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Childhood Trauma, Adult Sexual Assault, and Adult Gender Expression among Lesbian and Bisexual Women

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Abstract

Several studies have demonstrated that lesbian and bisexual women are more likely than heterosexual women to report childhood abuse and adult sexual assault. It is unknown, however, which sexual minority women are most likely to experience such abuse. We recruited adult sexual minority women living in the US through electronic fliers sent to listservs and website groups inviting them to complete an online survey ($N=1,243$). We examined differences in both childhood abuse and adult sexual assault by women's current gender identity (i.e., *butch*, *femme*, *androgynous*, or *other*) and a continuous measure of gender expression (from butch/masculine to femme/feminine), adjusting for sexual orientation identity, age, education, and income. Results indicated that a more butch/masculine current self-assessment of gender expression, but not gender identity, was associated with more overall reported childhood trauma. Although one aspect of gender expression, a more butch/masculine gender role, was associated with adult sexual assault, feminine appearance and a femme gender identity also significantly predicted adult sexual assault. These findings highlight the significance of gender identity and expression in identifying women at greater risk for various abuse experiences.

Keywords

Childhood abuse; Sexual assault; Lesbian; Bisexual; Genderexpression; Genderidentity; Butch/femme

Introduction

A history of trauma, including experiences of abuse in childhood or adulthood, can be devastating, leading to a host of adverse outcomes such as low self-esteem and self-blame (Campbell et al. 2009; Finzi-Dottan and Karu 2006); depressive and posttraumatic symptoms (Eadie et al. 2008; Elliott et al. 2004; Widom et al. 2007); substance use (Hedtke et al. 2008; Simpson and Miller 2002); body image disturbance (Dunkley et al. 2010; Laws and Golding 1996); and poor physical health (Irish et al. 2010; Stein and Barrett-Connor 2000). Compared to men, women are far more likely to be victims of abuse (Elliott et al.

2004; Stoltenborgh et al. 2011), and its occurrence in both childhood and adulthood has been studied in relation to both sexual orientation and gender socialization, or an individual's masculinity or femininity. In our review of the literature all studies are based in the United States (US) unless otherwise stated and include both heterosexual and sexual minority samples as well as both adult and child samples.

In the current study, we used data from the Rainbow Women's Project, a national, web-based survey of adult women who identify as lesbian/gay and bisexual (i.e., sexual minority women) to examine whether reported experiences of childhood abuse and adult sexual assault differed among sexual minority women of varying gender identity. We used both a nominal measure of self-reported gender identity (e.g., *butch*, *femme*, *androgynous*, *other*) and a continuous measure of gender expression (from *more butch/masculine* to *more femme/feminine*) to compare participants on self-reported childhood emotional, physical, and sexual abuse and emotional and physical neglect, as well as on adult sexual assault.

Sexual Orientation and Trauma

Among women, sexual minorities appear to be at heightened risk for experiencing trauma across their lives. Several studies have demonstrated that sexual minority women are more likely to report histories of childhood emotional, physical, and sexual abuse compared to heterosexual women (e.g., Austin et al. 2008; Balsam et al. 2005; Corliss et al. 2002; Hughes et al. 2010; Stoddard et al. 2009). Similarly, sexual minority women are more likely to report adult sexual assault than heterosexual women (e.g., Balsam et al. 2005; Duncan 1990; Stoddard et al. 2009). A recent article that systematically reviewed 75 studies examining sexual assault among sexual minorities in the US found that the highest estimates reported were for lifetime sexual assault among lesbian and bisexual women (85 %; Rothman et al. 2011).

Reports of sexual orientation differences *within* sexual minority women with regard to abuse experiences appear to be mixed. In some studies, lesbian and bisexual women did not differ from one another in terms of assault in either childhood or adulthood (Hughes et al. 2010; Scheer et al. 2003). For example, in the Nurses' Health Study II, lesbian and bisexual women reported similar rates of childhood physical and sexual abuse (Austin et al. 2008). Similarly, in a large community sample of lesbian, gay, and bisexual (LGB) adults and their heterosexual siblings, there were no significant differences between lesbian and bisexual women with respect to childhood sexual abuse (Balsam et al. 2005). However, bisexual women reported higher rates of non-penetrating sexual coercion and completed rape in adulthood than lesbian women. In a large urban sample, 68 % of bisexual women versus 59 % of lesbian women experienced completed rape (Long et al. 2007). Although reasons for these differences have not been determined, the risk of experiencing adult sexual assault is significantly associated with dating and prior sexual history, and the most common scenario involves persons who know each other (see Adams-Curtis and Forbes 2004 for review). Given that men make up the majority of sexual assault perpetrators (Long et al. 2007), bisexual women may have greater exposure to the risk of adult sexual assault than lesbians.

Sexual Minority Women and Gender Expression

It is not yet fully understood why sexual minority women are at greater risk for being abused as both children and adults compared to heterosexual women. One variable that may influence who is more likely to experience abuse is gender expression, or the extent to which an individual engages in behaviors that are held to be traditionally characteristic of females or males. The terms *butch* and *femme* refer to masculine and feminine gender identities, respectively, within lesbian and bisexual communities, where they have had long-standing cultural significance (Hiestand and Levitt 2005; Levitt et al. 2003; Nestle 1992).

The prominence of butch and femme identities has varied over time, and sexual minority women may identify as androgynous or not identify with any of these terms (Golding 2009). An androgynous presentation has been found to be more similar to a butch aesthetic style (e.g., “soft butch”), while women who do not identify with these terms have been found to present with a style more similar to a femme aesthetic (Lehavot et al. 2011).

Prior research among sexual minority women suggests gender expression is complex and comprises multiple factors including not only self-identity but also *appearance*, *gender roles*, and *emotional expression* (Lehavot et al. 2011). *Appearance* encompasses dress, make-up, and hair style, with aesthetic images of butch/femme serving as an external presentation of lesbian gender (Levitt et al. 2003; Levitt and Hiestand 2004; Moore 2006). *Gender roles* have been identified as another component; for example, butch women have discussed taking leadership roles and an interest in typically male activities (Levitt and Hiestand 2004), whereas femme women have discussed choosing hobbies based on how feminine they seemed (Levitt et al. 2003). Finally, *emotional expression* has been identified as an aspect of lesbian and bisexual women’s gender in regard to showing vulnerability and deferential ways of help seeking (Levitt and Bigler 2003; Levitt and Hiestand 2004; Moore 2006). Androgynous-identified women have been found to score as less masculine on these dimensions than butch-identified women but more masculine than femme-identified women, and women not identifying with these gender identities have been found to score as less masculine on these dimensions than androgynous-identified women but more masculine than femme-identified women (Lehavot et al. 2011). Because gender expression appears to have significant implications for sexual minority women’s experiences, assessing it with a comprehensive measure that captures these multiple aspects of gender expression is critical.

Using a measure of butch/femme identity, one study found that nearly all butch sexual minority women identified as lesbian, but about half of femme sexual minority women identified as bisexual (Rosario et al. 2009). Similarly, Levitt and Bridges (2007) discussed bisexual women’s decreased likelihood compared to lesbian women of identifying as butch, and their more common identification with feminine gender expressions. Thus, *sexual orientation identity* might modify the variance in gender expression, with lesbian women varying more widely in their gender expression (both butch and femme) as opposed to bisexual women (mostly femme).

Additional research has revealed other differences between butch and femme sexual minority women, with butch women reporting an earlier age of coming out and more experiences of discrimination, minority stress, and substance use (Lehavot and Simoni 2011; Levitt and Horne 2002; Rosario et al. 2008). Other studies have suggested that femme women may experience more internalized homophobia and concealment of their sexual orientation than butch women (Hiestand et al. 2005; Lehavot and Simoni 2011). The majority of this research has not examined experiences or risk factors particular to androgynous sexual minority women or those specifically not identifying with these gender identities. Moreover, gender identity and expression in sexual minority women has not been examined in relation to childhood and adult abuse experiences.

Gender Expression and Trauma

A handful of studies have examined the association between gender expression and childhood abuse. Gender nonconformity has been associated with being bullied, childhood harassment, and parental physical abuse among sexual minority men in both the US and Austria (Friedman et al. 2006; Harry 1989; Ploderl and Fartacek 2007). Furthermore, gender nonconformity in adulthood among gay and bisexual men has been associated with paternal, maternal, and peer rejection in childhood (Landolt et al. 2004). In a study that included both male and female youth, LGBs who were gender nonconforming reported more victimization

experiences (D'Augelli et al. 2006). More recently, a study with both sexual minority men and women in Finland indicated that recalled childhood gender nonconformity was correlated with negative ratings of parental relationships (Alanko et al. 2009).

Given this prior research, it is possible that a similar association with adverse childhood experiences holds for sexual minority women who are gender nonconforming (i.e., butch, androgynous, more masculine). While this has not yet been examined in this population, a few studies suggest that gender nonconformity among women may be positively associated with their victimization as children. In a survey administered to US army soldiers, current masculinity among women (assessed as “macho traits” such as arrogance and boastfulness) was significantly associated with both childhood physical and emotional abuse, but childhood sexual abuse was associated with traditionally feminine current characteristics (e.g., being empathetic, wanting to please others; Rosen and Martin 1998). Another study that contrasted a group of sexually abused girls with a control group demonstrated that those who were abused manifested more cross-gender behavior and gender identity conflict (Cosentino et al. 1993). Taken together, these studies suggest that a masculine gender role, in particular, may be associated with various forms of childhood abuse, including physical, emotional, and sexual abuse. While these studies do not speak to the reasons for this association, researchers have suggested that abuse is likely to impact one’s gender identity development, and one’s gender identity may similarly influence the processing of traumatic events (Alanko et al. 2011). It is thus possible that a girl exhibiting a masculine gender role is targeted for abuse because this nonconformity is not well tolerated or accepted, or that the abuse itself results in a more masculine gender role encompassing greater independence and self-reliance. For example, an abused child may attempt to act less characteristically female if being female was perceived as the risk for abuse.

While there is thus reason to suspect that sexual minority women who identify as butch, androgynous, or exhibit a more masculine gender expression may be more likely to report childhood abuse, the same may not be true with respect to adult sexual assault. There is some research that suggests that a feminine gender presentation, specifically appearance, may be related to risk of adult sexual assault (see Adams-Curtis and Forbes 2004 for review). For example, in one study, female college students’ self-ratings of provocative dress were related to risk of sexual coercion, distinguishing victims from non-victims (Synovitz and Byrne 1998). In a study of German female college students, those scoring high on femininity on the Bem Sex Role Inventory were more likely to report sexual intercourse through force or threat, while masculine and androgynous women reported fewer cases of sexual victimization (Kury et al. 2004). Potential reasons for the association between femininity and adult sexual victimization are not wholly understood, although may include increased attention or pursuit by perpetrators. It is possible that femme sexual minority women are thus at greater risk for this type of adult assault than butch and androgynous sexual minority women, especially with respect to appearance as opposed to gender roles or emotional expression. As mentioned above, femme women are also more likely than butch women to identify as bisexual, and thus may have increased exposure to a dating and sexual history with men, heightening their risk of assault. To our knowledge, no studies have examined the association of gender expression and abuse experiences among sexual minority women or its relative impact with respect to sexual orientation identity.

Summary of Hypotheses and Tests

The current study examines associations between current *gender identity* and *expression* with childhood abuse (emotional, physical, and sexual abuse and emotional and physical neglect) and adult sexual assault in a US sample of adult sexual minority women. We also examine the role of *sexual orientation identity* relative to gender expression in these relationships. Five specific hypotheses were evaluated. The first two hypotheses aimed to

replicate earlier findings. First, similar to other studies, women identifying as butch and scoring as more masculine will be more likely than femme women and those scoring as more feminine to identify as lesbian/gay and less likely to identify as bisexual (Hypothesis #1). Second, women identifying as lesbian/gay versus bisexual will not differ in reported rates of childhood abuse, but bisexual women will be more likely than lesbian/ gay women to report adult sexual assault (Hypothesis #2).

The next three hypotheses were specific to examining associations between gender identity and expression with trauma variables. Specifically, women identifying as butch, androgynous, and scoring as more masculine, especially on the gender role dimension of gender expression, will report more childhood abuse than women identifying as femme and scoring as more feminine (Hypothesis #3). Fourth, women identifying as femme and scoring as more feminine, especially on appearance, will report more adult sexual assault than women identifying as butch, androgynous, and scoring as more masculine (Hypothesis #4). We included forced oral, vaginal, and anal sexual assault in these analyses, as all three forms constitute types of adult sexual assault. Finally, among lesbian/gay women only, those identifying as femme and scoring as more feminine (especially on appearance) will report more adult sexual assault than non-femme identified women and those scoring as more masculine (Hypothesis #5). We did not expect childhood abuse or adult sexual assault to differ based on more masculine or feminine emotional expression. Moreover, we did not have specific hypotheses about women who did not identify as femme, butch, or androgynous given lack of previous data on this group, and thus we include them for exploratory purposes.

Method

Procedures

An anonymous Internet survey was used to collect the data. Participants were recruited using both snowball and targeted sampling. Specifically, study fliers were sent electronically to over 200 LGB listservs, website groups, and organizations in all 50 states of the US. Participants were asked to forward information about the study to others who might be eligible to participate. In addition, given that bisexual women and LGB people of color are more difficult to recruit, targeted advertising was sent to venues specifically focused on these groups, including yahoo groups, email lists, and Craig's list.

Participants who followed our link were taken to a web-based information statement. The information statement explained that the purpose of the study was "to better understand the specific experiences of lesbian, gay, and bisexual women," as well as described the criteria for participation (age 18 or older; biologically born female; self-identification as lesbian, gay, bisexual, queer, or two-spirit; residing in the United States); risks and benefits; and a confidentiality agreement. Those who agreed to participate then completed the questionnaire online anonymously using Survey Monkey. The questionnaire was followed by a listing of LGB and mental health resources, and women who completed the survey could voluntarily enter a drawing to win one of five \$50 prizes, which were awarded without loss of anonymity. The present study received IRB approval from the University of Washington Human Subjects Division.

Measures

For the current study, the survey included questions on socio-demographics (including sexual orientation), gender expression and identity, childhood trauma, and adult sexual assault.

Socio-demographics—Using standard formats, we assessed participants' age; sexual orientation (i.e., *lesbian, gay, bisexual, queer, two-spirit, or other*); race/ethnicity; educational level; income; and city size.

Gender Expression and Identity—Gender expression was assessed using the 15-item Gender Expression Measure among Sexual Minority Women (GEM-SMW; Lehavot et al. 2011). The scale consists of three sub-scales assessing Appearance (e.g., “I often wear skirts and dresses”); Gender Roles (e.g., “I enjoy activities that involve tools, such as car work or household repairs”); and Emotional Expression (e.g., “I talk to my friends about how I feel”). Participants rate each item on a 6-point Likert-type scale, with a higher score indicating greater masculinity/butch gender expression. Scores are provided for the overall scale, as well as for each of the three subscales. Developed specifically for sexual minority women, the GEM-SMW has demonstrated face and construct validity, discriminant validity, and internal consistency for this population (Lehavot et al. 2011). In the current study, Cronbach's alpha was .80 for the overall scale, .79 for Appearance, .61 for Gender Roles, and .76 for Emotional Expression. Intercorrelations among the three sub-scales ranged from .20 to .36.

In addition, women also self-selected their current gender identity as *butch, femme, androgynous, or none of the above*.

Childhood Trauma—Childhood trauma was assessed using the Childhood Trauma Questionnaire (CTQ; Bernstein et al. 1994). With 28 items, it inquires about five types of maltreatment: emotional, physical, and sexual abuse and emotional and physical neglect. Each item is scored on a 5-point scale from 1 (*never true*) to 5 (*always true*), with higher scores indicating more abuse and the items averaged to calculate an overall score. The CTQ scoring guidelines also allow four abuse classifications for each scale: none or minimal, low to moderate, moderate to severe, and severe to extreme. In order to calculate prevalence rates for each of the five subscales in the current study (provided in Table 2), we classified any score above the “none or minimal” range as indicating abuse. This threshold is recommended by the authors of the CTQ for maximizing identification of any abuse while keeping specificity to an acceptable level (Bernstein and Fink 1998). For the purpose of this study, all analyses included continuous versions of the CTQ.

The CTQ has good reliability, internal consistency, and has demonstrated high convergence with the Childhood Trauma Interview (Fink et al. 1995). In our sample, Cronbach's alpha was high for the overall scale (.94) and the subscales of emotional abuse (.89), emotional neglect (.92), physical abuse (.87), physical neglect (.74), and sexual abuse (.96). Overall CTQ scores as well as CTQ subscales were normally distributed (kurtosis and skew within $+/-2.0$). Given the continuous nature of these variables, we conducted MANCOVA and linear regression analyses for childhood abuse variables (Pedhazur 1997). When omnibus tests were significant, we conducted and report univariate and post-hoc comparisons.

Adult Sexual Assault—Three items were included from the Sexual Experiences Survey (SES; Koss et al. 2007) to assess sexual assault. The items use behaviorally specific language to assess unwanted sex acts, asking participants how many times someone had oral; vaginal (i.e., inserted their fingers, objects, or penis into vagina); or anal (i.e., inserted their fingers, objects, or penis into butt) sex with them without their consent since their fourteenth birthday. Response categories for these items ranged from 0 (*never*) to 3 (*three or more times*). Cronbach's alpha for overall adult sexual assault was .79 for this sample. Due to small variation in frequency of assault events in our sample, we recoded adult assault variables as dichotomous variables (0=absence of assault, 1=presence of assault) to assess incidence of events for analyses described below. Given the dichotomous nature of these

variables, we conducted logistic regression analyses to assess which factors were related to adult sexual assault (Pedhazur 1997).

Results

As there were few missing data and they appeared to be due to random item skipping, we used case deletions to accommodate them (e.g., pairwise deletion for preliminary correlations). This is considered simplistic but adequate when dealing with a limited amount of presumably ignorable missing data (Schafer and Graham 2002).

Participants

The 1,243 participants ranged in age from 18 to 86 years ($M=33.54$, $SD=12.14$); 74 % identified as White, 9 % multiracial, 7 % African American, 5 % Latina, 3 % Asian, 1 % American Indian, and 1 % other. With regard to educational attainment, 24 % had received some college education, 28 % an Associate's or Bachelor's degree, and 42 % had received some graduate/ professional school education. All women reported living in the US, with 45 % residing in a large city, 25 % in a medium-sized city, 18 % in a small city, 9 % in a suburb area, and 4 % in a rural area. With regard to gender identity, 40 % identified with the term femme and 15 % with term butch. In terms of sexual orientation, 46 % identified as lesbian, 29 % as bisexual, 16 % as queer, 5 % as gay, 2 % as two-spirit, and 3 % as other.

Preliminary Analyses

Table 1 reports unadjusted descriptive findings for socio-demographics and the gender expression scale across the gender identity groups (*femme*, *butch*, *androgynous*, *none of the above*). Across the four gender identity groups, a MANOVA demonstrated significant differences in socio-demographic variables, $Wilks' \lambda=.92$, $F(9, 2898.73)=11.50$, $p<.0001$. Subsequent ANOVAs revealed significant differences in age, $F(3, 1193)=15.10$, $p<.0001$; education, $F(3, 1193)=15.37$, $p<.0001$; and income, $F(3, 1193)=3.24$, $p=.02$. Preliminary correlational analyses indicated our other independent variable—gender expression (overall GEM-SMW scores)—was also related to age ($r=.10$, $df=1223$, $p<.0001$) and education ($r=-.08$, $df=1236$, $p=.004$), but not income ($r=.01$, $df=1224$, $p=.70$). Given these findings, we included age, education and income as covariates in all subsequent analyses.

Gender Identity and Expression Differences by Sexual Orientation

Hypothesis 1 Women identifying as butch and scoring as more masculine will be more likely than femme women and those scoring as more feminine to identify as gay/lesbian and less likely to identify as bisexual.

Sexual orientation varied by gender identity, χ^2 (Multinomial logistic regression with covariates; $df=6$)= 67.34, $p<.0001$. Among butch-identified women, 74 % of identified as lesbian/gay, 9 % as bisexual, and 18 % as other. Among femme-identified women, 45 % identified as lesbian/gay, 38 % as bisexual, and 17 % as other. This pattern of results suggests that butch-identified women are significantly more likely to identify as lesbian/gay and less likely to identify as bisexual compared to the other groups ($AORs=3.19-5.72$; $p<.001$ for all).

With respect to gender expression (i.e., GEM-SMW scores), an ANCOVA demonstrated significant differences between women who identified as lesbian/gay, bisexual, or otherwise, $F(2, 1191)=32.88$, $p<.001$. Post-hoc comparisons revealed that lesbian/gay women reported the highest (i.e., most masculine/butch) scores (adjusted $M=3.20$, $SD=0.03$), followed by

women identifying as neither lesbian/gay nor bisexual (adjusted $M=3.09$, $SD=.05$), followed by bisexual women, $M=2.76$, $SD=0.04$, $df=1$, $p<.001$.

Childhood Abuse and Adult Sexual Assault by Sexual Orientation

Hypothesis 2 Women identifying as gay/lesbian and bisexual will not differ in reported rates of childhood abuse, but bisexual women will be more likely than lesbian/gay women to report adult sexual assault.

We next examined sexual orientation differences in childhood abuse and adult sexual assault, adjusting for age, education, and income. A MANCOVA of the childhood abuse and neglect subscales indicated no significant differences in childhood abuse, $Wilks' \lambda=.99$, $F(10, 2162)=1.27$, $p=.24$.

With respect to adult sexual assault, logistic regression analyses, wherein lesbian/gay women (vs. bisexual and other) were the referent group, revealed sexual orientation differences in adult sexual assault. Lesbians had significantly decreased odds of reporting sexual assault of any kind relative to bisexual women, $AOR=1.50$, $p=.005$, 95 % CI [1.14, 2.01], and women who identified as other, $AOR=1.88$, $p<.0001$, 95 % CI [1.36, 2.59], $df=1$ for all tests. When analyzing the types of assault separately, lesbian/gay women had lower odds of reporting anal sexual assault than bisexual women, $AOR=1.83$, $p=.004$, 95% CI [1.21, 2.77], and also lower odds of reporting forced vaginal sex, $AOR=1.72$, $p=.001$, 95 % CI [1.24, 2.39], and oral sex, $AOR=1.61$, $p=.01$, 95 % CI [1.12, 2.33], than women who did not identify as lesbian/gay or bisexual.

Given the findings described above (e.g., sexual orientation differences in gender identity, gender expression, and adult sexual assault), we included sexual orientation as an additional covariate in subsequent analyses on gender identity and expression.

Gender Identity and Expression Differences in Childhood Abuse

Table 2 reports unadjusted descriptive findings for all childhood abuse and adult sexual assault variables across the gender identity groups (*femme*, *butch*, *androgynous*, *none of the above*). Rates of victimization were notably high, with 80 % meeting criteria for abuse using the CTQ and nearly 40 % indicating adult sexual assault.

Hypothesis 3 Women identifying as butch, androgynous, and scoring as more masculine, especially on gender roles, will report more childhood abuse than women identifying as femme and scoring as more feminine.

Gender Identity—When adjusting for age, education, income, and sexual orientation, gender identity was not associated with childhood abuse and neglect scales, MANCOVA: $Wilks' \lambda=.99$, $F(15, 2979.05)=0.74$, $p=.75$; see Table 3 for ANCOVAs.

Gender Expression—Gender expression (i.e., GEM-SMW overall scores) was significantly and positively associated with the overall CTQ in a multiple regression analysis, adjusting for age, education, income, and sexual orientation (see Table 4). In terms of individual CTQ subscales, women with higher masculine/butch gender expression scores reported significantly greater childhood emotional and physical neglect. Emotional, physical, and sexual abuse, however, did not significantly vary by gender expression.

Multiple linear regression analyses of the GEM-SMW subscales with childhood abuse highlighted the importance of the Gender Roles subscale, which was positively associated with the overall CTQ and all its subscales, with the exception of emotional neglect. Like

overall gender expression scores, the Emotional Expression subscale was positively associated with neglect subscales. The Appearance subscale was generally not as strongly associated with CTQ subscales.

Gender Identity and Expression Differences in Adult Sexual Assault

Hypothesis 4 Women identifying as femme and scoring as more feminine, especially on appearance, will report more adult sexual assault than women identifying as butch, androgynous, and scoring as more masculine.

Gender Identity—For these analyses, femme-identified women were identified as the referent group. After adjusting for age, education, income, and sexual orientation, adult sexual assault varied by gender identity (see Table 5). Femme-identified women had greater odds of reporting forced sex relative to butch-identified women and women who identified otherwise, but were comparable to androgynous-identified women. When types of forced sex were assessed separately, femme-identified women were specifically more likely to report forced vaginal sex than women who did not identify as femme, butch, or androgynous and appeared to be slightly more likely to report forced vaginal sex than butch-identified women ($p=.08$).

Gender Expression—The overall GEM-SMW was not significantly associated with reporting adult sexual assault, possibly due to two opposing patterns (see Table 6). The Appearance subscale score was significantly associated with the likelihood of adult sexual assault, such that women with higher femme/feminine scores were more likely to report any type of adult sexual assault relative to women with higher butch/masculine scores. Interestingly, the opposite pattern existed concerning the Gender Roles subscale, wherein women with higher butch/ masculine scores were more likely to report adult sexual assault. The Emotional Expression subscale was generally not associated with adult sexual assault variables. Patterns persisted when assessing types of assault separately (data not reported).

Gender Identity, Expression, and Trauma in Lesbian/Gay Women

Our findings suggest that both femme-identified and bisexual women were more likely to report adult sexual assault, and that bisexual women tended to report being more femme/feminine. In order to discriminate the impact of gender identity and expression from sexual orientation on sexual assault, we examined relationships between measures of gender identity and expression and likelihood of assault within lesbian/gay women only.

Hypothesis 5 Among lesbian/gay women, those identifying as femme and scoring as more feminine (especially on appearance) will report more adult sexual assault than non-femme identified women and those scoring as more masculine.

In this logistic regression analysis, gender identity was still associated with likelihood of adult sexual assault. Femme-identified lesbian/gay women had significantly greater odds of reporting any type of adult sexual assault relative to lesbian/ gay women who identified as butch, $AOR=0.46$, $p=.001$, 95 % CI [.29, .73], and women who did not identify as butch, femme, or androgynous, $AOR=0.56$, $p=.02$, 95 % CI [.34, .90]. Further analysis confirmed these differences across all types of assault when comparing femme-identified to butch-identified women ($AORs=0.43-0.55$, $p<.05$ for all) and for forced vaginal sex for femme-identified women versus those who did not identify as butch, femme, or androgynous, $AOR= 0.52$, $p=.01$, 95 % CI [.31, .86]. With respect to the continuous measure of gender expression, lower (i.e., more feminine) scores on Appearance, logistic regression: $AOR=0.77$, $p=.002$, 95 % CI [0.65, 0.91], and higher (i.e., more masculine) scores on

Gender Roles, $AOR=1.32$, $p=.002$, 95 % CI [1.10, 1.59]; $df=1$ for all tests, still significantly predicted the likelihood of any adult sexual assault.

Discussion

As demonstrated previously, the sexual minority women in our sample reported high rates of childhood abuse and neglect and adult sexual assault. Given the gravity of this widespread problem, identifying the most vulnerable among this group is critical. While prior research has established that sexual minority women are at greater risk for victimization experiences than heterosexual women, this is one of the first studies to examine who among this population may be more vulnerable. Beyond replicating previous findings with respect to sexual orientation differences in gender expression (Hypothesis #1) and trauma experiences (Hypothesis #2), we examined potential associations between gender identity/expression and childhood abuse as well as adult sexual assault (Hypotheses #3–5).

Our findings generally indicated that masculinity in adulthood, especially a masculine gender role, may be associated with retrospective reports of childhood abuse (Hypothesis #3). Although results were non-significant using a nominal measure of gender identity, women who scored as more butch/masculine on a gender expression measure indicated significantly more childhood trauma, including physical and emotional neglect. Masculine gender roles, in particular, were especially associated with various forms of childhood trauma. The GEM-SMW, as a continuous measure of gender expression, was more sensitive in predicting these different types of childhood trauma. Indeed, some research suggests that using a continuous measure with behavioral markers rather than forcing participants to identify with a particular label may better predict outcomes (Lehavot et al. 2011).

These findings extend previous work on childhood abuse and gender expression. Previous research has suggested that gender nonconformity is associated with parental abuse among gay and bisexual men (e.g., Friedman et al. 2006; Ploderl and Fartacek 2007), as well as among women in general (e.g., Rosen and Martin 1998). To our knowledge, this is one of the first studies to find parallel results for sexual minority women, especially with regard to emotional and physical abuse and neglect. It is noteworthy that we also found an association between a masculine gender role and childhood sexual abuse with our sample. Recent research with adult (presumably heterosexual) women has found mixed results, with one study finding that those with a childhood sexual abuse history were more likely to identify with feminine rather than masculine traits (Krause and Roth 2011), and another finding the opposite (McMullin et al. 2007).

An important consideration with regard to these analyses is that gender expression was assessed in adulthood rather than childhood. Thus, we cannot infer if the childhood abuse experienced led to a more masculine gender expression in adulthood, or whether gender nonconformity in childhood accounts for both childhood abuse and nonconformity in adulthood. However, research on the stability of gender identity has found that childhood gender nonconformity is significantly and often strongly associated with adult gender expression, and these associations were present across both gender and sexual orientation (Lippa 2008). Quantitative research with adult butch-identified women has found that they report exhibiting more gender atypicality in childhood than women who self-identify as more femme (Singh et al. 1999), while qualitative research with butch women has demonstrated a common theme of “being a butch child” (Hiestand and Levitt 2005). At the same time, using sophisticated causation modeling on data from a population-based sample of Finnish twins, Alanko and colleagues (2011) found that a bidirectional relationship between childhood gender expression and childhood abuse best fit their data. In other words, childhood gender nonconformity influenced the likelihood of abuse, which in turn also

influenced the likelihood of gender nonconformity. The sequencing of events and causal patterns, however, cannot be determined for the women in our study.

Additionally, we do not know whether these childhood trauma experiences occurred before or after participants' sexual identity formation and coming out. Interestingly, however, women who identified as lesbian/gay versus bisexual did not differ in these experiences. Future research might explore associations among childhood victimization, gender expression, and sexual orientation along with sexual identity milestones and coming out to family members.

While we found that more butch/masculine women were more likely to report childhood abuse, more femme/feminine women appeared to be at greater risk for adult sexual assault (Hypothesis #4). In particular, women who self-identified as femme were significantly more likely to report assault than butch-identified women and women who identified with any of the other gender identity terms, although they did not differ from androgynous-identified women. The continuous measure of gender expression revealed more nuanced results, such that women who scored as having a more feminine appearance were more likely to report assault. The finding that feminine appearance was associated with greater adult sexual assault reflects some of the earlier literature suggesting this may be the case (e.g., Synovitz and Byrne 1998).

On the other hand, scoring more butch/masculine on gender roles was also associated with greater likelihood of reporting adult sexual assault. This finding deserves more research attention. It is possible a woman's gender role puts her at increased risk for assault by perpetrators. For example, in a series of three studies, Berdahl (2007) found that women with relatively masculine personalities (e.g., assertive, dominant, independent) experienced more sexual harassment than women with relatively feminine personalities. She further demonstrated that women in male-dominated organizations were sexually harassed more than women in female-dominated organizations. Thus, while feminine appearance and a femme gender identity may be one cause for greater risk, the role of gender expression is more complex, such that a masculine gender role may be another risk factor for abuse. This may be the case because women who violate traditional gender roles threaten the status quo and are "punished" for their nonconformity, or may be more frequently exposed to men in the fields and activities they pursue. While our study cannot answer these questions, future research may wish to examine various aspects of gender expression and the mechanisms via which they relate to risk.

In our findings, lesbian and bisexual women did not differ from one another in their rates of childhood abuse and neglect; they did, however, differ from one another with respect to adult sexual assault, such that bisexual women were more at risk (Hypothesis #2). Taken together, both sexual orientation (i.e., bisexual) and gender identity (i.e., femme) were independently associated with increased risk of adult sexual assault. As suggested by previous research (Rosario et al. 2009), bisexual women in our study tended to be femme, while lesbian/gay women tended to be both butch and femme (Hypothesis #1). In order to tease out these differences, we examined whether gender identity differences in adult sexual assault persisted for lesbian/gay women only (Hypothesis #5). Indeed, lesbian/gay women who identified as femme demonstrated increased risk for assault compared to those who did not identify as femme. These results suggest that both sexual orientation and gender expression are important aspects to consider.

Future research on sexual orientation, gender expression, and abuse may wish to compare sexual minority to heterosexual women. For example, research might examine whether increased gender nonconformity among sexual minority women is an explanatory

mechanism for their higher rates of abuse in childhood. Research may also explore the nuanced ways in which gender expression relates to trauma among heterosexual women, perhaps by using the GEM-SMW to assess the relative impact of appearance, gender roles, and emotional expression on victimization experiences. Finally, findings in the current study only focused on lesbian and bisexual women and should be extended to gay and bisexual men. While the role of gender nonconformity and childhood abuse has been examined among sexual minority men (e.g., Friedman et al. 2006; Harry 1989; Landolt et al. 2004; Ploderl and Fartacek 2007), the impact of gender expression on adult sexual assault, in addition to other forms of violence such as intimate partner violence and hate crimes, should be further evaluated.

The current study has several limitations. First, this sample of women was recruited via the Internet. We do not know how sexual minority women who participate in Internet surveys may systematically differ from those who did not have access to our survey or chose not to participate, and this limits the generalizability of our findings. Related to this, while we made efforts with targeted sampling to recruit sexual minority women of color, 75 % of our sample was White as well as mostly highly educated. The rate of women identifying as butch or femme, or choosing not to identify with these terms, however, is similar to that reported in other studies (e.g., Rosario et al. 2009). Moreover, as in many studies on childhood abuse and victimization, all data were based on self-report and were retrospective in nature, and are thus subject to recall bias. Additionally, childhood abuse, as assessed by the Childhood Trauma Questionnaire, only assesses trauma within the family and not abuse that may have occurred in childhood by non-familial adults or peers. Data were also not collected on physical or emotional abuse in adulthood, and thus the range of assessed outcomes was limited. Finally, we also did not collect data on the participant's relationship with and sex of the perpetrator in either childhood or adulthood. Thus, we do not know if adult sexual assault was perpetrated by an individual the participant knew or was dating, a family member, an acquaintance, or otherwise.

Despite these limitations, the current study also exhibited several strengths. We included a large and relatively diverse sample of sexual minority women. Gender expression was assessed by two measures, based on both self-identity and a continuous measure utilizing behavioral markers. The continuous measure was validated specifically for sexual minority women and included several subscales of gender expression, allowing us to conduct a more thorough investigation of aspects of gender that were associated with victimization. Finally, we also used common and psychometrically sound instruments to assess abuse with behaviorally specific language.

In summary, our findings suggest that gender identity and expression are associated with both childhood and adult victimization among sexual minority women. Women who were more butch reported more abuse in childhood, particularly physical and emotional neglect. On the other hand, women who identified as femme and reported a more feminine appearance reported more adult sexual assault. At the same time, a masculine gender role was also associated with increased likelihood of sexual assault as an adult. Given these findings, clinicians and providers working with sexual minorities should consider the role of gender identity and expression in targeted assessments and interventions.

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References

- Adams-Curtis LE, Forbes GB. College women's experiences of sexual coercion: A review of cultural, perpetrator, victim, and situational variables. *Trauma, Violence & Abuse*. 2004; 5:91–122. [10.1177/1524838003262331](https://doi.org/10.1177/1524838003262331)
- Alanko K, Santtila P, Witting K, Varjonen M, Jern P, Johansson A, et al. Psychiatric symptoms and same-sex sexual attraction and behavior in light of childhood gender atypical behavior and parental relationships. *Journal of Sex Research*. 2009; 46:494–504. [10.1080/00224490902846487](https://doi.org/10.1080/00224490902846487) [PubMed: 19343579]
- Alanko K, Santtila P, Salo B, Jern P, Johansson A, Sandnabba NK. Testing casual models of the relationship between childhood gender atypical behaviour and parent-child relationship. *British Journal of Developmental Psychology*. 2011; 29:214–233. [doi:10.1348/2044-835X.002004](https://doi.org/10.1348/2044-835X.002004). [PubMed: 21199500]
- Austin SB, Jun HJ, Jackson B, Spiegelman D, Rick-Edwards J, Corliss HL, et al. Disparities in child abuse victimization in lesbian, bisexual, and heterosexual women in the Nurses' Health Study II. *Journal of Women's Health*. 2008; 17:597–606. [doi:10.1089/jwh.2007.0450](https://doi.org/10.1089/jwh.2007.0450).
- Balsam KF, Rothblum ED, Beauchaine TP. Victimization over the life span: A comparison of lesbian, gay, bisexual, and heterosexual siblings. *Journal of Consulting and Clinical Psychology*. 2005; 73:477–487. [10.1037/0022-006X.73.3.477](https://doi.org/10.1037/0022-006X.73.3.477) [PubMed: 15982145]
- Berdahl JL. The sexual harassment of uppity women. *Journal of Applied Psychology*. 2007; 92:425–437. [10.1037/0021-9010.92.2.425](https://doi.org/10.1037/0021-9010.92.2.425) [PubMed: 17371089]
- Bernstein, DP.; Fink, L. *Childhood trauma questionnaire manual*. San Antonio: The Psychological Corporation; 1998.
- Bernstein DP, Fink L, Handelsman L, Foote J. Initial reliability and validity of a new retrospective measure of child abuse and neglect. *The American Journal of Psychiatry*. 1994; 151:1132–1136. [PubMed: 8037246]
- Campbell R, Dworkin E, Cabral G. An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence & Abuse*. 2009; 10:225–246. [10.1177/1524838009334456](https://doi.org/10.1177/1524838009334456)
- Corliss HL, Cochran SD, Mays VM. Reports of parental maltreatment during childhood in a United States population-based survey of homosexual, bisexual, and heterosexual adults. *Child Abuse & Neglect*. 2002; 26:1165–1178. [doi:10.1016/S0145-2134\(02\)00385-X](https://doi.org/10.1016/S0145-2134(02)00385-X). [PubMed: 12398854]
- Cosentino CE, Meyer-Bahlburg HFL, Alpert JL, Gaines R. Cross-gender behavior and gender conflict in sexually abused girls. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1993; 32:940–947. [10.1097/00004583-199309000-00008](https://doi.org/10.1097/00004583-199309000-00008) [PubMed: 8407767]
- D'Augelli AR, Grossman AH, Starks MT. Childhood gender atypicality, victimization, and PTSD among lesbian, gay, and bisexual youth. *Journal of Interpersonal Violence*. 2006; 21:1462–1482. [10.1177/0886260506293482](https://doi.org/10.1177/0886260506293482) [PubMed: 17057162]
- Duncan DF. Prevalence of sexual assault victimization among heterosexual and gay/lesbian university students. *Psychological Reports*. 1990; 66:65–66. [PubMed: 2326430]
- Dunkley DM, Masheb RM, Grilo CM. Childhood maltreatment, depressive symptoms, and body dissatisfaction in patients with binge eating disorder: The mediating role of self-criticism. *International Journal of Eating Disorders*. 2010; 43:274–281. [10.1002/eat.20796](https://doi.org/10.1002/eat.20796) [PubMed: 20119938]
- Eadie EM, Runtz MG, Spender-Rodgers J. Posttraumatic stress symptoms as a mediator between sexual assault and adverse health outcomes in undergraduate women. *Journal of Traumatic Stress*. 2008; 21:540–547. [10.1002/jts.20369](https://doi.org/10.1002/jts.20369) [PubMed: 19107722]
- Elliott DM, Mok DS, Briere J. Adult sexual assault: Prevalence, symptomatology, and sex differences in the general population. *Journal of Traumatic Stress*. 2004; 17:203–211. [10.1023/B:JOTS.0000029263.11104.23](https://doi.org/10.1023/B:JOTS.0000029263.11104.23) [PubMed: 15253092]
- Fink LA, Bernstein D, Handelsman L, Foote J, Lovejoy M. Initial reliability and validity of the Childhood Trauma Interview: A new multidimensional measure of childhood interpersonal trauma. *The American Journal of Psychiatry*. 1995; 152:1329–1335. [PubMed: 7653689]

- Finzi-Dottan R, Karu T. From emotional abuse in childhood to psychopathology in adulthood: A path mediated by immature defense mechanisms and self-esteem. *The Journal of Nervous and Mental Disease*. 2006; 194:616–621. doi:10.1097/01.nmd.0000230654.49933.23. [PubMed: 16909071]
- Friedman MS, Koeske GF, Silvestre AJ, Korr WS, Sites EW. The impact of gender-role nonconforming behavior, bullying, and social support on suicidality among gay male youth. *Journal of Adolescent Health*. 2006; 38:621–623. doi:10.1016/j.jadohealth.2005.04.014. [PubMed: 16635780]
- Golding, CA. Butch-Femme. In: Hawley, JC., editor. *LGBTQ America today: An encyclopedia*. Vol. 1. Westport: Greenwood Press; 2009. p. 176-179.
- Harry J. Parental physical abuse and sexual orientation in males. *Archives of Sexual Behavior*. 1989; 18:251–261. doi:10.1007/BF01543199. [PubMed: 2751419]
- Hedtke KA, Ruggiero KJ, Fitzgerald MM, Zinzow HM, Saunders BE, Resnick HS, et al. A longitudinal investigation of interpersonal violence in relation to mental health and substance use. *Journal of Consulting and Clinical Psychology*. 2008; 76:633–647. doi:10.1037/0022-006X.76.4.633 [PubMed: 18665691]
- Hiestand KR, Levitt HM. Butch identity development: The formation of an authentic gender. *Feminism and Psychology*. 2005; 15:61–85. doi:10.1177/0959353505049709
- Hiestand, KR.; Levitt, HM.; Horne, SG. Gender identity, internalized homophobia, and feminist identity: Non-heterosexual women's quest for healthcare. In H. Levitt (Moderator). Research on non-heterosexual women's experiences: Informing future psychological work; Symposium held at the meeting of the Association for Women in Psychology; Tampa, FL. 2005 Feb.
- Hughes TL, Szalacha LA, Johnson TP, Kinnison KE, Wilsnack SC, Cho Y. Sexual victimization and hazardous drinking among heterosexual and sexual minority women. *Addictive Behaviors*. 2010; 35:1152–1156. doi:10.1016/j.addbeh.2010.07.004. [PubMed: 20692771]
- Irish L, Kobayashi I, Delahanty DL. Long-term physical health consequences of childhood sexual abuse: A meta-analytic review. *Journal of Pediatric Psychology*. 2010; 35:450–461. doi:10.1093/jpepsy/jsp118 [PubMed: 20022919]
- Koss MP, Abbey A, Campbell R, Cook S, Norris J, Testa M, et al. Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*. 2007; 31:357–370. doi:10.1111/j.1471-6402.2007.00385.x
- Krause ED, Roth S. Child sexual abuse history and feminine gender-role identity. *Sex Roles*. 2011; 64:32–42. doi:10.1007/s11199-010-9855-6
- Kury H, Chouaf S, Obergfell-Fuchs J, Woessner G. The scope of sexual victimization in Germany. *Journal of Interpersonal Violence*. 2004; 19:589–602. doi:10.1177/0886260504262967 [PubMed: 15104863]
- Landolt MA, Bartholomew K, Saffrey C, Oram D, Perlman D. Gender nonconformity, childhood rejection, and adult attachment: A study of gay men. *Archives of Sexual Behavior*. 2004; 33:117–128. doi:10.1023/B:ASEB.0000014326.64934.50 [PubMed: 15146144]
- Laws A, Golding JM. Sexual assault history and eating disorder symptoms among White, Hispanic, and African-American women and men. *American Journal of Public Health*. 1996; 86:579–582. doi:10.2105/AJPH.86.4.579 [PubMed: 8604796]
- Lehavot K, Simoni JM. The impact of minority stress on mental health and substance use among sexual minority women. *Journal of Consulting and Clinical Psychology*. 2011; 79:159–170. doi:10.1037/a0022839 [PubMed: 21341888]
- Lehavot K, King KM, Simoni JM. Development and validation of a gender expression measure for sexual minority women. *Psychology of Women Quarterly*. 2011; 35:381–400. doi:10.1177/0361684311413554.
- Levitt, HM.; Bigler, M. Facilitating lesbian gender exploration. In: Whitman, JS.; Boyd, CJ., editors. *The therapist's notebook for lesbian, gay, and bisexual clients: Homework, handouts, and activities for use in psychotherapy*. New York: The Hawthorn Press, Inc; 2003. p. 183-186.
- Levitt, HM.; Bridges, SK. Gender expression in bisexual women: Therapeutic issues and considerations. In: Firestein, BA., editor. *Becoming visible: Counseling bisexuals across the lifespan*. New York: Columbia University Press; 2007. p. 297-310.

- Levitt HM, Hiestand KR. A quest for authenticity: Contemporary butch gender. *Sex Roles*. 2004; 50:605–621.10.1023/B:SERS.0000027565.59109.80
- Levitt HM, Horne SG. Explorations of lesbian-queer genders: Butch, femme, androgynous, or “other”. *Journal of Lesbian Studies*. 2002; 6:25–39.
- Levitt HM, Gerrish EA, Hiestand KR. The misunderstood gender: A model of modern femme identity. *Sex Roles*. 2003; 48:99–113.10.1023/A:1022453304384
- Lippa RA. The relation between childhood gender nonconformity and adult masculinity-femininity and anxiety in heterosexual and homosexual men and women. *Sex Roles*. 2008; 59:684–693.10.1007/s11199-008-9476-5
- Long SM, Ullman SE, Long LM, Mason GE, Starzynski LL. Women’s experiences of male-perpetrated sexual assault by sexual orientation. *Violence and Victims*. 2007; 22:684–701.10.1891/088667007782793138 [PubMed: 18225383]
- McMullin D, Wirth RJ, White JW. The impact of sexual victimization on personality: A longitudinal study of gendered attributes. *Sex Roles*. 2007; 56:403–414.10.1007/s11199-006-9179-8
- Moore MR. Lipstick or timberlands? Meanings of gender presentation in black lesbian communities. *Journal of Women in Culture and Society*. 2006; 32:113–139.10.1086/505269
- Nestle, J. The femme question. In: Nestle, J., editor. *The persistent desire: A femme-butcht reader*. Boston: Alyson; 1992. p. 138-146.
- Pedhazur, EJ. *Multiple regression in behavioral research: Explanation and prediction*. 3. Forth Worth: Harcourt Brace College Publishers; 1997.
- Ploderl M, Fartacek R. Childhood gender nonconformity and harassment as predictors of suicidality among gay, lesbian, bisexual, and heterosexual Austrians. *Archives of Sexual Behavior*. 2007; 38:400–410.10.1007/s10508-007-9244-6 [PubMed: 18040769]
- Rosario M, Schrimshaw EW, Hunter J. Butch/femme differences in substance use and abuse among young lesbian and bisexual women: Examination and potential explanations. *Substance Use & Misuse*. 2008; 43:1002–1015.10.1080/10826080801914402 [PubMed: 18649226]
- Rosario M, Schrimshaw EW, Hunter J, Levy-Warren A. The coming-out process of young lesbian and bisexual women: Are there butch/femme differences in sexual identity development? *Archives of Sexual Behavior*. 2009; 38:34–49.10.1007/s10508-007-9221-0 [PubMed: 17896173]
- Rosen LN, Martin L. Long-term effects of childhood maltreatment history on gender-related personality characteristics. *Child Abuse & Neglect*. 1998; 22:197–211. doi:10.1016/S0145-2134(97)00171-3. [PubMed: 9589174]
- Rothman EF, Exner D, Baughman AL. The prevalence of sexual assault against people who identify as gay, lesbian, or bisexual in the United States: A systematic review. *Trauma, Violence & Abuse*. 2011; 12:55–66.10.1177/1524838010390707
- Schafer JL, Graham JW. Missing data: Our view of the state of the art. *Psychological Methods*. 2002; 7:147–177. doi:10.1037//1082-989X.7.2.147. [PubMed: 12090408]
- Scheer S, Parks C, McFarland W, Page-Shafer K, Delgado V, Ruiz J, et al. Self-reported sexual identity, sexual behaviors and health risks: Examples from a population-based survey of young women. *Journal of Lesbian Studies*. 2003; 7:69–83.
- Simpson TL, Miller WR. Concomitance between childhood sexual and physical abuse and substance use problems: A review. *Clinical Psychology Review*. 2002; 22:27–77. doi:10.1016/S0272-7358(00)00088-X. [PubMed: 11793578]
- Singh D, Vidaurri M, Zambarano RJ, Dabbs JM. Lesbian erotic role identification: Behavioral, morphological, and hormonal correlates. *Journal of Personality and Social Psychology*. 1999; 76:1035–1049.10.1037/0022-3514.76.6.1035 [PubMed: 10402685]
- Stein MB, Barrett-Connor E. Sexual assault and physical health: Findings from a population-based study of older adults. *Psychosomatic Medicine*. 2000; 62:838–843. [PubMed: 11139004]
- Stoddard JP, Dibble SL, Fineman N. Sexual and physical abuse: A comparison between lesbians and their heterosexual sisters. *Journal of Homosexuality*. 2009; 56:407–420.10.1080/00918360902821395 [PubMed: 19418332]
- Stoltenborgh M, van IZendoorn MH, Euser EM, Bakermans-Kranburg MJ. A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment*. 2011; 16:79–101.10.1177/1077559511403920 [PubMed: 21511741]

- Synovitz LB, Byrne TJ. Antecedents of sexual victimization: Factors discriminating victims from nonvictims. *Journal of American College Health*. 1998; 46:151–154. doi:10.1080/07448489809595602. [PubMed: 9519576]
- Widom CS, DuMont K, Czaja SJ. A prospective investigation of major depressive disorder and comorbidity in abused and neglected children grown up. *Archives of General Psychiatry*. 2007; 64:49–56. [PubMed: 17199054]

Table 1
Descriptive statistics on socio-demographics and gender expression for sexual minority women by gender identity

Variable	Sample N=1238		Femme n=485		Butch n=189		Androgynous n=161		None of the above n=403	
	M	SD	Range	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
1. Age ¹	33.77	12.24	18–86	31.39 (10.96) _a	38.25 (12.92) _b	34.37 (13.77) _c	34.19 (11.84) _c			
2. Education ²	4.98	1.73	1–7	4.77 (1.70) _a	4.61 (1.83) _a	4.97 (1.71) _a	5.45 (1.62) _b			
3. Income ³	3.61	1.73	1–9	3.44 (2.00) _a	3.73 (2.27) _{ab}	3.48 (2.12) _{ab}	3.86 (2.20) _b			
4. GEM-SMW ⁴	3.61	0.83	1–6	2.52 (0.60) _a	4.09 (0.61) _b	3.37 (0.61) _c	3.05 (0.65) _d			
5. GEM-App ⁴	3.03	1.21	1–6	2.19 (0.79) _a	4.55 (0.91) _b	3.71 (0.89) _c	3.08 (0.94) _d			
6. GEM-Role ⁴	3.44	1.05	1–6	3.13 (0.99) _a	4.30 (0.98) _b	3.51 (0.93) _c	3.40 (0.98) _b			
7. GEM-Emo ⁴	2.67	1.02	1–6	2.50 (1.00) _a	3.10 (1.03) _b	2.78 (1.03) _c	2.65 (0.98) _{a,c}			

Tukey post-hoc comparisons were conducted if multivariate and univariate analyses revealed significant group differences. Means that do not share the same subscripts differ at $p < .05$ ($df = 1$ for all)

¹ Our sample exhibited a wide age range, but had a normal distribution; skew and kurtosis were .87 and .09, respectively

² 1=some or no high school, 2=high school degree, 3=some college, 4=associate's degree, 5=bachelor's degree, 6=some graduate school, 7= advanced degree

³ 1=<\$10 K, 2=\$10–19 K, 3=\$20–29 K, 4=\$30–39 K, 5=\$40–59 K, 6=\$60–79 K, 7=\$80–99 K, 8=\$100–149 K, 9 =>\$150 K

⁴ GEM-SMW: Gender Expression Measure for Sexual Minority Women; App: Appearance; Role: Gender Roles; Emo: Emotional Expression

Table 2

Childhood abuse and adult sexual assault for sexual minority women by gender identity

Variable	Sample N=1238			Femme n=485		Butch n=189		Androgynous n=161		None of the above n=403	
	%	M	SD	Range	%M (SD)	%M (SD)	%M (SD)	%M (SD)	%M (SD)	%M (SD)	
1. CTQ Overall ¹	80 %	2.07	2.12	1-5	82 2.06 (0.77)	81 2.18 (0.85)	85 2.13 (0.77)	76 2.01 (0.76)			
2. Child emotional abuse ¹	59 %	2.26	1.12	1-5	60 2.24 (1.11)	62 2.41 (1.21)	60 2.30 (1.12)	56 2.21 (1.10)			
3. Child physical abuse ¹	35 %	1.60	0.89	1-5	34 1.62 (0.96)	44 1.76 (0.94)	38 1.61 (0.86)	29 1.51 (0.80)			
4. Child sexual abuse ¹	40 %	1.67	1.14	1-5	42 1.67 (1.14)	41 1.78 (1.27)	45 1.78 (1.24)	36 1.58 (1.09)			
5. Child emotional neglect ¹	61 %	2.37	1.03	1-5	61 2.33 (0.99)	66 2.51 (1.14)	66 2.48 (1.04)	58 2.30 (1.04)			
6. Child physical neglect ¹	41 %	1.56	0.68	1-5	43 1.62 (0.71)	44 1.57 (0.66)	42 1.58 (0.66)	35 1.50 (0.66)			
7. Adult assault	39 %	1.22	0.78	0-9	44 1.37 (2.16)	32 1.09 (2.15)	42 1.30 (2.13)	36 1.07 (2.02)			
8. Oral ²	22 %	0.42	0.89	0-3	24 0.44 (0.91)	21 0.40 (0.90)	27 0.46 (0.88)	19 0.36 (0.84)			
9. Vaginal ²	34 %	60	0.98	0-3	37 0.66 (1.01)	25 0.46 (0.92)	36 0.61 (0.97)	32 0.45 (0.97)			
10. Anal ²	12 %	0.20	0.62	0-3	14 0.23 (0.65)	11 0.21 (0.68)	14 0.23 (0.65)	10 0.16 (0.55)			

¹ CTQ Childhood Trauma Questionnaire. Percentages based on cut-off scores and indicate a positive case of abuse or neglect. Skew and kurtosis for continuous CTQ measures were within an acceptable range for normality (skew=-.45-1.64; kurtosis=-.09-1.95)

² Defined as oral, vaginal, or anal assault since the age of 14 years and assesses frequency of assault (0 for never, 1 for once, 2 for twice, 3 for three or more times)

Table 3

ANCOVAs of childhood abuse by gender identity

A abuse variable	Femme <i>n</i> =436 <i>M</i> (<i>SE</i>)	Butch <i>n</i> =165 <i>M</i> (<i>SE</i>)	Androgynous <i>n</i> =142 <i>M</i> (<i>SE</i>)	None of the above <i>n</i> =349 <i>M</i> (<i>SE</i>)	<i>F</i> (<i>3</i> , <i>1083</i>)
CTQ Overall ²	2.07 (.04)	2.10 (.06)	2.13 (.06)	2.06 (.04)	.30
Child emotional abuse	2.25 (.05)	2.32 (.09)	2.28 (.09)	2.27 (.06)	.15
Child physical abuse	1.63 (.04)	1.69 (.07)	1.61 (.07)	1.55 (.05)	1.17
Child sexual abuse	1.69 (.05)	1.64 (.09)	1.74 (.09)	1.66 (.06)	.29
Child emotional neglect	2.35 (.05)	2.39 (.08)	2.48 (.08)	2.37 (.05)	.62
Child physical neglect	1.57 (.03)	1.59 (.05)	1.58 (.06)	1.54 (.04)	.36

Analyses adjusted for age, education, income, and sexual orientation. ANCOVAs were conducted subsequent to a MANCOVA for all CTQ subscales, which is reported in the text

¹ All *p*-values>0.05

² CTQ Childhood Trauma Questionnaire. The range for the overall CTQ scale as well as all CTQ subscales was 1–5

Table 4

Multiple regression analyses of childhood abuse by gender expression

Abuse variable	Gender Expression							
	Overall		Appearance		Gender Roles		Emotional Expression	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
CTQ Overall ^f	.07 (.03) [*]	.01, .13	-.03 (.02)	-.07, .01	.10 (.02) ^{***}	.05, .14	.03 (.02)	-.02, .08
Child emotional abuse	.07 (.04)	-.01, .16	-.07 (.03) [*]	-.14, -.01	.17 (.04) ^{***}	.10, .24	.03 (.03)	-.04, .10
Child physical abuse	.06 (.03)	-.01, .12	-.06 (.03) [*]	-.11, -.01	.15 (.03) ^{***}	.10, .21	-.005 (.03)	-.06, .05
Child sexual abuse	.03 (.04)	-.05, .11	-.04 (.03)	-.10, .03	.10 (.04) ^{**}	.03, .16	-.01 (.03)	-.08, .06
Child emotional neglect	.13 (.04) ^{**}	.05, .20	.008 (.03)	-.05, .06	.06 (.03)	-.01, .12	.10 (.03) ^{**}	.04, .16
Child physical neglect	.08 (.03) ^{**}	.03, .13	-.02 (.02)	-.06, .02	.06 (.02) ^{**}	.02, .11	.06 (.02) ^{**}	.02, .10

Analyses adjusted for age, education, income, and sexual orientation

^f CTQ Childhood Trauma Questionnaire

* $p < .05$.

** $p < .01$.

*** $p < .001$

Table 5

Logistic models of adult sexual assault by gender identity

Abuse variable	Gender Identity ¹											
	Femme n=454			Butch n=175			Androgynous n=150			None of the above n=376		
	AOR	95 % CI	AOR	95 % CI	AOR	95 % CI	AOR	95 % CI	AOR	95 % CI	AOR	95 % CI
Adult assault	1.0	[Reference]	.68**	.51, .91	.75	.51, 1.11	.51**	.35, .76	.78	.50, 1.21	.49**	.53, 1.20
Oral	1.0	[Reference]	.75	.53, 1.05	1.03	.67, 1.58	.74	.50, 1.21	.78	.50, 1.21	.49**	.53, 1.20
Vaginal	1.0	[Reference]	.77	.57, 1.04	.81	.54, 1.20	.74	.50, 1.20	.74	.50, 1.20	.49**	.53, 1.20
Anal	1.0	[Reference]	.77	.50, 1.19	.94	.54, 1.63	.74	.42, 1.30	.74	.42, 1.30	.49**	.53, 1.20

Analyses adjusted for age, education, income, and sexual orientation

¹Reference group for gender identity differences (df=3) was femme-identified women

* $P < .05$.

** $P < .01$.

*** $P < .001$

Table 6

Logistic models of adult sexual assault by gender expression

Abuse variable	Gender Expression											
	Overall			Appearance			Gender Roles			Emotional Expression		
	AOR	95 % CI		AOR	95 % CI		AOR	95 % CI		AOR	95 % CI	
Adult assault	.34	.80, 1.08	.77***	.69, .87	1.22***	1.07, 1.39	1.11					.98, 1.26
Oral	.95	.80, 1.13	.80**	.70, .92	1.27**	1.09, 1.47	1.03					.89, 1.19
Vaginal	.94	.80, 1.10	.78***	.69, .88	1.22**	1.07, 1.40	1.10					.97, 1.25
Anal	1.03	.83, 1.29	.74**	.62, .88	1.39**	1.15, 1.69	1.17					.98, 1.40

Analyses adjusted for age, education, income, and sexual orientation

* $p < .05$.

**

$p < .01$.

$p < .001$