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Gender expansive youth disclosure and mental health: Clinical implications of gender identity disclosure

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Abstract

Some healthcare providers work with gender expansive youth, and preliminary evidence notes that many of these youth do not disclose their gender identity to all of their healthcare providers. No previous research focused on youth has explored gender identity disclosure to healthcare providers, nor linked youth disclosure to negative mental health outcomes (e.g., symptoms of depression). Data were drawn from the *LGBTQ National Teen Survey* in order to test the relationship between gender identity disclosure, symptoms of depression, and self-esteem among 5,637 13- to 17-year old (M_{age} = 15.6) participants who identified as transgender boys, transgender girls, non-binary youth who were assigned female at birth (AFAB), or assigned male non-binary youth who were assigned male at birth (AMAB). Transgender boys reported the highest symptoms of depression and the lowest levels of self-esteem in comparison to other groups. Among the full sample, 66.8% had not disclosed their gender identity healthcare providers —non-binary AMAB youth were least likely to disclose (77.6%). Symptoms of depression were the highest and self-esteem was the lowest for transgender boys with mixed levels of disclosure. Transgender girls reported the lowest symptoms of depression – these youth had also disclosed their identities the most. Findings suggest that mixed disclosure to healthcare providers is problematic for gender expansive youth, especially transgender boys. Findings suggest a need to better prepare health professionals to understand not all gender expansive youth may feel comfortable disclosing their gender identities in medical contexts. Future research should explore gender affirmative healthcare as a potential protective factor in combatting negative mental health outcomes.

Keywords

Gender identity; transgender; non-binary; healthcare

Gender expansive (e.g., transgender, non-binary) youth are consistently faced with the decision of whether or not to disclose their gender identity to people within their lives (Savin-Williams & Dubé, 1998). As it relates to their healthcare, gender expansive youth

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must decide if sharing their gender identity with their provider (e.g., pediatricians, therapists, social workers, psychologists) will provide them with gender identity-related support (e.g., potentially obtaining hormones or gender affirmation surgery). Consequently, these decisions to disclose or not to disclose may be linked to gender expansive mental health outcomes. A dearth of scholarship has explored gender expansive youth mental health (e.g., symptoms of depression) in terms of gender identity disclosure to healthcare providers. There is, however, limited literature that examines mental health outcomes as they exist amongst gender expansive subgroups (For an exception, Pflum, et al., 2015).

Gender Minority Stress

Scholarship focused on gender identity and mental health is oftentimes situated within the context of minority stress. The minority stress model (Meyer, 2003) was developed to focus on the potential negative life outcomes and adverse experiences that are associated with cisgender sexual minority individuals. Minority stress is explained as chronic stress associated with stigmatization, discrimination, and socio-cultural pressures (Meyer, 2003) experienced by sexual minority and gender expansive people. Another model that explains the health of gender minorities, in particular, is the gender minority stress and resilience (GMSR) model (Hendricks & Testa, 2012; Testa et al., 2015). This model draws from Meyer's minority stress model (Meyer, 1995, 2003) and explores the ways in which external (i.e., distal) and internal (i.e., proximal) stressors related to gender expansive identity can impact the mental health and well-being of gender expansive people (Hendricks & Testa, 2012; Testa et al., 2017). Specifically, the GMSR model proposes that chronic stress can result from such external processes such as gender minority-based victimization, rejection, discrimination, and identity non-affirmation (Hendricks & Testa, 2012; Testa et al., 2015). Gender minority-based victimization involves any act (e.g., verbal, physical) committed against a gender minority individual due to their gender identity or expression. Gender minority-based rejection involves any form of rejection due to the gender identity of an individual. Gender minority-based discrimination involves the hardships of obtaining social services, employment, medical care, or legal representation due to an individual's gender identity. Last, gender identity non-affirmation describes the refusal of individuals or society to acknowledge an individual's true gender identity. Hendricks and Testa (2012) convey that these external (i.e. distal) experiences can contribute to internal (i.e., proximal) stress-induced experiences such as negative expectations, internalized transphobia, and non-disclosure of gender identity. Several studies have conveyed that internalized transphobia can be associated with poor coping skills (Mizock & Mueser, 2014) and may compound mental health issues (Breslow et al., 2015). Last, gender identity non-disclosure is the behavior of concealing one's true gender identity as a means of protection from discrimination and harassment (Hendricks, & Testa, 2012; Testa et al., 2017; Testa et al., 2015).

Minority stress manifests as discrimination and victimization for many gender expansive youth. Relative to their cisgender peers, gender expansive youth report more discrimination, stigmatization, and victimization (i.e., bullying; Boza & Nicholson Perry, 2014; Goldblum et al., 2012), and are at a two- to three-fold greater risk for symptoms of depression (Reisner et al., 2015), anxiety (Reisner et al., 2015), and suicidal ideation (Reisner et al., 2015; Testa et

al., 2017). Given these findings, it seems that gender affirmative care by healthcare providers could have significant influence on the mental health outcomes among gender expansive youth (i.e., depression, self-esteem).

Gender Identity Disclosure

Gender expansive youth are now disclosing their gender identities more frequently and at younger ages, due, in part, to the accessibility and importance of social media in everyday life (Bethea & McCollum, 2013; Maguen, Shipherd, Harris, & Welch, 2007). Disclosing to healthcare providers is not always possible for gender expansive youth and in some situations may put a youth in danger or at higher risk for rejection. After all, previous research finds the decision not to disclose gender identity can create stressful experiences (Galupo et al., 2014; Pachankis et al., 2015), such as anxiety about others learning of one's identity before one is ready to share, decisions concerning whom to disclose, and feeling separated from one's true identity (Pachankis, 2007). Previous research has also suggested that situations in which gender expansive identity disclosure is received with positivity and support is associated with greater self-acceptance (Pachankis, 2007), self-confidence (Riggle, Rostosky, McCants, & Pascale-Hague, 2011), and better mental health outcomes (Strain & Shuff, 2010). These distinctions, however, do not ignore the fact that "coming out is a socially complex process that is mitigated by too many contextual factors to be understood linearly or moralistically" (Klein et al., 2015, p. 324).

Gender expansive individuals experience a combination of negative and positive feelings during the process of identity disclosure (Bethea & McCollum, 2013) which ultimately may lead to non-disclosure— including feeling obligated to disclose and being bothered by the unpredictability of the disclosure process. In positive experiences, individuals may experience a feeling of freedom that results after their gender identity disclosure. In one study, gender expansive individuals reported experiencing internal and/or external stressors when they felt an obligation to disclose their gender identity to their family and friends (Bethea, & McCollum, 2013). Among these gender expansive individuals, one main reason for avoiding disclosure was related to the anticipation of social rejection. Gender expansive individuals reported that despite their preparedness to disclose, they were uncertain about the way in which the recipient would react (Bethea & McCollum, 2013).

Scholarship finds that of the gender expansive individuals who seek treatment for healthcare and mental health-related issues, not all choose not to disclose their gender identity to healthcare providers, in part due to the anticipation of transphobic rejection (Rossman, Salamanca, & Macapagal, 2017). Other youth do not disclose because of the dangers associated with non-supportive social networks (Mills-Koonce, Rehder, & McCurdy, 2018; Pflum, Testa, Balsam, Goldblum, Bongar, 2015); thus, disclosure simply may not be an option for some youth. Some studies have found that gender expansive individuals experience gender identity-based discrimination by health care providers (Buxton, 2006; Glynn & van den Berg, 2017; Hines, 2006; Lev 2004; Wren, 2002), which may explain why some of these gender expansive youth continue not to disclose their identities.

Disclosure to healthcare providers.

Previous studies note several themes with regard to negative experiences of gender identity disclosures to healthcare providers. Specifically, 21% of gender expansive patients described experiencing some form of discrimination that included micro-aggressions (Lambda Legal, 2010) including outright refusal of treatment (Lambda Legal, 2010; Poteat et al., 2013; Rossman, Salamanca, & Macapagal, 2017). In their study that explored gender expansive patient's reasons for non-disclosure to healthcare providers, Rossman and colleagues (2017) identified three main themes: Healthcare providers' factors in non-disclosure, patients' resistance to disclosure, and patients' beliefs regarding the connection between their gender identity and their healthcare needs (Rossman, Salamanca, & Macapagal, 2017). Some gender expansive individuals have described the disclosure of a gender expansive identity to a healthcare provider as a difficult experience (Rossman, Salamanca, & Macapagal, 2017). If gender expansive youth are seeking puberty-blocking medication or hormones but doctors are not practicing gender affirmative care, there may be miscommunication and subsequently a lack of gender expansive-inclusive care.

Current Study

We sought to explore gender identity disclosure to healthcare providers as a means to understand whether there are connections between (non-)disclosure and symptoms of depression and self-esteem among gender expansive subgroups. No previous scholarship has examined the potential associations between disclosure to healthcare providers and negative mental health outcomes. The present study addresses three questions to build upon current gender expansive literature: *1) Do symptoms of depression and self-esteem differ by gender identity?; 2) Does gender identity disclosure to health care providers differ by gender expansive identity?; and 3) Do symptoms of depression and self-esteem differ by gender identity disclosure to health care providers?*

Method

Study Design and Participant Recruitment

We utilized data from the *LGBTQ National Teen Survey*, which was specifically designed to advance the understanding of victimization, health behaviors, and family relationships of LGBTQ adolescents. Data were collected in partnership with the Human Rights Campaign (HRC) between April and December 2017. All respondents were English-speaking, identified as LGBTQ, 13–17 years of age, and resided in the United States at the time of the survey.

LGBTQ adolescents were invited to participate in an anonymous, online, self-report survey hosted by the survey website Qualtrics.com. The online survey platform prevented bots from taking the survey, and the authors employed multiple data cleaning measures such as the identification and deletion of mischievous responders (see Watson, Wheldon, & Puhl, 2019 for an overview of the survey process), Participants were recruited through social media, along with HRC's wide-reaching network of community partners. Specifically, the HRC posted Facebook messages and Twitter messages with a short message and link to the

Qualtrics survey. Some advertisements also included photos of diverse young teens. HRC partner organizations (e.g., Youth Link, Trevor Project, Advocates for Youth) helped disseminate the survey link to their networks via e-mail or direct communication. For their participation, respondents were given the option to enter a drawing for one of 10 Amazon.com gift cards, and all participants were offered HRC wristbands. All study procedures were approved by the University of Connecticut Institutional Review Board protocol #16–809.

Sample

This project utilized data from a larger sample of 17,112 (M = 15.57, SD = 1.27) sexual and/or gender minority 13 to 17-year-old youth across the United States who completed the *LGBTQ National Teen Survey*. Overall, 5,637 (33%) teens indicated they were transgender. Additionally, 2,396 (14%) of the sample chose “non-binary” as their gender identity. To categorize gender minority youth, we used a combination of the sex assigned at birth and current gender identity information (see Measures below). Only participants with valid responses on survey questions were included within our analysis (n = 3624).

Respondents represented diverse subgroups of LGBTQ adolescents from all 50 states across the US. The ethnic/racial composition of our sample of 3,624 Gender expansive youth was 68% White (n = 2461), 3.1% Black (n = 111), 0.6% Native American (n = 22), 2.9% Asian American (n = 106), 8.1% Hispanic/Latino (n = 294), 15.5% Bi/multiracial (n = 560), and 1.9% of participants (n = 67) indicated another race that was not listed.

Measures

The online survey created for this study assessed the following topics: sex, gender identity, gender identity disclosure (e.g., being “out” to various contexts), symptoms of depression, and levels of self-esteem.

Sex assigned at birth.

Participants were asked, “What sex were you assigned at birth?” Response options were “male” and “female”.

Gender identity.

Given the growing consideration for multiple gender identities (Hendricks & Testa, 2012; Carroll, Gilroy, & Ryan, 2002; Eyler, 2007; Saeed, Mughal, Farooq, 2017) we asked participants to choose among several different gender identity options. Thus, participants were asked, “What is your current gender identity”. Response options included *boy, girl, trans boy, trans girl, non-binary, genderqueer/gender non-conforming, and different identity*, with a *write-in response*. For the purposes of this study, participants whose sex assigned at birth and gender identities were coincident were coded as cisgender. Youth who wrote in responses to this item were back-coded when appropriate (e.g., if a youth wrote in “trans” or “transgender” they were categorized with their respective gender identity category. Youth who reported a binary gender identity that was different from from their sex assigned at birth were coded as transgender. Participants who identified a non-binary gender identity were

coded in respect to their sex assigned at birth: non-binary assigned male at birth (AMAB) and non-binary assigned female at birth (AFAB).

Degree of disclosure (outness).

Studies indicate greater vulnerability for victimization when gender expansive youth are out (D'Augelli, Grossman, Starks, 2008; Russell et al., 2014), therefore, identity disclosure to healthcare providers were assessed by a scale adapted from the Outness Inventory Scale (OIS; Mohr & Fassinger, 2000). Questions asked, "For each of the following groups, how many people currently do you think know of your transgender or non-binary identity?" Respondents were able to report the degree of outness to healthcare providers, which included: *None* (0), *A few* (1), *Some* (2), *Most* (3), and *All* (4). In addition, respondents could choose an option that indicated "Does not apply to me". A total of 396 participants chose this option. The OIS has demonstrated good internal consistency and was positively correlated with identification among LGBT communities (Mohr & Fassinger, 2000). Though the original scale included 12 contexts of disclosure (i.e., family members/parents, siblings, grandparents and extended family, LGBTQ friends, non-LGBTQ friends, classmates, co-workers, teachers and adults at school, athletic coaches, religious community, new acquaintances, and doctors/other healthcare providers), this project included three contexts in particular: "family members/parents", "LGBTQ friends", and "doctors and other health care providers".

Depression.

The measure for symptoms of depression was adapted from Kutcher's Adolescent Depression Scale. The 10-items used to measure symptoms of depression include regularity of "Low mood, sadness, feeling down," "Irritability," "Sleep difficulties," "Decreased interest in activities," "Feelings of worthlessness," "Feeling tired or having low energy," "Difficulty concentrating", "Loss of interest in previously enjoyed activities," "Feeling worried," as well as "Physical symptoms of worry" (i.e., headaches, nausea, restlessness). The rating scale included the time-frame (0) *Hardly Ever*, (1) *Much of the Time*, (2) *Most of the Time*, and (3) *All of the Time*. The reported scores will represent the mean symptoms of depression. In the current sample, the coefficient alpha was .90.

Self-Esteem.

The measure for self-esteem was modified from the Rosenberg Self-Esteem Scale (Rosenberg, 1989). This modified 10-item scale asked participants to rate their agreement with statements such as "I feel that I am a person of worth, at least on an equal plane as others," "All in all, I am inclined to feel that I am a failure," "I am able to do things as well as most other people," and "I take a positive attitude towards myself." Respondents rated their agreement with positive or negative statements using a 4-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*). Higher scores reflected higher levels of self-esteem. The mean reported self-esteem scores give an estimate level of self-esteem. In the current sample, the Cronbach's alpha was .91.

Plan of Analysis

Analyses were conducted in SPSS v15. Data were analyzed for missing values and outliers —in this paper we used data from participants who were not missing on all study variables. Across all variables, missingness ranged from 6.1% to 12.8%. Nearly all (92%) youth without full responses to every survey item had terminated the survey early; most of these early terminations only filled out the demographic portion of the survey. Our final sample (N = 7050) of LGBTQ and of gender expansive (N = 3624) youth is representative of those youth who provided valid responses on all study variables. We first used ANOVAs to distinguish whether or not cisgender youth differed from gender expansive youth in levels depression and self-esteem. We then used MANCOVAs, adjusted for age and two contexts of disclosure (i.e., out to family members/parents, out to LGBTQ friends), to model the association between disclosure to health care providers and depression/self-esteem.

Results

The sample demographics are reported in Table 1. On average, youth were 15.57 (SD = 1.27) years old. Nine-hundred and three (24.9%) youth were transgender boys, 122 (3.4%) transgender girls, 237 (6.5%) non-binary AMAB, and 2362 (65.2%) non-binary AFAB youth. Additionally, 22.0% (n = 2,335) youth identified as cisgender males and 44.5% (n = 4,715) as cisgender girls. Table 1 displays the samples' demographic information by gender identity.

Our first research question involved determining whether there were differences in mental health outcomes (i.e., symptoms of depression and self-esteem) between cisgender and gender expansive youth. We found a difference in symptoms of depression [F(1, 10121) = 742.93, p = .001, μ^2 = .068] and self-esteem [F(1, 10121) = 808.83, p < .001, μ^2 = .074] when comparing cisgender youth to gender expansive youth. Tukey post hoc analyses indicated that symptoms of depression among gender expansive youth (M = 16.003 SD = 7.30) were higher (p < .05) compared to cisgender youth (M = 11.91, SD = 7.25). Similarly, the mean score for level of self-esteem among gender expansive youth (M = 22.63, SD = 9.07) was different, and consequently much lower (p < .05), than levels of self-esteem among cisgender youth (M = 28.33, SD = 9.95).

Next, we tested whether these differences held across groups of gender expansive youth. Within-group differences were found when comparing gender expansive symptoms of depression [F(3, 3142) = 15.10, p < .001, μ^2 = .014] and self-esteem [F(3, 3142) = 16.28, p < .001, μ^2 = .015]. Specifically, Tukey post hoc analyses indicated that symptoms of depression among transgender boys were higher (M = 16.97, SD = 7.51, p < .05) compared to all other gender expansive subgroups (see Table 2). Additionally, there were differences in depressive symptoms between non-binary AFAB youth (M = 16.06, SD = 7.09) and all other subgroups (p < .05), as well as between non-binary AMAB youth (M = 13.43, SD = 7.37) and transgender boys (M =16.97, SD = 7.51) and non-binary AFAB youth (M = 16.06, SD = 7.10) at the p < .001 level.

Transgender boys reported lower levels of self-esteem ($M = 21.73$, $SD = 9.21$), compared to transgender girls ($M = 25.24$, $SD = 10.28$, $p < .05$) and non-binary AMAB youth ($M = 26.31$, $SD = 9.70$, $p < .001$). Non-binary AFAB youth ($M = 22.45$, $SD = 8.77$) also reported lower self-esteem than transgender girls ($M = 25.24$, $SD = 10.28$, $p < .05$) and non-binary AMAB youth ($M = 26.31$, $SD = 9.70$, $p < .001$).

Our second research question asked whether disclosure of gender identity to health professionals differed between subgroups of gender expansive youth. Table 3 presents these findings. We found that disclosure to healthcare providers significantly differed by gender identity, [$F(3, 3142) = 44.50$, $p < .001$, $\mu^2 = .041$]. Tukey Post hoc comparisons indicated that transgender girls ($M = 1.35$, $SD = 1.61$) disclosed their gender expansive identity to healthcare professionals more often than non-binary AMAB ($M = .44$, $SD = .65$) and AFAB ($M = .65$, $SD = 1.23$) youth, while only disclosing marginally more than transgender boys ($M = 1.22$, $SD = 1.52$). Specifically, transgender girls disclosed most, and non-binary AMAB youth disclosed their gender identities least to healthcare providers.

Our third research goal was to examine the correlation between gender identity disclosure to healthcare providers and mental health symptoms (depression, self-esteem) among gender expansive youth. These results are presented in Figure 1. There was a significant difference between disclosure and depressive symptoms as determined by a MANCOVA (adjusted for age, disclosure to family members/parents, and LGBTQ friends), [$F(4, 3142) = 2.87$, $p < .05$, $\mu^2 = .004$]. Similarly, differences in self-esteem and disclosure were also significant [$F(4, 3142) = 6.07$, $p < .001$, $\mu^2 = .008$]. Tukey post hoc tests revealed that gender expansive symptoms of depression were statistically higher ($p < .05$) for disclosure to “A few” healthcare providers ($M = 16.71$, $SD = 7.01$) when compared to disclosure to “All” healthcare providers ($M = 15.13$, $SD = 7.68$). Symptoms of depression were highest among gender expansive youth who disclosed to “Some” healthcare providers ($M = 16.94$, $SD = 7.66$), and symptoms of depression were significantly lowest for youth who had disclosed to “All” or “Most” of their healthcare providers ($M = 15.13$, $SD = 7.68$; $M = 15.48$, $SD = 7.68$, respectively) when compared to “Some”. Results were similar for self-esteem and disclosure: Tukey post hoc analyses indicated self-esteem was statistically significantly higher ($p < .01$) for disclosure to “All” healthcare providers ($M = 24.29$, $SD = 10.28$) compared to disclosure to “None” ($M = 22.35$, $SD = 8.81$) and “A few” ($M = 21.78$, $SD = 8.77$).

Discussion

Gender expansive adolescents represent a unique and distinctly heterogeneous population of youth within the United States who are not well understood by healthcare providers or the scientific community. Our scholarship continues to bridge the gap between research and clinical practice for gender expansive youth. Before exploring within-group differences among gender expansive youth, we compared symptoms of depression and levels of self-esteem between gender expansive and cisgender youth. We found that gender expansive youth faced differences in mental health across measures of symptoms of depression and self-esteem when compared to cisgender youth. These findings are supported by previous research that also conveys the existence of greater mental health disparities between gender

expansive and cisgender youth (Benotsch et al., 2013; Cochran & Cauce, 2006; Day et al., 2017; Hughes & Eliason, 2002; Lombardi, 2010; Nemoto et al., 2004; Nuttbrock et al., 2014; Peacock, Andrinopoulos, & Hembling, 2015; Reisner et al., 2015; Reisner & Murchison, 2016; Santos et al., 2014; Wolf & Dew, 2012). These findings enhance our growing knowledge of negative mental health outcomes faced by gender expansive youth by utilizing large-scale population comparisons. The significant risks highlighted in these findings underscore the need for further attention to gender affirmative healthcare protocols for doctors, nurses, and therapists alike.

Within-group differences of symptoms of depression and levels of self-esteem were also meaningful when comparing these measures among gender identity subgroups. Specifically, transgender boys reported the highest symptoms of depression and the lowest levels of self-esteem, and transgender girls reported the lowest symptoms of depression when compared to all other gender expansive subgroups. These findings are consistent with previous studies that identified transgender boys as exhibiting more negative mental health outcomes among gender expansive youth (Veale et al., 2017).

Our review of gender identity disclosure to healthcare providers among gender expansive youth also indicated subgroup and age-related trends. Among our sample, two-thirds of gender expansive youth had not disclosed their gender identity to healthcare providers, and less than one-tenth had disclosed to all of their healthcare providers. Non-disclosure to healthcare providers was highest among non-binary AMAB youth, with non-binary AFAB youth close behind. Transgender boys reported highest levels of mixed gender identity disclosure (out to some, but not all) to healthcare providers when compared to gender expansive subgroups, and transgender girls had the highest levels of overall disclosure to healthcare providers.

Non-disclosure amongst non-binary youth has been identified as problematic (Veale et al., 2017). Considering the GMSR model (Hendricks, & Testa 2012; Testa et al., 2015), higher levels of foregoing gender identity disclosure to healthcare providers and notably worse mental health outcomes among non-binary youth may be due to the compounded stress and stigma of not conforming to traditional (Western) binary gender role categories (Skidmore et al., 2006; Veale et al., 2017). This is not to say that some gender expansive youth do not benefit from concealing their gender identity within their social environments. For some youth, their safety may be compromised after disclosing their identity. For these youth, to conceal is to remain safe.

Age-related comparisons: Gender identity disclosure

When we separated disclosure to healthcare providers by age, we found that younger adolescents (13- and 14-year olds) had disclosed their gender identities to fewer healthcare providers than their older gender expansive peers. These findings may indicate that an increased level of maturity, confidence, and/or positive life experiences relative to gender expansive age are necessary for increased disclosure to healthcare providers. Our findings suggested that older gender expansive youth disclosed more to healthcare providers than their younger-aged peers. One caveat within these findings was among transgender girls' disclosure to healthcare providers compared to other gender expansive subgroups. While

transgender girls exhibit the highest levels of disclosure to healthcare providers, they are the only subgroup to display decreasing rates of full disclosure when disclosure is isolated by age. This suggests that transgender girls are disclosing less to healthcare providers as they get older. This evidence is supported by previous research that suggests that transgender youth, particularly transgender girls, experience increased anxiety and distress as they age (Edwards-Leeper et al., 2017), and thus may be less apt to disclose their gender identity. Further research is needed to explore the possibility of increased negative life experiences among transgender girls as they get older.

As we examined gender identity disclosure to healthcare providers and symptoms of depression among gender expansive youth, we found that symptoms of depression were highest for mixed disclosure (out to some, but not all), whereas symptoms of depression were lowest for disclosure to all healthcare providers. This suggests a negative relationship between disclosure and symptoms of depression. Similarly, self-esteem was highest for gender expansive youth who disclosed to all, and was lowest for those who had only disclosed their gender identity to a mixed number of healthcare providers. Thus, gender identity disclosure and levels of self-esteem exhibited a positive relationship.

These findings are noteworthy on two fronts: First, while gender identity disclosure among sexual and gender expansive youth has been suggested to contribute to negative mental health outcomes due to stigmatization and discrimination, the management of multiple gender identities for the purpose of selective concealment (GMSR model, Testa et al., 2015) may be compounding gender expansive-related stress (Riggle et al., 2017; Skidmore et al., 2006). Second, the highest symptoms of depression are found among mixed disclosure of gender identity (out to some, but not all) when compared to lower symptoms for non-disclosure and lowest symptoms for disclosure to all healthcare providers. These findings highlight the need for research that examines gender expansive-related stress due to mixed disclosure to healthcare providers.

Previous research and theory (GMSR model) suggests that factors related to gender identity concealment may compound negative mental health outcomes (Breslow, 2015; Hendricks, & Testa, 2012; Mizock & Mueser, 2014; Riggle et al., 2017; Testa et al., 2017; Testa et al., 2015). The findings reported here suggest that mixed disclosure to healthcare providers is specifically related to higher symptoms of depression and lower levels of self-esteem; future research should more fully explore gender expansive identity disclosure and its relationship to gender expansive stress.

Gender identity disclosure amongst gender expansive youth is a process that has no clearly defined protocol to protect against victimization, harassment, or discrimination. It seems however that there are positive attributes to understanding disclosure to healthcare providers. For transgender girls, who exhibit the highest rates of disclosure, sharing their gender identity to healthcare providers may be a successful means of coping with the inherent stress of social pressures on gender expansive youth; whereas for non-binary youth (particularly non-binary AMAB) the prevalence of non-disclosure is the highest among gender subgroups. For those non-binary youth, non-disclosure may be a logical strategy to avoiding increased stigmatization and victimization within a binary gender society. Transgender boys

however, whom are exhibiting the highest symptoms of depression and the lowest levels of self-esteem seem to be faring the worst with mixed disclosure to healthcare providers. Our findings suggest that being out to some, but not to all can be problematic for gender expansive youth.

Rossman and colleagues (2017) suggested that anticipated stigma is implicit in the disclosure process and may impact how patients interpret providers' reactions. Levitt and Ippolito (2014) found that due to environmental limitations (i.e, discrimination, risk of harm), gender expansive individuals significantly compromise their life choices to maintain their friendships, safety, and social standing within their communities. This scholarship is an important exploration into the lived experiences of gender expansive youth, who may eventually seek the services of a healthcare provider for therapy, puberty suppression, or hormone treatments and may benefit from understanding the mental health outcomes associated with gender identity disclosure.

Implications

Over fifteen years ago, the Substance Abuse and Mental Health Services Administration (SAMHSA) released a policy with the aim to make healthcare providers aware of the LGBTQ-specific issues in substance use and mental health treatment (Craft & Mulvey, 2001). This policy underscored the need for healthcare providers to understand the within-group differences, as well as the theoretically-driven mechanisms and moderators of gender expansive mental health outcomes (Stevens, 2012). Our work was conducted in the spirit of better informing recommendations for clinical training and practice towards improved gender expansive healthcare models.

Additionally, there is a noticeable lack of quantitative data exploring gender expansive experiences prior to 2010, due to most large-scale survey measures pursuing specific male-female binary parameters for gender identification (Westbrook & Saperstein, 2015). The limited studies that test gender-identity disparities note important differences. In a recent analysis of gender expansive health-related behaviors, researchers found that gender expansive individuals are at an elevated risk for negative mental health outcomes, with a threefold risk of symptoms of depression and psychiatric disorders (Day et al., 2017; Reisner et al., 2015).

Gender affirmative healthcare relationships within the lives of gender expansive youth may significantly benefit those who are struggling with symptoms of depression and low self-esteem, and who are attempting to manage the stress of gender identity disclosure. Recent studies have demonstrated that positive role models (i.e., teachers, school counselors) may benefit gender expansive youth (Dessell et al., 2017; Heck et al., 2013; Heck et al., 2014; Snapp et al., 2015), so why too couldn't doctors and clinicians be considered as proponents for positively impacting the lives of gender expansive youth? Gender affirmative support by doctors and therapists may help to ensure a protective effect between gender expansive stress and negative mental health outcomes (i.e., symptoms of depression, low self-esteem).

The framework within which gender expansive youth mental health disparities exist requires vigilance and understanding. Rossman and colleagues (2017) stated that a significant barrier

to patient disclosure was healthcare providers simply not asking about their gender identity. The modification of healthcare paperwork to include questions about gender identity status has been underscored as a clear and present need by the Institute of Medicine (Cahill & Makadon, 2014; Graham et al., 2011; Rossman, et al., 2017) and the World Provider Association for Transgender Health (Deutsch et al., 2013; Rossman, et al., 2017) as a means to bridge the gap between clinical knowledge and practice. Additionally, considering the effectiveness of family-based treatment for adolescent symptoms of depression (Wills, Vaccaro, & McNamara, 1992), it is important to understand and account for the ways in which family support can influence the modification of gender affirmative healthcare. The question of how a gender affirmative healthcare system can protect against the negative effects of victimization and internalized transphobia on gender expansive youth has yet to be answered. Based on the non-disclosure rates of gender expansive youth with healthcare providers, stakeholders can continue to invest in fostering an environment inclusive of gender affirmative care.

Limitations

There are multiple factors that make accurate sampling a challenging endeavor when studying gender expansive youth populations. Population-level research within the United States oftentimes lacks reliable data on gender identity. This survey sought to include as many gender expansive respondents as possible. However, due to the recruitment of participants using social media means for a web-based survey, gender expansive individuals with specific characteristics (e.g., internet access, stable housing, and time) may have disproportionally participated in this survey. Thus, our survey measures and means may not reach homeless or transient populations of gender expansive youth—this sample may not completely represent the full-lived experiences of gender expansive youth within the US. Additionally, by utilizing methods of online advertising to gain survey participants, we may have disproportionately attracted responses from specific ethno-racial backgrounds.

There are many variables that may impact gender expansive mental health, and it is important to consider the possibility that certain aspects of self-esteem and depressive symptoms may not be completely due to gender expansive identity. Specifically, gender expansive youth who exhibit high self-esteem may not be exhibiting these symptoms solely due to being out to their healthcare providers. It is certainly possible that gender expansive youth who have supportive relationships with family and friends have the protective factors to ensure higher levels of self-esteem. Conversely, if gender expansive youth have been taught positive coping mechanisms, then they may be more apt to be able to manage gender minority stress and negative life experiences that can contribute to symptoms of depression. A gender expansive young person’s depressive symptoms may not be as a result of the degree to which they are out to their healthcare provider.

Our measure of disclosure to health providers did not specify the type of health care provider or ask whether or not youth have multiple healthcare providers. Though we utilized a question from a validated and widely used scale on disclosure, the wording of this question is a limitation (e.g., an inability to assess whether youth have providers and how many) and should be explored further in subsequent research. Last, youth may have different reasons

for disclosure to certain types of health care providers (e.g., primary care physician, mental health counselor, nurse)—future research should disentangle the specific types health care providers to which gender expansive youth may disclose their identities. Last, we found some small effect sizes in our ANOVA and MANCOVA analyses. Specifically, some effect sizes between disclosure to healthcare providers and symptoms of depression and self-esteem among gender expansive youth were weak. Though this indicates there are other factors explaining mental health among gender expansive youth, it is still a contribution that this study is the first analysis on disclosure to healthcare providers and negative mental health outcomes.

Conclusion

While gender expansive youth face high levels of discrimination, stigmatization, and victimization (Boza & Nicholson Perry, 2014; Goldblum et al., 2012), and are at an increased risk for symptoms of depression (Reisner et al., 2015), anxiety (Reisner et al., 2015), and suicidal ideation (Testa et al., 2017) relative to their cisgender peers (Nuttbrock et al., 2014), it is important to consider the protective and exposure factors that are created by gender expansive identity disclosure to healthcare providers. In addressing these concerns, Glynn & van den Berg (2017) called for the modification of the healthcare system to include gender expansive-specific needs. It behooves the clinical and research community to explore the contributing factors (negative and positive) that may influence mental health outcomes of gender expansive youth. It is therefore prudent for healthcare providers to work towards an understanding of gender affirmative treatment to ensure positive outcomes for these youth. Gender expansive youth systematically vary by multiple psychosocial factors (e.g., gender identity, disclosure, and mental health) and should thus be understood by their unique lived experiences, with greater consideration paid to the quality of gender affirming support from healthcare providers.

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Public Significance:

In our study, most transgender and non-binary youth had not disclosed their gender identity to healthcare providers. Mixed levels of disclosure to healthcare providers was associated with more depression and lower self-esteem. These findings inform clinicians and policy makers of the need to improve gender-based clinical practices for transgender and non-binary youth.

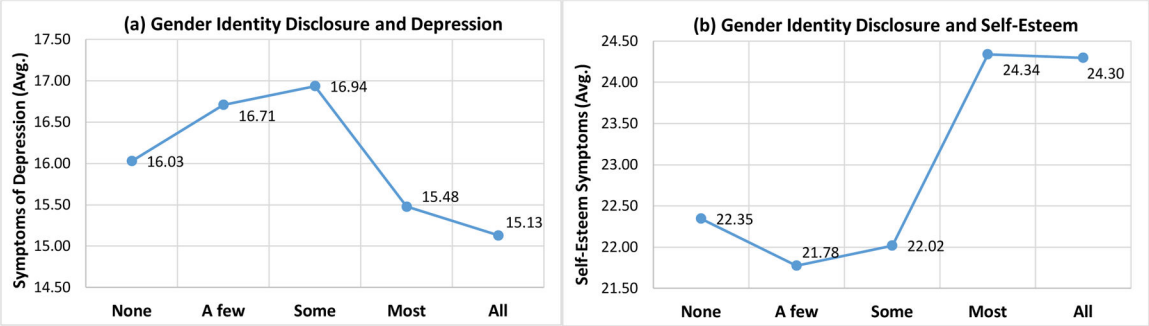

Figure 1.

Associations between gender identity disclosure to health professionals and symptoms of depression (a) and self-esteem (b) among gender expansive youth.

Table 1.

Sample Demographic Characteristics by Gender Identity

	Full Sample		Cisgender boy		Cisgender girl		Transgender boy		Transgender girl		Non-binary AFAB*		Non-binary AMAB*	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Sexual Orientation														
Heterosexual	279	1.6	0	0.0	0	0.0	157	10.5	31	16.8	74	2.1	17	3.6
Gay/Lesbian	6401	37.4	2875	70.5	2254	30.5	248	17.9	33	17.8	772	21.6	219	46.1
Bisexual	5970	34.9	1018	25	3569	48.3	388	27.6	56	30.3	836	23.4	103	21.7
Pansexual	2256	13.2	82	2.0	761	10.3	341	24.9	37	20.0	968	27.1	67	14.1
Queer	699	4.1	27	0.7	210	2.8	84	6.5	8	4.3	345	9.7	25	5.3
Asexual	725	4.2	28	0.7	278	3.8	80	5.6	8	4.3	315	8.8	16	3.4
Questioning	424	2.5	29	0.7	205	2.8	60	3.8	7	3.8	110	3.1	13	2.7
Other	358	2.1	20	0.5	119	1.6	46	3.1	5	2.7	153	4.3	15	3.2
Race/ethnicity														
White	10225	61.9	2279	58.2	4376	61.4	932	68.1	120	66.7	2254	64.7	264	58.8
Black	952	5.8	273	7.0	473	6.6	47	3.4	9	5.0	124	3.6	26	5.8
Hispanic/Latino	1877	11.4	556	14.2	828	11.6	115	8.4	13	7.2	316	9.1	49	10.9
Asian	677	4.1	182	4.6	324	4.5	36	2.6	8	4.4	110	3.2	17	3.8
Native American	95	0.6	24	0.6	29	0.4	13	1.0	1	0.6	21	0.6	7	1.6
Multiracial	2360	14.3	519	13.3	958	13.4	192	14.0	27	15.0	589	16.9	75	16.7
Other	342	2.1	83	2.1	144	2.0	33	2.4	2	1.1	69	2.0	11	2.4
Age														
13	1284	7.5	146	3.6	596	8.1	133	9.5	14	7.6	370	10.4	25	5.3
14	2542	14.9	394	9.7	1210	16.4	219	15.5	24	13.0	634	17.7	61	12.8
15	3594	21.0	841	20.6	1540	20.8	321	22.9	41	22.2	766	21.4	85	17.9
16	4481	26.2	1213	29.7	1885	25.5	350	24.9	51	27.6	853	23.9	129	27.2
17	5211	30.5	1485	36.4	2165	29.3	381	27.1	55	29.7	950	26.6	175	36.8

*Note AMAB=Assigned male at birth; AFAB=Assigned female at birth

Table 2.

Mean levels of symptoms of depression and self-esteem by gender identity

Outcome	Gender Subgroup	N	M	SD
Depression	Cisgender boy	2133	10.07*	6.92
	Cisgender girl	4470	12.76*	7.23
	Transgender boy	885	16.97*	7.51
	Transgender girl	118	13.58*	7.85
	Non-binary AFAB	2350	16.06*	7.10
	Non-binary AMAB	243	13.43*	7.37
	Total	**10199**	**13.35**	**7.53**
Self-Esteem	Cisgender boy	2133	30.89*	10.35
	Cisgender girl	4470	27.10*	9.48
	Transgender boy	885	21.73*	9.48
	Transgender girl	118	25.24*	10.28
	Non-binary AFAB	2350	22.45*	8.77
	Non-binary AMAB	243	26.31*	9.70
	Total	**10199**	**26.32**	**10.01**

*Significant at the .05 level.

Table 3.

Sample Disclosure Level by Gender Identity

	Disclosure to Healthcare Providers												
Gender Identity	**None**		**A few**		**Some**		**Most**		**All**		**Total**		
	n	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***M***	***SD***
Transgender Boy	463	51.3_{a}	137	15.2_{ab}	65	7.2_{a}	105	11.6_{abc}	133	14.7_{ab}	903	1.23	1.52
Transgender Girl	65	53.3_{b}	14	11.5_{b}	7	5.7	14	11.5_{c}	22	18.0_{b}	122	1.30	1.61
Non-binary AFAB	1709	72.4_{ab}	266	11.3_{a}	95	4.0_{a}	124	5.2_{ab}	168	7.1_{a}	2362	.56	1.19
Non-binary AMAB	184	77.6_{ab}	15	6.3_{a}	12	5.1	10	4.2_{a}	16	6.8_{a}	237	.64	1.22
Total	2421	66.8	432	11.9	179	4.9	253	7.0	339	9.4	3624	.80	1.34

Note. Each subscript letter ($_{a,b,c}$) denotes where column (e.g., none) proportions significantly differ from each other at the p<.05 level.

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