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## Reports of parental maltreatment during childhood in a United States population-based survey of homosexual, bisexual, and heterosexual adults<sup>☆</sup>

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### Abstract

**Objective:** The study objective was to determine the nature and prevalence of childhood maltreatment experiences among lesbian, gay, and bisexual adults and to compare findings to those obtained from similar heterosexual adults.

**Method:** Data from the National Survey of Midlife Development in the United States (MIDUS), which measured both childhood experiences with parental emotional and physical maltreatment and adult sexual orientation, were used to compare childhood maltreatment experiences of 2917 heterosexual, homosexual, and bisexual individuals, age 25–74 years, separately by gender.

**Results:** Homosexual/bisexual men reported higher rates than heterosexual men of childhood emotional and any physical maltreatment (including major physical maltreatment) by their mother/maternal guardian and major physical maltreatment by their father/paternal guardian. In contrast, homosexual/bisexual women, as compared to heterosexual women, reported higher rates of major physical maltreatment by both their mother/maternal guardian and their father/paternal guardian. Differences among individuals with differing sexual orientations were most pronounced for the more extreme forms of physical maltreatment.

**Conclusions:** Adult minority sexual orientation is a risk indicator for positive histories of experiencing parental maltreatment during childhood. While the reasons for this are beyond the scope of the current

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study, previous research suggests that childhood individual differences, including possibly gender atypicality, may be a causal factor.

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## Introduction

Maltreatment during childhood, including physical, sexual, psychological, and emotional abuse and/or neglect, continues to be an important public health concern in the United States (US Department of Health and Human Services, Administration on Children, Youth and Families, 2001). According to official government statistics, believed to underestimate the problem, approximately 1.2% of children are seriously maltreated each year (US Department of Health and Human Services, Administration on Children, Youth and Families, 2001). In addition to the immediate threat of physical and psychological harm to the child, childhood maltreatment has been shown to be associated with various adverse mental and physical health outcomes in adulthood, including affective and anxiety disorders, eating disorders, suicidal ideation, substance abuse, and high-risk sexual behavior (Arellano, 1996; Bartholow et al., 1994; Felitti et al., 1998; Fergusson & Lynskey, 1997; Glod, 1993; Kessler, Davis, & Kendler, 1997; Langeland & Hartgers, 1998; Malinosky-Rummell & Hansen, 1993; Moeller, Bachmann, & Moeller, 1993; Molnar, Buka, & Kessler, 2001; Paul, Catania, Pollack, & Stall, 2001; Silverman, Reinherz, & Giaconia, 1996; Walker et al., 1999).

While there is some uncertainty about the ways in which individual characteristics of a child may contribute to risk for maltreatment (Ammerman, 1991), there are some characteristics that do appear to be correlated with the occurrence of childhood abuse and neglect (Friedrich & Boriskin, 1976). Children with a physical or mental disability (Goldson, 1998; Sullivan & Knutson, 2000; Westcott & Jones, 1999) and those exhibiting opposite sex-linked behaviors (McConaghy & Silove, 1992) experience higher rates of abuse and neglect and overall poorer relationships with their parents. There is also growing suspicion that some who identify as gay, lesbian, or bisexual, either in adolescence or eventually adulthood, may experience higher rates of maltreatment during childhood and adolescence (Tjaden, Thoennes, & Allison, 1999). This may be due to the stigma associated with minority sexual orientation, differences in problem behaviors such as drug or alcohol use (Fergusson, Horwood, & Beautrais, 1999; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Russell, Driscoll, & Truong, 2002; Saewyc, Bearinger, Heinz, Blum, & Resnick, 1998), and/or gender nonconformity (Harry, 1989).

Although research in this area has been hampered by methodological difficulties, over the last several years studies have repeatedly documented that help-seeking lesbian, gay, and bisexual youth commonly report positive histories of victimization and abuse (Hunter, 1990; Martin & Hetrick, 1988; Remafedi, 1987; Rotheram-Borus, Rosario, & Koopman, 1991). For example, Martin and Hetrick (1988) found that over 40% of youth seeking services at an agency serving homosexually oriented adolescents reported experiencing physical violence, with approximately half of the violence occurring within their families, mostly in interactions with parents. Twenty-two percent of clients within this agency also reported experiencing

sexual abuse. Although youth seeking social services might be more likely than other youth to experience maltreatment, a later study that recruited lesbian, gay, and bisexual participants from nonclinical settings also observed high prevalence of familial physical and psychological victimization (Pilkington & D'Augelli, 1995). Further, several recent school-based surveys of adolescents in Massachusetts (Faulkner & Cranston, 1998; Garofalo et al., 1998; Garofalo Wolf, Wissow, Woods, & Goodman, 1999) and Minnesota (Saewyc, Bearinger, Blum, & Resnick, 1999) report higher rates of violent victimization generally within the context of school and community settings among youth reporting either same-gender sexual behavior or a lesbian, gay, or bisexual identity.

Surveys of homosexual and bisexual adults recalling their childhood experiences are less common and the evidence for greater risk for maltreatment is equivocal. Convenience-drawn samples find frequent retrospective reports of childhood maltreatment among lesbians and gay men (Bradford, Ryan, & Rothblum, 1994; Doll, Joy, Bartholow, & Harrison, 1992; Lehmann, Lehmann, & Kelly, 1998). However, when heterosexual comparison groups are included, similar rates of retrospective self-reports of childhood sexual abuse for heterosexual women and lesbian respondents are observed (Griffith, Myers, Cusick, & Tankersley, 1997; Weingourt, 1998). We are aware of only one published population-based study (Tjaden et al., 1999) that examined associations between childhood maltreatment and adult sexual orientation. Tjaden et al. (1999), using data from the National Violence Against Women Survey, demonstrated that respondents cohabiting with a same-sex partner were more likely than those cohabiting with an opposite-sex partner to report physical abuse by a parent or caretaker during childhood. Furthermore, the physical abuse reported by same-sex cohabitants was more severe.

In the present study, we examined the prevalence of retrospective reports of parental emotional and physical maltreatment during childhood among individuals who self-identified as either heterosexual or homosexual/bisexual in the 1996 National Survey of Midlife Development in the United States (MIDUS) (Brim et al., 1996). The objectives were twofold. The first was to estimate the prevalence and pattern of parental maltreatment experiences during childhood among self-identified homosexual and bisexual adults. The second objective was to investigate the possibility that minority sexual orientation is a risk indicator for childhood maltreatment.

## Methods

### *Source of data*

The data used for this study come principally from the self-administered questionnaire portion of the MIDUS. This survey was conducted in 1995–1996 by the John D. and Catherine T. MacArthur Foundation Network on Successful Midlife Development for the purpose of examining patterns, predictors, and consequences of midlife development in the areas of physical health, psychological well-being, and social responsibility (Brim et al., 1996). Eligible noninstitutionalized, English-speaking respondents between 25 and 74 years of age were recruited via a random digit dial telephone sampling frame of the United States with oversampling of men and older respondents. One respondent was selected from each eligible household and interviewed initially by phone. Respondents then completed and returned a self-administered

questionnaire which assessed both childhood maltreatment experiences and sexual orientation. The response rate for the telephone interview was 70% ( $n = 3485$ ), and the conditional response rate for the self-administered questionnaire was 86.8%, for an overall response rate of 60.8% ( $n = 3032$ ). The present study received IRB approval from the UCLA Office for the Protection of Research Subjects.

### Measures

*Sexual orientation.* In the questionnaire, respondents were asked if they would describe their own sexual orientation as heterosexual ( $n = 2844$ ), homosexual ( $n = 41$ ), or bisexual ( $n = 32$ ). The 115 respondents who did not answer this question were dropped from further analysis. While the basis for their nonresponse is unknown, previous research on determinants of missing sexual behavior data from a similar general population-based survey found positive associations between low respondent general cooperativeness and nonresponse to sexual behavior questions (Smith, 1992). This suggests that nonresponse to a sexual orientation question may reflect a general tendency for noncooperation rather than a specific reaction to the content of the question. For analytic purposes, individuals reporting either a homosexual or bisexual sexual orientation were combined into a single group to enhance statistical power.

*Childhood maltreatment.* The self-administered questionnaire assessed three components of childhood maltreatment committed at any time during the respondents' childhood, by individual family members including parents or guardians. Parental maltreatment behaviors evaluated were adapted from the verbal aggression, minor violence, and severe violence subscales of the Conflict Tactics Scale (CTS), an instrument that measures behaviors used by family members in situations of conflict (Straus, 1979). In the CTS, each subscale contains a list of behaviors that can be queried separately for estimating rates of individual maltreatment behaviors and for deriving weighted maltreatment severity scores (Straus & Hamby, 1997). Although previous research evaluating reliability and validity of CTS indicate modest internal consistency reliability (average coefficient alpha of .68 for the verbal aggression subscale and .58 for the minor violence and severe violence subscales) and thus possible heterogeneity of behaviors among parents, there is good evidence demonstrating the validity of CTS as a measure of child maltreatment including both interfamily agreement and construct validity (Straus & Hamby, 1997). In the MIDUS, behaviors from each of the three subscales were combined into three separate questions assessing evidence for emotional, minor physical, and major physical maltreatment.

For all three categories of maltreatment, a list of behaviors was provided and respondents were given the following instructions: these are "... things that happen to some children. After each list, please indicate how often your parents, siblings, or anyone else did things like this to you." For emotional maltreatment, the list specified the following behaviors: "Insulted you or swore at you," "Sulked or refused to talk to you," "Stomped out of the room," "Did or said something to spite you," "Threatened to hit you," and "Smashed or kicked something in anger." The list for minor physical maltreatment included: "Pushed, grabbed or shoved you," "Slapped you," and "Threw something at you." The list for major physical maltreatment was: "Kicked, bit, or hit you with a fist," "Hit or tried to hit you with something," "Beat you up," "Choked you," and "Burned or scalded you." For each of the three categories, respondents were asked,

in the case of their mother, “During your childhood, how often did your mother, or the woman who raised you, do any of the things on the list to you?” and in the case of their father, “During your childhood, how often did your father, or the man who raised you, do any of the things on the list to you?” Using a 1–5 scale (“often,” “sometimes,” “rarely,” “never,” or “does not apply”), respondents indicated the frequency with which the behaviors occurred. Those who failed to indicate in the parental part of the questionnaire a maternal relationship (or a maternal substitute) (.6% of the sample including 18 heterosexual and 0 gay/bisexual respondents) or a paternal relationship (or father substitute) (3.9%, including 108 heterosexual and 7 gay/bisexual respondents) were dropped from analyses for all questions related to that parental figure.

For this study, respondents were categorized as experiencing emotional maltreatment if they answered “often” or “sometimes” to the emotional maltreatment question. Consistent with previously published research on adult self-reports of childhood physical abuse (MacMillan et al., 1997; Mancini, Van Ameringen, & MacMillan, 1995), respondents were categorized as experiencing any physical maltreatment by a specific parental figure if they answered either “often” or “sometimes” to the minor physical maltreatment question or “often,” “sometimes” or “rarely” to the major physical maltreatment question. Additionally, individuals were categorized as experiencing major physical maltreatment if they answered “sometimes” or “often” to the major physical maltreatment question.

*Current psychological distress.* Psychological distress was measured by six items that respondents answered using a 5-point Likert-like scale ranging from “all of the time” to “never.” Specifically, they were asked the frequency with which in the past 30 days that they had felt “so sad nothing could cheer you up,” “nervous,” “restless or fidgety,” “hopeless,” that “everything was an effort,” or “worthless.” Because the measure assesses a single dimension of distress (Kessler, Mickelson, & Williams, 1999), individual items were summed and respondents scoring at the 83rd percentile or above (equivalent to 2 standard deviations above the mean if the distribution were normal) were coded as experiencing high current psychological distress (Cochran, Sullivan, & Mays, in press).

*Demographics.* Several demographic characteristics were assessed either in the telephone interview or questionnaire. These included age, ethnic/racial background (coded as non-Hispanic White vs. other), respondents’ education, respondents’ parental education (coded as less than high school degree vs. high school degree or more), and personal income.

### *Data analysis*

Data were analyzed using STATA 6.0 (Statacorp, 1999) a software program designed to analyze complex weighted sample designs. The MIDUS data set includes trimmed weights adjusting for selection probability, nonresponse, and poststratification. Further information about the MIDUS study design is available on the MIDUS web page (<http://midmac.med.harvard.edu>). Multiple logistic regression methods were used to estimate associations of sexual orientation with childhood emotional and physical maltreatment adjusting for possible confounding due to age, race/ethnicity, education, parental education, and personal income, all of which are characteristics known to be associated with positive reports of child abuse histories

(Brown, Cohen, Johnson, & Salzinger, 1998; Cappelleri, Eckenrode, & Powers, 1993; MacMillan et al., 1997; Wauchope & Straus, 1990). All models were estimated separately for men and women because of the documented gender differences in rates of abuse for men and women (MacMillan et al., 1997; Pilkington & D'Augelli, 1995). The Taylor series linearization method was used to estimate sampling variance for the logistic regression models (Lehtonen & Pahkinen, 1995). Odds ratios and 95% confidence intervals (CI) are reported. All statistical significance was evaluated using .05 level two-sided tests where appropriate. We report weighted sample sizes, point estimates, and variance estimates in the text and tables. All CI are estimated at the 95% level.

## Results

### *Sample characteristics*

In the sample, 2.5% of weighted respondents reported a homosexual or bisexual orientation (Table 1). The prevalence of homosexual or bisexual orientation was similar for both men (2.9%) and women (2.2%),  $F = .84$ ,  $p = .36$ . Among men, homosexual/bisexual respondents were somewhat younger than heterosexual men. Among women, homosexual/bisexual women were more likely to be younger and to have higher incomes than heterosexual women. No other demographic differences were found.

### *Prevalence of childhood maltreatment*

Overall, we estimate that 37% of the men, regardless of sexual orientation, reported experiencing emotional maltreatment, 37.4% any physical maltreatment, and 13% major physical maltreatment from at least one parent or parental guardian during childhood. Similarly, among women, we estimate that 37.4% had positive histories of emotional maltreatment, 31.1% any physical maltreatment, and 10.8% major physical maltreatment by at least one parent or guardian. After controlling for possible demographic confounding, no significant gender differences in rates of any emotional maltreatment ( $p = .84$ ) were found. Men reported significantly higher rates of any physical maltreatment ( $p = .02$ ) and somewhat higher rates of major physical maltreatment ( $p = .08$ ). Furthermore, women were more likely to report maternal emotional maltreatment (26.1% vs. 20.5%;  $p = .01$ ) while men were more likely to report paternal emotional maltreatment (30.7% vs. 24.3%;  $p = .003$ ). Men were also more likely than women to report any physical maltreatment (31.5% vs. 18.8%;  $p < .001$ ) or major physical maltreatment (10.2% vs. 6%;  $p = .001$ ) by their fathers. In contrast, there were no significant gender differences in estimates of any physical (24.1% for both genders) or major physical maltreatment (6.8% among men vs. 7.2% among women) by respondents' mothers.

### *Association of maltreatment with sexual orientation*

After adjusting for possible confounding effects of demographic characteristics, differences were observed in the prevalence of childhood maltreatment among individuals of differing

Table 1  
 Characteristics of respondents in the National Survey of Midlife Development in the United States (MIDUS) by gender and sexual orientation

Characteristic	Men		Women	
	Heterosexual (wt <i>n</i> = 1242)	Gay/bisexual (wt <i>n</i> = 37)	Heterosexual (wt <i>n</i> = 1607)	Lesbian/bisexual (wt <i>n</i> = 37)
Age (years)				
25–34	24.4	34.8	27.4	53.0
35–44	30.2	38.6	25.8	28.5
45–54	21.0	16.4	18.1	11.1
55–74	24.4	10.2	28.7	7.4
	<i>p</i> = .07		<i>p</i> = .003	
Race/ethnicity				
Non-Hispanic White	82.4	87.7	81.9	82.5
Other	17.6	12.3	18.1	17.5
	<i>p</i> = .43		<i>p</i> = .85	
Education				
Some high school	14.2	25.8	14.4	15.6
High school degree	33.9	16.4	38.6	35.4
Some college	24.1	25.7	26.9	31.7
College degree	27.8	32.1	20.1	17.3
	<i>p</i> = .18		<i>p</i> = .84	
Maternal education				
High school degree	65.4	83.3	58.1	77.8
No high school degree	34.6	16.7	41.9	22.2
	<i>p</i> = .32		<i>p</i> = .44	
Paternal education				
High school degree	57.8	61.4	56.2	74.0
No high school degree	42.2	38.6	43.8	26.0
	<i>p</i> = .36		<i>p</i> = .78	
Personal annual income				
<US \$20,000	34.1	40.6	69.3	56.5
US \$20,000 or more	65.9	59.4	30.7	43.5
	<i>p</i> = .26		<i>p</i> = .04	

*Note:* Actual sample size is 1382 heterosexual men, 1462 heterosexual women, 41 gay or bisexual men, and 32 lesbian or bisexual women. Weighted estimates shown. Differences estimated from logistic regression modeling evaluating the probability of minority sexual orientation from all demographic characteristics (age, race/ethnicity, education, parental education, and personal income) simultaneously.

sexual orientations when men and women were considered separately (Table 2). Across all three categories, homosexual/bisexual individuals as compared to heterosexual respondents showed higher frequencies of self-reported parental maltreatment by either parent, though this did not always achieve statistical significance. However, among men, homosexual/bisexual men were significantly more likely than heterosexual men to report histories of emotional and any physical maltreatment by their mothers and major physical maltreatment by either parent.

Table 2

Prevalence of childhood emotional and physical maltreatment by parents in the National Survey of Midlife Development in the United States (MIDUS) by gender and sexual orientation and results of multivariate logistic regression analyses

Maltreatment measures	Men			Women		
	Heterosexual % (SE)	Gay/bisexual % (SE)	Adjusted OR (95% CI)	Heterosexual % (SE)	Lesbian/bisexual % (SE)	Adjusted OR (95% CI)
Emotional maltreatment						
By mother	20.2 (1.2)	32.1 (8.2)	2.31* (1.07–4.97)	25.9 (1.3)	38.5 (10.2)	1.62 (.66–3.98)
By father	30.3 (1.5)	43.6 (9.6)	1.57 (.70–3.54)	24.2 (1.2)	28.6 (9.3)	1.38 (.49–3.87)
By either parent	36.5 (1.6)	52.6 (9.5)	2.12 (.93–4.85)	37.2 (1.2)	45.5 (9.7)	1.69 (.65–4.36)
Any physical maltreatment						
By mother	23.6 (1.3)	42.6 (8.6)	3.22* (1.62–6.40)	23.7 (1.2)	32.8 (10.2)	1.42 (.52–3.83)
By father	31.2 (1.4)	42.7 (8.6)	1.50 (.71–3.15)	18.6 (1.2)	27.2 (9.2)	2.15 (.76–6.08)
By either parent	37.1 (1.5)	46.7 (8.7)	1.61 (.77–3.37)	30.9 (1.3)	43.6 (10.1)	2.31 (.87–6.09)
Major physical maltreatment						
By mother	6.5 (.7)	15.4 (6.5)	3.58* (1.24–10.29)	6.9 (.8)	22.8 (9.6)	4.25* (1.32–13.65)
By father	9.7 (1.0)	25.3 (7.6)	3.77* (1.60–8.85)	5.8 (.6)	15.1 (6.2)	5.43* (1.83–16.12)
By either parent	12.5 (1.0)	26.9 (7.5)	3.17* (1.33–7.56)	10.3 (.8)	33.6 (9.4)	8.37* (3.15–22.20)

Note: Weighted percentages and standard errors (SE) shown. Multiple logistic regression analyses conducted separately by gender. Odds ratios (OR) and 95% confidence intervals (CI) adjusted for age, race, education, maternal and/or paternal education, and personal income.

\*  $p < .05$ .



In contrast, among women, differences were apparent only in positive histories of major physical maltreatment. Homosexual/bisexual women as compared to heterosexual women, were significantly more likely to report this with either parent.

To evaluate the robustness of the findings, a sensitivity analysis was performed on the three maltreatment measures. The effects of different frequency cut points on the associations between sexual orientation and reports of childhood maltreatment were investigated as a check on the stability of the findings. As an example, major physical maltreatment was re-coded as positive if respondents answered “often,” “sometimes,” or “rarely” on the major physical maltreatment question and again major physical maltreatment was re-coded as positive if respondents answered “often” on the major physical maltreatment question. Comparable re-coding manipulations were performed on the other maltreatment questions. The associations of the re-coded maltreatment variables with sexual orientation were then examined. Even though the prevalence estimates changed, as would be expected, the associations of sexual orientation with reports of maltreatment remained stable. Further, the possible effects of current psychological distress on the odds of reporting maltreatment were evaluated. After controlling for current distress, the findings also remained consistent.

When all three forms of maltreatment were considered, overall heterosexual men and women differed in their reports of any maltreatment by their fathers (40.7% among men vs. 29% among women;  $p < .001$ ). Similarly homosexual/bisexual men reported higher rates than did homosexual/bisexual women of any maltreatment by their fathers (47.9% vs. 30.1%), though due to the small numbers of individuals this difference failed to achieve statistical significance. No significant difference was observed among heterosexual men and women in their reports of any form of maltreatment by their mothers (30.5% among men; 32.8% among women). This pattern of negligible difference appeared to be repeated in homosexual/bisexual respondents (47.7% of men; 43.8% of women).

## Discussion

Findings from the current study indicate that adults with minority sexual orientation are more likely than heterosexual men and women to report childhood histories of parental maltreatment. By capitalizing on information available from a survey of adults older than the average age at which the majority of individuals establish a stable pattern of adult sexual orientation (D’Augelli, 1996), this study was able to avoid the biasing effects of early identification with a minority sexual orientation that may underlie some of the previously reported findings from research with lesbian and gay youth (Hunter, 1990; Martin & Hetrick, 1988; Remafedi, 1987; Rotheram-Borus et al., 1991; Saewyc et al., 1999). This is an important issue because early onset of homosexual identification, same-sex behavior, and disclosure of minority sexual orientation to others are thought to be positively associated with childhood maltreatment (Harry, 1989).

The reliance on retrospective self-reports of childhood maltreatment, however, frames the discussion of the findings. The validity of retrospective self-report of childhood maltreatment experiences has been the subject of much debate (Brewin, Andrews, & Gotlib, 1993; Della Femina, Yeager, & Lewis, 1990; Fergusson, Horwood, & Woodward, 2000; Prescott et al.,

2000; Silvern, Waelde, Baughan, Karyl, & Kaersvang, 2000; Widom & Shepard, 1996). Some (Carlin et al., 1994; Silvern et al., 2000) contend that retrospective reports of childhood abuse are valid, but in general, tend to underestimate rates of abuse. Some, though, argue that retrospective reports, rather than measuring actual experiences of abuse, might reflect individuals' current states or a need to justify negative situations such as having psychological problems (for discussion see Silvern et al., 2000). In this regard, current depressed mood may influence self-reported recollections of childhood maltreatment in adults (Lewinsohn & Rosenbaum, 1987; Prescott et al., 2000), though others do not find this effect (Brewin et al., 1993; Fergusson et al., 2000; Robins, 1985). While it cannot be stated with certainty that the reports of childhood maltreatment in MIDUS reflect accurate reporting of childhood experiences, there was no reduction in the strength of association between sexual orientation and positive reports of childhood maltreatment after controlling for the effect of current levels of psychological distress.

There may be other potential sources of bias in our findings, including possibly a willingness to disclose stigmatizing personal information that may have generated the positive associations we observed between minority sexual orientation and reports of child maltreatment. An additional limitation in the study includes somewhat younger age of homosexual/bisexual respondents who may have been more likely to remember or report childhood maltreatment experiences, though we did attempt to adjust for the age difference effects. Another limitation is that MIDUS did not collect data on sexual abuse, so we were unable to evaluate risk of childhood sexual abuse in conjunction with the other forms of maltreatment. Finally, the small numbers of respondents who reported a minority sexual orientation resulted in imprecise estimates of maltreatment prevalence among gay, lesbian, and bisexual persons.

Nevertheless, the results of this study do suggest that homosexual and bisexual individuals, as compared to heterosexual men and women, more frequently report as adults parental maltreatment during childhood. For men, this difference achieved statistical significance in reports of emotional and any physical maltreatment by their mothers or maternal guardians. For both men and women, this difference achieved significance in reports of severe forms of childhood physical maltreatment by either parent.

The findings reported here add to the small, but growing body of research (Faulkner & Cranston, 1998; Garofalo et al., 1998, 1999; Harry, 1989; Saewyc et al., 1999; Tjaden et al., 1999) indicating that individuals who eventually identify as lesbian and gay may be at greater risk for maltreatment during childhood. There are many individual, family, and societal-level risk and protective factors that contribute to the occurrence of child abuse (Brown et al., 1998; Kotch, Muller, & Blakely, 1999). In the case of individuals with minority sexual orientation, we can suggest at least four possible mechanisms. First, direct disclosure by a child or adolescent of a sexual minority orientation to parents may generate risk for parental maltreatment (D'Augelli, Hershberger, & Pilkington, 1998; Pilkington & D'Augelli, 1995). Second, it is also possible that youth with a sexual minority orientation may be more likely to participate in disruptive behaviors such as tobacco use, drug use, or alcohol abuse, which might lead to greater conflict with parents (Fergusson et al., 1999; Garofalo et al., 1998; Russell et al., 2002; Saewyc et al., 1998). A third plausible explanation is that children who grow up to establish a minority sexual orientation in adulthood may be proportionally more likely to display gender atypicality behaviors during childhood, which could place them at risk for maltreatment. In support of this

perspective, there is some evidence that male homosexuality may be associated with a greater likelihood of female-linked preferences in childhood and female homosexuality with more male-linked childhood preferences (Bailey & Zucker, 1995). Gender atypicality is known to be associated with poorer relationships with parents as well as parental maltreatment (Harry, 1989; McConaghy & Silove, 1992). There may also be other, as yet, unidentified childhood behaviors and preferences that signal to parents an emerging nonheterosexual sexual orientation. Finally, there is also evidence from a longitudinal birth cohort study in New Zealand that children who eventually identified as gay, lesbian, or bisexual at age 21 years differed from others on some family characteristics (Fergusson et al., 1999). Specifically, they were more likely to come from families with higher rates of parental change, such as separation or divorce, and to have parents who had a history of criminal offense. Both of these family characteristics were positively associated with child physical maltreatment (Fergusson & Lynskey, 1997). Thus, the association we observed may, in fact, be confounded with unmeasured familial factors and environmental adversities. Further, given the cross-sectional nature of the study design, it is possible that early experiences with childhood maltreatment may influence adult sexual orientation. Only future research will be able to determine the complex web of factors that may place gay, lesbian, and bisexual individuals at higher risk for parental maltreatment during childhood and adolescence.

The importance of the current findings cannot be underestimated. Experiences of both physical and psychological/emotional maltreatment during childhood have been shown to be related to a broad array of negative physical and psychological health, educational, and economic outcomes (Hyman, 2000; Kessler et al., 1997; Paul et al., 2001). Recently, Hyman (2000) reported that certain types of childhood sexual abuse were adversely and differentially associated with lower educational attainment and annual income earnings among lesbians. But clearly additional research is needed to identify those factors in childhood that generate higher risk. This is particularly true for young gay and bisexual men as the occurrence of HIV-risk-related sexual behaviors has been linked to positive experiences of childhood abuse (Doll et al., 1992; Paul et al., 2001). It is also important that service providers for gay men, lesbians, and bisexuals be aware of the potential role of early histories of parental maltreatment in subsequent mental and physical health disorders in order to provide competent services and referrals.

## References

- Ammerman, R. T. (1991). The role of the child in physical abuse: A reappraisal. *Violence & Victims*, 6, 87–101.
- Arellano, C. M. (1996). Child maltreatment and substance use: A review of the literature. *Substance Use and Misuse*, 31, 927–935.
- Bailey, J. M., & Zucker, K. J. (1995). Childhood sex-typed behavior and sexual orientation: A conceptual analysis and quantitative review. *Developmental Psychology*, 31, 43–55.
- Bartholow, B. N., Doll, L. S., Joy, D., Douglas, J. M., Jr., Bolan, G., Harrison, J. S., Moss, P. M., & McKirnan, D. (1994). Emotional, behavioral, and HIV risks associated with sexual abuse among adult homosexual and bisexual men. *Child Abuse & Neglect*, 18, 747–761.
- Bradford, J., Ryan, C., & Rothblum, E. D. (1994). National Lesbian Health Care Survey: Implications for mental health care. *Journal of Consulting and Clinical Psychology*, 62, 228–242.

- Brewin, C. R., Andrews, B., & Gotlib, I. H. (1993). Psychopathology and early experience: A reappraisal of retrospective reports. *Psychological Bulletin*, *113*, 82–98.
- Brim, O. G., Baltes, P. B., Bumpass, L. L., Cleary, P. D., Featherman, D. L., Hazzard, W. R., Kessler, R. C., Lachman, M. E., Markus, H. R., Marmot, M. G., Rossi, A. S., Ryff, C. D., & Shweder, R. A. (1996). *National Survey of Midlife Development in the United States (MIDUS), 1995–1996* [Computer file]. Harvard Medical School, Dept. of Health Care Policy. Available: <http://midmac.med.harvard.edu.research.html>
- Brown, J., Cohen, P., Johnson, J. G., & Salzinger, S. (1998). A longitudinal analysis of risk factors for child maltreatment: Findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse & Neglect*, *22*, 1065–1078.
- Cappelleri, J. C., Eckenrode, J., & Powers, J. L. (1993). The epidemiology of child abuse: Findings from the Second National Incidence and Prevalence Study of Child Abuse and Neglect. *American Journal of Public Health*, *83*, 1622–1624.
- Carlin, A. S., Kemper, K., Ward, N. G., Sowell, H., Gustafson, B., & Stevens, N. (1994). The effect of differences in objective and subjective definitions of childhood physical abuse on estimates of its incidence and relationship to psychopathology. *Child Abuse & Neglect*, *18*, 393–399.
- Cochran, S. D., Sullivan, J. G., & Mays, V. M. (in press). Prevalence of psychiatric disorders, psychological distress, and treatment utilization among lesbian, gay, and bisexual individuals in a sample of the US population. *Journal of Consulting & Clinical Psychology*.
- D'Augelli, A. R. (1996). *Lesbian, gay, and bisexual development during adolescence and young adulthood; textbook of homosexuality and mental health* (pp. 267–288). Washington, DC: American Psychiatric Press, Inc.
- D'Augelli, A. R., Hershberger, S. L., & Pilkington, N. W. (1998). Lesbian, gay, and bisexual youth and their families: Disclosure of sexual orientation and its consequences. *American Journal of Orthopsychiatry*, *68*, 361–371, Discussion 372–365.
- Della Femina, D., Yeager, C. A., & Lewis, D. O. (1990). Child abuse: Adolescent records vs. adult recall. *Child Abuse & Neglect*, *14*, 227–231.
- Doll, L. S., Joy, D., Bartholow, B. N., & Harrison, J. S. (1992). Self-reported childhood and adolescent sexual abuse among adult homosexual and bisexual men. *Child Abuse & Neglect*, *16*, 855–864.
- Faulkner, A. H., & Cranston, K. (1998). Correlates of same-sex sexual behavior in a random sample of Massachusetts high school students. *American Journal of Public Health*, *88*, 262–266.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*, 245–258.
- Fergusson, D. M., & Lynskey, M. T. (1997). Physical punishment/maltreatment during childhood and adjustment in young adulthood. *Child Abuse & Neglect*, *21*, 617–630.
- Fergusson, D. M., Horwood, L. J., & Beautrais, A. L. (1999). Is sexual orientation related to mental health problems and suicidality in young people? *Archives of General Psychiatry*, *56*, 876–880.
- Fergusson, D. M., Horwood, L. J., & Woodward, L. J. (2000). The stability of child abuse reports: A longitudinal study of the reporting behaviour of young adults. *Psychological Medicine*, *30*, 529–544.
- Friedrich, W. N., & Boriskin, J. A. (1976). The role of the child in abuse: A review of the literature. *American Journal of Orthopsychiatry*, *46*, 580–590.
- Garofalo, R., Wolf, R. C., Kessel, S., Palfrey, S. J., & DuRant, R. H. (1998). The association between health risk behaviors and sexual orientation among a school-based sample of adolescents. *Pediatrics*, *101*, 895–902.
- Garofalo, R., Wolf, R. C., Wissow, L. S., Woods, E. R., & Goodman, E. (1999). Sexual orientation and risk of suicide attempts among a representative sample of youth. *Archives of Pediatrics and Adolescent Medicine*, *153*, 487–493.
- Glod, C. A. (1993). Long-term consequences of childhood physical and sexual abuse. *Archives of Psychiatric Nursing*, *7*, 163–173.
- Goldson, E. (1998). Children with disabilities and child maltreatment. *Child Abuse & Neglect*, *22*, 663–667.
- Griffith, P. L., Myers, R. W., Cusick, G. M., & Tankersley, M. J. (1997). MMPI-2 profiles of women differing in sexual abuse history and sexual orientation. *Journal of Clinical Psychology*, *53*, 791–800.
- Harry, J. (1989). Parental physical abuse and sexual orientation in males. *Archives of Sexual Behavior*, *18*, 251–261.

- Hunter, J. (1990). Violence against lesbian and gay male youths. *Journal of Interpersonal Violence, 5*, 295–300.
- Hyman, B. (2000). The economic consequences of child sexual abuse for adult lesbian women. *Journal of Marriage & the Family, 62*, 199–211.
- Kessler, R. C., Davis, C. G., & Kendler, K. S. (1997). Childhood adversity and adult psychiatric disorder in the US National Comorbidity Survey. *Psychological Medicine, 27*, 1101–1119.
- Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior, 40*, 208–230.
- Kotch, J. B., Muller, G. O., & Blakely, C. H. (1999). Understanding the origins and incidence of child maltreatment. In T. P. Gullotta & S. J. McElhaney (Eds.), *Violence in homes and communities: Prevention, intervention, and treatment* (pp. 1–38). Thousand Oaks, CA: Sage Publications, Inc.
- Langeland, W., & Hartgers, C. (1998). Child sexual and physical abuse and alcoholism: A review. *Journal of Studies on Alcohol, 59*, 336–348.
- Lehmann, J. B., Lehmann, C. U., & Kelly, P. J. (1998). Development and health care needs of lesbians. *Journal of Womens Health, 7*, 379–387.
- Lehtonen, R., & Pahkinen, E. (1995). *Practical methods for design and analysis of complex surveys*. Chichester and New York: Wiley.
- Lewinsohn, P. M., & Rosenbaum, M. (1987). Recall of parental behavior by acute depressives, remitted depressives, and nondepressives. *Journal of Personality & Social Psychology, 52*, 611–619.
- MacMillan, H. L., Fleming, J. E., Trocmae, N., Boyle, M. H., Wong, M., Racine, Y. A., Beardslee, W. R., & Offord, D. R. (1997). Prevalence of child physical and sexual abuse in the community. Results from the Ontario Health Supplement. *Journal of the American Medical Association, 278*, 131–135.
- Malinosky-Rummell, R., & Hansen, D. J. (1993). Long-term consequences of childhood physical abuse. *Psychological Bulletin, 114*, 68–79.
- Mancini, C., Van Ameringen, M., & MacMillan, H. (1995). Relationship of childhood sexual and physical abuse to anxiety disorders. *Journal of Nervous and Mental Disease, 183*, 309–314.
- Martin, A. D., & Hetrick, E. S. (1988). The stigmatization of the gay and lesbian adolescent. *Journal of Homosexuality, 15*, 163–183.
- McConaghy, N., & Silove, D. (1992). Do sex-linked behaviors in children influence relationships with their parents? *Archives of Sexual Behavior, 21*, 469–479.
- Moeller, T. P., Bachmann, G. A., & Moeller, J. R. (1993). The combined effects of physical, sexual, and emotional abuse during childhood: Long-term health consequences for women. *Child Abuse & Neglect, 17*, 623–640.
- Molnar, B. E., Buka, S. L., & Kessler, R. C. (2001). Child sexual abuse and subsequent psychopathology: Results from the National Comorbidity Survey. *American Journal of Public Health, 91*, 753–760.
- Paul, J. P., Catania, J., Pollack, L., & Stall, R. (2001). Understanding childhood sexual abuse as a predictor of sexual risk-taking among men who have sex with men: The Urban Men's Health Study. *Child Abuse & Neglect, 25*, 557–584.
- Pilkington, N. W., & D'Augelli, A. R. (1995). Victimization of lesbian, gay, and bisexual youth in community settings. *Journal of Community Psychology, 23*, 34–56.
- Prescott, A., Bank, L., Reid, J. B., Knutson, J. F., Burraston, B. O., & Eddy, J. M. (2000). The veridicality of punitive childhood experiences reported by adolescents and young adults. *Child Abuse & Neglect, 24*, 411–423.
- Remafedi, G. (1987). Male homosexuality: The adolescent's perspective. *Pediatrics, 79*, 326–330.
- Robins, L. N. (1985). Early home environment and retrospective recall: A test for concordance between siblings with and without psychiatric disorders. *American Journal of Orthopsychiatry, 55*, 27–41.
- Rotheram-Borus, M. J., Rosario, M., & Koopman, C. (1991). Minority youths at high risk: Gay males and runaways. In M. E. Colten & S. Gore (Eds.), *Adolescent stress: Causes and consequences* (pp. 181–200). New York: Aldine De Gruyter.
- Russell, S. T., Driscoll, A. K., & Truong, N. (2002). Adolescent same-sex romantic attractions and relationships: Implications for substance use and abuse. *American Journal of Public Health, 92*, 198–202.
- Saewyc, E. M., Bearinger, L. H., Heinz, P. A., Blum, R. W., & Resnick, M. D. (1998). Gender differences in health and risk behaviors among bisexual and homosexual adolescents. *Journal of Adolescent Health, 23*, 181–188.

- Saewyc, E. M., Bearinger, L. H., Blum, R. W., & Resnick, M. D. (1999). Sexual intercourse, abuse and pregnancy among adolescent women: Does sexual orientation make a difference? *Family Planning Perspectives*, *31*, 127–131.
- Silverman, A. B., Reinherz, H. Z., & Giaconia, R. M. (1996). The long-term sequelae of child and adolescent abuse: A longitudinal community study. *Child Abuse & Neglect*, *20*, 709–723.
- Silvern, L., Waelde, L. C., Baughan, B. M., Karyl, J., & Kaersvang, L. L. (2000). Two formats for eliciting retrospective reports of child sexual and physical abuse: Effects on apparent prevalence and relationships to adjustment. *Child Maltreatment: Journal of the American Professional Society on the Abuse of Children*, *5*, 236–250.
- Smith, T. W. (1992). A methodological analysis of the sexual behavior questions on the General Social Surveys. *Journal of Official Statistics*, *8*, 309–326.
- Statacorp. (1999). Stata statistical software (Version Release 6.0). College Station, TX: Stata Corporation.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. *Journal of Marriage & the Family*, *41*, 75–88.
- Straus, M. A., & Hamby, S. L. (1997). Measuring physical and psychological maltreatment of children with the Conflict Tactics Scales. In G. K. Kantor & J. L. Jasinski (Eds.), *Out of darkness: Contemporary perspectives on family violence* (pp. 119–135). Thousand Oaks, CA: Sage Publications, Inc.
- Sullivan, P. M., & Knutson, J. F. (2000). Maltreatment and disabilities: A population-based epidemiological study. *Child Abuse & Neglect*, *24*, 1257–1273.
- Tjaden, P., Thoennes, N., & Allison, C. J. (1999). Comparing violence over the life span in samples of same-sex and opposite-sex cohabitants. *Violence & Victims*, *14*, 413–425.
- US Department of Health and Human Services, Administration on Children, Youth and Families. (2001). *Child Maltreatment 1999*. Washington, DC: US Government Printing Office.
- Walker, E. A., Gelfand, A., Katon, W. J., Koss, M. P., Von Korff, M., Bernstein, D., & Russo, J. (1999). Adult health status of women with histories of childhood abuse and neglect. *American Journal of Medicine*, *107*, 332–339.
- Wauchope, B. A., & Straus, M. A. (1990). Physical punishment and physical abuse of American children: Incidence rates by age, gender, and occupational class. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 133–148). New Brunswick: Transaction Publishers.
- Weingourt, R. (1998). A comparison of heterosexual and homosexual long-term sexual relationships. *Archives of Psychiatric Nursing*, *12*, 114–118.
- Westcott, H. L., & Jones, D. P. (1999). The abuse of disabled children. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *40*, 497–506.
- Widom, C. S., & Shepard, R. L. (1996). Accuracy of adult recollections of childhood victimization. Part 1. Childhood physical abuse. *Psychological Assessment*, *8*, 412–421.