

Early Life Psychosocial Stressors and Housing Instability among Young Sexual Minority Men: the P18 Cohort Study

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ABSTRACT *Homelessness and housing instability is a significant public health problem among young sexual minority men. While there is a growing body of literature on correlates of homelessness among sexual minority men, there is a lack of literature parsing the different facets of housing instability. The present study examines factors associated with both living and sleeping in unstable housing among $n = 600$ sexual minority men (ages 18–19). Multivariate models were constructed to examine the extent to which sociodemographic, interpersonal, and behavioral factors as well as adverse childhood experiences explain housing instability. Overall, 13 % of participants reported sleeping in unstable housing and 18 % had lived in unstable housing at some point in the 6 months preceding the assessment. The odds of currently sleeping in unstable housing were greater among those who experienced more frequent lack of basic needs (food, proper hygiene, clothing) during their childhoods. More frequent experiences of childhood physical abuse and a history of arrest were associated with currently living in unstable housing. Current enrollment in school was a protective factor with both living and sleeping in unstable housing. These findings indicate that being unstably housed can be rooted in early life experiences and suggest a point of intervention that may prevent unstable housing among sexual minority men.*

KEYWORDS *Sexual minority youth, LGBT youth, Homeless, Housing instability, Childhood abuse, Sexual debut*

INTRODUCTION

An emerging body of literature has demonstrated homelessness among sexual minority (lesbian, gay, bisexual, and questioning) youth (SMY) to be a significant public health problem.^{1–4} A 2010 report places the total number of SMY experiencing homelessness and/or housing instability in the USA between 320,000 and 400,000.⁵ While this estimate represents only 20 % of all homeless youth in the

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USA, the prevalence of homelessness among SMY may in fact be underestimated, and therefore the number of SMY affected by homeless is likely much higher. Truly accurate estimates of unstably housed SMY are difficult to obtain due in part to housing status questionnaires that often do not include items on sexual orientation,⁶ and in general, SMY are less likely to report their sexual orientation on surveys.^{4, 7}

Of the limited number of studies that have examined homelessness and housing instability among SMY, findings have suggested that SMY are distinct from homeless youth in general in several key ways. For instance, SMY are more likely to have run away and/or live on the street independently as opposed to living as part of a homeless family/unit.⁶ With regard to sexual minority men, a Los Angeles-based cohort study found 17 % of participants had been forced to move from a family or friend's home because of their sexuality.⁸ These data suggest that housing instability may manifest itself in many forms and consequently may produce a range of physical and mental health outcomes. Homeless SMY have particularly high rates of HIV risk behaviors, suicidality, depression, physical victimization, and substance abuse problems.⁹⁻¹² Moreover, this population as whole experiences more sexual and/or physical abuse combined with parental neglect and rejection.^{13, 14} Understanding how distinct levels of housing instability among SMY correlate with the aforementioned risk factors will help to advance mechanisms to overcome them.

Many studies investigating SMY and housing stability have assessed homelessness exclusively in terms of where individuals were residing, as opposed to examining overall housing stability with regard to both living and sleeping situations. For example, Rosario and colleagues evaluated homelessness by whether or not participants had run away or been removed from the home by their parents/guardians,² Cochran et al. examined drivers of homelessness among those who had left stable residences,⁹ and Gattis et al. obtained data from Toronto youth who utilized drop-in services at homeless youth agencies.¹² These studies have all obtained their data from cohorts who were, at the time, unstably housed. Other more nuanced forms of housing instability exist, such as intermittently sleeping in non-residential settings. Therefore, examining housing stability and its correlates in a broader context is warranted.

Many conditions that either arise from housing instability or contribute to its emergence are known to be associated with negative health outcomes. It has been documented that homeless SMY resort to survival crimes including theft, trespassing, and sex work as a means of securing shelter or resources and, as a result, they are at higher risk for interacting with the juvenile and criminal justice system.^{1, 15, 16} Engaging in sex at an earlier age is also associated with unstable housing conditions, and homeless youth have been shown to have earlier ages of same-sex sexual debut than those who are stably housed.² Experiencing any type of adverse childhood experience (e.g., emotional or physical abuse or substance abuse/criminal behavior) is also associated with a younger age of sexual debut.¹⁷ Determining how these facets of housing instability interact with one another is essential to understanding their impact on the well-being of SMY.

In light of the extant literature, a main objective of this study was to provide a more nuanced perspective on housing stability, particularly among a sample of young sexual minority men. Specifically, by moving beyond an examination of housing instability as only defined by homelessness and instead considering unstable sleeping situations as well, we hope to provide an additional context from which to examine housing instability. This contribution to our understanding is particularly important in the lives of sexual minorities because unstable sleeping and living

circumstances may provide insights into the lack of acceptance that they face from their family/peers and may also be a precursor to actual homelessness. In addition, we examined these distinct housing situations in relation to sociodemographic, interpersonal, and behavioral factors.

METHODS

Study Design and Sample

Data from this analysis were derived from the baseline visit of the Project 18 Study (P18), an ongoing cohort study of young sexual minority men in the New York City metropolitan area. Study details were previously described in detail and are briefly summarized here.^{18, 19} Participants were recruited through a combination of community outreach methods including flyers and Internet advertisements as well as venue-based (e.g., community centers, college campuses, bars/clubs, etc.) methods between June 2009 and May 2011. Participants were eligible if they were 18–19 years old, lived in the NYC metropolitan region, born biologically male, self-reported sex with another man in the last 6 months, and self-reported an HIV-negative or unknown serostatus. A total of $n=600$ participants were enrolled into the study, and this present study employs data from the $n=598$ participants with complete baseline data which was collected through an audio-computer-assisted self-interview (ACASI). All study activities were reviewed and approved by New York University's Institutional Review Board.

Main Dependent Variable

Housing status was first assessed based on an item that asked, “in the past 6 months, have you ever slept in any of these places?” Answer choices included sleeping in/on the street, park, abandoned building/automobile, public place (subway/bus station), shelter, limited stay/single room occupancy, and/or a welfare motel/hotel. Additionally, participants were asked, “in the past 6 months, have you lived in any of these places?” For this question, answer choices included living in temporary/transnational housing, jail, drug treatment facility, halfway house, and/or temporarily living with friends/family.²⁰ For this analysis, the sleeping variables and the living variables were collapsed into two separate non-mutually exclusive binary variables: “housing slept” (yes vs. no) and “housing lived” (yes vs. no).

Covariates

Sociodemographic Characteristics P18 participants self-reported information on their racial/ethnic background, perceived familial socioeconomic status, current educational status, sexual orientation, current relationship status, lifetime arrest history, and self-reported health. Race was categorized as Hispanic/Latino, White non-Hispanic, Black non-Hispanic, Asian non-Hispanic, and Mixed Race/Other, non-Hispanic. Perceived familial socioeconomic status was categorized as “lower,” “middle,” and “upper” class. Using the work of Kinsey and colleagues, sexual identity was measured on a 7-point scale ranging from exclusively heterosexual to exclusively homosexual. Selecting a score from 1 to 5 allows for varying level identification with either end of the scale (0, exclusively heterosexual; 1, predominantly heterosexual, only incidentally homosexual; 2, predominantly heterosexual but more than incidentally homosexual; 3, equally heterosexual and

homosexual; 4, predominantly homosexual but more than incidentally heterosexual; 5, predominantly homosexual, only incidentally heterosexual; 6, exclusively homosexual).²¹ In this dataset, the distribution is as follows: exclusively homosexual, 0 %; predominantly heterosexual, only incidentally homosexual, 2 % ($n = 11$); predominantly heterosexual but more than incidentally homosexual, 3 % ($n = 15$); equally heterosexual and homosexual, 12 % ($n = 70$); predominantly homosexual but more than incidentally heterosexual, 13 % ($n = 78$); predominantly homosexual, only incidentally heterosexual, 29 % ($n = 176$); and exclusively homosexual, 41 % ($n = 248$). In the present analysis, we coded the response options for the Kinsey Scale for Sexual Orientation dichotomously as exclusively homosexual versus not exclusively homosexual to be consistent with our previous research and because, as previously demonstrated, risk behavior varies by sexual behavior.^{18, 22-24} Relationship status was assessed by whether a participant had a relationship with a male in the last 3 months and self-rated health was categorized as “excellent,” “very good,” and “good/fair/poor.” Educational status was examined dichotomously as “not currently in school/currently in school,” and lifetime arrest history was analyzed dichotomously as “yes/no.”

Interpersonal Factors

Outness. To determine sexual orientation outness, participants were asked, “Who knows that you have had sex with a man?” and for the purpose of this analysis, we examined whether participants were out to their parents, friends, teachers, and other family members including grandparents, siblings, aunts/uncles, and other relatives.

Adverse Childhood Experiences. Adverse childhood experiences were assessed by examining self-report data on the number of times a parent or other adult caregiver left the participant alone by the time they were in sixth grade, did not provide adequate clothing, hygiene, or food (lack of basic needs), and physically and/or sexually abused the participants throughout their childhood.²⁵

Behavioral Factors. Age of sexual debut was obtained by asking participants a series of questions about their sexual history. Questions included, “At what age did you: first masturbate with someone else, perform oral sex, receive oral sex, have insertive anal sex, have receptive anal sex and have vaginal sex?” This analysis looked at each of these items both individually and collectively; extreme outliers under the age of 10 were removed.

Analytic Plan

Bivariable analyses in the form of a chi-square test of independence were used to examine the relationship of housing status with demographic characteristics, sexual orientation outness, and adverse childhood experiences variables. Correlates of housing status and age of sexual debut were also used to examine the relationship between sociodemographic characteristics, outness with regard to sexual orientation status, adverse childhood experiences, and housing status in the past 6 months. Covariates significantly associated with housing status in the bivariable analyses were entered into multivariable logistic models to explain housing instability. All final multivariable logistic regression models controlled for perceived familial SES and race/ethnicity given the relationship these factors have with homelessness and housing instability. Using Pearson χ^2 goodness-of-fit tests and $-2 \log$ likelihood

statistics, model fit was assessed and the final models presented are the most parsimonious models. All analyses were conducted with SPSS version 23.

RESULTS

In this sample of young sexual minority men, 12.7 % ($n = 76$) self-reported unstable sleeping conditions and 18.2 % ($n = 109$) self-reported unstable living conditions in the prior 6 months to assessment. In bivariable analysis (Tables 1 and 2), sleeping in unstable housing was associated with educational status; those who were not currently in school were more likely to report unstable sleeping and/or living conditions (34.2 and 32.1 %, respectively) compared to those who had not slept and/or lived in unstable housing (11.5 and 10.4 %, respectively) ($p < 0.05$). There was a strong association between history of arrest and unstable housing where 28.9 % of those arrested had slept in and 29.4 % had lived in unstable housing compared to those who had not slept and/or lived in unstable housing (13.8 and 12.7 %, respectively) ($p < 0.001$). Participants who self-reported lower (48.6 vs.

TABLE 1 Current housing status and age of sexual debut ($n = 598$)

Current housing status	% (n)
Family apartment/house	48.0 (287)
Own apartment/house	4.5 (27)
With friends/roommates in an apartment/house	6.0 (36)
Temporarily with family, friends, or someone else's house	3.7 (22)
Dorm, residence hall, or school housing	35.5 (212)
Welfare hotel or motel	0.2 (1)
Shelter	1.0 (6)
Abandoned building or automobile	0.2 (1)
Public place (park, bus station, etc.)	0.2 (1)
Other	0.8 (5)
Sleeping in unstable housing, last 6 months ^a	
Street	4.0 (24)
Park	5.4 (32)
Abandoned building/automobile	3.2 (19)
Public place (subway/bus station)	4.7 (28)
Shelter	3.8 (23)
Limited stay/SRO	2.7 (16)
Welfare motel/hotel	1.2 (7)
Living in unstable housing, last 6 months ^a	
Temporary or transitional housing	3.2 (19)
Jail	1.5 (9)
Drug treatment facility	0.3 (2)
Halfway house	0.2 (1)
Temporarily living with family or friends	15.7 (94)
Mean age of sexual debut by act	Mean Age (n)
Mutual masturbation	15.0 (441)
Performed oral sex	15.3 (540)
Received oral sex	15.3 (543)
Anal insertive sex	16.3 (435)
Anal receptive sex	16.0 (453)
Vaginal sex	15.0 (152)

^aNot mutually exclusive

TABLE 2 Demographic characteristics by housing status (*n* = 598)

	Sleeping in unstable housing, last 6 months			Living in unstable housing, last 6 months			<i>p</i> value
	No		Yes	No		Yes	
	% (<i>n</i>)	% (<i>n</i>)	% (<i>n</i>)	% (<i>n</i>)	% (<i>n</i>)	% (<i>n</i>)	
Total	87.3 (522)	12.7 (76)		81.8 (489)	18.2 (109)		
Sociodemographic characteristics							
Race/ethnicity							0.007
Hispanic/Latino	38.3 (200)	38.2 (29)		38.7 (189)	36.7 (40)		
Black non-Hispanic	14.2 (74)	19.7 (15)		13.3 (65)	22.0 (24)		
Asian non-Hispanic	5.2 (27)	2.6 (2)		5.3 (26)	2.8 (3)		
Mixed/Other	12.5 (65)	17.1 (13)		11.7 (57)	19.3 (21)		
White non-Hispanic	29.9 (156)	22.4 (17)		31.1 (152)	19.3 (21)		
Perceived familial socioeconomic status							<0.001
Upper	30.5 (159)	22.4 (17)		30.9 (151)	22.9 (25)		
Middle	37.4 (195)	35.5 (27)		39.1 (191)	28.4 (31)		
Lower	32.2 (168)	42.1 (32)		30.1 (147)	48.6 (53)		
Current education status							<0.001
Not in school	11.5 (60)	34.2 (26)		10.4 (51)	32.1 (35)		
In school	88.5 (462)	65.8 (50)		89.6 (438)	67.9 (74)		
Sexual orientation							0.310
Not exclusively homosexual	57.7 (301)	64.5 (49)		59.1 (289)	56.0 (61)		
Exclusively homosexual	42.3 (221)	35.5 (27)		40.9 (200)	44.0 (48)		
Relationship status, with a male (yes)							0.446
No	27.2 (142)	22.4 (17)		26.4 (129)	27.5 (30)		
Yes	72.8 (380)	77.6 (59)		73.6 (360)	72.5 (79)		
Lifetime arrest history (yes)							<0.001
No	13.8 (72)	28.9 (22)		12.7 (62)	29.4 (32)		
Yes	86.2 (450)	71.1 (54)		87.3 (427)	70.6 (77)		
Self-rated health							0.009
Excellent	32.0 (167)	25.0 (19)		31.7 (155)	28.4 (31)		
Very good	46.6 (243)	42.1 (32)		47.9 (234)	37.6 (41)		

Good/fair/poor	21.5 (112)	32.9 (25)	20.4 (100)	33.9 (37)	
Family/peer knowledge of sexual orientation					
Parents (yes)	45.4 (237)	51.3 (39)	43.4 (212)	58.7 (64)	0.003
No	54.6 (285)	48.7 (37)	56.6 (277)	41.3 (45)	
Other family members (yes)	60.3 (315)	63.2 (48)	57.9 (283)	73.4 (80)	0.002
No	39.7 (207)	36.8 (28)	42.1 (206)	26.6 (29)	
Friends (yes)	91.8 (479)	84.2 (64)	90.8 (444)	90.8 (99)	0.581
No	8.2 (43)	15.8 (12)	9.2 (45)	9.2 (10)	
Teachers (yes)	32.6 (170)	40.8 (31)	30.5 (149)	47.7 (52)	<0.001
No	67.4 (352)	59.2 (45)	69.5 (340)	52.3 (57)	
Adverse childhood experiences					
Left alone by 6th grade					0.018
Never	47.9 (250)	40.8 (31)	48.9 (239)	38.6 (42)	
1–10 times	35.4 (185)	28.9 (22)	34.8 (170)	33.9 (37)	
More than 10 times	16.7 (87)	30.3 (23)	16.4 (80)	27.5 (30)	
Lack of basic needs					<0.001
Never	93.3 (487)	76.3 (58)	93.9 (459)	78.9 (86)	
1–10 times	5.2 (27)	13.2 (10)	4.9 (24)	11.9 (13)	
More than 10 times	1.5 (8)	10.5 (8)	1.2 (6)	9.2 (10)	
Physical abuse					<0.001
Never	42.9 (224)	28.9 (22)	45.2 (221)	22.9 (25)	
1–10 times	37.5 (196)	38.2 (29)	37.0 (181)	40.4 (44)	
More than 10 times	19.5 (102)	32.9 (25)	17.8 (87)	36.7 (40)	
Sexual abuse					0.007
Never	94.4 (493)	88.2 (67)	95.1 (465)	87.2 (95)	
1–10 times	4.2 (22)	9.2 (7)	3.9 (19)	9.2 (10)	
More than 10 times	1.3 (7)	2.6 (2)	1.0 (5)	3.7 (4)	
Sexual debut					<0.001
Age at first sexual debut, mean (SD)	14.71 (2.03)	14.03 (2.11)	14.76 (1.99)	13.98 (2.17)	

30.1 %) perceived familial SES were more likely to report living in unstable housing compared to those who self-reported middle (28.4 vs. 39.1 %) or upper levels of perceived familial SES (22.9 vs. 30.9 %) ($p < 0.001$). Black and Mixed/Native American/Other Non-Hispanic participants were more likely to report living in unstable housing (22.0 and 19.3 %, respectively) than White, Hispanic, and Asian participants (19.3, 36.7, and 2.8 %, respectively) ($p = 0.007$). Self-rated health was also associated with housing stability; 33.9 % of sexual minority men who reported good/fair/poor health were unstably housed (vs. 20.4 %) compared to the 37.6 and 28.4 % who reported very good or excellent health, respectively ($p = 0.009$).

Regarding sexual orientation, participants who reported being out to their friends were more likely to have slept in unstable housing ($p = 0.034$), whereas participants who reported being out to their parents, other family members, and teachers were more likely to have lived in unstable housing ($p = 0.003$, $p = 0.002$, and $p < 0.001$, respectively). Numerous findings also emerged with regard to adverse childhood experiences. Facing neglect and abuse as a child was associated with unstable housing as a young adult; 59.2 % of participants who slept in and 61.4 % who lived in unstable housing had been left alone at least one time by the time they were in sixth grade ($p = 0.017$ and $p = 0.018$, respectively). Experiencing lack of basic needs as a child was significantly associated ($p < 0.001$) with both sleeping and living in unstable housing. Experiencing physical abuse in the form of kicking, hitting, or punching from a parent and/or adult caregiver at least once (71.1 % who slept in and 77.1 % who lived in) was significantly associated ($p = 0.013$ and $p < 0.001$, respectively) with unstable housing and participants who experienced sexual abuse from a parent and/or adult caregiver were more likely to live in unstable housing ($p = 0.007$).

In terms of behavioral factors, a younger age of sexual debut was significantly associated with unstable housing. The mean age of sexual debut of participants sleeping in unstable housing was 14.03 (SD = 2.11), compared to 14.71 (SD = 2.03) in those who did not sleep in unstable housing conditions ($p = 0.014$). For those who lived in unstable housing, the mean age of sexual debut was 13.98 (SD = 2.17) compared to 14.76 (SD = 1.99) in those who were not living in unstable housing ($p < 0.001$). To further elucidate the role of onset of sexual behaviors in relation to housing instability, we examined the debut of specific behaviors. Table 3 summarizes the age of sexual debut by each specific sexual act and shows the initial age of mutual masturbation and performing oral sex and anal sex (both insertive and receptive). Across almost all sexual behaviors, a younger age was associated with both living and sleeping in unstable housing.

In the final multivariable model for sleeping in unstable housing (Table 4), the odds of reporting sleeping in unstable housing conditions were higher among those who experienced lack of basic needs as a child 1–10 times (adjusted odds ratio (AOR) = 2.52, 95 % CI 1.11, 5.72) and even higher for those who experienced this more than 10 times (AOR = 5.47, 95 % CI 1.82, 16.45), whereby being enrolled in school is protective (AOR = 0.32, 95 % CI 0.18, 0.58). With regard to living in unstable housing, those who had a lifetime arrest history (AOR = 1.99, 95 % CI 1.15, 3.44) and experienced physical abuse as a child (1–10 times; AOR = 1.92, 95 % CI 1.10, 3.36, and more than 10 times; AOR = 3.51, 95 % CI 1.85, 6.09) were more likely to have lived in unstable housing. Additionally, those who had a lower perceived familial SES were more likely to live in unstable housing compared to those from the middle and upper class (lower AOR = 1.67, 95 % CI 0.93, 3.03, middle; AOR = 0.85, 95 % CI 0.46, 1.59). Being enrolled in school (AOR = 0.32, 95 % CI 0.18, 0.55) and self-rated health (very good; AOR = 0.73, 95 % CI 0.40,

TABLE 3 Age of sexual debut by housing status

	Sleeping in unstable housing				Living in unstable housing				<i>p</i> value
	No		Yes		No		Yes		
	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	
Mutual masturbation	390	15.12 (2.05)	51	14.39 (2.32)	361	15.10 (2.10)	80	14.74 (2.07)	0.158
Performed oral sex	479	15.33 (1.89)	61	14.74 (2.09)	445	15.39 (1.84)	95	14.65 (2.13)	0.002
Received oral sex	479	15.33 (1.80)	64	14.88 (2.07)	448	15.37 (1.79)	95	14.82 (2.01)	0.015
Anal insertive sex	384	16.40 (1.57)	51	15.69 (2.13)	356	16.42 (1.59)	79	15.85 (1.85)	0.005
Anal receptive sex	397	16.14 (1.74)	56	15.36 (2.34)	372	16.22 (1.68)	81	15.22 (2.29)	<0.001
Vaginal sex	126	15.07 (1.82)	26	14.81 (1.86)	120	15.08 (1.82)	32	14.81 (1.84)	0.457

TABLE 4 Unadjusted and adjusted model for explaining sleeping and living in unstable housing

	Unadjusted OR (95 % CI)	AOR (95 % CI)
Sleeping in unstable housing		
Race/ethnicity		
White non-Hispanic	1.00	—
Hispanic/Latino	1.33 (0.71, 2.51)	—
Black non-Hispanic	1.86 (0.88, 2.93)	—
Asian non-Hispanic	0.68 (0.15, 3.11)	—
Mixed/Native American/Other	1.84 (0.84, 4.00)	—
Non-Hispanic		
Perceived familial socioeconomic status		
Upper	1.00	—
Middle	1.30 (0.68, 2.46)	—
Lower	1.78 (0.95, 3.34)	—
Education status	0.25 (0.15, 0.43)***	0.32 (0.18, 0.58)***
Lifetime arrest history	2.55 (1.46, 4.43)***	—
Self-rated health		
Excellent	1.00	—
Very good	1.16 (0.64, 2.11)	—
Good/fair/poor	1.96 (1.03, 3.73)*	—
Out to friends	0.48 (0.24, 0.96)*	—
Out to teachers	1.43 (0.87, 2.34)	—
Childhood abuse: left alone by 6th grade		
Never	1.00	—
1–10 times	0.96 (0.54, 1.71)	—
More than 10 times	2.13 (1.18, 3.85)**	—
Childhood abuse: lack of basic needs		
Never	1.00	1.00
1–10 times	3.11 (1.43, 6.75)**	2.52 (1.11, 5.72)*
More than 10 times	8.40 (3.04, 23.22)***	5.47 (1.82, 16.45)*
Childhood abuse: physical abuse		
Never	1.00	—
1–10 times	1.51 (0.84, 2.71)	—
More than 10 times	2.50 (1.34, 4.63)**	—
Childhood abuse: sexual abuse		
Never	1.00	—
1–10 times	2.34 (0.96, 5.69)	—
More than 10 times	2.10 (0.43, 10.33)	—
Living in unstable housing		
Race/ethnicity		
White non-Hispanic	1.00	1.00
Hispanic/Latino	1.53 (0.87, 2.71)	0.84 (0.44, 1.61)
Black non-Hispanic	2.67 (1.39, 5.14)**	1.36 (0.65, 2.84)
Asian non-Hispanic	0.84 (0.23, 3.00)	0.79 (0.21, 2.94)
Mixed/Native American/Other	2.67 (1.36, 5.25)**	1.82 (0.88, 3.76)
Non-Hispanic		
Perceived familial socioeconomic status		
Upper	1.00	1.00
Middle	0.98 (0.56, 1.73)	0.85 (0.46, 1.59)
Lower	2.18 (1.29, 3.67)**	1.67 (0.93, 3.03)*

TABLE 4 *Continued*

	Unadjusted OR (95 % CI)	AOR (95 % CI)
Education status	0.25 (0.15, 0.40)***	0.32 (0.19, 0.56)***
Lifetime arrest history	2.86 (1.75, 4.68)***	1.99 (1.15, 3.44)*
Self-rated health		
Excellent	1.00	1.00
Very good	0.88 (0.53, 1.46)	0.73 (0.40, 1.34)
Good/fair/poor	1.85 (1.08, 3.17)*	0.51 (0.30, 0.89)*
Out to parents	1.86 (1.22, 2.83)**	–
Out to other family members	2.01 (1.27, 3.19)**	–
Out to teachers	2.08 (1.37, 3.18)***	–
Childhood abuse: left alone by 6th grade		
Never	1.00	–
1–10 times	1.24 (0.76, 2.01)	–
More than 10 times	2.13 (1.25, 3.64)**	–
Childhood abuse: lack of basic needs		
Never	1.00	–
1–10 times	2.89 (1.42, 5.90)**	–
More than 10 times	8.90 (3.15, 25.12)***	–
Childhood abuse: physical abuse		
Never	1.00	1.00
1–10 times	2.15 (1.27, 3.65)**	1.92 (1.10, 3.36)*
More than 10 times	4.06 (2.33, 7.10)***	3.51 (1.85, 6.09)***
Childhood abuse: sexual abuse		
Never	1.00	–
1–10 times	2.58 (1.16, 5.72)*	–
More than 10 times	3.92 (1.03, 14.85)*	–

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

1.34 and good/fair/poor; AOR = 0.51, 95 % CI 0.30, 0.89) were inversely associated with living in unstable housing.

DISCUSSION

Our findings from this diverse cohort study of sexual minority men provide strong evidence that there are several factors associated with unstable housing in this population. Sexual minority men face more physical and mental health challenges than their heterosexual counterparts throughout the course of their lives, which may predispose individuals to these unstable housing states.^{26, 27} Many studies on this topic explore the similarities and differences between heterosexual and homosexual youth,^{6, 9, 28} whereas this sample consisted of sexual minority men exclusively which may help guide more effective interventions.

Our data indicate that both childhood- and familial-based environments are salient factors related to the housing status of sexual minority men. Similar to Whitbeck et al., we found instances of childhood neglect, namely experiencing lack of basic needs from their parent(s) or other adult caregiver(s) increased the odds of sleeping in unstable housing.¹⁰ Physical abuse from a parent or other adult caregiver also increased odds of living in unstable housing. Additionally, reporting poorer self-rated health increased the odds of living in unstable housing conditions and, as prior

evidence suggests, being unstably housed can increase negative health behaviors and outcomes. Furthermore, Rosario and colleagues also indicate earlier sexual debut among those who are unstably housed.² In effect, housing instability may be viewed as one of several diminished health states imparted by these early life experiences.

Of the factors examined in our model, only one demonstrated protective associations. Those who were currently in school had lower odds of being unstably housed compared to those who were not, similar to what has been demonstrated in past research. O'Malley and colleagues examined whether family structure (including one- and two-parent households, foster care, and homelessness) and academic achievements moderated the effect of students' perceptions of school climate.²⁹ Their findings suggest that students who lack structure at home but rather obtain it from a supportive school environment achieve more than students who do not have a positive school climate.²⁹ Having access to counselors, social workers, teachers, or other trusted adults and an overall positive school climate might help prevent potentially adverse housing circumstances.

A key strength of our study is a more nuanced approach to examining housing instability by assessing both sleeping and living situations. As indicated previously, homelessness and housing states are assessed through several different mechanisms and they are often looked at with an either-or approach. By looking at a spectrum of unstable housing circumstances, we can begin to tease out the different experiences that may indicate sleeping in unstable housing and living in unstable housing, distinctly. Furthermore, sleeping in unstable housing may, for some young sexual minority men, be a precursor for living in unstable housing/homelessness, so understanding these nuances will undoubtedly aid in developing services and programming tailored to those most at risk.

Limitations

Prior to drawing final conclusions, limitations should be noted. First, this is a cross-sectional analysis that examines housing stability at one point in time, and thus, a causal relationship cannot be ascertained. A future analysis examining a change in housing status over time is warranted to try and decipher directionality between sleeping and living in unstable housing and not being unstably housed. This future research could examine the different aspects of housing instability assessed in the current study, which we did not have power to disaggregate in models. Second, non-probability recruitment methods were utilized, so this sample may not be generalizable to the larger population of sexual minority youth. Third, all data collected was self-reported and as such is subject to socially desirable reporting. Participants may be more likely to underestimate or not recognize their instances of housing instability and inversely have overestimated age of sexual debut, but the use of the ACASI technology minimizes these concerns.³⁰ Because the parent cohort study was not designed specifically to examine housing stability, a limited number of variables with which to investigate the associations are available—for example, there were no measures addressing why participants had been unstably housed. Finally, as in all observational research, residual confounding is likely to be an issue.

CONCLUSIONS

The findings of our investigation are consistent the theory of syndemics which notes the interconnectedness of health states and the psychosocial stressors that drive these states in sexual minority men.³¹ In this study, we propose that understanding how mental, physical, and social health, which may include housing instability, relate to one another is critical to developing holistic services and programs to help combat

negative health effects experienced by sexual minority men.¹⁹ More importantly, this theory provides a lens through which to examine the psychosocial drivers that predispose sexual minority individuals to higher rates of HIV,³² substance use,³³ violence,³⁴ and housing instability, among other interconnected health challenges, with the potential to develop holistic, all-encompassing interventions.

The findings of our analyses also lend themselves to important and salient recommendations for future policies and programming. There is a demonstrated need to increase funding for LGBTQ-focused homeless service providers/agencies because almost one fifth of our sample were unstably housed.^{7, 35} Furthermore, there is a lack of evidence-based interventions for providers working with SMY.¹¹ Continued re-authorization of the Runaway and Homeless Youth Act (RHYA), the existing federal legislation that funds drop-in centers, street outreach programs, and basic needs for homeless youth, is also essential.^{11, 36} Access to counselors, social workers, and other school-based resources may contribute to why educational status is a protective factor in this population. Training educators and school-based officials on best practices for working with young sexual minority men and utilizing school-based resources (e.g., LGBT Centers and gay-straight alliances) reduce housing instability. Because parents also play pivotal roles in the lives of children throughout their developmental trajectory, structural interventions with parents around issues of sexuality can protect against housing instability.^{11, 37-39} Finally, recognizing the distinctions between housing states and intervening early may help prevent progression from housing instability to homelessness.

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