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Risk Factors for Homelessness Among Lesbian, Gay, and Bisexual Youths: A Developmental Milestone Approach

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Abstract

Lesbian, gay, and bisexual (LGB) youths are over-represented in the homeless population. To examine why some LGB youths become homeless, this report compares homeless and non-homeless LGB youths. Of the 156 LGB youths, 48% reported ever being homeless (i.e., running away or being evicted from home). Results indicate that sexual orientation awareness and the initiation of sexual behavior occurred earlier in homeless than in non-homeless LGB youths and predated the first homeless episode. Substance use was more frequent and first occurred at an earlier age in homeless as compared to non-homeless LGB youths; however, substance use occurred subsequent to first homelessness. Childhood sexual abuse was associated with homelessness; and, early sexual orientation development was related to homelessness among youths without a history of sexual abuse. Findings suggest that interventions should help youths cope with their unfolding sexual orientation and work to prevent or address the consequences of sexual abuse.

Keywords

Runaway; childhood sexual abuse; substance use; psychosexual development; homosexual; bisexual

1. Introduction

Homelessness among young people, including both runaways and youths evicted from their homes by parents (i.e., “throwaways”), is a significant public health crisis. At particular risk for homelessness are lesbian, gay, and bisexual (LGB) youths (Coker, Austin, Schuster, 2010; Dunne, Prendergast, & Telford, 2002; Gattis, 2009; Institute of Medicine, 2011; Zenger, Strehlow, & Gundlapalli, 2008). Although LGB youths compose only 1.4% – 5.0% of the general youth population (Kann et al., 2011; Narring, Stronski Huwiler, & Michaud,

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2003; Savin-Williams & Ream, 2007), LGB youths compose 15% – 36% of homeless youths (Bailey, Camlin, & Ennett, 1998; Fournier et al., 2009; Freeman & Hamilton, 2008; Gangamma, Slesnick, Toviessi, & Serovich, 2008; Leslie, Stein, & Rotheram-Borus, 2002; Moon et al., 2000; Noell & Ochs, 2001; Rew, Whittaker, Taylor-Seehafter, & Smith, 2005; Van Leeuwen et al., 2006; Whitbeck, Chen, Hoyt, Tyler, & Johnson, 2004). Nevertheless, these prevalences also demonstrate that not all LGB youths experience homelessness, suggesting the need to identify the reasons why some LGB youths experience homelessness, especially given the potential long-term consequences of homelessness for the health and well-being of LGB youths (Clatts, Goldsamt, Yi, & Gwadz, 2005; Cochran, Stewart, Ginzler, & Cauce, 2002; Noell & Ochs, 2001; Rosario, Schrimshaw, & Hunter, in press; Whitbeck et al., 2004; see Gattis, 2009 for review).

The current study examines potential risk factors for homelessness among LGB youths with and without a history of homelessness. We hypothesize that sexual abuse and earlier LGB sexual identity development are risk factors for homelessness among LGB youths. Sexual abuse may lead to running away as a way of avoiding further sexual abuse occurring in the home. Negative reactions to a developing LGB sexual orientation may result in running away or eviction, if the home becomes too stressful for either the child or the parents. We also will examine the role of substance use, which may serve as either a risk factor or consequence of homelessness. Substance use may lead parents to evict a child (i.e., a risk factor), or it may be a way of coping with the stressors associated with being homeless (i.e., a consequence).

Below, we review what is known in the literature about the risk factors for homelessness among LGB youths and provide the basis for the above hypotheses. Given the limited research comparing LGB homeless and non-homeless youths, we begin by reviewing the more robust literature that compares LGB and heterosexual homeless youths.

1.1. Comparison of Risk Factors between Homeless LGB and Heterosexual Youths

Research comparing LGB and heterosexual youths with a history of homelessness has suggested potential differences in reasons for homelessness in these two groups. More homeless LGB youths than heterosexual homeless youths experience sexual abuse (Cochran et al., 2002; Leslie et al., 2002; Rew et al., 2005; Tyler & Beal, 2010; Tyler & Cauce, 2002; Whitbeck et al., 2004), physical abuse (Cochran et al., 2002; Whitbeck et al., 2004), and substance use (Baily et al., 1998; Cochran et al., 2002; Moon et al., 2000; Noell & Ochs, 2001; Van Leeuwen et al., 2006). Indeed, when LGB youths are asked why they ran away, they were more likely than heterosexual youths to report running away due to sexual abuse (Rew et al., 2005). Issues of LGB sexual identity development (e.g., disclosure of sexual orientation as LGB, engaging in same-sex behavior) also are reported by homeless LGB youths as reasons for running away or being evicted by parents (Cochran et al., 2002; Kipke, Weiss, & Wong, 2007; Rew et al., 2005; Whitbeck et al., 2004). Although some LGB youths runaway or are thrown out due to parental disapproval and discord regarding adolescent substance use (Gangamma et al., 2008), this may be more common among homeless heterosexual youths (Rew et al., 2005).

Nevertheless, comparisons between homeless LGB and heterosexual youths cannot identify the factors that contribute to homelessness because they lack a non-homeless comparison group. Differences between homeless LGB and homeless heterosexual youths may be a function of disparities in abuse, substance use, and psychological symptoms between LGB and heterosexual youths found in the general adolescent population (for recent reviews and meta-analyses, see Coker et al., 2010; Friedman et al., 2011; Marshal et al., 2008, 2011; Rothman, Exner, & Baughman, 2011; Saewyc, 2011), rather than homelessness. To understand why some LGB youths have experienced homelessness while other LGB youths

have not, comparisons must be made between LGB youths with and without a history of homelessness. Because both groups are LGB, any differences between them are likely a function of homelessness. This research design has recently been recommended as a robust method for understanding the risk factors for homelessness (Gattis, 2009).

1.2. Risk Factors for Homelessness among LGB Youths

Although comparisons between homeless and non-homeless youths have been made in the general adolescent population (Johnson, Freels, Parsons, & Vangeest, 1997; Shelton, Taylor, Bonner, & van den Bree, 2009; Tucker, Edelen, Ellickson, & Klein, 2011; Tyler & Bersani, 2008; Windle, 1989; Wolf, Toro, & McCaskill, 1999), only a few studies have compared the experiences of homeless and non-homeless LGB youths. Homeless LGB youths were more likely than non-homeless LGB peers to experience verbal and physical abuse, substance use, and psychological symptoms (Walls, Hancock, & Wisneski, 2007). Among young men who have sex with men (YMSM), those who were currently or had ever been homeless or run away were significantly more likely to engage in substance use than those without such history (Clatts et al., 2005; Kipke et al., 2007; Thiede et al., 2003).

However, much of the research comparing LGB youths with and without a history of homelessness is limited because it cannot determine whether differences are potential risk factors or consequences of homelessness. Specifically, the majority of research has not identified whether sexual abuse (Leslie et al., 2002; Rew et al., 2005; Whitbeck et al., 2004), the initiation of sexual activity (Bailey et al., 1998; Cochran et al., 2002), and the initiation of substance use (Bailey et al., 1998; Thiede et al., 2003; Van Leeuwen et al., 2006) occurred prior to or subsequent to homelessness (see Clatts et al., 2005; Zerger et al., 2008 for critique of the current literature), given temporal order is unclear. Risk factors and related issues, such as reactions to either pubertal maturation or a developing LGB sexual orientation, (Corliss, Cochran, Mays, Greenland, & Seeman, 2009; Haynie & Piquero, 2006), can only have contributed to homelessness if they occurred prior to homelessness.

Although common in examining predictors of homelessness in the general adolescent population (Johnson et al., 1997; Shelton et al., 2009; Tucker et al., 2011; Tyler & Bersani, 2008; Windle, 1989), to date only a single study has addressed the issue of temporal order in potential contributors to homelessness among LGB youths. Clatts and colleagues (2005) examined the ages at which youths first experienced homelessness and substance use. They found that the initiation of illicit substance use occurred significantly after first running away from home at age 14, suggesting that substance use might be a consequence of homelessness rather than an antecedent. To date a similar treatment has not been conducted with other potential predictors or consequences of homelessness (see Zerger et al., 2008 for review). Thus, the current report extends the work of Clatts and colleagues (2005) by examining the ages at which various milestones (e.g., sexual abuse, sexual initiation, disclosure of LGB sexual orientation, puberty, substance use) first occurred to identify those factors that occurred prior to and, therefore, may have contributed to first homelessness.

1.3. Current Study

In summary, LGB youths are disproportionately represented among homeless youths. However, not all LGB youths have a history of homelessness. Therefore, it is essential to understand the factors that may explain why some LGB youths becoming homeless while others do not. The current report compares LGB youths with and without a history of running away or being evicted by their parents to identify potential contributors or consequences of homelessness. As mentioned earlier, we hypothesize that LGB youths with a history of homelessness will be more likely than non-homeless LGB peers to experience

sexual abuse and earlier LGB sexual identity development. However, it is unclear whether substance use is a potential precursor or consequence of homelessness.

2. Method

2.1. Participants

One-hundred and sixty-four youths, ages 14 to 21 years, were recruited from three LGB youth-focused community-based organizations (CBOs, 85%) and two LGB college student organizations (15%) in New York City. No youths were recruited from homeless shelters. Youths were invited to participate directly or through group meetings that described the study at the recruitment sites. Approximately 80% of youths who attended a meeting or who were approached directly agreed to participate in the study. Eight youths were excluded because they did not meet eligibility criteria (i.e., over age 21, did not identify as LGB and had never had same-gender sex). The final sample consisted of 156 youths; mean age of 18.3 years ($SD = 1.65$). The female youths (49% of the sample) identified as lesbian (33%), bisexual (15%), or other (< 1%); the male youths identified as gay (33%), bisexual (16%), or other (< 1%). The ethnic and racial backgrounds of the youths were diverse: Latino (37%), Black (35%), White (22%), or Asian and other ethnic backgrounds (7%).

2.2. Procedure

Youths provided voluntary and signed informed consent prior to data collection. The Commissioner of Mental Health for New York State waived parental consent for youths under age 18 years. Instead, an adult at each CBO served *in loco parentis* to safeguard the rights of every minor in the study. The university's Institutional Review Board and the recruitment sites approved the study.

A structured interview of 2-to-3 hours was conducted at the time of recruitment. All measures used in the current report (both current and retrospective reports) were assessed at this initial meeting. Interviews occurred in a private room at the recruitment sites. Interviewers were college educated and of the same sex as the youth. Youths were interviewed between October 1993 and June 1994. Youths received \$30 at each interview.

2.3. Measures

2.3.1. Homelessness—Homelessness was assessed by two questions with, when appropriate, follow-up questions (Rotheram-Borus, Koopman, & Bradley, 1988). One question assessed running away: "How many times have you run away or left home, including the most recent time as well as every time before? By 'running away or leaving home,' I mean when you left home you did not plan on coming back, and you stayed away at least overnight without your parents' permission or without their knowing where you were." The other question assessed being evicted from the home: "How many times have you left your home because you were forced or asked to leave by your parents/guardians?" Follow-up questions asked the youths the age when they first experienced each type of homeless event and whether being LGB "had anything to do with why you ran away" or "were forced or asked to leave by your parents/guardians." For the current study, due to the overlap between youths who had runaway or been evicted from their home, these two measures were combined to reflect whether youths had ever runaway or been evicted from their homes (1) or not (0). Thus, with this measure we focus on youths who are on their own, rather than on youths whose families are homeless, because LGB youths are at greater risk for running away or being evicted from their homes by their parents than heterosexual youths (Corliss, Goodenow, Nichols, & Austin, 2011). Further, our measure, in tandem with the sample, captures a broader sample of youths than studies that have focused exclusively on youths who access homeless services or shelters; we include such youths, as well youths

who are unstably housed and doubled up with friends, sexual partners, etc. Indeed, the exclusive use of youths who access shelters has been critiqued (Zerger et al., 2008). Furthermore our definition of homelessness is consistent with some past research on homeless and runaway youths (e.g., Bailey et al., 1998; Cochran et al., 2002).

2.3.2. Ages of Sexual Identity Development—Milestones of sexual identity formation were assessed by the Sexual Risk Behavior Assessment - Youth (SERBAS-Y) for LGB youths (Meyer-Bahlburg, Ehrhardt, Exner, & Gruen, 1994), which has demonstrated acceptable test-retest reliability over two weeks (Schrimshaw, Rosario, Meyer-Bahlburg, & Scharf-Matlick, 2006). Youths were asked the ages when they were first erotically attracted to, fantasized about, and were aroused by erotica focusing on the same sex. The mean age of these three milestones (of those who experienced the milestone) was computed to represent the age of first awareness of same-sex internal sexual orientation (Cronbach's $\alpha = .88$), given a factor analysis of the items generated a single factor. Similar items assessing the ages at which youths first experienced attractions, fantasies, and erotic arousal for the other sex were combined in a similar manner to obtain the age of first awareness of other-sex internal sexual orientation (Cronbach's $\alpha = .89$), given a factor analysis of these items generated a single factor. The youths also were asked the ages when they first experienced any of several sexual activities with the same sex, with the earliest age selected as the age of their first same-sex sexual encounter. Comparable items assessed the age at first other-sex sexual encounter. In addition, youths were asked about the age when they first thought they "might be" lesbian/gay or bisexual and the age when they first thought they "really were" lesbian/gay or bisexual. Finally, we assessed, by means of another measurement instrument, the ages at which the youths first disclosed their LGB sexual orientation to others (e.g., friends, parents, counselors, teachers). The earliest age of disclosure to any of these persons was used as the indicator of age of first disclosure.

2.3.3. Age of First Sexual Abuse—The SERBAS-Y (Meyer-Bahlburg et al., 1994) was used to assess childhood and post-childhood sexual abuse. For childhood sexual abuse, the youth was asked whether he or she had ever, before age 13 years, had sexual activity with an adult or with another youth more than five years older than him or her, with sexual activity defined as oral, vaginal or anal sex, touching or being touched on the breasts or genitals, exposing oneself or someone exposing themselves, or someone rubbing their body against them in a sexual way. If the response was positive, the earliest age at which childhood sexual abuse occurred was assessed. To measure post-childhood sexual abuse, the youth was asked, "Since you turned 13, did you ever have unwanted or uninvited sex with anyone?" If the response was positive, the earliest age at which such sexual abuse was experienced was assessed. For the current report, the earliest ages at experiencing both childhood and post-childhood sexual abuse are provided. A composite of these two items also was computed to capture the earliest age at which sexual abuse was experienced.

2.3.4. Age of Pubertal Milestones—Two items from the SERBAS-Y (Meyer-Bahlburg et al., 1994) assessed ages of pubertal maturation. Female youths were asked the age at which they "started to menstruate, or have your period" and the age "when you first started growing pubic hair (hair around your vagina)." Male youths were asked the age when they had their "first ejaculation or emission," and the age "when you first started growing pubic hair (hair around your penis and testicles)."

2.3.5. Age of Substance Use Initiation—As part of the Alcohol and Drug Schedule (Rosario, Hunter, & Gwadz, 1997), youths were asked the ages at which they first used each of various licit and illicit substances (e.g., cigarettes, alcohol, marijuana, cocaine, hallucinogens). For the current report, the age of first cigarette use and age of first alcohol

use were included, as was the age of first use of any illicit drug. The latter was obtained by computing the minimum age across all the illicit drugs assessed among those who reported having used one or more of the drugs.

2.3.6. Potential Covariates—In addition to sex, age, and ethnicity/race, the tendency to provide socially desirable responses was assessed by means of the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1964). We used the original true-false response format, but deleted 2 of 31 items we considered inappropriate for youths. A factor analysis found that 12 items loaded on a single factor. The number of these 12 items endorsed by the youth was computed as the measure of social desirability (Cronbach's $\alpha = .74$). A similarly reduced version of Marlowe-Crowne measure was previously used with LGB youths (Safren & Heimberg, 1999).

2.4. Data Analysis

Descriptive statistics of runaway/throwaway youths and antecedents of homelessness are provided. Homeless vs. non-homeless comparisons were made on mean age and prevalence of hypothesized homeless antecedents using the *t*-test and χ^2 test. Logistic regression was used to examine multiple predictors of the dichotomous homeless variable. For the logistic regression analysis, controls were imposed for covariates that were significantly related to the variables of interest at the bivariate level of analysis.

3. Results

3.1. Descriptives

Of the 156 youths, 75 (48%) reported a history of homelessness, specifically, 57 had run away and 38 had been evicted from their homes by their parents; 20 youths experienced both forms of homelessness. Of the 57 runaways, 23 (40%) ran away once and 34 (60%) more than once. Of the 38 youths evicted from their homes (i.e., “throwaways”), 24 (63%) experienced this event once and 14 (37%) more than once. Thirteen (23%) runaway youths and 12 (32%) throwaway youths indicated that their homelessness was related to being LGB. The runaway and throwaway youths were combined into a homeless sample, given 20 youths (27%) experienced both events and given the modest overall sample of 156 youths.

For the runaway/throwaway youths, the first episode of homelessness occurred at a mean age of 14.0 years ($SD = 3.2$). Comparisons were made between the 75 youths with a history of homelessness and the 81 (52%) youths who had never been homeless. The runaway/throwaway youths and non-homeless youths did not differ significantly by sex, age at the time of interview, ethnicity/race, sexual identity as lesbian/gay vs. bisexual, or the tendency to provide socially desirable responses.

3.2. Bivariate Comparisons of Homeless and Non-Homeless LGB Youths

We compared the runaway/throwaway youths with non-homeless youths on various developmental markers (Table 1). The homeless youths were at least a year younger than the non-homeless youths when they were first aware of their unfolding same-sex internal sexual orientation, had sex with the same- or other-sex for the first time, and first thought they really were LGB. Marginally more homeless than non-homeless youths reported sexual activity with the same sex. Although more homeless than non-homeless youths disclosed their LGB sexual identity to others, the age at which they first disclosed their LGB sexual identity to another person did not differ. Furthermore, the first episode of homelessness occurred, on average, after the homeless youths had initiated their LGB sexual identity development, but prior to disclosing their LGB sexual identity to others.

Although runaway/throwaway youths and non-homeless youths did not differ significantly on the age when first sexually abused or the age when they first experienced puberty, marginally more homeless than non-homeless youths were sexually abused during childhood (61% vs. 47%, respectively). Furthermore, the first instance of sexual abuse occurred on average prior to the first experience of homelessness.

Runaway/throwaway youths were significantly more likely to use cigarettes, alcohol, and illegal drugs than youths without a history of homelessness. Furthermore, homeless youths initiated substance use approximately one year earlier than non-homeless youths. However, with the exception of cigarette use, substance use occurred on average after the first episode of homelessness.

3.3. Multivariate Associations with Homelessness

Given that only factors that occurred prior to homelessness could possibly have placed youths at risk for homelessness and given the importance of sexual abuse as a hypothesized precursor in the homeless youth literature (Cochran et al., 2002; Rew et al., 2005), we examined the associations of age of sexual development (both same- and other-sex) and experience of childhood sexual abuse with homelessness, as well as their interaction. As we argued and have shown, sexual abuse may place youth at risk for homeless. However, abuse is not the only possible explanation for running away or being evicted by parents. For youths, whether abused or not, an early age at developing a sexual orientation may be a risk factor for three related reasons: First, younger adolescents are cognitively less well prepared to cope with challenges than are older youths (for detailed discussion, see Rosario & Schrimshaw, in press). Second, development of sexual orientation poses challenges for all youths, whether the orientation focuses on the same or other sex. Such challenges are expected to be greater for youths who are oriented toward the same sex as compared to youths who are exclusively oriented toward the other sex, given society's stigmatization of homosexuality. Nevertheless, when focusing just on same-sex oriented youths, an early age at experiencing a developing same-sex or other-sex orientation should prove more problematic than undergoing such development at older ages, given cognitive development. Third, parents are more likely to respond negatively to violations of norms by their children, including, for example, a sexual orientation that develops too early or that focuses on the same sex. The first two explanations may result in running away for youths who perceive few, if any, alternative ways of coping with their sexual feelings and desires. When these two are combined with the third explanation, it is possible that a youth may be evicted from the home. Given these arguments, we investigated the interaction of both same-sex and other-sex sexual development and sexual abuse on homelessness.

The interaction we examined would address whether the relation between sexual abuse and homelessness varied with the age of sexual identity development. For this analysis, we focused on sexual orientation development in its broadest sense as composed of internal components of sexual orientation and behavioral markers of sexual activity (e.g., Kinsey, Pomeroy, & Martin, 1948; Meyer-Bahlburg, 1993; Sanders, Reinisch, & McWhirter, 1990). Because LGB sexual development follows a number of possible paths (some with internal aspects first, others with behavioral aspects first: Dubé, 2000; Floyd & Stein, 2002), we computed the minimum age of attaining the internal or behavioral components (whichever came first) as the indicator of sexual orientation development. We also ensured that first episode of sexual abuse always preceded first episode of homelessness by deleting eight youths for whom first abuse occurred after first homeless episode. As with all analyses of interactions, we hierarchically entered the main effects of sexual abuse and sexual development first before entering the product term of these two factors. The product term would reveal the interaction once the main effects were partialled from the product term. For

these analyses, controls were imposed for our socio-demographic covariates of sex, age, ethnicity/race, and social desirability.

As Table 2 indicates, the associations of early development of both same-sex and other-sex orientation with homelessness were modified by childhood sexual abuse. To understand the meaning of each significant interaction, we capitalized on the fact that sexual abuse is a dichotomous variable. Thus, we generated two follow-up logistic regressions. One of the regressions focused only on the abused youths and the other regression focused only on the non-abused youths. For both regressions, we examined the relation between the age of earliest marker of same-sex orientation and history of homelessness. Consequently, the analysis would reveal for which group (abused and/or non-abused youths) did a relation exist between development of same-sex orientation and homelessness, as well as the direction of the relation (i.e., were youths who underwent development of same-sex orientation at younger ages more likely to report a history of homelessness, as hypothesized, than youths whose development occurred at older ages). We repeated this analytic procedure for development of other-sex orientation, given the significant interaction involving age of earliest marker of other-sex orientation by abuse with respect to homelessness. In summary, the four logistic regressions would unpack the significant interactions in Table 2, revealing the subgroup (abused and/or not abused) for which age at earliest marker of sexual orientation development carried significant information about homelessness. The regressions would simultaneously indicate how sexual orientation development was significantly related to homelessness (i.e., direction of effect).

The follow-up logistic regressions (Table 3) indicated that age at first same-sex orientation development was unrelated to homelessness for sexually abused youths; but, youths who were not sexually abused were more likely to be homeless if their same-sex orientation unfolded at an early age. To recast the *OR* findings in an alternative but equivalent framework (Hosmer & Lemeshow, 1989), we found that the slope between age at same-sex orientation development and homelessness was essentially zero for the abused youths ($B = -0.02$), indicating that age at sexual-orientation development, whether early or late, was irrelevant to homelessness for the abused youths; but, the relation was marked for the non-abused youths and in the hypothesized negative direction ($B = -0.27$), meaning non-abused youths with a younger age at same-sex orientation development were more likely to report a history of homelessness than those who underwent the process at later ages. The same pattern characterized the unfolding of other-sex orientation. As above, other-sex orientation development was unrelated to homelessness for sexually abused youths; however, youths without a history of childhood sexual abuse were more likely to be homeless if other-sex orientation occurred at an early age ($OR = 0.73, p < .05$). The slope was essentially zero for the abused youths ($B = -0.02$); but, it was noticeable and negative for the non-abused youths ($B = -0.31$).

4. Discussion

LGB youths who run away from home or are evicted from their homes by parents are over-represented in the homeless youth population (e.g., Freeman & Hamilton, 2008; Gangamma et al., 2008; Rew et al., 2005; Whitbeck et al., 2004). This report examined potential reasons why some LGB youths experience homelessness while others do not. Specifically, we investigated whether LGB youths with and without a history of homelessness differed on various factors, including the ages at which they initiated LGB sexual identity development and substance use, experienced sexual abuse, and attained puberty. As such, we identified a number of factors that preceded youths' first experience of homelessness and which therefore may have contributed to their homelessness. The significant findings, discussed below, have implications for understanding both the factors associated with LGB youths'

running away or being evicted from home by parents and suggest ways in which interventions may be designed to prevent homelessness.

4.1 Understanding Homelessness among LGB Youths

The data indicated that runaway/throwaway youths were on average a year younger than non-homeless youths on markers of psychosexual development, including both awareness of internal same-sex sexual orientation and initiation of same-sex behavior. By the time of their first homeless episode (mean age of 14 years), the homeless youths had undergone all aspects of their psychosexual development, except for disclosure of LGB sexual identity to another person. By comparison, the non-homeless LGB youths were still undergoing their sexual development during this time; in fact, they would not have their first sexual experience with the same sex or conclude they were really LGB until a mean age of slightly more than 15 years.

The mechanism by which early LGB sexual development contributes to homelessness is unclear. A potential explanation may be neurocognitive development, in which development of the prefrontal cortex lags behind that of subcortical limbic regions during early adolescence, but progresses as adolescence subsequently unfolds (see Rosario & Schrimshaw, in press, for detailed discussion). This developmental process implies that risk behaviors (e.g., running away) are most likely to be used as coping strategies during earlier as compared with later adolescence when the youth encounters a stressful situation. Undergoing LGB sexual identity development is stressful, given society's continued stigmatization of homosexuality.

The only marker of LGB sexual identity development that was similar for the homeless and non-homeless youths was the age at which they first disclosed their LGB status to another person: mean of 15.4 years for both groups. Disclosure may be stressful if it results in negative reactions and rejections on the part of person who learns of the LGB person's sexual identity (D'Augelli, Hershberger, & Pilkington, 1998; Rosario, Schrimshaw, & Hunter, 2009). However, given disclosure occurred, on average, approximately a year and a half after the first homeless episode, disclosure itself could not account for homelessness. While this runs counter to the prevailing perspective that parental rejection of youths' developing sexuality is one of the major reasons for the prevalence of homelessness in LGB youths (Gattis, 2009; Walls et al., 2007; Whitbeck et al., 2004), it is consistent with an emerging research literature that finds that relatively small numbers of LGB youths leave home due to conflicts with family members (14% – 26%) about their sexual orientation (Cochran et al., 2002; Rew et al., 2005). Nevertheless, just because disclosure occurred subsequent to first homelessness does not necessarily mean that others (e.g., parents, friends, even strangers) might not have perceived the youth to be LGB, as a result of gender non-conforming behavior, and reacted negatively. Gender non-conforming behavior in childhood is a consistent predictor of subsequent LGB sexual orientation (Bailey & Zucker, 1995; Zucker, 2008) and studies have found that people are quite accurate in distinguishing between LGB and heterosexual individuals based on voice, appearance, and other gender non-conforming cues (Johnson, Gill, Reichman, & Tassinary, 2007; Rieger, Linsenmeier, Gygax, & Bailey, 2008). Thus, perceived sexual orientation, while not disclosed or even self-acknowledged by the youths themselves, may have resulted in negative reactions from family, friends, or communities for youths who were gender non-conforming. Although our findings indicate that negative reactions to disclosure of LGB sexual orientation are not the likely cause of subsequent homelessness, they cannot rule out that negative reactions by others to perceived LGB sexual orientation may contribute to LGB youths' either running away or being evicted from their homes.

Many studies have found differences in substance use between homeless and non-homeless youths (e.g., Bailey et al., 1998; Van Leeuwen et al., 2006), but few have examined whether substance use is a potential contributor or consequence of homelessness (Clatts et al., 2005). We found that runaway/throwaway LGB youths initiated alcohol and illegal drug use at an earlier age than non-homeless LGB youths and this substance use occurred simultaneously with or after the youths' initial episode of homelessness. Thus, rather than causing homelessness, it is likely that substance use may be a consequence of homelessness among LGB youths. Indeed, given the stressors of homelessness and the developmentally limited coping strategies available to youths, it is unsurprising that homeless LGB youths may use substances as a way of coping with the psychosocial stressors of homelessness (Rosario, Schrimshaw, & Hunter, 2011).

With respect to sexual abuse as a potential risk factor for homelessness, we found that marginally more homeless youths than non-homeless youths reported being sexually abused before the age of 13 years. We also found that early LGB sexual orientation development and sexual abuse interacted with one another to contribute to risk for homelessness, but only for the non-abused LGB youths. Specifically, developing a same-sex or other-sex orientation at a younger age was associated with increased likelihood of homelessness among youths who had not experienced sexual abuse. Thus, two pathways to homelessness may exist: directly by sexual abuse as the marginally significant (direct effect) finding suggests or by means of early debut of LGB sexual orientation for non-abused youths. These findings suggest that sexual abuse alone may be sufficient for placing LGB youths at risk. In addition, youths who do not experience sexual abuse may be at increased risk, if they experience an early LGB sexual development.

The finding that early development of sexual orientation, whether same sex or other sex, was related to homelessness among non-abused youths does not mean that one can generalize the finding beyond LGB youths to exclusively heterosexual youths or, equivalently, to sexual orientation in general, regardless of whether the youth is LGB or heterosexual. The findings of same-sex and other-sex orientation are with respect to LGB youths. These youths may undergo both forms of sexual orientation development for various reasons. Bisexual youths, by definition, should experience both same-sex and other-sex orientation development. Some lesbian and gay (LG) youths may not be exclusively same-sex oriented, given the continuous nature underlying internal components of sexual orientation. Other LG youths may wonder about the extent of their same-sex feelings in a way that heterosexual youths might not wonder about their comparable heterosexual feelings, given society's reinforcement of heterosexuality. These and other LG youths may explore sex with the other sex as a method to confirm their same-sex orientation or as a coping strategy to distract others (e.g., parents) or themselves from their same-sex orientation. In short, many reasons may explain why LGB youths report both same-sex and other-sex orientation development. Therefore, whether the interaction between early development of sexual orientation by childhood sexual abuse with respect to homelessness generalizes to heterosexual youths would need to be investigated.

4.2. Implications for Interventions

The study findings have implications for primary prevention of homelessness among LGB youths and secondary prevention for the consequences of homelessness for LGB youths. The finding that sexual abuse occurs prior to homelessness and is associated with homelessness suggests the need for interventions to address this problem in order to prevent homelessness. Greater openness and awareness about sexual abuse, information about where abused youths can obtain help (e.g., schools, police), educational campaigns to encourage youths to seek help, and counseling services to address the psychological implications of sexual abuse may serve to reduce homelessness. If the perpetrators of the abuse are

identified and removed from the home or broader environment (e.g., neighborhood, church) and the abused youths' psychological needs are addressed, such efforts may reduce or eliminate the youths' need to run away.

The finding that age of awareness of internal same-sex sexual orientation and age of initiating sexual behavior (both same-sex and other-sex) differed between runaway/throwaway and non-homeless youths (and occurred prior to first homelessness) suggests that negative reactions to an unfolding LGB sexual orientation at an early age as compared to a later age may contribute to homelessness, especially among youths who were not sexually abused. If so, community-based educational campaigns targeting parents of children approaching and in adolescence about LGB youths may prove helpful. The interventions should sensitize parents to the challenges LGB youths face with respect to society's stigmatization of homosexuality and underscore the youths' need for a secure and supportive home environment, guidance from their parents, and advocacy by their parents with schools and other societal settings with which the youths may interact. Such campaigns undoubtedly may have to address the parents' own stigmatization of homosexuality. In addition, school-based interventions (e.g., sexual educators, teachers, and guidance counselors who create an accepting atmosphere for LGB youths) prior to the initiation of same-sex sexual development (ages 10–12 in this sample) may serve to increase self and peer acceptance of youths with a developing LGB identity. Such self and peer acceptance may provide LGB youths with the coping skills and resiliency resources to stay in school, not run away, and cope with family stressors that might otherwise lead to running away.

The findings indicate that substance use is elevated among homeless LGB youths and likely a consequence of running away or being evicted by parents for many of these youths (73 – 89% of those in this sample). The findings suggest the need for substance use prevention efforts targeting homeless LGB youths. Interventions to prevent substance use and sexual risk behavior among general homeless populations already exist (see Arnold & Rotheram-Borus, 2009; Slesnick, Dashora, Letcher, Erdem, & Serovich, 2009 for review). Moreover, recent research suggests that homeless LGB youths benefit more from interventions than do homeless heterosexual youths (Grafsky, Letcher, Slesnick, & Serovich, 2011). However, these interventions may need to be modified to address unique factors that contribute to substance use among LGB youths, including anti-gay victimization, parental rejection, internalized homophobia, and co-occurring mental health conditions (Rosario, Schrimshaw, & Hunter, 2006; 2009; Ryan, Huebner, Diaz, & Sanchez, 2009). Given the consistent finding that homeless LGB youths are at increased risk for substance use and poor mental health (Baily et al., 1998; Cochran et al., 2002; Moon et al., 2000; Noell & Ochs, 2001; Rosario et al., in press; Van Leeuwen et al., 2006; Whitbeck et al., 2004; see Gattis, 2009 for review), prevention and treatment programs should be integrated into all homeless service programs that serve LGB youths.

4.3. Limitations

This report has a number of limitations. First, the sample was modest in size, although it was adequate to detect medium effect sizes when comparing the runaway/throwaway and non-homeless youths. However, a larger sample would have been required to compare runaway with throwaway youths. We encourage future studies to have sufficient cases to examine such issues. Second, given the small sample and the limited number of potential pre-homeless variables assessed in the study, other factors (e.g., parental-child relationship prior to homelessness; parental history of substance use) that may have contributed to homelessness could not be examined. Although the current study expands on previous research (i.e., Clatts et al., 2005), future research is encouraged to expand on the issues addressed here. Third, the data are somewhat dated, but the findings are relatively unique because the study is one of very few to compare homeless and non-homeless LGB youths

and provide insights into differences between these youths on potential determinants of homelessness. Despite the passage of time since these data were collected, homelessness continues to be a problem for LGB youths (e.g., Freeman & Hamilton, 2008). Consequently, our findings provide a rationale for future research in this area and a test of the generalizability of the findings to more contemporary cohorts of LGB youths. Finally, our youths were recruited from gay-focused programs and organizations in New York City thereby raising questions about generalizability. Indeed, youths who are recruited from these programs may differ from other LGB youths in that they may be in greater need for support. However, it is likely that such youths are more representative of LGB youths than those in much of the past research on homeless LGB youths who were recruited exclusively from homeless shelters. Future studies examining these issues should be conducted to determine if the findings generalize to other samples. Despite the limitations, we identified differences between homeless and non-homeless LGB youths and patterns of development among these youths that, if replicated by other studies, may prove critical for understanding and reducing homelessness among young LGB people.

Highlights

- Sexual orientation awareness and first sexual behavior occurred earlier in homeless than in non-homeless LGB youths.
- Substance use was more frequent and first occurred at an earlier age in homeless as compared to non-homeless LGB youths.
- Sexual orientation awareness and first sexual behavior predated the first homeless episode and substance use generally occurred subsequent to first homelessness.
- Childhood sexual abuse was associated with homelessness.
- Early awareness of sexual orientation was associated with homelessness among youths without a history of sexual abuse.

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Table 1

Developmental milestones distinguishing homeless ($n = 75$) from non-homeless ($n = 81$) LGB youths.

Minimum Age	Homeless			Non-Homeless		
	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	%
Homelessness						
Age first homeless	14.0	3.2	--	--	--	100
Sexual Identity Development						
Age same-sex internal sexual orientation	10.9 [†]	3.1	11.9	3.1	100	100
Age other-sex internal sexual orientation	11.2	2.8	12.0	2.9	72	69
Age thought may be LGB	11.6	3.8	12.3	3.4	100	100
Age other-sex sexual activity	12.7*	3.1	14.1	2.6	65	58
Age same-sex sexual activity	13.8*	3.5	15.2	3.0	89 [†]	78
Age thought really were LGB	14.1*	2.7	15.0	2.5	100	99
Age disclosed to another person	15.4	2.2	15.4	2.5	99*	90
Sexual Abuse						
Age first abuse, before age 13	7.8	3.0	7.2	2.7	61 [†]	47
Age first abuse, age 13 or older	15.1	1.8	15.4	1.8	28	26
Pubertal Maturation						
Age pubic hair growth	11.5	1.8	11.7	1.6	100	100
Age menses/ejaculation	12.0	1.9	12.4	1.5	100	100
Substance Use						
Age first cigarette use	12.9	2.9	13.7	2.4	87**	67
Age first alcohol use	14.0*	2.6	14.8	2.0	89 [†]	78
Age first illegal drug use	15.0*	2.7	16.2	2.6	73**	53

Note. Age of same-sex internal sexual orientation is the minimum age at first awareness of erotic attractions for, fantasies about, and arousal to erotica focusing on the same sex. A comparable algorithm defines age of other-sex internal sexual orientation. Continuous (age) variables were compared using *t*-test and dichotomous variables (prevalence) were compared using χ^2 test.

[†] $p < .10$,

* $p < .05$,

** $p < .01$

Table 2

Logistic regression examining the associations of age at initiating sexual orientation development and sexual abuse on likelihood of experiencing homelessness ($N = 156$).

	Independent Variable	OR	95% CI
Step 1	Age of Same-sex Orientation Development (SSO)	0.89*	0.79, 1.00
	Sexual Abuse (SA)	1.16	0.54, 2.51
Step 2	SSO x SA	1.33*	1.02, 1.74
Step 1	Age of Other-sex Orientation Development (OSO)	0.88	0.76, 1.01
	Sexual Abuse (SA)	1.56	0.66, 3.69
Step 2	OSO x SA	1.51*	1.09, 2.08

Note: Odds Ratios (*OR*) adjusted for sex, age, ethnicity/race, and social desirability. *CI*= confidence interval. Same-sex sexual orientation development is the minimum age of attaining same-sex internal sexual orientation or initiating sexual activity with the same sex. Other-sex sexual orientation development is the minimum age of attaining other-sex internal orientation or initiating sexual activity with the other sex. Sexual abuse refers to occurrence of such abuse (yes=1 and no=0) prior to first homelessness episode.

*
p < .05

Logistic regression disaggregating the significant interactions of childhood sexual abuse by age at initiating sexual orientation development on likelihood of experiencing homelessness ($N = 156$).

Table 3

Group	Independent Variable	OR	95% CI	B	SE
Abused	Age of Same-sex Orientation Development	0.98	0.85, 1.13	-0.02	0.08
	Age of Same-sex Orientation Development	0.76*	0.62, 0.97	-0.27	0.12
Abused	Age of Other-sex Orientation Development	0.98	0.82, 1.17	-0.02	0.09
	Age of Other-sex Orientation Development	0.73*	0.54, 0.997	-0.31	0.16

Note: All regression statistics – the Odds Ratios (OR) and their 95% confidence intervals (CI), as well as the slopes (B) and their standard errors (SE) – were adjusted for sex, age, ethnicity/race, and social desirability. Same-sex sexual orientation development is the minimum age of attaining same-sex internal sexual orientation or initiating sexual activity with the same sex. Other-sex sexual orientation development is the minimum age of attaining other-sex internal orientation or initiating sexual activity with the other sex. Group refers to experiencing childhood sexual abuse or not.

* $p < .05$