

Social Support and Internalizing Psychopathology in Transgender Youth

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Abstract

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In recent years, an increasing number of families have allowed their children to socially transition to live in transgender identities; little is known about factors associated with such children's wellbeing. The present work tests the association between gender-related support and internalizing symptoms in socially transitioned transgender youth. We examined whether parent-reported family support, peer support, school support, and an objective measure of state-level support were associated with internalizing symptoms in 265 transgender youth, ages 3-15. We also examined whether each form of support moderated the association between gender-related victimization experiences and internalizing symptoms. This work exemplifies that, even among transgender children who are largely supported in their identities, support for a transgender child's gender identity and expression is associated with greater wellbeing.

A small proportion of children persistently and consistently assert that they feel a sense of incongruence between their assigned sex at birth and their felt gender identity (De Vries & Cohen-Kettenis 2012; Spack et al., 2012). Historically, such children have exhibited markedly elevated risk for psychopathology, particularly symptoms of anxiety and depression (Holt et al., 2016; Steensma et al., 2014; Wallien et al., 2007). The high levels of psychopathology among such children mirror extremely high rates found in transgender and gender nonconforming adults (Bockting et al., 2013; Budge et al., 2013; Hoffman 2014). Identifying factors that may protect against the development of internalizing psychopathology is of critical importance for this vulnerable group.

Despite ongoing debate in the scientific and clinical communities about how to respond to children who identify as the gender typically thought to be “opposite” their assigned sex at birth (De Vries & Cohen-Kettenis 2012; Zucker et al., 2012; Edwards-Leeper et al., 2016), in recent years some parents have allowed their children who make such assertions to socially transition (Malpas 2011; Ehrensaft et al., 2018). Social transitions typically involve a process of changing the child’s pronouns, name, hairstyle, and clothing in order to allow the child to live as their felt gender. The first research studies of socially transitioned transgender children, spanning ages 3-14 years, found that these children have low rates of psychopathology, with levels of anxiety and depression that are in the normal range based on both child and parent reports (Durwood et al., 2017; Hill et al., 2010; Kavalanka et al., 2017; Olson et al., 2016). Because children who are allowed to socially transition typically have families who are highly supportive of their gender identities and expressions, researchers and popular press reporters have posited that high levels of support for these children’s identities may be responsible for their lower levels of internalizing symptoms (Kavalanka et al., 2017; Turban & Ehrensaft 2018; The Guardian

2016; NPR 2016; ThinkProgress 2017). Importantly, the role of support for a person's gender identity has also been described in qualitative work and in personal narratives from transgender authors articulating the emotional impact of being seen and accepted as the gender with which they identify (Boylan 2013; Devor 2004; Mock 2014). Thus, though the link between social support for a child's gender identity and internalizing symptoms has been suggested across a variety of mediums, the association has not been tested empirically in young, socially transitioned transgender youth. We do so in the current report.

In general, social support is thought to protect against psychopathology through both a direct pathway, whereby greater social support is associated with better mental health, as well as through a stress buffering pathway, such that higher levels of social support attenuate the harmful effects of stressful experiences like bullying and discrimination on mental health (Cohen & Willis 1985; Cohen 2004). Via the direct pathway, social support is thought to promote positive adjustment regardless of whether someone is experiencing stress, through for example increasing one's self-esteem and sense of belonging (Berkman et al., 2000; Cohen 1985). Via the stress buffering pathway, social support is thought to play a role only when a person is experiencing stress by providing the person with appropriate supports to cope and, in doing so, protecting against the harmful effects of those stressors (Cohen 2004; Kawachi & Berkman 2001). Though the present work is focused on a specific kind of support—support for one's gender identity and expression—rather than social support more broadly, one would imagine that this kind of support operates in a similar fashion. A transgender child who experiences high levels of support for their gender identity might feel higher esteem about being transgender and feel a greater sense of belonging in their social contexts. Further, transgender children who experience minority stress (Hatzenbuehler 2009; Meyer 2013)—or, stress related to having a

minority identity, like gender-related prejudice and discrimination—might be protected from the emotional effects of these stressful experiences by the presence of individuals and structures who are supportive of their gender identities.

In broader sexual minority samples, as well as in some samples of transgender adolescents and young adults, evidence indeed indicates that social support from a variety of sources—specifically family, peers, school, and state-level laws and policies—may have a direct association with internalizing symptoms, with higher levels of support from these sources being associated with lower levels of symptoms. Family support is associated with lower levels of internalizing symptoms in transgender adolescents and young adults, whereas family rejection is associated with greater internalizing symptoms (Grossman et al., 2011; Simons et al., 2013; Yadegarfar et al., 2014). Peer support in lesbian, gay, and bisexual (LGB) youth is also associated with lower levels of internalizing symptoms (Sheets & Mohr 2009; Shilo & Savaya 2011; Williams et al., 2005). Support within schools (e.g., the presence of supportive policies and resources like Gay Straight Alliances) is associated with fewer depressive symptoms and suicide attempts and in sexual minority students (Hatzenbuehler et al., 2014; Heck et al., 2013; Toomey et al., 2011). Finally, work with LGB adolescents and young adults finds that more supportive state laws and policies for sexual minorities are predictive of lower levels of psychopathology (Hatzenbuehler et al., 2009; Hatzenbuehler et al., 2010). Thus, at many levels we see evidence of a correlation between greater social support and better mental health among LGB youth. We expect to find a similar pattern among transgender youth, although empirical work examining social support and mental health in this population is lacking.

In addition to the direct association between social support and mental health outcomes, social support may protect against internalizing symptoms by buffering against the harmful

effects of victimization experiences like bullying and discrimination, which are common among sexual and gender minority youth and strongly associated with internalizing psychopathology (Almeida et al., 2009; Kosciw et al., 2012; McLaughlin et al., 2012; Russell et al., 2011; Varjas et al., 2008). When this potential moderating effect has been examined in sexual minority youth samples, results are mixed. In one study with LGB adolescents and young adults, social support for a youth's sexuality buffered against the effects of sexuality-related stress on a measure of emotional distress (Doty et al., 2010), and in another study, the association between victimization and mental health problems in LGBT young adults was reduced among those who had high levels of family support (Hershberger & D'Augelli 1995). A study on the effect of Gay Straight Alliance (GSA) participation in LGBT youth found that participation in a GSA buffered against the association between LGBT school victimization and depression, but only when levels of victimization were low (Toomey et al., 2011). On the other hand, other work with LGB adolescents and young adults failed to find that either family support or peer support moderated the association between victimization experiences and emotional distress (Mustanski et al., 2011). Still other work suggests that the presence of this buffering effect may depend on where the support is coming from. In one study, high family support but not peer support was associated with lower cortisol levels in sexual minority young adults after a stress-inducing task (Burton et al., 2014); in another study, school support but not family support buffered against the association between homophobic bullying and depression (Espelage et al., 2008). We know of no research to date examining whether social support attenuates the association of victimization experiences with internalizing psychopathology in transgender youth specifically.

In the present work, we examine both the direct association between social support for one's gender identity and internalizing symptoms, as well as the potential buffering role of social

support for one's gender identity against the association between victimization experiences and internalizing symptoms in transgender youth. We do so using parent report in a large sample of socially transitioned transgender youth, ages 3-15. First, we test the hypothesis that greater social support for a transgender child's gender identity/expression from a variety of different sources—family, peers, school, and state-level laws and policies—will be associated with lower levels of internalizing symptoms. Next, we examine whether support for one's gender identity from each of these sources moderates the association between gender-related victimization experiences—specifically, gender-related bullying and discrimination—and internalizing symptoms, with the hypothesis that support at each of these levels will attenuate the association of victimization experiences with internalizing symptoms. To our knowledge, this work is the first test of these questions in a sample of socially transitioned transgender youth.

Method

Participants

Participants signed up for the present study as part of recruitment for a large, ongoing, national study of transgender and gender nonconforming youth in North America. Families signed up to participate either via an email address or through a website, which were advertised through vehicles like support groups, camps, word of mouth, and press coverage. Parents of all children enrolled in the broader research study were invited to complete the present measures via an online survey, which was sent out in February 2017 ($n = 371$ children at that time).

To be included in the present study, children had to use the pronoun “opposite” their assigned sex at birth (if the child was assigned male at birth and uses “she/her” pronouns, or if the child was assigned female at birth and uses “he/him” pronouns) in all contexts and to have at least one parent who filled out the relevant measures. This yielded 357 parent informants for 265

child participants. Of these 265 children, 173 had one parent respondent and 92 had two parent respondents. If a child had two parent responders, parent's responses were averaged.

Families participating in the present survey came from 39 US states, and two participants came from Canada. The children in the sample ranged from age 3-15, $M = 9.41$, $SD = 2.62$. The sample is predominantly white and high socio-economic status, and it included about twice as many transgender girls (assigned male at birth) as transgender boys (assigned female at birth). See Table 1 for demographics.

Parents responded to the present measures as part of a battery of other measures that took approximately 30-60 minutes to complete. Informed consent was gathered prior to administering the survey. Parents were compensated with a \$5 gift card for their time. The Institutional Review Board of [Institution redacted for review] approved all study procedures.

Measures

Family Support. Parents were asked to report on how accepting various family members are/were of the child's gender/gender presentation on a scale of 1-7, (1 being "unaccepting," 7 being "fully accepting"), or they could select "not applicable." "Not applicable" responses were removed for analysis.

Parents rated levels of acceptance of the child's gender/gender presentation from each of the following family members: the parent completing the survey, the child's other parent (if applicable), the parent's spouse or partner (if applicable and if different from the child's other parent), the child's sibling(s), and the child's extended family. Current and initial acceptance were gauged with separate questions pertaining to each family member: (1) "How accepting of your child's gender/gender presentation is your child's [family member] currently?" and (2)

“How accepting was your child’s [family member] when your child’s gender nonconforming behaviors first began to emerge?”

If the relevant family member(s) was not aware that the child was transgender, parents were not asked to report on that person’s level of acceptance. Awareness of the child’s gender/gender presentation was gauged by a previous question, “Does your child’s [family member] know that your child is gender nonconforming or transgender?” with the options “yes, all of them know,” “yes, some of them know,” and “no.” If the parent responded that “no,” the person or group was not aware, then the parent was not asked to report on how accepting that person or group is/was. If the parent responded that “yes, some of them know” that the child is transgender, the parent was asked to answer the acceptance questions with only those who did know that the child is transgender in mind.

Current and initial levels of acceptance from each family member were averaged first, then those values were average to create one Family Support score. If a child had two parent responders, the two Family Support scores were then averaged.

Peer Support. Parents were asked to report on how accepting various of the child’s peers are/were of the child’s gender/gender presentation on a scale of 1-7, (1 being “unaccepting,” 7 being “fully accepting”), or they could select “not applicable.” “Not applicable” responses were removed for analysis.

For peer support, parents rated levels of acceptance of the child’s gender/gender presentation from each of the following groups: close friends and peers, other peers, and peers’ parents. Current and initial acceptance were gauged with separate questions pertaining to each group: (1) “How accepting of your child’s gender/gender presentation is your child’s [peer

group] currently?” and (2) “How accepting was your child’s [peer group] when your child’s gender nonconforming behaviors first began to emerge?”

If the relevant peer group(s) was not aware that the child was transgender, parents were not asked to report on that group’s level of acceptance. Awareness of the child’s gender/gender presentation was gauged by a previous question, “Does your child’s [peer group] know that your child is gender nonconforming or transgender?” with the options “yes, all of them know,” “yes, some of them know,” and “no.” If the parent responded that “no,” the group was not aware, then the parent was not asked to report on how accepting that group is/was. If the parent responded that “yes, some of them know” that the child is transgender, the parent was asked to answer the acceptance questions with only those who did know that the child is transgender in mind.

Current and initial levels of acceptance from each peer group were averaged first, then those values were average to create one Peer Support score. If a child had two parent responders, the two Peer Support scores were then averaged.

School Support. Parents were asked to report how accepting the child’s teacher(s) are/were of the child’s gender/gender presentation, both currently and initially, again on a scale of 1-7, or they could select “not applicable.” “Not applicable” responses were removed for analysis. Current and initial levels of teacher acceptance were averaged. Similar to the family/peer support questions, if the child’s teacher(s) was/were not aware that the child is transgender, parents were not asked to report how accepting the teacher(s) was/were of the child’s gender/gender presentation. Awareness was gauged by a previous question, as was done for family members/peers.

The remaining school support items were not asked if parents indicated on a previous question that their child was either homeschooled or too young to be in school (parent 1: n = 16, parent 2: n = 8).

Parents were asked to indicate how satisfied they were overall with the child's school's treatment of their child's gender identity/expression, again on a scale of 1-7 (1 being "very unsatisfied," 7 being "very satisfied").

Parents completed an 11-item checklist indicating whether the school provided various supports related to their child's gender identity. Example items from the school checklist include: "the school has an anti-bullying and harassment policy that specifically mentions gender identity and/or expression," "the school has discussed gender diversity with the school community (e.g., a letter to parents, parent information night, assemblies, etc.)," "attendance lists and/or school documents reflect my child's preferred gender," "my child is allowed to use their preferred bathroom (female, male, gender neutral)," and "my child is allowed to participate in sports and clubs according to their preferred gender." For each item on the school checklist, parents could respond "yes," "no," or "not sure." "Not sure" responses were removed for analysis. One checklist score was computed for each parent by dividing the number of yes responses by the number of no responses.

These three values (teacher acceptance, overall parent satisfaction, and the school checklist score) were then standardized and averaged to create one School Support score. If a child had two parent responders, the two School Support scores were then averaged.

State-Level Support. An objective variable representing state-level support was computed using 6 state laws that are relevant to transgender youth, as identified by the Movement Advancement Project organization ("Mapping Transgender Equality in the United States,"

2017). The six laws and policies that were coded to create the State-Level Support variable were as follows: (1) whether state non-discrimination laws include gender identity as a protected class; (2) whether state anti-bullying laws prohibit bullying on the basis of gender identity; (3) whether states require foster parents to attend a training about gender identity; (4) whether states ban conversion therapy on the basis of gender identity; (5) whether states have a “don’t say gay” law, which prohibit schools from discussing LGBT issues with students; and (6) whether states ban non-discrimination laws that protect gender identity.

The first two laws/policies were coded on a 0-4 scale for how supportive they are of transgender youth with higher scores indicating more support for transgender youth, as indicated by the Movement Advancement Project organization, (“Conversion Therapy Laws,” 2017; “Foster and Adoption Laws,” 2017; “Safe Schools Laws,” 2017). The remaining laws were coded on a binary scale, with 0 indicating less support and 1 indicating more support for transgender youth (“Safe Schools Laws,” 2017). These scores were then standardized and averaged to create one State-Level Support score for each state. Standardizing each of the six items and then averaging them to create one score for each state yielded a total of 14 different variables representing the supportiveness of the 39 states represented in the present work.

Victimization. Parents were asked whether their child had ever experienced gender-related bullying and were given the options “never,” “seldom,” “sometimes,” “often” and “I don’t know.” “I don’t know” responses were removed for analysis. Parents were also asked whether their child has ever experienced gender-related discrimination at school and were given yes/no options. Parents’ responses to these two items were standardized and then averaged to create one Victimization Score. If a child had two parent responders, the two Victimization Scores were then averaged.

Internalizing Symptoms. Parents filled out the NIH PROMIS Scales for Anxiety and Depression, parent proxy short forms (Varni et al., 2012). These scales ask parents to respond to 8 items about their child’s anxiety symptoms and 6 items about their child’s depression symptoms in the past 7 days. Example items for anxiety included “My child felt nervous,” and “My child felt scared.” Example items for depression included “My child felt sad,” and “My child felt like everything in his/her life went wrong.” Responses were provided on a 5-point Likert scale ranging from “never” to “almost always.”

Parent responses were summed and then converted to T-scores, with 50 representing the national average and 10 representing one standard deviation. Anxiety and Depression T-scores were averaged to create one Internalizing Score. If a child had two parent responders, the two Internalizing Scores were then averaged.

Data Analysis

Four regression models were estimated to test the association between each type of support (family support, peer support, school support, and state-level support) and internalizing symptoms, controlling for age and gender. An FDR correction was used to correct for four comparisons. Because some of the support variables were correlated with one another (specifically, the family support, peer support, and school support variables; see Table 3 for correlations between variables), a hierarchical multiple regression model was then conducted to determine whether each source of support explained additional variance over and above other sources. To do this, a five-stage hierarchical multiple regression was conducted, and the types of support were entered in to the model in order from most immediate sources of support to most distal. The covariates age and gender were entered in at Stage 1 of the model, followed by family

support at Stage 2, peer support at Stage 3, school support at Stage 4, and state-level support at Stage 5.

To gauge whether each type of support (family, peer, school, and state-level) buffered against the association between victimization and internalizing symptoms, a regression model was first estimated to test the association between victimization and internalizing symptoms, controlling for age and gender. Then, four regression models were estimated to test whether each type of support moderated the association between victimization and internalizing symptoms, controlling for age and gender. An FDR correction was used to correct for four moderation tests. Significant interactions were then probed and plotted at multiple levels of the moderator (McCabe et al., 2018).

Results

Descriptive Statistics

On average, the children in the present sample experienced high levels of support for their gender identities, relatively low levels of gender-related victimization, and had internalizing symptoms in the normal range. See Table 2 for means and standard deviations of all analytic variables by child gender, and see Table 3 for bivariate correlations between all analytic variables.

Social Support and Internalizing Symptoms

Three of the four sources of social support were negatively associated with internalizing symptoms. Greater family support was associated with fewer internalizing symptoms, $\beta = -0.20$, $p = .002$. Similarly, higher levels of peer support, $\beta = -0.28$, $p < .001$, and school support, $\beta = -0.16$, $p = .014$, were also associated with fewer internalizing symptoms. State-level support was not associated with internalizing symptoms, $\beta = .01$, $p = .91$.

When all levels of support were entered into a hierarchical regression model, family support accounted for 4.7% of the variance in internalizing symptoms after adjustment for age and gender, $F_{change}(1, 246) = 12.28, p = .001$. Peer Support accounted for an additional 4.0% of variance in internalizing symptoms after accounting for family support as well as age and gender, $F_{change}(1, 245) = 10.97, p = .001$. School Support, $F_{change}(1, 244) = .35, p = .56$, and State-Level support, $F_{change}(1, 243) = .02, p = .88$, did not significantly explain additional variance in internalizing symptoms above and beyond the stages preceding them. See Table 4 for all regression statistics of the hierarchical model.

Interactions of Social Support and Victimization

Victimization experiences were positively associated with internalizing symptoms, $\beta = .33, p < .001$.

Peer support moderated the association between victimization and internalizing symptoms, $\beta = -0.17, p = .020$. Family support, school support, and state-level support did not moderate this association, though the school support moderation effect was marginally significant (family support: $\beta = -0.06, p = .34$; school support $\beta = -0.16, p = .055$; state-level support $\beta = -0.07, p = .34$).

Simple slopes for the associations between victimization and internalizing symptoms were examined at very low (-1.5 SD), low (-.75 SD), mean, high (+.75 SD) and very high (+1.5 SD) levels of peer support. This revealed a positive association between victimization and internalizing symptoms at very low, low, and mean levels of peer support (very low: $\beta = 0.41, 95\% CI = [0.23, 0.59]$; low: $\beta = 0.30, 95\% CI = [0.16, 0.44]$; mean: $\beta = 0.19, 95\% CI = [0.06, 0.32]$), but no association between victimization and internalizing symptoms at high levels and

very high levels of peer support (high: $\beta = 0.08$, 95% CI = [-0.08, 0.25]; very high: $\beta = -0.02$, 95% CI = [-0.24, 0.19]). Figure 1 displays simple slopes.

Discussion

In the present work, we found that family support, peer support, and school support for a child's gender identity/expression were each associated with lower levels of internalizing symptoms in transgender youth ages 3-15, while state-level support was not. In addition, peer support for a child's gender identity/expression moderated the association between gender-related victimization and internalizing symptoms. Not surprisingly, gender-related victimization experiences were associated with higher levels of internalizing symptoms; however, for youth with high levels of peer support, the association between victimization experiences and internalizing symptoms disappeared. Although these data are correlational and causal claims cannot be made, these findings suggest that support for a child's gender identity might play a protective role against the development of internalizing psychopathology among transgender youth.

In the present work, higher levels of support from family, peers, and the child's school were each associated with lower levels of internalizing symptoms, which is consistent with prior work with LGB samples (Grossman et al., 2011; Hatzenbuehler et al., 2014; Heck et al., 2013; Sheets & Mohr 2009; Shilo & Savaya 2011; Simons et al., 2013; Toomey et al., 2011; Williams et al., 2005; Yadegarfar et al., 2014). We extend this prior work by demonstrating associations between social support specifically related to gender identity and internalizing symptoms among young transgender youth, a group at notoriously high risk for internalizing psychopathology.

Our finding that state-level support for a child's gender identity was not associated with psychopathology in the present sample does not align with work with LGB adolescents and

young adults indicating that state laws protecting sexual minorities are associated with lower levels of psychopathology (Hatzenbuehler et al., 2009; Hatzenbuehler et al., 2010). This may be because children in this sample are protected from the instrumental effects of some unsupportive state laws (e.g., anti-bullying laws that do not protect on the basis of gender identity) by more proximal supportive entities (e.g., schools that protect transgender students from bullying regardless of state laws). Further, it is possible that some of our participants, who are as young as three in this sample, are not aware of their state laws, thus protecting them from the emotional impact of unsupportive laws. The present finding, indicating that state-level support for young transgender youth is not associated with internalizing symptoms, is potentially promising for families living in states that do not have adequate protections for transgender youth. In other words, transgender children who have high levels of support from family, peers, and school, do not appear to have elevated levels of internalizing psychopathology even in states that are not supportive of transgender youth, at least in our sample.

In addition to the direct associations between social support and internalizing symptoms, we also found that peer support attenuated the association between gender-related victimization experiences and internalizing psychopathology. Our test of whether school support moderated this association was marginally significant, which warrants future tests of the same question in other samples. Given that evidence for a stress buffering role of social support is mixed across samples of sexual minority youth (Burton et al., 2014; Doty et al., 2010; Espelage et al., 2008; Hershberger & D'Augelli 1995; Toomey et al., 2011; Mustanski et al., 2011), this work provides preliminary evidence that amongst transgender youth specifically, gender-related support specifically from peers may be important in buffering against the harmful effects of gender-related victimization. The fact that peer support for one's gender was the only kind of support

that played a buffering role in this sample could reflect aspects of the specific victimization experiences gauged in the present work. Prior work on the stress buffering role of social support indicates that a critical factor in support acting as a buffer is a person's perception that they would have *appropriate* support available to them if they needed it (Cohen 2004). Given that bullying and school-based discrimination were used to capture victimization experiences in this sample, and that these particular victimization experiences likely often occur in the presence of peers, it is possible that peer support played a significant buffering role because peer support is a particularly appropriate form of support to a child experiencing these forms of victimization.

These findings are particularly notable given the young age of this sample, and because the present work examined gender-specific support rather than social support more broadly. While one might imagine that general social support would be beneficial to all youth, the question of whether children should be supported in transgender identities continues to be a matter of debate (Drescher & Pula 2014; Ehrensaft et al., 2018). Often, the hypothesized protective role of support for a child's gender identity/expression is weighed against other factors (e.g., whether a child is likely to continue identifying as transgender as an adult), though until now there hasn't been empirical evidence for the association between gender-related support and psychopathology in very young samples. Despite the inherent limitations in any specific study, our results do provide suggestive early evidence that support for transgender children's gender identity appears to be associated with lower levels of anxiety and depression.

The transgender youth in the present study are by and large supported in their gender identities and expression, and they likely experience victimization that is less frequent and less severe than transgender youth more broadly. These characteristics represent both a strength and a limitation of this study. On the one hand, the fact that the variables were constrained makes this

work a conservative test of the role of social support for a transgender child's gender identity. On the other hand, these findings may be limited in the degree to which they can be extended to other samples, given that some studies indicate that the specific mix of sources from which a child experiences support (e.g., from family only, from friends but not from family, etc.) and the severity of the victimization they experience (e.g., teasing vs. physical violence) may influence the associations of interest here. One study found that LGBT youth with non-family support only (e.g., support from friends but not family) had overall worse outcomes than those with high overall support, and were mostly indistinguishable from youth with no support (McConnell et al., 2015). Thus, it may be the case that non-family support only protects against psychopathology when family support is also in place. Other work suggests that possibility that support may only buffer against the harmful effects of victimization when victimization is mild (Hershberger and D'Augelli 1995; Toomey et al., 2011); when youth experience frequent, severe forms of victimization, support may not be able to buffer against deleterious outcomes. Thus while this study and others broadly indicate that social support is associated with lower levels of psychopathology in sexual and gender minority youth, the present authors caution against extending the specific pattern of results reported here to other samples, given that the associations of interest in the present study may be dependent on the specific mix of support sources available to youth, as well as on the severity of the victimization that youth experience.

Another key limitation of this work is the correlational design, which precludes inferences that support *caused* lower levels of psychopathology. The same is true for the interactions between support and victimization. Although we interpret these findings to reflect a potential stress buffering role of peer support, another possible explanation is that children whose

internalizing symptoms are not significantly associated with victimization experiences are also children who are more likely to elicit support from their peers.

A final limitation of the present work is its reliance on parent report. Parent report was used here so that it could include young transgender youth (as young as age 3 in the present sample), who are too young to fill out an online survey. It is possible, however, that children's views of how much gender-related support they experience, and/or their reports of their symptoms of anxiety and depression, would differ from those of their parents. Indeed, in broader clinical samples, parents often underreport internalizing symptoms in their children, presumably because these are internal experiences that may not be obvious to parents (Achenbach et al., 1987; Cantwell et al., 1997; De Los Reyes et al., 2005). On the other hand, parent report is commonly used to gauge psychopathology as well as peer relationships in children (Achenbach 1994; Reynolds & Kamphaus 2002), and work with transgender children specifically has found similar results when using parent vs. child report (Durwood et al., 2017; Olson et al., 2016).

As a final note on the limitations of using parent report in this sample—given that transgender youth are a marginalized group, it is particularly important that work with this population include the reports of transgender youth themselves. Thus, while the present questions in a sample as young as the present one may not be possible to examine without parent report, it is critical that this work be replicated with older transgender youth utilizing youth's own reports.

Conclusions

The present work indicates that family support, peer support, and school support for a child's gender identity are associated with lower levels of internalizing symptoms in transgender youth. Moreover, peer support for one's gender identity may help to protect youth from the

association between gender-related victimization and internalizing symptoms. While this work warrants replication with longitudinal data and in samples who experience less overall support for their gender identities, this work suggests possible mental health benefits of families, peers, and schools supporting a transgender child's gender identity.

References

- Achenbach TM, McConaughy SH, Howell CT. Child/adolescent behavioral and emotional problems: implications of cross-informant correlations for situational specificity. *Psychol Bull.* 1987; 101:213.
- Achenbach, T. M. (1994). *Child Behavior Checklist and related instruments.*
- Almeida, J., Johnson, R. M., Corliss, H. L., Molnar, B. E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of youth and adolescence*, 38(7), 1001-1014.
- Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social science & medicine*, 51(6), 843-857.
- Bockting, W. O., Miner, M. H., Swinburne Romine, R. E., Hamilton, A., & Coleman, E. (2013). Stigma, mental health, and resilience in an online sample of the US transgender population. *American journal of public health*, 103(5), 943-951.
- Boylan, J. F. (2013). *She's not there: A life in two genders.* Broadway Books.
- Budge, S. L., Adelson, J. L., & Howard, K. A. (2013). Anxiety and depression in transgender individuals: the roles of transition status, loss, social support, and coping. *Journal of consulting and clinical psychology*, 81(3), 545.
- Burton, C. L., Bonanno, G. A., & Hatzenbuehler, M. L. (2014). Familial social support predicts a reduced cortisol response to stress in sexual minority young adults. *Psychoneuroendocrinology*, 47, 241-245.
- Cantwell DP, Lewinsohn PM, Rohde P, Seeley JR. Correspondence between adolescent report and parent report of psychiatric diagnostic data. *J Am Acad Child Adolesc Psychiatry.* 1997; 36:610-619.
- Cohen, S. (2004). Social relationships and health. *American psychologist*, 59(8), 676.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin*, 98(2), 310.
- “Conversion Therapy Laws.” (2017, March 24). Retrieved from http://lgbtmap.org/equality-maps/conversion_therapy.
- De Los Reyes A, Kazdin AE. Informant discrepancies in the assessment of childhood psychopathology: a critical review, theoretical framework, and recommendations for further study. *Psychol Bull.* 2005; 131:483.
- De Vries, A. L., & Cohen-Kettenis, P. T. (2012). Clinical management of gender dysphoria in children and adolescents: the Dutch approach. *Journal of homosexuality*, 59(3), 301-320.
- Devor, A. H. (2004). Witnessing and mirroring: A fourteen stage model of transsexual identity formation. *Journal of Gay & Lesbian Psychotherapy*, 8(1-2), 41-67.

- Doty, N. D., Willoughby, B. L., Lindahl, K. M., & Malik, N. M. (2010). Sexuality related social support among lesbian, gay, and bisexual youth. *Journal of Youth and Adolescence*, 39(10), 1134-1147.
- Drescher, J., & Pula, J. (2014). Ethical Issues Raised by the Treatment of Gender-Variant Prepubescent Children. *Hastings Center Report*, 44(s4), S17-S22.
- Durwood, L., McLaughlin, K. A., & Olson, K. R. (2017). Mental health and self-worth in socially transitioned transgender youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(2), 116-123.
- Edwards-Leeper, L., Leibowitz, S., & Sangganjanavanich, V. F. (2016). Affirmative practice with transgender and gender nonconforming youth: Expanding the model. *Psychology of Sexual Orientation and Gender Diversity*, 3(2), 165.
- Ehrensaft, D., Giammattei, S. V., Storck, K., Tishelman, A. C., & Keo-Meier, C. (2018). Prepubertal social gender transitions: What we know; what we can learn—A view from a gender affirmative lens. *International Journal of Transgenderism*, 1-18.
- Espelage, D. L., Aragon, S. R., Birkett, M., & Koenig, B. W. (2008). Homophobic teasing, psychological outcomes, and sexual orientation among high school students: What influence do parents and schools have?. *School psychology review*, 37(2), 202-217.
- Ford, Z. (2017, February 17). Trans kids massively benefit from being allowed to socially transition. Retrieved from <https://thinkprogress.org/trans-kids-socially-transition-study-529f34c1bb3b/>
- “Foster and Adoption Laws.” (2017, March 24). Retrieved from http://lgbtmap.org/equality-maps/foster_and_adoption_laws.
- Grossman, A. H., D'augelli, A. R., & Frank, J. A. (2011). Aspects of psychological resilience among transgender youth. *Journal of LGBT Youth*, 8(2), 103-115.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychological bulletin*, 135(5), 707.
- Hatzenbuehler, M. L., Birkett, M., Van Wagenen, A., & Meyer, I. H. (2014). Protective school climates and reduced risk for suicide ideation in sexual minority youths. *American journal of public health*, 104(2), 279-286.
- Hatzenbuehler, M. L., Keyes, K. M., & Hasin, D. S. (2009). State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American journal of public health*, 99(12), 2275-2281.
- Hatzenbuehler, M. L., McLaughlin, K. A., Keyes, K. M., & Hasin, D. S. (2010). The impact of institutional discrimination on psychiatric disorders in lesbian, gay, and bisexual populations: A prospective study. *American journal of public health*, 100(3), 452-459.

- Heck, N. C., Flentje, A., & Cochran, B. N. (2013). Offsetting risks: High school gay-straight alliances and lesbian, gay, bisexual, and transgender (LGBT) youth. *School Psychology Quarterly*, 26(2), 161–174.
- Hershberger, S. L., & D'augelli, A. R. (1995). The impact of victimization on the mental health and suicidality of lesbian, gay, and bisexual youths. *Developmental psychology*, 31(1), 65.
- Hill, D. B., Menvielle, E., Sica, K. M., & Johnson, A. (2010). An affirmative intervention for families with gender variant children: Parental ratings of child mental health and gender. *Journal of sex & marital therapy*, 36(1), 6-23.
- Hoffman, B. (2014). An overview of depression among transgender women. *Depression research and treatment*, 2014.
- Holpuch, A. (2016, February 26). 'Crucial' study of transgender children links mental health with family support. Retrieved from <https://www.theguardian.com/society/2016/feb/26/crucial-study-transgender-children-mental-health-family-support>
- Holt, V., Skagerberg, E., & Dunsford, M. (2016). Young people with features of gender dysphoria: Demographics and associated difficulties. *Clinical child psychology and psychiatry*, 21(1), 108-118.
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban health*, 78(3), 458-467.
- Kosciw, J. G., Greytak, E. A., Bartkiewicz, M. J., Boesen, M. J., & Palmer, N. A. (2012). The 2011 National School Climate Survey: The experiences of lesbian, gay, bisexual, and transgender youth in our nation's schools. New York, NY: GLSEN. *GLSEN, New York*.
- Kuvalanka, K. A., Weiner, J. L., Munroe, C., Goldberg, A. E., & Gardner, M. (2017). Trans and gender-nonconforming children and their caregivers: Gender presentations, peer relations, and well-being at baseline. *Journal of Family Psychology*, 31(7), 889.
- Malpas, J. (2011). Between pink and blue: A multi-dimensional family approach to gender nonconforming children and their families. *Family Process*, 50(4), 453-470.
- McCabe, C., Kim, D., & King, K. (2018). Improving Present Practices in the Visual Display of Interactions. *Advances in Methods and Practices in Psychological Science*, 1(2), 147-165.
- McConnell, E. A., Birkett, M. A., & Mustanski, B. (2015). Typologies of social support and associations with mental health outcomes among LGBT youth. *LGBT health*, 2(1), 55-61.
- McLaughlin, K. A., Hatzenbuehler, M. L., Xuan, Z., & Conron, K. J. (2012). Disproportionate exposure to early-life adversity and sexual orientation disparities in psychiatric morbidity. *Child abuse & neglect*, 36(9), 645-655.
- Meyer, I. H. (2013). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence.

Mock, J. (2014). *Redefining realness: My path to womanhood, identity, love & so much more*. Simon and Schuster.

“Mapping Transgender Equality in the United States.” (2017, February). Retrieved from <http://www.lgbtmap.org/mapping-trans-equality>.

Mustanski, B., Newcomb, M. E., & Garofalo, R. (2011). Mental health of lesbian, gay, and bisexual youths: A developmental resiliency perspective. *Journal of gay & lesbian social services*, 23(2), 204-225.

Olson, K. R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137(3), e20153223.

Reynolds, C. R., & Kamphaus, R. W. (2002). *The clinician's guide to the Behavior Assessment System for Children (BASC)*. Guilford Press.

Russell, S. T., Ryan, C., Toomey, R. B., Diaz, R. M., & Sanchez, J. (2011). Lesbian, gay, bisexual, and transgender adolescent school victimization: Implications for young adult health and adjustment. *Journal of School Health*, 81(5), 223-230.

“Safe Schools Laws.” (2017, March 24). Retrieved from http://lgbtmap.org/equality-maps/safe_school_laws.

Sheets Jr, R. L., & Mohr, J. J. (2009). Perceived social support from friends and family and psychosocial functioning in bisexual young adult college students. *Journal of Counseling Psychology*, 56(1), 152.

Shilo, G., & Savaya, R. (2011). Effects of family and friend support on LGB youths' mental health and sexual orientation milestones. *Family Relations*, 60(3), 318-330.

Simons, L., Schrage, S. M., Clark, L. F., Belzer, M., & Olson, J. (2013). Parental support and mental health among transgender adolescents. *Journal of Adolescent Health*, 53(6), 791-793.

Spack, N. P., Edwards-Leeper, L., Feldman, H. A., Leibowitz, S., Mandel, F., Diamond, D. A., & Vance, S. R. (2012). Children and adolescents with gender identity disorder referred to a pediatric medical center. *Pediatrics*, peds-2011.

Spitzer, G. (2016, April 11). Parent Support May Help Transgender Children's Mental Health. Retrieved from <https://www.npr.org/sections/health-shots/2016/04/11/473292576/parent-support-may-help-transgender-childrens-mental-health>

Steensma, T. D., Zucker, K. J., Kreukels, B. P., VanderLaan, D. P., Wood, H., Fuentes, A., & Cohen-Kettenis, P. T. (2014). Behavioral and emotional problems on the Teacher's Report Form: A cross-national, cross-clinic comparative analysis of gender dysphoric children and adolescents. *Journal of abnormal child psychology*, 42(4), 635-647.

Toomey, R. B., Ryan, C., Diaz, R. M., & Russell, S. T. (2011). High school gay-straight alliances (GSAs) and young adult well-being: An examination of GSA presence, participation, and perceived effectiveness. *Applied developmental science*, 15(4), 175-185.

- Turban, J. L., & Ehrensaft, D. (2018). Research review: gender identity in youth: treatment paradigms and controversies. *Journal of Child Psychology and Psychiatry*, 59(12), 1228-1243.
- Varjas, K., Dew, B., Marshall, M., Graybill, E., Singh, A., Meyers, J., & Birckbichler, L. (2008). Bullying in schools towards sexual minority youth. *Journal of school violence*, 7(2), 59-86.
- Varni, J. W., Thissen, D., Stucky, B. D., Liu, Y., Gorder, H., Irwin, D. E., ... & DeWalt, D. A. (2012). PROMIS® Parent Proxy Report Scales: an item response theory analysis of the parent proxy report item banks. *Quality of Life Research*, 21(7), 1223-1240.
- Wallien, M. S., Swaab, H., & Cohen-Kettenis, P. T. (2007). Psychiatric comorbidity among children with gender identity disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(10), 1307-1314.
- 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(5), 471-482.
- Yadegarfar, M., Meinhold-Bergmann, M. E., & Ho, R. (2014). Family rejection, social isolation, and loneliness as predictors of negative health outcomes (depression, suicidal ideation, and sexual risk behavior) among Thai male-to-female transgender adolescents. *Journal of LGBT Youth*, 11(4), 347-363.
- Zucker, K. J., Wood, H., Singh, D., & Bradley, S. J. (2012). A developmental, biopsychosocial model for the treatment of children with gender identity disorder. *Journal of homosexuality*, 59(3), 369-397.

Fig. 1 *The Association between Victimization and Internalizing Symptoms at Varying Levels of Peer Support*

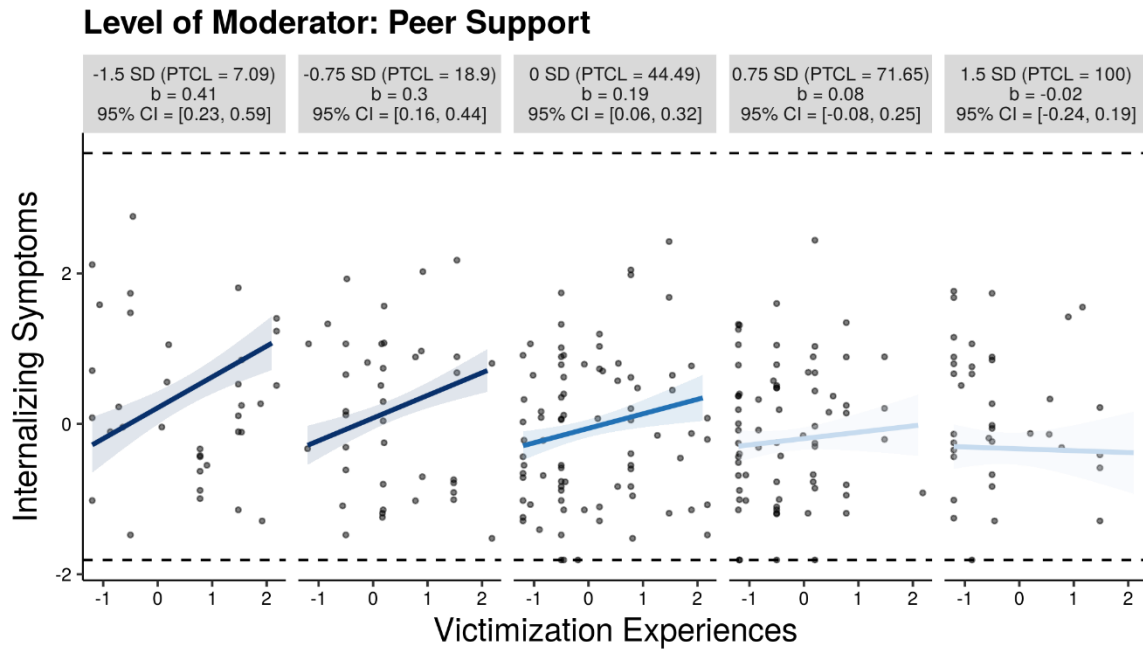


Table 1.

Sample Demographics

Gender, %	
Boys (assigned female at birth)	32.8%
Girls (assigned male at birth)	67.2%
Race/ethnicity, %	
White	69.8%
Multiracial	24.2%
Asian	3.4%
Black	1.5%
Other	1.2%
Age in years, M (SD)	9.41 (2.62)
Annual Household Income, %	
<\$25,000	2.6%
\$25,001 - \$50,000	7.5%
\$50,001 - \$75,000	18.1%
\$75,001 - \$125,000	29.4%
>\$125,000	42.3%
Geographic Region, %	
Pacific Northwest	21.9%
Midwest and Upper Plains	18.5%
Pacific South	17.0%
Northeast	15.8%
Southeast	14.3%
Mountain West	12.5%

Table 2.

Means and Standard Deviations for All Variables by Gender.

	Transgender boys total n = 87			Transgender girls total n = 178		
	n	M	SD	n	M	SD
Family support	87	5.74	0.78	178	5.73	0.71
Peer support	84	5.88	0.86	170	5.73	0.93
School support	86	0.09	0.62	177	-0.04	0.77
State Support	87	-0.07	0.68	176	0.03	0.66
Victimization Experiences	87	-0.09	0.75	177	0.02	0.85
Bullying	82	2.04	0.83	173	2.08	0.85
Discrimination	87	1.30	0.41	177	1.37	0.46
Internalizing Symptoms	87	52.06	9.16	178	51.11	8.71
Anxiety	87	52.45	10.51	178	51.05	10.14
Depression	87	51.68	9.29	178	51.17	8.65

Table 3.

Uncorrected Bivariate Correlations Between All Variables.

	Family support	Peer support	School support	State Support	Victimization
Family support					
Peer support	0.53**				
School support	0.33**	0.45**			
State Support	-0.04	-0.04	0.08		
Victimization	-0.08	-0.37**	-0.40**	0.01	
Internalizing	-0.19**	-0.28**	-0.15*	0.00	0.33**

* $p < .05$, two-tailed

** $p < .01$, two-tailed

Table 4.

Hierarchical Regression Model Showing Associations between Family Support, Peer Support, School Support, State-Level Support, and Internalizing Symptoms.

	Model 1	Model 2	Model 3	Model 4	Model 5
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Age	0.12 (.02)	0.14 (.02)*	0.11 (.02)	0.11 (.02)	0.11 (.02)
Gender	-0.04 (.59)	-0.03 (.57)	-0.06 (.57)	-0.06 (.57)	-0.06 (.57)
Family Support		-0.22 (.73)**	-0.09 (.86)	-0.08 (.86)	-0.08 (.87)
Peer Support			-0.24 (.70)**	-0.23 (.74)**	-0.23 (.74)**
School Support				-0.04 (.82)	-0.04 (.82)
State Support					-0.01 (.80)
ΔR^2	0.02	0.05	0.04	0.001	.000
F for ΔR^2	2.16	12.28**	10.97**	0.35	0.02

* $p < .05$

** $p < .01$