alpha = 0.90$).

Covariates. We adjusted our analyses for the age of participants and their region of residence (North, South, Northeast, Southwest).

Plan of Analysis

Participants missing on all cluster analysis membership variables were excluded from the analyses. Some of the participants included in this study did not answer all of the health and family outcome variables. Only participants with valid responses to these outcome variables were included in subsequent analyses. Youth in the full sample analyzed ($N = 17,112$) were slightly younger ($M = 15.23$, $SD = 1.33$) than those in the current analytic sample ($M = 15.60$, $SD = 1.26$), $t(17110) = -14.46$, $p < .001$.

To understand potential groupings in diverse measurements of the family environment, we first performed a cluster analysis in SPSS 26. The variables chosen to identify potential clusters were participants' parental education, whether the participant spoke English as their first language, whether their parents were born in the United States, their levels of outness to their parents, family acceptance, and depressive symptoms. Hierarchical agglomerative method was used to investigate whether clusters would emerge and average linkage was used because it was not expected that the clusters would necessarily have the same number of individuals. Three clusters were identified by utilizing the dendrogram method on SPSS and then by running descriptive frequencies on SPSS to confirm the clusters that emerged in the dendrogram. Next, a series of one-way between-subjects ANCOVAs, adjusted for participants' age and region of residence, was conducted to determine how clusters of family environment were related to youths' levels of outness, family acceptance, and depression.

RESULTS

Three distinct clusters of sexual minority youth emerged, labeled “College-educated, U.S.-born parents,” “High school-educated, U.S.-born parents,” and “College-educated, immigrant parents.” The “College-educated, U.S.-born parents” cluster was more than three times the size of the other clusters and included youth who were more likely than youth in the other clusters to speak English as their first language, more likely to have parents with a higher education level than the “College-educated, immigrant parents” cluster, and more likely than youth in both other clusters to have parents who were born in the United States. Youth in

the “High school-educated, U.S.-born parents” cluster were more likely than youth in the “College-educated, immigrant parents” cluster to speak English as their first language and were more likely to have parents with a lower education level and who were born in the United States than those in the other clusters. Youth in the cluster labeled “College-educated, immigrant parents” were less likely than youth in the other clusters to speak English as their first language and were more likely than youth in the “High school-educated, U.S.-born parents” cluster to have parents with a higher education level. These youth were least likely to have parents who were born in the United States. See Table 2 for the cluster membership variable means and standard deviations.

Sample Demographic Differences by Cluster

Table 3 shows both the differences in demographic variables and outcome variables across all three clusters. The “College-educated, U.S.-born parents” cluster included youth who were statistically more likely to be White and to identify as queer compared to youth in the “College-educated, immigrant parents” cluster. The “College-educated, immigrant parents” cluster included youth who were statistically less likely to be White, and statistically more likely to be Asian, Hispanic/Latinx, and identify as an “other” racial/ethnic identity. With regard to sexual orientation, youth in the “College-educated, immigrant parents” cluster were statistically more likely than youth in both other clusters to identify as bisexual.

Outcomes by Cluster Membership

After identifying the three clusters, a series of one-way between-subjects ANCOVAs, adjusted for age and region, were performed to test whether SGM youth differed on health and family outcomes. The three clusters significantly differed from each other on their levels of outness to their parents ($F(2, 10025) = 70.95, p < .001$), their levels of family acceptance ($F(2, 9898) = 96.42, p < .001$), and their depressive symptoms ($F(2, 9786) = 44.27, p < .001$). Tukey post hoc analyses indicated that the “College-educated, U.S.-born parents” cluster included youth who were more likely to be out to their parents than those in the “College-educated, U.S.-born parents” cluster, more likely to have higher levels of family acceptance than those in the “High school-educated, U.S.-born parents” cluster, and less likely to have depressive symptoms than youth in the “College-educated, U.S.-born parents” cluster. Youth in the “High school-educated, U.S.-born parents” cluster were less likely to be out to their parents

TABLE 2. Cluster Analysis Results

Membership Variables	College-Educated, U.S.-Born Parents	High School- educated, U.S.-Born Parents	College-Educated, Immigrant Parents
	(<i>n</i> = 10,509)	(<i>n</i> = 2,904)	(<i>n</i> = 1,165)
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Parent education	5.19 (.72) ^a	1.98 (0.57) ^{ab}	5.23 (0.80) ^b
First language	0.97 (.16) ^a	0.86 (0.35) ^a	0.61 (0.49) ^a
Parents born in United States	1.87 (.34) ^a	1.55 (0.78) ^a	0.01 (0.11) ^a

Note. Percentages sharing the same subscript (e.g., a, b) significantly differ from each other at $p < .001$.

than those in the “College-educated, U.S.-born parents” cluster, were less likely to have low levels of family acceptance than those in the “College-educated, immigrant parents” cluster, and were more likely to report higher levels of depressive symptoms in comparison to youth in the “College-educated, U.S.-born parents” cluster. The “College-educated, immigrant parents” cluster included youth who were the least likely to be out to their parents and who reported the lowest levels of family acceptance.

DISCUSSION

Much of the research to date conducted in the spirit of linking familial experiences and health outcomes has focused on SGM youths’ interpersonal relationships with family members. Scholarship has demonstrated that family experiences may partially help to explain health disparities among SGM youth,^{13,19} but most of the work has not relied on robust and simultaneous measurement of the family environment. These unidimensional measurements are unable to disentangle the nuances in family environments. We expanded the current body of literature by utilizing multiple indicators of the family environment to document important differences in clusters of family environments.

Had we only analyzed parent education as an indicator for the family environment (as often found in social science SGM research), the cluster of youth with college-educated, immigrant parents would not have been detected. Familial support is essential to SGM youths’ health and well-being,²³ and it has even been shown to be the strongest factor in SGM Latinx youths’ decisions to come out in particular.²⁴ Parent–child relationships that are supportive and accepting, and include positive communication (open, mutual, and low conflict) have been found to be associated with better health outcomes, specifically in the context of sexual risk behavior among gay and bisexual male youth.²⁵ However, our findings underscore previous research that has illustrated immigrant SGM youth reporting lower levels of family acceptance. For example, it has been found that SGM immigrant children report lower levels of family acceptance and young adult adjustment than those born in the United States.²⁶ Our findings do, however, help to illuminate SGM youth who are second generation and may face unique challenges compared to their parents with regard to adjusting to a new culture.

Our findings that SGM youth with immigrant parents face more challenges than SGM youth with U.S.-born parents have several implications for future research, prevention, and intervention efforts. Because of the importance of family acceptance in relation to SGM youths’ well-being, family interventions should focus on SGM first- or second-generation immigrant youth in particular. Interventions that have focused on educating families on how to be supportive of their SGM child or sibling have been successful²⁷ and, therefore, interventions such as these may yield promising results for SGM youth of immigrant parents. Further, family-level interventions have demonstrated efficacy and effectiveness in preventing and reducing negative outcomes such as substance use and sexual risk among adolescents.²⁸ However, much of the research to date on family-level interventions has been focused on parents of heterosexual/cisgender youth.²⁹

Most surprising were our findings regarding the health challenges reported by youth who were part of the “College-educated, immigrant parents” cluster. Although previous scholarship may have been based on an assumption that parents with a lower education level are perceived as less supportive of SGM children and youth, our findings contradict this notion. Alternatively, our results illustrate that youth who are part of the cluster with non-college-educated parents reported higher levels of family acceptance regarding their SGM identities

TABLE 3. Differences in Demographics and ANCOVA Results Demonstrating Health, Family, and School Experiences by Cluster Grouping

	College-Educated, U.S.-Born Parents (<i>n</i> = 10,509)	High School-Educated, U.S.-Born Parents (<i>n</i> = 2,904)	College-Educated, Immigrant Parents (<i>n</i> = 1,165)	Model Statistics
Demographic Variables	%	%	%	<i>F</i> , <i>p</i>
Sexual Orientation				
Gay or Lesbian	37.6	38.4	36.4	—
Bisexual	34.4 ^a	34.1 ^b	39.8 ^{ab}	7.14, <i>p</i> = .001
Straight	1.6	1.9	1.0	—
Queer	4.6 ^a	3.4 ^{ab}	3.8 ^b	4.68, <i>p</i> = .009
Pansexual	12.7 ^a	14.9 ^{ab}	10.6 ^b	8.29, <i>p</i> < .001
Asexual	4.6	3.6	4.3	—
Questioning	2.5	1.8	2.2	—
Other	2.1	1.9	1.8	—
Transgender (ref: cisgender)	33.4 ^a	32.4 ^b	26.7 ^{ab}	10.76, <i>p</i> < .001
Ethnoracial Identity				
White	70.2 ^a	52.2 ^a	22.6 ^a	649.71, <i>p</i> < .001
Black	5.4	6.2	6.4	—
Native American	0.5	0.5	0.2	—
Asian	1.5 ^a	2.2 ^b	30.7 ^{ab}	1,406.80, <i>p</i> < .001
Hispanic/Latino	5.9 ^a	22.7 ^a	26.1 ^a	512.81, <i>p</i> < .001
Bi/Multiracial	14.7 ^a	14.5 ^b	8.9 ^{ab}	14.58, <i>p</i> < .001
Other	1.6 ^a	1.6 ^b	5.2 ^{ab}	37.20, <i>p</i> < .001
Outcome Variables				
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	
Outness to parents	1.80 (1.57) ^a	1.69 (1.69) ^b	1.11 (1.41) ^{ab}	70.5, <i>p</i> < .001
LGBTQ family acceptance	2.46 (.78) ^{ab}	2.23 (.77) ^a	2.15 (.79) ^b	99.07, <i>p</i> < .001
Depressive symptoms	12.75 (7.38) ^a	14.75 (7.73) ^{ab}	13.47 (7.64) ^b	45.75, <i>p</i> < .001

Note. Percentages sharing the same subscript (e.g., a, b) significantly differ from each other at *p* < .001. Percentages do not add up to 100% in some cases due to rounding.

than those whose parents were college-educated and immigrants to the U.S. Youth in the “College-educated, immigrant parents” cluster may be especially vulnerable to minority stress, which might explain the highest level of depressive symptoms—potentially pertaining to immigration and acculturation stress—yet moderate levels of family acceptance. In relation to Bronfenbrenner’s Ecological Systems Theory, it is clear that the health and social welfare “macrosystem” may be directly linked to youths’ immediate (“microsystem”) environment (e.g., family socioeconomics and environment). Undoubtedly, researchers need to continue to consider the roles that assimilation stress, xenophobia, and racism play in the lives of immigrant SGM youth and SGM youth with immigrant parents.

We suspect there are multiple explanations for why this cluster of youth—whose parents are immigrants—may be experiencing some of the worst health outcomes in comparison to English-speaking youth whose parents are U.S.-born. For example, it may be that immigrant parents have personally experienced racial/ethnic discrimination and, therefore, are protective in the raising of their children, as many utilize ethnic-racial socialization strategies. Specific ethnic-racial socialization strategies often used by immigrant parents with their children include “adapt” (the preparation for bias and avoidant coping), and “advocate” (the preparation for bias and active coping).³⁰ Notably, immigrant SGM youth may fear double-discrimination—stigma related to both their SGM and immigrant identities.³⁰ In addition, perhaps for recent immigrants to the United States, cultural norms experienced by Asian and Hispanic/Latinx parents do not align with those found in the United States, in particular toward SGM acceptance and identities. For example, stronger endorsement of machismo and the adherence to masculine norms in Hispanic/Latinx culture may contribute to lack of acceptance of SGM individuals among Hispanic/Latinx parents.²² On the other hand, diverse SGM youth have multiple dimensions of their identities that shape their experiences of oppression in all areas of their lives (i.e., intersectionality).^{31,32} These youth may be navigating all dimensions of their identities while experiencing dissonance among them and potentially minimizing certain aspects. Finding communities that are supportive of all parts of SGM youth may be particularly difficult.^{31,32} Fewer SGM youth of color disclose their sexual orientation to their parents in comparison to SGM White youth and, therefore, may not seek their support.³³

Previous research has found that these transcultural stressors influence parenting. Immigrant parents, regardless of race/ethnicity, report higher levels of parenting aggravation,³⁴ likely due to the stress-inducing, hostile sociopolitical environments in which many immigrant families live. Past interventions intended to reduce immigrant parents’ stress levels—including familial stress levels—and to improve parental involvement have shown positive results.²⁷ Our findings indicate that family interventions aimed at alleviating the daily stress that immigrants face should be considered to improve parent–child relations in order to promote SGM youth family acceptance and well-being.

Cultural differences in attitudes toward SGM individuals may be a potential explanation for the “College-educated, immigrant parents” cluster’s negative outcomes as well. For example, it has been found that factors such as lower social conservatism and more inclusive civil rights protecting the SGM community in one’s country are associated with more favorable attitudes toward SGM individuals.^{35,36} Given that youth in the cluster with immigrant parents reported the worst outcomes, it is useful to briefly contextualize SGM rights in other cultures. In China, “homosexuality” was decriminalized in 1997, declassified as a mental illness in 2001, and yet no rights are afforded to SGM individuals with regard to same-sex marriage or discrimination.^{27,30} In India, homosexuality was decriminalized in 2018, though,

same-sex marriages remain illegal.³⁴ By comparison, homosexuality was removed from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders in 1973; the U.S. Supreme Court ruled that same-sex couples could marry nationwide in 2015; and acceptance toward the SGM community is growing.³⁵ However, it is a limitation that we did not ask the youth their parent's country of origin—future research should explicitly examine parental country of origin to expand on these findings.

Also of note, we found the largest proportion of bisexual youth within the “College-educated, immigrant parents” cluster. Youth in this cluster were also at highest risk for depressive symptoms. This is in line with previous research that shows that subgroups of SGM youth do not only experience differing levels of family support, but that bisexual youth are at a disproportionate risk for negative outcomes (e.g., discrimination, higher depression, and suicidality).^{37,38} In particular, bisexual girls have reported disproportionate symptoms of depression in comparison to other SGM subgroups³⁷; and gay and bisexual Latinx men, in particular, have reported higher levels of family rejection and poorer mental health.³⁹ Although there is little research that focuses on immigrant families of bisexual youth in particular, our findings corroborate and expand research on the larger family environment and bisexual youths' relationships with their parents.

Our findings complement an emerging body of literature that help to explain intra- and interpersonal experiences among diverse groups of SGM youth. For example, some research shows that sexual orientation disclosure differently impacts a number of experiences, such as school achievement²¹ and psychological distress.⁴⁰ Other research documents that stigma and victimization is linked to increased health disparities among SGM youth.⁴¹ Our current findings imply that the environment in which youth are socialized (e.g., at home with family members) does relate to their health and well-being in distinct and meaningful ways.

Our study has a few limitations. First, data are drawn from a cross-sectional survey which does not allow us to understand how the family environment might explain health outcomes over time for SGM youth. Future studies that employ longitudinal methodology should measure several components of the family environment to best predict health and well-being of SGM youth. Although we collected data on immigration status, we do not have data with regard to youths' parents' country of origin, which would be useful in contextualizing why and how certain youth in the “College-educated, immigrant parents” cluster experience family rejection and other negative health outcomes. Additionally, our recruitment methods likely yielded a group of SGM youth with more social capital (e.g., access to the Internet, an interest in following groups affiliated with HRC). Due to the sampling frame (e.g., anonymous online survey) and online recruitment methodologies in partnership with HRC, the majority of participants in our study were White. Although a larger than typical number (in social science and SGM research) of youth of color were included in our sample, this should be taken into consideration when interpreting results.

CONCLUSIONS

The family environment is multifaceted and related to SGM health and well-being in various ways. Youth in the “College-educated, immigrant parents” cluster were the most vulnerable to depressive symptoms and were the least likely to be out to their families. This study expands on the current literature by utilizing more nuanced measures of the family environment. In particular, the cluster of youth with immigrant parents of a high education level would not

have been detected had we only analyzed parent education as an indicator for the family environment. Given our findings that SGM youth with immigrant parents face more challenges than SGM youth with U.S.-born parents, future prevention, and intervention efforts might well focus on improving the well-being of SGM first- or second-generation immigrant youth. Other interventions at the practice level may include family interventions aimed at alleviating the daily stress that immigrants face (e.g., through individual and/or family therapy; through fostering community support groups) in order to improve parent–child interactions which, in turn, may improve SGM youths' health and well-being. Broader social, political, and environmental contexts should also be considered as targets of intervention to improve the lives of immigrant families and alleviate the stresses they face disproportionately. Some of these macro-level interventions might include providing immigrant families with greater support and availability of services, access to diverse and well-paying jobs, access to healthcare, access to better education systems for themselves and their children, and generally improving the immigration process. With these systemic improvements, we can only suspect that the health and well-being of immigrant parents and their SGM children would be greatly improved.

REFERENCES

- [1] McGarrity LA. Socioeconomic status as context for minority stress and health disparities among lesbian, gay, and bisexual individuals. *Psychol Sex Orientat Gen Divers*. 2014;1(4):383. <https://doi.org/10.1037/sgd0000067>.
- [2] Uddin M, Jansen S, Telzer EH. Adolescent depression linked to socioeconomic status? Molecular approaches for revealing premorbid risk factors. *Bio Essays*. 2017;39(3):1600194. <https://doi.org/10.1002/bies.201600194>.
- [3] Elgar FJ, McKinnon B, Torsheim T, et al. Patterns of socioeconomic inequality in adolescent health differ according to the measure of socioeconomic position. *Soc Indic Res*. 2016;127(3):1169-1180. <https://doi.org/10.1007/s11205-015-0994-6>.
- [4] Karimshah A, Wyder M, Henman P, Tay D, Capelin E, Short P. Overcoming adversity among low SES students: A study of strategies for retention. *The Australian Universities Review*. 2013;55(2): 5-14. <https://doi.org/10.1111/j.1741-3737.2010.00725.x>.
- [5] Dietrichson J, Bøg M, Filges T, Klint Jørgensen AM. Academic interventions for elementary and middle school students with low socioeconomic status: a systematic review and meta-analysis. *Rev Educ Res*. 2017;87(2):243-282. <https://doi.org/10.3102/0034654316687036>.
- [6] Yuma-Guerrero P, Orsi R, Lee PT, Cubbin C. A systematic review of socioeconomic status measurement in 13 years of US injury research. *J Safety Res*. 2018;64:55-72. <https://doi.org/10.1016/j.jsr.2017.12.017>.
- [7] Graham R, Berkowitz B, Blum R, et al. The health of lesbian, gay, bisexual, and transgender people: building a foundation for better understanding. *Wash DC Inst Med*. 2011;10:13128. <https://doi.org/10.17226/13128>.
- [8] Reisner S.L, JM White, JB Bradford, Mimiaga MJ. Transgender health disparities: comparing full cohort and nested matched-pair study designs in a community health center. *LGBT Health*. 2014;1(3):177-184. <https://doi.org/10.1089/lgbt.2014.0009>.
- [9] Russell ST, Fish JN. Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annu Rev Clin Psychol*. 2016;12(1):465-487. <https://doi.org/10.1146/annurev-clinpsy-021815-093153>.
- [10] Wilkerson JM, Schick VR, Romijnders KA, Bauldry J, Butame SA. Social support, depression, self-esteem, and coping among LGBTQ adolescents participating in Hatch Youth. *Health Promot Pract*. 2017;18(3):358-365. <https://doi.org/10.1177/1524839916654461>.
- [11] Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674. <https://doi.org/10.1037/0033-2909.129.5.674>.

- [12] Bronfenbrenner U. *The Ecology of Human Development*. Harvard university press; 1979. <https://doi.org/10.1080/00131728109336000>.
- [13] Ryan C, Russell ST, Huebner D, Diaz R, Sanchez J. Family acceptance in adolescence and the health of LGBT young adults. *J Child Adolesc Psychiatr Nurs*. 2010;23(4):205-213. <https://doi.org/10.1111/j.1744-6171.2010.00246.x>.
- [14] Davis-Kean PE. The influence of parent education and family income on child achievement: the indirect role of parental expectations and the home environment. *J Fam Psychol*. 2005;19(2):294. <https://doi.org/10.1037/0893-3200.19.2.294>.
- [15] Poteat VP, Sinclair KO, DiGiovanni CD, Koenig BW, Russell ST. Gay-straight alliances are associated with student health: a multischool comparison of LGBTQ and heterosexual youth. *J Res Adolesc*. 2013;23(2):319-330. <https://doi.org/10.1111/j.1532-7795.2012.00832.x>.
- [16] Abramitzky R, Boustan L. Immigration in American economic history. *J Econ Lit*. 2017;55(4):1311-1345. <https://doi.org/10.1257/jel.20151189>.
- [17] Kim SY, Schwartz SJ, Perreira KM, Juang LP. Culture's influence on stressors, parental socialization, and developmental processes in the mental health of children of immigrants. *Annu Rev Clin Psychol*. 2018;14(1):343-370. <https://doi.org/10.1146/annurev-clinpsy-050817-084925>.
- [18] Maselko J, Bates L, Bhalotra S, et al. Socioeconomic status indicators and common mental disorders: evidence from a study of prenatal depression in Pakistan. *SSM-Popul Health*. 2018;4:1-9. <https://doi.org/10.1016/j.ssmph.2017.10.004>.
- [19] McConnell EA, Birkett MA, Mustanski B. Typologies of social support and associations with mental health outcomes among LGBT youth. *LGBT Health*. 2015;2(1):55-61. <https://doi.org/10.1089/lgbt.2014.0051>.
- [20] Toomey RB, Ryan C, Diaz RM, Card NA, Russell ST. Gender-nonconforming lesbian, gay, bisexual, and transgender youth: school victimization and young adult psychosocial adjustment. *Dev Psychol*. 2010;46(6):1580-1589. <https://doi.org/10.1037/a0020705>.
- [21] Watson RJ, Wheldon W, Russell ST. How does sexual identity disclosure impact school experiences? *J LGBT Youth*. 2015;12(4):385-396. <https://doi.org/10.1080/19361653.2015.1077764>.
- [22] LeBlanc JC, Almudevar A, Brooks SJ, Kutcher S. Screening for adolescent depression: comparison of the Kutcher adolescent depression scale with the beck depression inventory. *J Child Adolesc Psychopharmacol*. 2002;12(2):113-126. <https://doi.org/10.1089/104454602760219153>.
- [23] Patterson CJ, Sepúlveda M-J, White J, eds. *Understanding the Well-Being of LGBTQI+ Populations*. National Academies Press; 2020.
- [24] Pastrana AJ. Being out to others: the relative importance of family support, identity and religion for LGBT Latina/os. *Lat Stud*. 2015;13(1):88-112. <https://doi.org/10.1057/lst.2014.69>.
- [25] LaSala MC, Siebert CF, Fedor JP, Revere EJ. The role of family interactions in HIV risk for gay and bisexual male youth: a pilot study. *J Fam Soc Work*. 2016;19(2):113-131. <https://doi.org/10.1080/10522158.2016.1155517>.
- [26] Snapp SD, Watson RJ, Russell ST, Diaz RM, Ryan C. Social support networks for LGBT young adults: low cost strategies for positive adjustment. *Family Relations*. 2015;64(3):420-430. <https://doi.org/10.1111/fare.12124>.
- [27] López-Zerón G, Parra-Cardona JR, Yeh HH. Addressing immigration-related stress in a culturally adapted parenting intervention for Mexican-origin immigrants: initial positive effects and key areas of improvement. *Family Process*. 2020;59(3):1094-1112. <https://doi.org/10.1111/famp.12481>.
- [28] Estrada Y, Lee T, Huang S, et al. Parent-centered prevention of risky behaviors among Hispanic youths in Florida. *Am J Public Health*. 2017;107(4):607-613. <https://doi.org/10.2105/AJPH.2017.303653>.
- [29] Newcomb ME, LaSala MC, Bouris A, et al. The influence of families on LGBTQ youth health: a call to action for innovation in research and intervention development. *LGBT Heal*. 2019;6(4):139-145. <https://doi.org/10.1089/lgbt.2018.0157>.
- [30] Ayón C, Tran AGTT, Nieri T. Ethnic-racial socialization practices among Latino immigrant families: a latent profile analysis. *Fam Relat*. 2019;68(2):246-259. <https://doi.org/10.1111/fare.12356>.
- [31] Johns MM, Poteat VP, Horn SS, Kosciw J. Strengthening our schools to promote resilience and health among LGBTQ youth: emerging evidence and research priorities from The State of LGBTQ

- Youth Health and Wellbeing Symposium. *LGBT Heal.* 2019;6(4):146-155. <https://doi.org/10.1089/lgbt.2018.0109>.
- [32] Hulko W, Hovanec J. Intersectionality in the lives of LGBTQ youth: identifying as LGBTQ and finding community in small cities and rural towns. *J Homosex.* 2018;65(4):427-455. <https://doi.org/10.1080/00918369.2017.1320169>.
- [33] Grov C, Bimbi DS, Nanin JE, Parsons JT. Race, ethnicity, gender, and generational factors associated with the coming-out process among gay, lesbian, and bisexual individuals. *J Sex Res.* 2006;43(2):115-121. <https://doi.org/10.1080/00224490609552306>.
- [34] Yu SM, Singh GK. High parenting aggravation among US immigrant families. *Am J Public Health.* 2012;102(11):2102-2108. <https://doi.org/10.2105/AJPH.2012.300698>.
- [35] Donaldson CD, Handren LM, Lac A. Applying multilevel modeling to understand individual and cross-cultural variations in attitudes toward homosexual people across 28 European countries. *J Cross-Cult Psychol.* 2017;48(1):93-112. <https://doi.org/10.1177/0022022116672488>.
- [36] Gray NN, Mendelsohn M, Omoto AM. Community connectedness, challenges, and resilience among gay Latino immigrants. *Am J Community Psychol.* 2015;55(1-2):202-214. <https://doi.org/10.1007/s10464-014-9697-4>.
- [37] Taliaferro LA, Gloppen KM, Muehlenkamp JJ, Eisenberg ME. Depression and suicidality among bisexual youth: a nationally representative sample. *J LGBT Youth.* 2018;15(1):16-31. <https://doi.org/10.1080/19361653.2017.1395306>.
- [38] Fish JN, Schulenberg JE, Russell ST. Sexual minority youth report high-intensity binge drinking: the critical role of school victimization. *J Adolesc Health.* 2019;64(2):186-193. <https://doi.org/10.1016/j.jadohealth.2019.02.002>.
- [39] Ryan C, Huebner D, Diaz RM, Sanchez J. Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. *Pediatrics.* 2009;123(1):346-352. <https://doi.org/10.1542/peds.2007-3524>.
- [40] Riggie EDB, Rostosky SS, Black WW, Rosenkrantz DE. Outness, concealment, and authenticity: associations with LGB individuals' psychological distress and well-being. *Psychol Sex Orientat Genid Divers.* 2017;4(1):54. <https://doi.org/10.1037/sgd0000202>.
- [41] Hatzenbuehler ML, Pachankis JE. Stigma and minority stress as social determinants of health among lesbian, gay, bisexual, and transgender youth: research evidence and clinical implications. *Pediatric Clinics.* 2016;63(6):985-997. <https://doi.org/10.1016/j.pcl.2016.07.003>.

Disclosure. The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

Funding. The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the National Institutes of Health K01DA046827. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Correspondence regarding this article should be directed to Taylor Rathus, MA, University of Connecticut, Department of Human Development and Family Sciences, 348 Mansfield Rd, U-1058, Storrs, CT 06269. E-mail: taylor.rathus@uconn.edu