

Developmental Psychology

Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth: School Victimization and Young Adult Psychosocial Adjustment

Russell B. Toomey, Caitlin Ryan, Rafael M. Diaz, Noel A. Card, and Stephen T. Russell
Online First Publication, September 6, 2010. doi: 10.1037/a0020705

CITATION

Toomey, R. B., Ryan, C., Diaz, R. M., Card, N. A., & Russell, S. T. (2010, September 6). Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth: School Victimization and Young Adult Psychosocial Adjustment. *Developmental Psychology*. Advance online publication. doi: 10.1037/a0020705

Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth: School Victimization and Young Adult Psychosocial Adjustment

Russell B. Toomey
University of Arizona

Caitlin Ryan and Rafael M. Diaz
San Francisco State University

Noel A. Card and Stephen T. Russell
University of Arizona

Past research documents that both adolescent gender nonconformity and the experience of school victimization are associated with high rates of negative psychosocial adjustment. Using data from the Family Acceptance Project's young adult survey, we examined associations among retrospective reports of adolescent gender nonconformity and adolescent school victimization due to perceived or actual lesbian, gay, bisexual, or transgender (LGBT) status, along with current reports of life satisfaction and depression. The participants included 245 LGBT young adults ranging in age from 21 to 25 years. Using structural equation modeling, we found that victimization due to perceived or actual LGBT status fully mediates the association between adolescent gender nonconformity and young adult psychosocial adjustment (i.e., life satisfaction and depression). Implications are addressed, including specific strategies that schools can implement to provide safer environments for gender-nonconforming LGBT students.

Keywords: gender nonconformity, LGBT youth, victimization, safe schools

In 2008 Larry King was murdered by a fellow eighth grader during a class at school because of his gender expression and his openness about his gay sexual orientation (Pringle & Saillant, 2008). He was referred to as an "effeminate" boy by his classmates and various school personnel when they were interviewed by the media after the shooting (Setoodeh, 2008). King's murder is not an isolated case, and the association between gender nonconformity and victimization is at the forefront of the public awareness and discussions about school safety (Hoffman, 2009). King's murder is an extreme example of school victimization motivated by a student's gender nonconformity.

A growing body of literature suggests that young people who do not conform to heteronormative societal values are at risk for victimization during adolescence (Meyer, 2003; Oswald, Blume, & Marks, 2005). Lesbian, gay, bisexual, transgender (LGBT), and gender-nonconforming youth are at elevated risk levels for experiencing victimization (e.g., Kosciw, Diaz, & Greytak, 2008; O'Shaughnessy, Russell, Heck, Calhoun, & Laub, 2004) and negative psychosocial adjustment (e.g., suicidality, depression, anxi-

ety; D'Augelli, Grossman, & Starks, 2006; Pilkington & D'Augelli, 1995). A number of studies document the direct effects of individual-level characteristics (i.e., gender nonconformity and sexual minority status) and social experiences (e.g., school victimization, negative family experiences) on psychosocial adjustment (Carver, Yunger, & Perry, 2003; D'Augelli, Pilkington, & Hershberger, 2002; Rivers, 2001a; Russell & Joyner, 2001; Yunger, Carver, & Perry, 2004). What remains unknown is whether experiences of victimization during adolescence are largely responsible for the elevated levels of negative psychosocial adjustment and health among gender-nonconforming youth and young adults.

This study extends prior research that documents the associations between gender nonconformity, victimization, and adjustment by directly testing the degree to which experiences of school victimization account for the link between adolescent gender nonconformity and young adult well-being. By examining both direct and indirect effects simultaneously, we were able to account for the unique association each predictor has on two psychosocial adjustment indicators: young adult life satisfaction and depression. Our goal was to build on previous research that separately documents the direct effects of gender nonconformity and victimization on psychosocial outcomes: We sought to provide an explanation of the mechanisms through which gender nonconformity influences young adult psychosocial adjustment.

One theoretical explanation that may help to explain the high prevalence of psychosocial problems that gender-nonconforming individuals experience is Meyer's (1995, 2003) minority stress model. Meyer's (1995, 2003) minority stress model posits that lesbian, gay, and bisexual individuals are at increased risk for mental health distress because of their stigmatized sexual identities. Meyer (2003) discussed that the unique stressors that sexual minority individuals experience range on a continuum from more

Russell B. Toomey, Noel A. Card, and Stephen T. Russell, Family Studies and Human Development, University of Arizona; Caitlin Ryan and Rafael M. Diaz, Family Acceptance Project, San Francisco State University.

We gratefully acknowledge the support of our funder, The California Endowment, and the contribution of our community advisory groups and the many adolescents, families, and young adults who shared their lives and experiences with us.

Correspondence concerning this article should be addressed to Russell B. Toomey, Family Studies and Human Development, University of Arizona, 650 North Park Avenue, PO Box 210078, Tucson, AZ 85721-0078. E-mail: toomey@email.arizona.edu

distal processes that occur externally (i.e., actual experience of discrimination and/or violence) to proximal processes that occur internally (i.e., expectations of discrimination and/or violence, internalized homophobia). As explained by Meyer (2003), the experiences of distal minority stress processes (e.g., school victimization due to minority status) are likely to be associated with an increase in proximal minority stress processes (e.g., expectations of victimization). Combined with general life stressors, unique minority stress can plausibly cause poor psychosocial adjustment. That is, it is school victimization specifically due to gender nonconformity that is crucial in the model. Meyer (2003) suggested that these associations are modified by coping strategies, available social support, and other personal characteristics.

In this study, school victimization represents the distal process by which gender-nonconforming LGBT young people experience stigma. Our study is limited in that we cannot fully assess Meyer's (1995, 2003) minority stress model. Specifically, data were not collected about proximal minority stress processes (i.e., expectations of victimization). It is also beyond the scope of this article to examine potential moderators of the link between school victimization and psychosocial adjustment. Nonetheless, we expect that the unique social stigma experienced by gender-nonconforming LGBT young people in adolescence has lasting negative effects into young adulthood and that these lasting negative effects are the product of victimization based on gender nonconformity, not of their gender nonconformity. Further, it is victimization due to gender nonconformity rather than victimization for other reasons that should explain the association between gender nonconformity and negative effects in young adulthood.

Gender Nonconformity

Western culture engrains gender stereotypes within individuals during the earliest stages of life (S. E. Hill & Flom, 2007; Poulin-Dubois, Serbin, Eichstedt, Sen, & Beissel, 2002). By preschool, children understand gender categories and the social pressure to conform to the category associated with their biological sex (Carver et al., 2003; Younger et al., 2004). Kessels (2005) defined gender stereotypes as "a set of specific beliefs about the characteristics that women and men are likely to possess" (p. 310). Gender identity refers to the "maleness and femaleness a person feels on the inside; how that identity is projected to the world; and how others mirror that identity back to the individual" (Israel, 2005, p. 55). Individuals are expected to assume the roles and characteristics (e.g., clothing, hobbies, mannerisms) associated with their respective biological sex (Grossman & D'Augelli, 2006). Those who do not assume the expected roles and characteristics of the gender associated with their biological sex often experience a myriad of negative consequences because of their nonconformity to these cultural rules.

Gender-nonconforming individuals, such as boys who are more feminine than other boys or girls who are more masculine than other girls, can be described as those who transgress social gender norms. These individuals, however, may or may not decide to label themselves as transgender, an umbrella category that includes individuals who identify as transsexuals, gender queers, cross-dressers, drag kings, drag queens, and other various labels (Israel, 2005).

A multidimensional framework proposed by Egan and Perry (2001) suggests that the construct of gender includes five major components including membership knowledge, gender typicality, gender contentedness, pressure to conform, and intergroup bias. Thus, this multidimensional framework not only incorporates the degree to which an individual feels nonconforming but also warrants attention to the pressure to conform to gendered norms from others. In this study, we sought to further understanding of two influences on adjustment: gender typicality and pressure to conform to gender norms through the experience of victimization by peers.

Gender Nonconformity and Young Adult Adjustment

Gender nonconformity is just one of the individual-level characteristics that previous research has linked to poor psychosocial adjustment and suicidality in adolescence (Carver et al., 2003; Morrow, 2004; Younger et al., 2004) and adulthood (Sandfort, Melendez, & Diaz, 2007; Skidmore, Linsenmeier, & Bailey, 2006). Although the research on risk-taking behavior (e.g., risky sexual behavior, substance abuse) among gender-nonconforming and transgender individuals is growing, researchers know much less about the psychosocial adjustment (e.g., life satisfaction, anxiety, depression) experienced among this population (Garofalo, Deleon, Osmer, Doll, & Harper, 2006; Kenagy, 2002, 2005; Kenagy & Hsieh, 2005a, 2005b). Of the research that does exist, most has been based on studies of adults. For instance, Skidmore et al. (2006) found that higher levels of gender nonconformity among adult gay men were associated with more psychological distress. Similarly, Sandfort et al. (2007) found that higher levels of gender nonconformity among gay and bisexual Latino men were associated with higher levels of mental distress. However, Sandfort et al. found that this association could be explained by experiences of homophobia during one's lifetime. We sought to examine how adolescent experiences of school victimization may account for the association between gender nonconformity and psychosocial adjustment.

Victimization at School

Peer reactions to gender nonconformity change across developmental stages. By middle childhood, children's cognitive development allows them to make social comparisons and to form an abstract concept of the self (Younger et al., 2004). In adolescence, gender differences observed between girls and boys can be partially explained by the intense socialization of stereotypical gender roles prior to and during that developmental period (J. P. Hill & Lynch, 1983). Because of a heightened awareness and a sense of an imaginary audience during adolescence, shame often controls or holds in place strictly gendered rules (Ma'ayan, 2003). The shame felt by gender-nonconforming adolescents may be compounded by the reactions from their peers. Peer reactions to gender-nonconforming behavior are often negative, ranging from verbal questioning of another's biological sex to physical abuse (Grossman & D'Augelli, 2006).

Previous research documents the intersection between sexual orientation and gender nonconformity in Western culture (Ma'ayan, 2003). Because of this intersection, negative reactions toward gender-nonconforming adolescents may actually

be related to the perpetrator's perceptions that the adolescent is lesbian, gay, or bisexual (D'Augelli et al., 2006; Friedman, Koeske, Silvestre, Korr, & Sites, 2006; Pilkington & D'Augelli, 1995). In Pilkington and D'Augelli's (1995) sample of lesbian, gay, and bisexual adolescents, students who were gender atypical and more open about their lesbian, gay, or bisexual status to peers were more likely to report victimization than students who conformed to stereotypical gender norms. Thus, the more young people present as gender nonconforming, the more likely they will be victimized or abused at school (Grossman, D'Augelli, Howell, & Hubbard, 2005).

The abuse experienced by gender-nonconforming adolescents frequently occurs at school (D'Augelli et al., 2006; Henning-Stout, James, & Macintosh, 2000). The school context is one of the primary settings where social interactions occur during adolescence, and for gender-nonconforming and LGBT youth, school can be one of the most dangerous social contexts (Morrow, 2004). Previous research documents the high prevalence rate of harassment that occurs in schools because of actual or perceived lesbian, gay, or bisexual status (see Kosciw et al., 2008; Lasser & Tharinger, 2003; Russell, 2005; Ryan & Rivers, 2003; van Wormer & McKinney, 2003). Information about the prevalence of harassment in schools associated with gender nonconformity or transgender status, however, is lacking.

In a recent study, gender-nonconforming youth reported that school was the location of their first experience of physical victimization more than any other context (e.g., home or community; D'Augelli et al., 2006). Another recent study found that nearly two thirds of gender-nonconforming youth report verbal harassment and nearly one third report physical harassment at school (Kosciw et al., 2008). Within the category of gender-nonconforming youth, transgender young people are perhaps most at risk for experiencing victimization at school. Sausa (2005) found that 96% of transgender participants experienced physical harassment and 83% experienced verbal harassment at school. Furthermore, transgender youth are at risk for dropping out of school, running away from home, and becoming homeless (Grossman & D'Augelli, 2006). Thus, whereas the prevalence of victimization due to gender nonconformity or transgender status in school is underdocumented, it is clear that victimization does occur because of this personal characteristic and warrants further investigation.

Finally, biological sex may be a moderator in the backlash toward gender nonconformity: Biological men face more peer harassment and victimization than biological women. In fact, D'Augelli et al. (2006) found that male youth who were gender nonconforming were more likely to receive negative responses from parents than were gender-nonconforming female youth. Gender nonconformity by girls is generally accepted and even rewarded until puberty. However, once puberty occurs, girls who still project a masculine appearance are often characterized as immature (Carr, 2007) and face harassment from their peers (Carr, 2007; Ma'ayan, 2003). In fact, young people report hearing more negative remarks about gender nonconformity toward boys (53.8%) than girls (39.4%; Kosciw et al., 2008) and perceive their schools as safer for gender-nonconforming girls compared with nonconforming boys (O'Shaughnessy et al., 2004).

School Victimization and Young Adult Psychosocial Adjustment

Repeated negative responses from peer groups often leads to negative feelings about one's self (Ellis & Eriksen, 2002). Not only does victimization affect students emotionally at the time it occurs, victimization also negatively affects future psychosocial adjustment (Olweus, 1993; Rivers, 2001a). Recent research documents the lasting negative effects of victimization during adolescence into adulthood. For example, D'Augelli et al. (2006) found that gender-nonconforming individuals who experienced victimization due to sexual orientation status during childhood were at greater risk for developing posttraumatic stress disorder later in life than those who were not gender nonconforming. Similarly, Friedman, Marshal, Stall, Cheong, and Wright (2008) found that early violence (i.e., in adolescence) experienced by gay boys is predictive of young adult well-being above and beyond the effects of young adult violence. In a retrospective study, Friedman et al. (2006) examined the link between gender nonconformity and suicidality during adolescence and found that the experience of victimization mediated this association for boys. Similarly, Williams, Connolly, Pepler, and Craig (2005) found that school victimization mediated the association between sexual orientation and depression and externalizing problems in adolescence. We sought to extend the findings of these two studies through the inclusion of both male and female participants and the examination of multiple psychosocial adjustment indicators in young adulthood.

The Current Study

The purpose of this study was to expand understanding regarding the associations among adolescent gender nonconformity, school victimization, and young adult psychosocial adjustment experienced by LGBT individuals. Specifically, the hypotheses tested in this study include the following (see Figure 1 for hypothesized model):

Hypothesis 1: Higher levels of gender nonconformity during adolescence are associated with more instances of victimization specific to perceptions of LGBT status.

Hypothesis 2: Biological sex moderates the effects of gender nonconformity on LGBT school victimization, such that gender-nonconforming boys experience more victimization than gender-nonconforming girls.

Hypothesis 3: Experience of LGBT school victimization during adolescence mediates the direct effect of gender nonconformity on young adult psychosocial adjustment, such that victimization becomes the salient predictor of young adult psychosocial adjustment.

Method

Sample

This study used data from the Family Acceptance Project's young adult survey that included 245 LGBT young adult participants, who were recruited at multiple venues frequented by LGBT young adults within a 100-mile radius of the San Francisco Bay

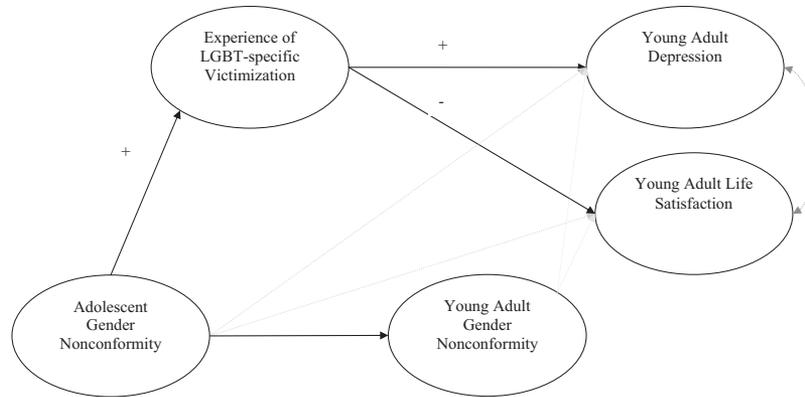


Figure 1. Conceptual model.

Area. The Family Acceptance Project is a network of research studies, intervention development, and policy activities aimed at increasing family acceptance and societal support for LGBT youth and young adults. Criteria for participation in the young adult study included age (21–25 years); ethnicity (White, Latino, or Latino mixed); self-identification as LGBT during adolescence; outness to at least one parent during adolescence; and at minimum, part-time residence with at least one parent during adolescence. The survey was available in both English and Spanish, as well as in paper-and-pencil and computer-assisted formats. The university's institutional review board approved the study protocol.

The mean age of the sample was 22.8 years ($SD = 1.4$). Participants self-identified their sexual orientation on the survey: 42.5% gay, 27.8% lesbian, 13.1% bisexual, and 16.7% other (e.g., queer, dyke, or homosexual). Participants reported on LGBT milestones: Average age of awareness was 10.7, labeling oneself as LGBT was 13.9, and coming out to anyone was 15.2. In terms of ethnicity, 51.4% identified as Latino, and 48.6% as White, non-Latino young adults. Trained interviewers obtained a measurement of biological sex that resulted in the following distribution: 51.4% male and 48.6% female. Participants also self-identified their young adult gender identity on the survey: 46.5% male, 44.9% female, and 8.6% transgender. To test for the sex moderation proposed in the model, we used biological sex instead of gender identity to examine the hypothesized negative effects of crossing gendered norms (i.e., male-to-female transgender individuals would be included with other boys instead of girls because they would be perceived by their classmates as breaking male gendered norms). Finally, a retrospective report of family-of-origin socioeconomic status was assessed (1 = *both parents in unskilled positions or unemployed*, 16 = *both parents in professional positions*; $M = 6.75$, $SD = 4.77$).

Measures

Adolescent and young adult gender nonconformity. One item assessed retrospective adolescent gender nonconformity: “On a scale from 1–9, where 1 is extremely feminine and 9 is extremely masculine, how would you describe yourself when you were a teenager (age 13–19)?” After reverse-coding male scores on this question, higher scores are reflective of greater levels of adolescent

gender nonconformity, whereas lower scores represent greater levels of concordance.

The same item was also asked about current (young adult) gender nonconformity: “On a scale from 1–9, where 1 is extremely feminine and 9 is extremely masculine, how would you describe yourself at this point in your life?” To test the validity, we also included an item of comparative gender nonconformity: “Compared to other people who are your same age, do you see yourself as: Much more feminine (1), more feminine (2), about the same (3), more masculine (4), or much more masculine (5)?” The three items highly correlated with one another, such that adolescent gender nonconformity was significantly associated with young adult gender nonconformity ($r = .62$, $p < .001$) and with young adult comparisons to others regarding gender conformity ($r = .50$, $p < .001$). Finally, young adult gender nonconformity correlated with young adult comparison of gender conformity ($r = .65$, $p < .001$).

Self-reported past school victimization due to actual or perceived LGBT status. A 10-item retrospective scale measured school victimization due to actual or perceived LGBT status during adolescence (ages 13–19). A sample item includes “During my middle or high school years, while at school (in other words, while on school property or at a school event), I was pushed, shoved, slapped, hit, or kicked by someone who wasn't just kidding around.” The 10 items were followed by “How often did this occur because people knew or assumed you were LGBT?” (0 = *never*, 3 = *many times*). All the items loaded onto one factor in preliminary exploratory factor analysis, leaving no distinct factors. The Cronbach α reliability coefficient for the 10-item scale was .91. For a structurally stable latent construct, three parcels were created to balance items with high and low factor loadings (Little, Cunningham, Shahar, & Widaman, 2002). Following the questions about LGBT school victimization, participants were asked whether school victimization occurred due to race, weight, or other reasons. The presence of this measure limits the possibility that reports of LGBT school victimization were due to other reasons and provides a counterpoint to allow us to compare LGBT school victimization to school victimization for other reasons.

Young adult depression. The 20-item version of the Center for Epidemiologic Studies Depression Scale (Radloff, 1977, 1991)

assessed young adult depression. The reliability for the complete measure was strong ($\alpha = .94$). The four factors identified in past research were consistent with the factor structure found in this sample: positive affect (four items, $\alpha = .83$), negative affect (seven items, $\alpha = .87$), somatic symptoms (seven items, $\alpha = .82$), and interpersonal (two items, $\alpha = .64$). The items that make up the four subscales of the Depression Scale were respectively parceled into four manifest variables used as the structure for the latent construct of depression (i.e., facet-representative parceling; Little et al., 2002).

Young adult life satisfaction. An eight-item scale evaluated young adult life satisfaction. A sample question includes “At the present time, how satisfied are you with your living situation?” (1 = *very dissatisfied*, 3 = *very satisfied*). The complete measure had acceptable reliability ($\alpha = .75$). An exploratory factor analysis revealed that the eight items loaded onto a single factor. To create a structurally stable latent construct, we used the item-to-construct balance approach and created three parcels (Little et al., 2002).

Covariates. We controlled for gender (two dichotomous variables were created for female and transgender; male was the reference group), sexual orientation (two dichotomous variables were created for bisexual orientation and “other” orientation; gay or lesbian orientation was the reference group), outness to others during high school (0 = *not out to no one at school*, 4 = *out to everyone*); immigrant status (0 = *not immigrant*, 1 = *immigrant*), ethnicity (0 = *White*; 1 = *Latino/mixed*), and family-of-origin socioeconomic status.

Results

Overview of Analysis

To maximize power and to minimize exclusion of participants due to missing data, we used PRELIS, a component of LISREL 8.80 (Jöreskog & Sörbom, 2006; Graham, Cumsille, & Elek-Fisk, 2003), to impute missing data (total < 5%). All numeric variables were entered into the expectation maximization algorithm for imputation. We used SAS to conduct all descriptive statistical analyses. Assumptions of normality were checked for all variables. Items from the depression and the adolescent LGBT school victimization measures were positively skewed, but after square-root transformations were performed, the items met assumptions of normality.

To test for associations between the variables of interest, we used structural equation modeling in LISREL. To test the predicted moderator, we conducted a multigroup confirmatory factor analy-

sis (CFA) and examined latent differences in correlations and means (Little, Card, Slegers, & Ledford, 2007). Mediation analyses were performed after the multigroup CFA allowed for the collapse of all participants into one group. We used Sobel’s (1982) products-of-coefficients approach to evaluate the indirect effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). The eight covariates were entered after the completion of CFA multigroup analyses and were allowed to covary freely. In examining all structural equation model fit tests, we used standard measures of practical fit: root-mean-square error of approximation, comparative fit index, and nonnormed fit index.

Descriptive Statistics

See Table 1 for the bivariate correlations, means, and standard deviations of the manifest variables. The mean level of gender nonconformity for the sample was 4.44 ($SD = 1.80$). Female participants reported the lowest levels of adolescent gender nonconformity ($M = 4.17$, $SD = 1.77$), male participants ($M = 4.45$, $SD = 1.66$) reported higher levels than girls, and transgender participants reported the highest levels ($M = 5.86$, $SD = 2.15$), $F(2, 242) = 8.13$, $p < .001$. No significant mean-level differences on gender nonconformity were found for outness to others during high school, ethnicity, immigrant status, or socioeconomic status. Manifest variable correlations provide preliminary support of our hypotheses: Specifically, both adolescent and young adult levels of gender nonconformity and LGBT school victimization were positively correlated, both adolescent and young adult levels of gender nonconformity were associated with higher young adult depression and lower young adult life satisfaction, and adolescent LGBT school victimization was also associated with higher young adult depression and lower young adult life satisfaction.

Model Results: Hypotheses 1 and 2

Our model was first tested in a multigroup CFA framework to examine factorial invariance across male and female participants. See Table 2 for the model fit statistics for the multigroup CFA (i.e., configural invariance, weak factorial invariance, strong factorial invariance; Little, 1997). We allowed the constraints to be tenable for strong invariance, even though the change in comparative fit index was greater than .01, because the model fit indices still indicated good overall model fit. Thus, our hypothesis that biological sex would moderate the association between adolescent gender nonconformity and adolescent LGBT victimization was not supported.

Table 1
Manifest Scale Correlations, Means, and Standard Deviations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Gender nonconformity (A)	4.44	1.80	—				
2. LGBT school victimization (A)	5.33	4.91	.33***	—			
3. Depression (YA)	12.41	8.24	.22**	.32***	—		
4. Life satisfaction (YA)	22.78	4.19	-.18**	-.29***	-.62***	—	
5. Gender nonconformity (YA)	4.40	1.87	.62***	.21***	.21***	-.19**	—

Note. A = adolescent; LGBT = lesbian, gay, bisexual, transgender; YA = young adult.
** $p < .01$. *** $p < .001$.

Table 2
Multigroup Factorial Invariance Comparisons

Model	χ^2	<i>df</i>	<i>p</i>	RMSEA	90% CI	NNFI	CFI	Constraint tenable
Configural	112.17	92	>.05	.031	[.000, .059]	.987	.991	
Weak	120.37	99	>.05	.032	[.000, .059]	.987	.990	Yes
Strong	158.06	106	<.05	.058	[.035, .079]	.971	.977	Yes

Note. RMSEA = root-mean-square error of approximation; CI = confidence interval; NNFI = nonnormed fit index; CFI = comparative fit index.

Table 3 shows the model fit indices for latent covariance, variance, and mean structure analyses. The latent variance and covariance structures could be equated, which allowed male and female participants to be combined into one group for all future analyses. Investigation of the latent mean structure indicated significant differences between male and female participants even though the means could be constrained to be equal. We calculated Cohen's *d* effect sizes for the mean difference scores on all latent constructs. In examining the difference in latent mean scores for the experience of LGBT school victimization, we found a medium effect size ($d = -0.66$) between male ($M = 0.00$) and female participants ($M = -0.61$). Differences in mean scores for male ($M_{\text{depression}} = 0.00$, $M_{\text{satisfaction}} = 0.00$) and female participants ($M_{\text{depression}} = -0.38$, $M_{\text{satisfaction}} = -0.58$) on depression ($d = -0.35$) and satisfaction ($d = 0.58$) are considered to be small to medium. The difference in reported adolescent gender nonconformity between male ($M = 0.00$) and female participants ($M = -0.07$) was minimal ($d = -0.06$). Similarly, the difference in reported adult gender nonconformity was minimal ($d = -0.09$, $M_{\text{male}} = 0.00$, $M_{\text{female}} = -0.09$).

After collapsing male and female participants into one group, the structural model was tested. The model achieved excellent model fit, $\chi^2(103, N = 245) = 147.19$, $p < .01$, root-mean-square error of approximation = .04 (.02|.06), nonnormed fit index = .97, comparative fit index = .99. Female and young adults from families with higher economic backgrounds reported less LGBT-related school victimization, whereas young adults who identified as queer, who were more out to others during high school, and who were White (non-Latino) reported more LGBT school victimization. Transgender young adults reported greater levels of adolescent and young adult gender nonconformity. Immigrants reported higher levels of depression, and female and young adults from higher economic backgrounds reported more life satisfaction. Outness to others during high school was associated with lower levels of depression and higher levels of life satisfaction. We found support for our first hypothesis: Higher levels of self-reported adolescent gender nonconformity were associated with more LGBT school victimization.

Model Findings: Hypothesis 3

Only the direct and indirect effects between latent constructs are shown on Figure 2 for clarity (see Table 4 for manifest variable factor loadings). The pathway between gender nonconformity and depression was mediated by the experience of LGBT school victimization ($z = 3.14$, $p < .01$). The proportion mediated (as calculated by the formula $a\beta/c$) is 43.95%. Likewise, the experience of LGBT school victimization mediated the pathway between gender nonconformity and life satisfaction ($z = -2.70$, $p < .01$).

The proportion mediated is 51.22%. The direct paths of adolescent gender nonconformity to both young adult outcomes were not significant. Thus, our third hypothesis was supported. The results indicate that gender nonconformity predicts victimization specific to perceptions of LGBT status and that victimization—not the characteristic of gender nonconformity—accounts for long-term psychosocial adjustment problems.¹

Finally, we replicated the model using the measure of school victimization due to other (non-LGBT) reasons. Results (available from the authors upon request) were distinctly different: School victimization for other reasons did not mediate the pathway between gender nonconformity and depression or between gender nonconformity and life satisfaction. These results further strengthen the conclusion that it is LGBT school victimization that accounts for compromised long-term psychosocial adjustment.

Discussion

Gender-nonconforming youth face many obstacles and challenges in school that they carry with them into young adulthood. This finding is consistent with a growing body of literature that suggests that adolescent experiences of gender-nonconforming and sexual minority individuals are important for understanding young adult health disparities among this population (Friedman et al., 2008; Sandfort et al., 2007). Consistent with previous studies (D'Augelli et al., 2006; Ma'ayan, 2003), the mean level of victimization experienced due to LGBT status in school was significantly different for boys and girls, with boys experiencing greater amounts of victimization at school. Also consistent with prior research and the minority stress model (D'Augelli et al., 2006; Friedman et al., 2006; Meyer, 1995, 2003; Morrow, 2004), victimization due to LGBT status was significantly associated with negative psychosocial adjustment. We also found that school victimization due to LGBT status between the ages of 13 and 19 fully accounts for the associations between gender nonconformity and young adult adjustment, measured as depression and life satisfaction. However, school victimization for other reasons does not mediate this association. On the other hand, we did not find support for our hypothesis that the strength between gender nonconformity and school LGBT victimization would be stronger for boys: The process through which early gender nonconformity

¹ We also tested the model without transgender participants. The findings (available upon request) were similar to the results based on the full sample (i.e., the indirect pathway was significant and all pathways were of similar strength and the same direction). On the basis of these results, and because our measure of LGBT school victimization was inclusive of transgender experiences, we present finding based on the full sample.

Table 3
Tests of Equivalence of Covariance, Variance, Latent Correlations, and Means

Model	χ^2	<i>df</i>	<i>P</i>	$\Delta\chi^2$	Δdf	<i>p</i>	Constraint tenable
Homogeneity of variances and covariances	134.67	114	>.05	14.30	15	>.05	Yes
Equality of variances	127.59	104	>.05	7.22	5	>.05	Yes
Equality of correlations	128.96	109	>.05	8.59	10	>.05	Yes
Equality of means	166.83	116	<.01	8.77	10	>.05	Yes

affects later psychosocial adjustment is similar for boys and girls. Overall, our results provide partial support for the minority stress model. We found that the negative impact of specifically homophobic school victimization continues into the young adult years and affects quality of life and capacity to enjoy life.

Because victimization due to perceived or actual LGBT status occurs within the school context, the results of this study have several implications for school administrators, teachers, school-based providers, and staff, as well as social service and mental health providers and other providers who directly work with LGBT and gender-nonconforming young people. Although boys experience victimization in school due to actual or perceived LGBT status and gender nonconformity at higher rates than girls, school policies and practices affect all students regardless of gender. Enactment of school policies that specifically prohibit victimization due to LGBT status, gender nonconformity, and other types of bias-related harassment can help reduce negative psychosocial outcomes in LGBT and gender-nonconforming young people. Thus, although it is clear that all victimization should be prohibited in schools, these findings specifically indicate the need for antibullying policies that enumerate categories often targeted by bullies.²

Recommendations for Safe Schools

In line with recent research and guidance on LGBT student safety (Chesir-Teran, 2003; Kosciw et al., 2008; O'Shaughnessy et al., 2004; Perrotti & Westheimer, 2001; Sausa, 2005), we recommend that schools implement policies and procedures to prevent harassment due to LGBT status and gender nonconformity. The most basic change schools can make includes adopting and implementing enumerated antiharassment policies to prevent harassment based on gender nonconformity and LGBT status. Antiharassment policies, however, need to have follow-up procedures and other policies and programs to further promote a safe school environment. Providing education about gender expression and LGBT issues to students, administrators, staff, and teachers is another key strategy for increasing safety in schools. Schools should provide the opportunity for a support or social group for gender-nonconforming and LGBT students, such as a Gay–Straight Alliance, to provide an institutional venue for social support, student involvement, and student voice (Goodenow, Szalacha, & Westheimer, 2006; Human Rights Watch, 2001). In fact, Goodenow et al. (2006) found that sexual minority youth in schools with Gay–Straight Alliances reported fewer suicide attempts than students without Gay–Straight Alliances in their schools. School administrators, teachers, and staff members should examine the physical structure of their schools to find new opportunities to create safer environments for gender-nonconforming and LGBT students

(Chesir-Teran, 2003). For example, providing gender-neutral bathroom options for students, staff, and teachers and avoiding the use of gendered segregation in practices such as school uniforms, school dances, and extracurricular activities are structural ways to provide safer school environments.

Limitations

This study has several limitations. Although we used the best sampling strategies available to reach stigmatized populations (Diamond, 2003), the results cannot establish causality and cannot be generalized to all gender-nonconforming youth in other settings outside California. The data collection was retrospective, which does not allow for measurements to be taken at unique data points (Frazier, Tix, & Barron, 2004). The order of measurements in the survey may have led to measurement bias because participants were asked to report retrospectively on prevalence of LGBT school-related victimization prior to being asked about their current life situations. This order of questions may have prompted respondents to report more negative psychosocial adjustment. Our methods attempt to establish temporal order by asking participants to report retrospectively on gender nonconformity and victimization while reporting current life adjustment. Although this is a potential concern, prior research has found that results of retrospective reports of school bullying are stable over time, a finding that gives us confidence that reports of adolescent school victimization were not overly influenced by young adult mental health (Rivers, 2001b). Another limitation of our construct of LGBT school victimization and our test of the minority stress model is that we do not have a measure of expectations of victimization; those who expect more victimization may report more victimization experiences.

Our focus on school victimization as the sole context for our measure of LGBT-related victimization and violence is limited. A more comprehensive approach to studying the mechanisms that place LGBT and gender-nonconforming youth at greater risk for concurrent and later psychosocial maladjustment would include experiences of victimization and rejection from multiple contexts (e.g., family, community, work). Our measurement of gender nonconformity is also limited in that it was assessed only with a single item. Future work could examine the associations among gender nonconformity, victimization experiences, and adjustment

² For example, the Safe Schools Improvement Act (H.R. 2262), currently under consideration by Congress, is the first proposed federal school antibullying law that includes enumerated categories. Currently 10 U.S. states have enumerated school antibullying laws designed to protect students based on sexual orientation and gender identity or expression.

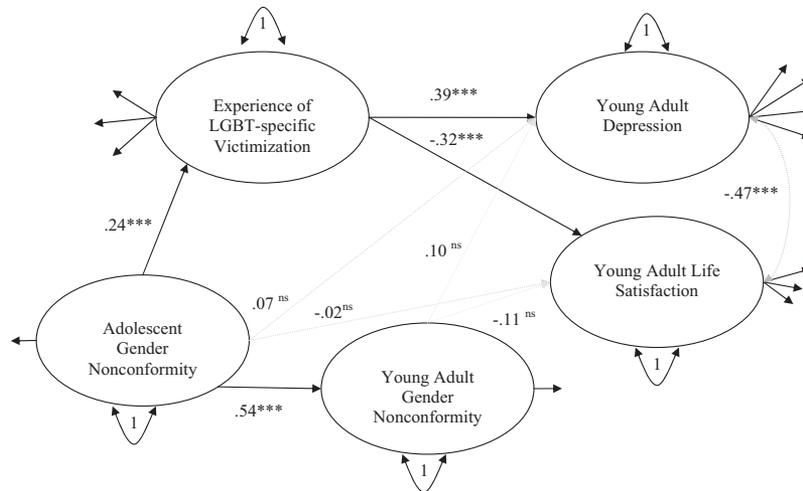


Figure 2. Model with standardized estimates.

from a multidimensional view of gender such as the one proposed by Egan and Perry (2001).

Conclusions

Despite the limitations, this study contributes new knowledge about the negative impact school victimization has for young adult well-being among gender-nonconforming LGBT young adults. Specifically, the direct effect of adolescent gender nonconformity on young adult adjustment was fully mediated by the experience of victimization. This finding is particularly important when framed in the context of the murder of Larry King (Pringle & Saillant, 2008). We acknowledge that this is only one recent example, but the media attention it received highlights growing public concern about the most extreme form of victimization that LGBT and gender-nonconforming youth experience in school. King's brutal experience with victimization because of his sexual orientation and

gender nonconformity ended with his teenage murder, but our findings indicate that the experience of victimization has lasting consequences that fully account for any previous association between gender nonconformity and young adult adjustment.

Prior to this study, the authors are aware of no other studies that have attempted to examine simultaneously the associations between gender nonconformity, LGBT school victimization, young adult depression, and life satisfaction. The results of this study warrant future research to examine other factors that may be crucial in the lives of LGBT youth in preventing negative psychosocial outcomes. For instance, what other factors influence the association between victimization and psychosocial outcomes: family acceptance, family rejection, peer support, or other life situations (e.g., socioeconomic status, quality of other relationships, personality factors)? Finally, future research should examine the school context to gain a deeper understanding of effective protective measures that schools use to prevent the victimization and harassment of LGBT and gender-nonconforming students.

Table 4

Unstandardized and Standardized Factor Loadings

Construct	Unstandardized (SE)	Standardized
Adolescent gender nonconformity	1.73 (0.08)	1.00
Adolescent LGBT school victimization		
Parcel 1	0.40 (0.02)	.94
Parcel 2	0.37 (0.02)	.87
Parcel 3	0.36 (0.02)	.88
Depression		
Positive affect	0.35 (0.02)	.80
Negative affect	0.35 (0.02)	.91
Somatic symptoms	0.31 (0.02)	.88
Interpersonal	0.27 (0.02)	.66
Young adult life satisfaction		
Parcel 1	0.36 (0.04)	.64
Parcel 2	0.41 (0.04)	.76
Parcel 3	0.36 (0.03)	.70
Young adult gender nonconformity	1.34 (0.06)	1.00

Note. All factor loadings are significant at $p < .001$. LGBT = lesbian, gay, bisexual, transgender.

References

- Carr, C. L. (2007). Where have all the tomboys gone? Women's accounts of gender in adolescence. *Sex Roles, 56*, 439–448.
- Carver, P. R., Yunger, J. L., & Perry, D. G. (2003). Gender identity and adjustment in middle childhood. *Sex Roles, 49*, 95–109.
- Chesir-Teran, D. (2003). Conceptualizing and assessing heterosexism in high schools: A setting-level approach. *American Journal of Community Psychology, 31*, 267–279.
- D'Augelli, A. R., Grossman, A. H., & Starks, M. T. (2006). Childhood gender atypicality, victimization, and PTSD among lesbian, gay, and bisexual youth. *Journal of Interpersonal Violence, 21*, 1462–1482.
- D'Augelli, A. R., Pilkington, N. W., & Hershberger, S. L. (2002). Incidence and mental health impact of sexual orientation victimization of lesbian, gay, and bisexual youths in high school. *School Psychology Quarterly, 17*, 148–167.
- Diamond, L. M. (2003). New paradigms for research on heterosexual and sexual-minority development. *Journal of Clinical Child and Adolescent Psychology, 32*, 490–498.
- Egan, S. K., & Perry, D. G. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology, 37*, 451–463.

- Ellis, K. M., & Eriksen, K. (2002). Transsexual and transgenderist experiences and treatment options. *Family Journal, 10*, 289–299.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*, 115–134.
- Friedman, M. S., Koeske, G. F., Silvestre, A. J., Korr, W. S., & Sites, E. W. (2006). The impact of gender-role nonconforming behavior, bullying, and social support on suicidality among gay male youth. *Journal of Adolescent Health, 38*, 621–623.
- Friedman, M. S., Marshal, M. P., Stall, R., Cheong, J., & Wright, E. R. (2008). Gay-related development, early abuse and adult health outcomes among gay males. *AIDS and Behavior, 12*, 891–902.
- Garofalo, R., Deleon, J., Osmer, E., Doll, M., & Harper, G. W. (2006). Overlooked, misunderstood and at-risk: Exploring the lives and HIV risk of ethnic minority male-to-female transgender youth. *Journal of Adolescent Health, 38*, 230–236.
- Goodenow, C., Szalacha, L., & Westheimer, K. (2006). School support groups, other school factors, and the safety of sexual minority adolescents. *Psychology in the Schools, 43*, 573–589.
- Graham, J. W., Cumsille, P. E., & Elek-Fisk, E. (2003). Methods for handling missing data. In J. A. Shrinka & W. F. Velicer (Eds.), *Handbook of psychology: Vol. 2. Research methods in psychology* (pp. 87–114). Hoboken, NJ: Wiley.
- Grossman, A. H., & D'Augelli, A. R. (2006). Transgender youth: Invisible and vulnerable. *Journal of Homosexuality, 51*, 111–128.
- Grossman, A. H., D'Augelli, A. R., Howell, T. J., & Hubbard, S. (2005). Parents' reactions to transgender youths' gender nonconforming expression and identity. *Journal of Gay and Lesbian Social Services, 18*, 3–16.
- Henning-Stout, M., James, S., & Macintosh, S. (2000). Reducing harassment of lesbian, gay, bisexual, transgender, and questioning youth in schools. *School Psychology Review, 29*, 180–191.
- Hill, J. P., & Lynch, M. E. (1983). The intensification of gender-related role expectations during early adolescence. In J. Brooks-Gunn & A. C. Petersen (Eds.), *Girls at puberty: Biological and psychosocial perspectives* (pp. 201–228). New York, NY: Plenum.
- Hill, S. E., & Flom, R. (2007). 18- and 24-month-olds' discrimination of gender-consistent and inconsistent activities. *Infant Behavior and Development, 30*, 168–173.
- Hoffman, J. (2009, November 6). Can a boy wear a skirt to school? *New York Times*. Retrieved from <http://www.nytimes.com>
- Human Rights Watch. (2001). *Hatred in the hallways: Violence and discrimination against lesbian, gay, bisexual, and transgender students in U.S. schools*. New York, NY: Author.
- Israel, G. E. (2005). Translove: Transgender persons and their families. *Journal of GLBT Family Studies, 1*, 53–67.
- Jöreskog, K. G., & Sörbom, D. (2006). LISREL 8.80 [Software]. Chicago, IL: Scientific Software International.
- Kenagy, G. P. (2002). HIV among transgendered people. *AIDS Care, 14*, 127–134.
- Kenagy, G. P. (2005). Transgender health: Findings from two needs assessment studies in Philadelphia. *Health & Social Work, 30*, 19–26.
- Kenagy, G. P., & Hsieh, C.-M. (2005a). Gender differences in social service needs of transgender people. *Journal of Social Service Research, 31*, 1–21.
- Kenagy, G. P., & Hsieh, C.-M. (2005b). The risk less known: Female-to-male transgender persons' vulnerability to HIV infection. *AIDS Care, 17*, 195–207.
- Kessels, U. (2005). Fitting into the stereotype: How gender-stereotyped perceptions of prototypic peers relate to liking for school subjects. *European Journal of Psychology of Education, 20*, 309–323.
- Kosciw, J. G., Diaz, E. M., & Greytak, E. A. (2008). *The 2007 national school climate survey: The experiences of lesbian, gay, bisexual and transgender youth in our nation's schools*. New York, NY: Gay, Lesbian and Straight Education Network.
- Lasser, J., & Tharinger, D. (2003). Visibility management in school and beyond: A qualitative study of gay, lesbian, bisexual youth. *Journal of Adolescence, 26*, 233–244.
- Little, T. D. (1997). Means and covariance structures (MACS) analyses of cross-cultural data: Practical and theoretical issues. *Multivariate Behavioral Research, 32*, 53–76.
- Little, T. D., Card, N. A., Slegers, D. W., & Ledford, E. C. (2007). Representing contextual effects in multiple-group MACS models. In T. D. Little, J. A. Bovaird, & N. A. Card (Eds.), *Modeling contextual effects in longitudinal studies* (pp. 121–148). Mahwah, NJ: Erlbaum.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9*, 151–173.
- Ma'ayan, H. D. (2003). Masculine female adolescents at school. *Equity and Excellence in Education, 36*, 125–135.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*, 83–104.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38–56.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*, 674–697.
- Morrow, D. F. (2004). Social work practice with gay, lesbian, bisexual, and transgender adolescents. *Families in Society, 85*, 91–99.
- Olweus, D. (1993). Victimization by peers: Antecedents and long-term outcomes. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 315–341). Hillsdale, NJ: Erlbaum.
- O'Shaughnessy, M., Russell, S., Heck, K., Calhoun, C., & Laub, C. (2004). *Safe place to learn: Consequences of harassment based on actual or perceived sexual orientation and gender non-conformity and steps for making schools safer*. San Francisco, CA: California Safe Schools Coalition.
- Oswald, R. F., Blume, L. B., & Marks, S. R. (2005). Decentering heteronormativity: A model for family studies. In V. L. Bengston, A. C. Acock, K. R. Allen, P. Dilworth-Anderson, & D. M. Klein (Eds.), *Sourcebook of family theory and research* (pp. 143–165). Thousand Oaks, CA: Sage.
- Perrotti, J., & Westheimer, K. (2001). *When the drama club is not enough: Lessons from the safe schools program for gay and lesbian students*. Boston, MA: Beacon Press.
- 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.
- Poulin-Dubois, D., Serbin, L. A., Eichstedt, J. A., Sen, M. G., & Beissel, C. F. (2002). Men don't put on make-up: Toddlers' knowledge of gender stereotyping of household activities. *Social Development, 11*, 166–181.
- Pringle, P., & Saillant, C. (2008, March 8). A deadly clash of emotions before Oxnard shooting. *Los Angeles Times*. Retrieved from <http://www.latimes.com>
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401.
- Radloff, L. S. (1991). The use of the Center for Epidemiologic Studies Depression Scale in adolescents and young adults. *Journal of Youth and Adolescence, 20*, 149–166.
- Rivers, I. (2001a). The bullying of sexual minorities at school: Its nature and long-term correlates. *Educational and Child Psychology, 18*, 32–46.
- Rivers, I. (2001b). Retrospective reports of school bullying: Stability of recall and its implications for research. *British Journal of Developmental Psychology, 19*, 129–142.
- Russell, S. T. (2005). Beyond risk: Resilience in the lives of sexual minority youth. *Journal of Gay and Lesbian Issues in Education, 2*, 5–18.

- Russell, S. T., & Joyner, K. (2001). Adolescent sexual orientation and suicide risk: Evidence from a national study. *American Journal of Public Health, 91*, 1276–1281.
- Ryan, C., & Rivers, I. (2003). Lesbian, gay, bisexual and transgender youth: Victimization and its correlates in the USA and UK. *Culture, Health & Sexuality, 5*, 103–119.
- Sandfort, T. G. M., Melendez, R. M., & Diaz, R. M. (2007). Gender nonconformity, homophobia, and mental distress in Latino gay and bisexual men. *Journal of Sex Research, 44*, 181–189.
- Sausa, L. A. (2005). Translating research into practice: Trans youth recommendations for improving school systems. *Journal of Gay and Lesbian Issues in Education, 3*, 15–28.
- Setoodeh, R. (2008, July 19). Young, gay and murdered. *Newsweek*. Retrieved from <http://www.newsweek.com>
- Skidmore, W. C., Linsenmeier, J. A. W., & Bailey, J. M. (2006). Gender nonconformity and psychological distress in lesbians and gay men. *Archives of Sexual Behavior, 35*, 685–697.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp. 290–312). Washington, DC: American Sociological Association.
- van Wormer, K., & McKinney, R. (2003). What schools can do to help gay/lesbian/bisexual youth: A harm reduction approach. *Adolescence, 38*, 409–420.
- Williams, T., Connolly, J., Pepler, D., & Craig, W. (2005). Peer victimization, social support, and psychosocial adjustment of sexual minority adolescents. *Journal of Youth and Adolescence, 34*, 471–482.
- Yunger, J. L., Carver, P. R., & Perry, D. G. (2004). Does gender identity influence children's psychological well-being? *Developmental Psychology, 40*, 572–582.

Received June 24, 2009

Revision received June 10, 2010

Accepted June 29, 2010 ■