

Peer Relations in Adolescents with Gender Identity Disorder

by

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ABSTRACT

PEER RELATIONS IN ADOLESCENTS WITH GENDER IDENTITY DISORDER

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This dissertation examined the peer relationships of 56 adolescents with Gender Identity Disorder (*M* age, 16.94 years; range, 13-20 years), compared to 47 adolescents referred for other clinical concerns (*M* age, 17.01; range, 13-20 years) and 55 non-referred adolescents (*M* age, 16.91; range 12-20 years). Adolescents completed self-report questionnaires measuring their gender identity, experiences of peer social support and bullying, and psychosocial adjustment. Consistent with past qualitative research (e.g., Wilson, Griffin & Wren, 2005) and preliminary quantitative evidence (Zucker, Owen, Bradley & Ameeriar, 2002), adolescents with GID reported being bullied significantly more than gender-typical non-referred peers. Compared to all controls, adolescents with GID reported having fewer friends in general, fewer same-sex friends in particular, friendships of shorter duration, and reported experiencing less support from same-sex peers. Group differences in friendship variables for online relationships were not evidenced. Results showed several bullying and friendship variables to be associated with psychosocial difficulties, with gender/sexual bullying *and* support from same-sex school friends both mediating the relation between gender dysphoria and psychological problems. Findings support the minority stress hypothesis (Meyer, 1995) and contribute to an understanding of the peer relationships of adolescents with GID. Clinical and theoretical implications are discussed.

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PEER RELATIONS IN ADOLESCENTS WITH GENDER IDENTITY DISORDER

Chapter 1

Introduction

Youth diagnosed with Gender Identity Disorder (GID) face a developmental trajectory often marked by considerable psychosocial difficulties. In addition to their experience of cross-gender identification and discomfort with their own sex or gender role (American Psychiatric Association, 1994), children and adolescents with GID exhibit significant levels of both externalizing (e.g., hyperactivity) and internalizing symptoms (e.g., anxiety) (Bradley & Zucker, 1997; de Vries, Doreleijers, Steensma, & Cohen-Kettenis, 2011). These difficulties are intricately connected to a social climate that often breeds discrimination, as it has generally been assumed (and supported by an influx of recent research) that gender non-conforming youth are often excluded by their peers or become the target of harassment, abuse, and violence (D'Augelli, 1998; Devor, 1997; McGuire, Anderson, Toomey, & Russell, 2010; Muñoz-Plaza, Quinn, & Rounds, 2002; Wilson, Griffin, & Wren, 2005; Zucker & Bradley, 1995). As contemporary theory and empirical findings increasingly regard peer relations as central to well-being, such discriminatory experiences put these youth at considerable risk for psychopathology. For example, in normative samples, childhood victimization by peers has been linked to significant, long-term negative consequences (e.g., criminality) (Sourander et al., 2007), while social support from peers has been shown to buffer against the harms of victimization (Granich, Lollis, & Hennig, 2009; Hodges & Perry, 1999) as well as other

significant life stressors (e.g., Hirsh & DuBois, 1992; Rubin, Bukowski, & Laursen, 2009).

An understanding of the social experiences of gender non-conforming adolescents is still in its infancy, largely due to the historical rarity of clinical referrals (Bradley & Zucker, 1997). What empirical research does exist in the field of GID has mostly been dedicated to examining the validity and etiology of the construct (Manners, 2009). However, recent influxes of adolescent referrals to specialized gender identity clinics (Zucker et al., 2008; Wood et al., 2013), mounting reports of psychosocial difficulties in this population (escalating in severity to cases of suicide and extreme physical violence), and the significant number of resources being dedicated to shaping public policy, has magnified the importance of building a base of applied knowledge. The purpose of the present study was to gain a better understanding of the peer relations of adolescents with GID and investigate associations with previously noted internalizing and externalizing difficulties. The hope is that such an understanding could help in guiding both clinical judgment and policy making, in an effort to ameliorate a developmental track that is often painfully difficult to navigate.

Gender Identity

Gender identity is broadly conceptualized as the fundamental sense of being male or female (Bradley & Zucker, 1997) and has often been considered a core construct in models of psychosocial development and mental health (e.g., Harris, 1995; Maccoby, 1998). Though accounts vary, gender identity is generally assumed to be the consequence of a complex interplay between biological (e.g., prenatal hormones [Zucker & Green,

1992]) and social forces (e.g., parental attachment [Stoller, 1973], peer relations [Maccoby, 2002]).

Typically, by the age of 2½-3, most children can answer the question of “Are you a boy or a girl?”; by the age of 6 or 7, gender constancy is established; and by middle childhood, stable conceptions, such as the degree to which one typifies their gender category, are developed (Egan & Perry, 2001). However, for some children, gender identity can become a source of confusion. At the most extreme end of the spectrum, GID is diagnosed in childhood when a boy or girl¹ presents with a variety of sex-typed behaviours that suggest a marked identification with the opposite sex coupled with an avoidance and rejection of behaviours perceived as characterizing their own sex (Zucker & Bradley, 1995). Though prevalence rates are not clearly defined, researchers have reported that less than 1% of adult men are diagnosed with the disorder (Zucker & Bradley, 2007).

Largely due to the association between early cross-gender behaviour and later homosexuality, the construct of GID has become a hot topic for political debate (Bradley & Zucker, 1997; Singh, 2012). Prospective studies of boys with GID (Green, 1987) and retrospective studies of homosexual men and women (Bailey, Nothnagel, & Wolfe, 1995) give credence to the strength of this relation. Such findings have caused the few investigators working in the field of GID to focus their efforts on assessing the validity and etiology of the construct. Their efforts have revealed that the association between childhood cross-gender behaviour and later homosexuality is not a perfect one. Research

¹ For the purpose of this dissertation, the terms “boy,” “girl,” “male,” and “female” will often be used as shorthand to denote natal sex. For example, “GID males” may be used to refer to natal males that identify their gender as female or transgender.

has shown that some gender-referred² children go on to identify as heterosexual and some adults who identify as homosexual do not recount a history of cross-gender behaviour (Singh, 2012). Further, some children persist in their cross-gender identification. In a follow-up of 45 gender-referred children, Zucker and Bradley (1995) found that 20% continued to exhibit gender confusion in adolescence; and, while gender dysphoria has been found to remit in the majority of prepubertal children (Drummond, Bradley, Peterson-Badali, & Zucker, 2008), it does not for most gender dysphoric adolescents (Cohen-Kettenis, Owen, Kaijser, Bradley, & Zucker, 2003). This combination of phenomenological rarity in gender clinics, and academic unrest in the research literature, has left the contextual experiences of youth whose GID persists into adolescence (and those with a late onset) remaining relatively uncharted.

GID in Adolescence and Psychosocial Difficulties. Adolescence is a stage of development typically characterized as a key for identity formation (Erikson, 1968). Challenges of individuation, social negotiation, and emerging sexual feelings (Hill & Lynch, 1983), combined with advancing cognitive abilities, such as improved social comparison and inference skills (Egan & Perry, 2001), can lead to an array of intrapsychic challenges. This can be particularly salient for those whose sense of self is at odds with their idealized self-image (Martin, 1991). Thus, youth who present with gender dysphoria could experience this developmental period of intense socialization of stereotypical gender roles (Hill & Lynch, 1983) as tremendously difficult. Consistent with this view, in a sample of adolescents attending a summer sports camp, Smith and Leaper (2006) found a positive relation between self-perceived gender-typicality and self-

² “Gender-referred” describes youth who are referred to a gender identity service for the primary concerns of cross-gender identification and/or discomfort with their own sex or gender role.

worth, a finding that had previously been observed in children (Yunger, Carver, & Perry, 2004).

Psychosocial functioning may become increasingly impaired in cases of more extreme gender dysphoria. de Vries et al. (2011) found that 32% of gender-referred adolescents met diagnostic criteria for one or more co-occurring psychiatric disorders. This number is significantly higher than prevalence rates in the general population but less than youth receiving mental health care (for reasons other than their gender identity). Interestingly, compared to the natal females, the natal males in de Vries et al.'s sample exhibited a higher prevalence of social anxiety disorder (15.1% to 3.8%) and multiple comorbid disorders (15.1% to 7.7%), a trend that is opposite to that seen in the general population.

de Vries et al.'s 2011 findings were considerably moderate compared to other reports of psychosocial disturbance in this population. On a parent-report measure of general behaviour problems, gender-referred adolescents exhibited clinically significant levels of internalizing and externalizing symptoms that was at least comparable in degree with demographically matched youth referred for other clinical problems (Zucker et al., 2012; Zucker, Owen, Bradley & Ameeriar, 2002), and were significantly more extreme than behaviour problems from a gender-referred child sample. Similarly, in a retrospective analysis of 69 adolescents who attended a gender identity clinic, Di Ceglie, Freedman, McPherson, and Richardson (2002) found 52% to be exhibiting significant symptoms of depression and 32% to be engaging in significant aggressive behaviours. Finally, in perhaps the most extreme and striking evidence of the psychological difficulties faced by gender non-conforming adolescents, Grossman and D'Augelli

(2007) reported that, of 55 transgender youth interviewed in the New York City metropolitan area, ~50% had contemplated suicide and ~25% had attempted it. The authors noted that this prevalence of suicide attempts was considerably higher than the 8.5% of American GLB (Gay, Lesbian and Bi) high school students reported by the Center for Disease Control and Prevention (2003; from Grossman & D'Augelli, 2007), and highlights the extreme and distinct anguish many of these youth face.

Although some of the psychosocial difficulties adolescents with GID experience may be intrinsically related to identity struggles (Haldeman, 2000) and/or the result of psychopathology within the family system (Coates & Pearson, 1985), an argument can be made for an environmental influence when considering cross-cultural differences in prevalence rates. For example, comparing youth who were receiving puberty suppressing medication,³ 84% of those seen in a Canadian clinic had aggregate scores in the clinical range on a parent-report measure of general behaviour problems (Zucker et al., 2011), compared to 44% in an Amsterdam clinic (de Vries et al., 2010). Similar cultural differences have been replicated in other studies (Clements-Nolle, Marx, & Katz, 2006; Grossman & D'Augelli, 2007), pointing to the likelihood that, in addition to intra-psychic factors, social factors (e.g., impingements made by a hostile peer group) may mediate or moderate the psychosocial difficulties seen in adolescents with GID. Further support for this theory comes from the growing evidence that, within Western society, the association between gender nonconformity and psychosocial difficulties is more robust for males than for females (Rieger & Savin-Williams, 2012). While these findings may also raise questions about biological underpinnings, an environmental contribution cannot be

³ Puberty suppressing medication is often prescribed to pubescent adolescents to slow sexual development. See Wren (2000) for a detailed discussion of the process, considerations, etc.

discarded as it has long been postulated that, in Western culture, males face harsher consequences for cross-gendered behaviour than females (Zucker & Bradley, 1995). Taken together, the need for a better understanding of the social experiences these youth face appears evident.

Peer Relations

Social support, consisting of an interplay between elements of companionship, intimacy, affection, admiration, nurturance, reliability, and instrumental aid (Weis, 1974), is of vital importance for well-being (Muñoz-Plaza et al., 2002). For example, social support has been found to buffer against life stress, like major school transitions (Hirsch & DuBois, 1992). Conversely, isolation is seen as a major contributor to problematic outcomes (Elia, 1993), with a lack of social support predicting elevated rates of morbidity and mortality (Berkman, 1984; House, Umberson, & Landis, 1988). While classic theory puts parents at the centre of accounts of psychosocial development (Erikson, 1950), researchers are increasingly placing importance on the influential power of the peer group, citing problems with peer relations as a major contributor to the genesis of psychopathology (Rubin et al., 2009).

Peer Relations in Children with GID. It is often assumed that children with GID occupy a deviant social position, have poor peer relations, and are victimized by their peers (Wallien, Veenstra, Kreukels, & Cohen-Kettenis, 2010). However, in the literature, support for this position has not been unanimous. On the one hand, several studies have demonstrated that children react negatively to the atypical gender behaviour of other children (Carter & McCloskey, 1984; Levy, Taylor, & Gelman, 1995; Ruble et al., 2007; Signorella, Bigler, & Liben, 1993; Smetana, 1986; Stoddart & Turiel, 1985). In support

of this position, using three items on the CBCL that assess peer relations, Bradley and Zucker (1997) found that parents rated gender-referred children as having poorer peer relations than their siblings. Similar results have been noted in observational studies. For example, Fridell (2001) created experimental playgroups consisting of one boy with GID, two non-referred boys, and two non-referred girls. Fridell then held two 60-minute play sessions a week apart. Each child was then asked to select a favourite playmate from the group. Fridell found that the non-referred girls and boys were most likely to choose the other non-referred child of their same sex. Furthermore, the literature suggests that gender-atypical boys face harsher consequences for norm violations, being judged more negatively for feminine behaviours by other boys than girls are for masculine behaviours by their same-sex peers (Blakemore, 2003; Zucker & Bradley, 1995). In a longitudinal study of peer relations in childhood, Green (1976) found that feminine boys were most often rejected by their peers or socially withdrawn, and that gender-typical children were more likely to have good same-sex peer group relations. Taken together, and given their diverse methodologies, these studies provide fairly strong evidence in support of the position that children with GID have poor peer relations.

On the other hand, more recent studies have suggested that a sort of cognitive restructuring may be necessary to understand the peer relations of gender-referred children. It appears to have been previously assumed that disturbances in same-sex peer relations inferred universal peer difficulties. This is likely because peer relations in childhood are typically gender-segmented (Maccoby, 1998). Boys and girls often prefer same-sex friendships and pattern their interactions on gender-related qualities (Maccoby & Jacklin, 1987). However, gender-referred children show the opposite trend, often

preferring the friendship of other-sex peers (Johnson et al., 2004). A recent study by Wallien et al. (2010), which employed peer nominations, showed that children with GID are, in fact, accepted by peers of the opposite sex. Wallien et al. also found that, though boys experienced more negative social consequences for nonconforming behaviours and were rejected by their same-sex peers, neither sex was subjected to bullying any more than other children. Thus, it appears possible that the poor peer relations hypothesis may only hold for same-sex relationships. This finding is not completely incongruous with two of the three above-described studies, as neither the Fridell (2001) study nor the Green (1976) study described gender-referred children as being unaccepted by opposite-sex peers. Moreover, Bradley and Zucker's (1997) study did not ask parents to distinguish their child's peer relations by sex, and it is possible that, in rating behaviour, a bias towards thinking about same-sex peer relations existed. While coming to the realization that children with GID may find some acceptance within a peer network is uplifting, it remains a possibility that they fail to experience an adequate level of social support from their peers. Perceptions of social support would rely on elements of relationship quality and individual needs and these variables are yet to be studied in this population.

Peer Relations in Adolescents with GID. As youth with GID enter adolescence, the status of their peer relationships may become even more important to healthy development. Adolescents increasingly turn to the peer group for support as part of their effort to foster greater independence and develop a mature identity (Barry, Madsen, Nelson, Carroll, & Badger, 2009). Most adolescents have close friendships, within which they invest a considerable amount of time, satisfy needs for companionship, and attain feelings of worth (Furman & Buhrmester, 1992; Rubin et al., 2009). Not surprisingly

then, the qualities of these friendships are associated with indices of happiness (Demir, 2008). For adolescents, peers become the arbiter of social mores and, for many, the ability to form peer relationships becomes a measure of success (Devor, 1997).

Investigations into the peer relations of adolescents with GID have been limited. Instead, findings from studies of other sexual minorities (i.e., lesbian, gay, and bisexual youths) are often extrapolated. These studies often present adolescents as a particularly vulnerable subset of a population that faces extreme discrimination (Muñoz-Plaza et al., 2002). This is due to a combination of their developmental stage and the state of our schools as a social institution, often deemed to be the most homophobic (Elia, 1993; Unks, 1994) and the site of the most bullying (Olweus, 1993). As a result, these youth are reportedly at a high risk for verbal and physical abuse (Center for Population Options, 1992; D'Augelli, 1998; Robinson, 1994), with the young people who least conform to gender-typical behaviour being the most victimized (Rotheram-Borus, Rosario, & Koopman, 1991).

Studies that have directly investigated the peer relations of transgender adolescents have focused on experiences of bullying (rather than social support). Mounting evidence suggests that, in contrast to the mixed results found in childhood, adolescents with GID are victimized substantially more than their gender-typical peers (including those LGB youths with a more typical gender identity) (McGuire et al., 2010). Using a multi-method approach that combined survey and focus group data, McGuire et al. found that transgender youth were pervasively harassed at school, with 80% reporting that they heard negative comments “sometimes or often” by students and/or teachers. This finding was consistent with other recent work, including the Gay, Lesbian and

Straight Education Network's 2008 report (from McGuire et al., 2010) on school climate that reported 85% of transgender high school students experience verbal harassment and 49% experience physical harassment. It was also consistent with a study by Greytak, Kosciw, and Diaz (2009) that sampled transgender 6th through 12th graders across the United States (n=295) and found that 82% felt unsafe at school, ~90% had been verbally harassed "often," >50% had been shoved, pushed or otherwise physically harassed, and 62% had been cyberbullied. McGuire et al. (2010) explained harassment within the context of fitting into a gender binary, with teenagers allowing little flexibility for accommodating a fluid gender expression. In addition to their gender nonconformity, transgender youth are also assumed to be gay and thus may face two stereotypes. Though many schools now have LGB policies to protect their students, it is possible that these policies do not protect on the basis of gender identity and are not always helpful to these youths.

Experiences of bullying by this population have been brought to life in a number of recent qualitative studies. For example, Grossman, D'Augelli, and Frank (2011) interviewed 31 male-to-female (MTF) and 24 female-to-male (FTM) transgender adolescents (ages 15 to 21) and found that 71% of the FTM reported experiencing verbal abuse (e.g., teasing or threats), 17% reported past physical abuse, and 0% reported past sexual abuse. Of the MTF youth, 87% reported past verbal abuse, 36% past physical abuse, and 16% past sexual abuse. Using a similar methodology, Wilson et al. (2005) interviewed eight adolescents (six biological males, two biological females; ages 14-17) with GID in the UK, asking open-ended questions about their experiences in secondary school. Testimonials revealed that all but one of the participants had been the victim of

bullying as a result of their cross-gender behaviour and all reported difficulties in developing friendships. Finally, Sausa (2005) interviewed 16-21 year old transgender youths in the Philadelphia area and found 96% reported verbal harassment and 83% reported being harassed physically. Sausa's participants reported being "afraid to access school facilities and would avoid them" for fear of "getting shoved, cornered, anything like that."

While the association between gender nonconformity and bullying in adolescents seems to be growing more robust, less is known about experiences of friendship and social support. Participants in Wilson et al.'s (2005) study did describe receiving support from at least one of their peers. These peers were described as being in the similar position of being unaccepted by the larger peer group. Participants said they did not often talk to their "friends" about their gender identity, due to their fear of rejection or pressure from others. Most of those who had disclosed reported negative social consequences. This is similar to Wyss' (2004) qualitative study of seven transgender high school students, which highlighted the experience of having a "friend" join an assailant during an incident of bullying. These qualitative studies suggest that what friendships adolescents with GID have may be of poor quality and the source of unreliable or little social support.

In yet another qualitative study that examined experiences of both bullying and friendship, Devor (1997) interviewed 45 FTM transsexual adults (ages 22-53) about their experiences across their lifespan. In reflecting on their adolescence, several participants recalled difficulties fitting in and episodes of social ostracism during some or all of their teen years. Taken together, 50% of the participants reported being either harshly rejected

or having to withdraw from their peers due to their own discomfort. However, a majority (64%) said that they had some success in overcoming their feelings of alienation by finding some companionship during extracurricular activities. This was largely attributed to the increased flexibility and freedom to self-select friends who shared similar traits and interests, while avoiding the school's larger peer group, whose hostile influence may prevent such relationships from developing.

Few participants in Devor's study remembered having both male and female friends (20.5%), but 48% said that they spent their adolescence with predominantly female friends. This stood in sharp contrast to their childhood experiences of affiliating with boys and stands in sharp contrast to the literature on childhood GID discussed above, suggesting the possibility of unique qualities of this particular sample. In normative samples, other-sex friendships have been found to become more common in adolescence (Hand & Furman, 2009), ultimately joining same-sex relationships as key features of social networks (Connolly, Craig, Goldberg, & Pepler, 2004). These friendships are thought to foster self-exploration (Erikson, 1950) and lay the foundations for adult relationships (Reis, Lin, Bennett, & Nezelek, 1993). The participants in Devor's study reported similar trends occurring in their high schools. However, they themselves often bucked this trend by tending to shy away from relationships in which they were expected to behave like heterosexual women and by experiencing rejection by males who could not sexualize them. Instead, the participants increasingly began befriending females in high school, either because they were able to find "tomboyish" girls who shared their interests or because they began seeing female peers in a more sexual way. In total, 68% recalled finding a few friends who accepted them, but these relationships were rarely

described as intimate (e.g., high in self-disclosure) and were more often based on shared activities.

When added to the childhood literature and more recent qualitative studies, Devor's findings raise questions about the trajectory of peer relationships for female-to-male transsexuals and suggest the possibility that the predominant sex of friends shifts from other-sex to same-sex in adolescence. However, replication is required to speak confidently to this finding and, as Devor's sample did not contain male-to-female transsexuals, it remains unclear whether their peer relationships would follow this same path. Nevertheless, the budding literature suggests that adolescents with GID find even less acceptance among their peers than children with GID. Mirroring this body of work in a single study, Zucker et al. (2002) found that, on the CBCL, adolescents with GID were rated as having significantly poorer peer relations than children with GID. To gain an even better understanding of this population's experiences, an investigation that includes positive peer relations and differentiates relations by sex and context is required.

Poor Peer Relations and Well-Being in Adolescents with GID. Given the well-documented importance of peer relations to well-being in normative samples (Hirsh & DuBois, 1992; Rubin et al., 2009), it is of no surprise that researchers who have noted relational difficulties in youths with GID have made efforts to understand implications for healthy development. One particularly striking finding by Zucker et al. (2002) was that, in a sample of adolescents with GID, the CBCL's peer relations scale proved to be the strongest predictor of general psychopathology. The inferences that can be drawn from these results are limited by the mode (i.e., a three-item scale) and source (i.e.,

parental reports) of measurement but, nevertheless, the finding draws attention to the potential scope of the problem.

The model often used to explain the impact of the peer group in such a marginalized population is the minority stress hypothesis (Meyer, 1995). The model proposes that experienced societal stigma and discrimination, and the stress caused by actual or perceived membership in a minority group, cause psychological disruption in daily life that can lead to depression, anxiety, substance abuse, and even increased risk of suicidality (Rieger & Savin-Williams, 2012). Hatzenbuehler (2009) further elaborated on the model, drawing on several studies exploring minority stress in sexual minorities, and created a “psychological mediation framework” that proposed processes involved in emotional coping/regulation, cognition, and interpersonal relating that mediate the pathway from stigmatization to psychopathology. The minority stress hypothesis has increasingly been referenced in the literature to account for the negative outcomes associated with gender nonconformity. For example, Toomey, Ryan, Diaz, Card, and Russell (2010) found that, in a sample of LGBT young adults (8% of which identified as transgender), victimization due to perceived or actual LGBT status fully mediated the association between adolescent gender nonconformity and young adult psychosocial adjustment (i.e., life satisfaction and depression). Similarly, McGuire et al.’s (2010) study (discussed above) found harassment to result in both physical and psychological distress, leading to outcomes like school dropout and fearful or aggressive behaviour. Still others have reported links between victimization and grade point average (Greytak et al., 2009), depression (Williams, Connolly, Pepler, & Craig, 2005), and suicide (Button, O’Connell, & Guelt, 2012) in sexual minority adolescents and/or transgender youth specifically.

Smith and Leaper (2006) further demonstrated the power of the peer group in a normative sample of adolescents by showing that the relation between self-perceived gender-typicality and self-worth was partially mediated by perceived peer group acceptance. In other words, those who felt less gender-typical generally had more negative self-views, but there was no significant difference in the self-worth of nonconforming and conforming adolescents if they felt accepted by their peers. When added to earlier evidence that, for those who feel atypical, felt pressure to conform is negatively associated with adjustment (Yunger et al., 2004), a risk-protection spectrum begins to emerge. In such a model, while pressure and rejection can be seen as an end of a continuum that embodies risk, acceptance can be seen as an end that embodies protection.

Peer social support has not been examined in great detail in adolescents with GID. However, studies with sexual minority youth continually highlight the power of friendship variables in predicting psychosocial symptomatology. Williams et al. (2005) and Teasdale & Bradley-Engen (2010) have demonstrated that, when analyses include sources of social support, the link between sexual orientation and negative outcomes becomes nonsignificant. Supportive friendships are often viewed as more helpful than support from parents, increasing self-esteem and self-acceptance and decreasing the risk of depression for sexual minority youth (Teasdale & Bradley-Engen, 2010). Having access to support and understanding others could allow vulnerable youth to process overwhelming emotions and potentially traumatic events, as well as provide the opportunity to learn more effective coping strategies and protective measures (Button et

al., 2012). However, this line of research is yet to be extended to a population of adolescents with GID, creating a gap in the literature that requires further investigation.

Other research in the area of peer relationships and well-being has focused on self-disclosure and identity affirmation. This line of study suggests that individuals with GID are highly motivated to act, and be seen in, their preferred gender role (Bockting, Knudson, & Goldberg, 2007). However, because disclosure of an alternative gender identity can often be met with reproach, individuals often sift through their social networks to selectively disclose to those anticipated to be supportive (Zucker & Bradley, 1995) or keep their gender identity hidden (Maguen, Shipherd, Harris, & Welch, 2007). Unfortunately, autobiographical accounts of the transgender experience are often marked by distress caused by the failure of friends to affirm a preferred identity (Devor, 1997). Alternatively, when affirmation does occur, critically-needed emotional support can be provided (Nuttbrock, Rosenblum, & Blumstein, 2002).

Though preliminary evidence suggests a link between poor peer relations and emotional disturbances in adolescents with GID, an understanding of these issues is in its early stages, as even our descriptive knowledge of this population's peer experiences remains relatively unexplored. A more comprehensive understanding of the peer relations of adolescents with GID, and associations to indices of well-being, is needed in order to create the potential for more positive outcomes for this population.

The Present Study

The aim of the present study was to add to the limited understanding of GID in adolescence by investigating peer relations. Past research with community samples of transgender adolescents has consistently demonstrated a high level of victimization

among this population (McGuire et al., 2010). The present study sought to extend this finding to a sample of gender-referred youth, adding weight by exploring various forms of bullying (e.g., physical bullying, electronic bullying, etc.) and directly comparing quantitative experiences of bullying to clinical and nonclinical comparison groups. Though associations between bullying and indices of well-being have been explored frequently in normative samples of adolescents, few studies have done so for this specific population. The present study sought to extend the findings of McGuire et al. (2010), which found bullying to be related to psychological distress in a community sample of transgender adolescents, by assessing the role that bullying plays in predicting psychological problems among a sample of gender-referred adolescents.

A second goal of the present study was to add to the existing body of literature by investigating experiences of peer social support in a clinic-referred sample of adolescents with GID. Past qualitative research has repeatedly shown that transgender adolescents experience low (or inconsistent) levels of peer social support (Wilson et al., 2005), but quantitative research addressing this issue has been extremely limited. The present study sought to extend the limited research in this area to a sample of gender-referred adolescents, exploring nuances in friendship patterns, such as the friendship context (e.g., at school vs. on the internet) and friend's sex. Past research with sexual minorities has found social support to be a key variable predicting healthy adjustment (Teasdale & Bradley-Engen, 2010), but the impact of peer social support on clinic-referred adolescents with GID remains relatively uninvestigated. The present study sought to assess the role that peer social support plays in predicting psychological problems among a sample of gender-referred adolescents.

A greater understanding of the peer experiences of adolescents with GID carries important implications for both public policy and clinical practice. With such an understanding, exists the potential to assist all spheres of a youth's supportive network (e.g., family members, teachers, clinicians, etc.), improving empathy and guiding decision-making (e.g., regarding school monitoring), to create more positive outcomes for a population that often faces a difficult developmental trajectory.

Research Questions and Hypotheses.

- 1) *Do adolescents with GID experience more peer victimization than non-referred and clinical controls?* Wallien et al. (2010) reported that children with GID experience negative social consequences due to their gender nonconformity, but are not bullied any more than other children. However, other studies suggest that victimization of gender atypical youth increases in high school (D'Augelli, 1998; Rotheram-Borus, et al., 1991) and research specifically focusing on transgender adolescents has generally shown marked experiences of bullying in this population (McGuire et al., 2010). Thus, adolescents with GID in the present sample were expected to have experienced more victimization from their peers than both non-referred and clinical controls.
- 2) *How much social support do adolescents with GID garner from their peers, as compared to normal and clinical controls?* In line with the work of Wilson et al. (2005) and Zucker et al. (2002), adolescents with GID were expected to rate their peer relationships as being relatively unsupportive, as compared to a non-referred control group. Perceptions were expected to be similar to that of the clinical control group.

- 3) *Does the amount of peer support garnered by adolescents with GID vary as a function of context or friend's sex? How does this compare to normal and clinical controls?* Given the lack of empirical research in this area, these research questions were considered exploratory in nature. If one were to extend the autobiographical accounts provided by Devor (1997), it might be expected that adolescents with GID would rate relationships outside of school as more supportive than those within school. More recent qualitative research (Wilson et al., 2005) suggests that Devor's finding of greater support by same-sex friends for female-to-male transsexual adolescents might not hold for either sex in the current sample.
- 4) *Do adolescents with GID exhibit elevated psychological problems?* In line with Zucker et al. (2002), adolescents with GID in the present sample were expected to have levels of internalizing and externalizing symptoms similar to that of clinical controls, and higher than that of non-referred controls. Zucker postulates that this is due to the dynamic genesis of GID, consisting of both general and specific factors (for a detailed review see Zucker and Bradley, 1995).
- 5) *To what degree are indices of psychosocial difficulty related to experiences of peer support, victimization, and gender dysphoria?* In line with Smith and Leaper (2006), Zucker et al. (2002) and Sourander et al. (2007), all three of these variables were expected to be related to psychosocial adjustment. The minority stress hypothesis (Meyer, 1995) suggests that relational experiences mediate the link between gender dysphoria and well-being, and the limited research specifically investigating gender conformity has supported this assertion (Smith and Leaper, 2006). Thus, the association between gender dysphoria and psychosocial difficulty

was expected to be mediated by relational variables, with both bullying and social support predicting unique elements of the variance in psychological problems.

Chapter 2

Method

Participants

Probands. A total of 56 adolescents (22 males and 34 females) between 13 and 20 years of age (M age = 16.94 years), referred for issues pertaining to their gender identity to the Gender Identity Service of the Child, Youth, and Family Program (CYFP) at the Centre for Addiction and Mental Health (CAMH), participated as probands (hereafter, the “GID group”). Forty-nine (87.5%) of these adolescents (20 males and 29 females) represented a consecutive series of referrals between July 2010 and July 2012 (with the collection of female participants ceasing in December 2011 in order to create a somewhat more sex-balanced sample). The participation rate was 100%, with one potential participant not being administered the questionnaires for logistical reasons. Of the 7 (12.5%) remaining participants (2 males and 5 females), 3 were receiving therapeutic intervention within the Gender Identity Service and 4 were seen during the data collection period as part of a follow-up. These adolescents were included in the study because they continued to express gender dysphoria.

Comparison Groups. Two groups of adolescents (a clinical control group and a non-referred control group) served as controls. The clinical control (CC) group consisted of 47 adolescents (16 males and 31 females) between 13 and 20 years of age (M age = 17.01), referred to the CYFP for a variety of problems other than GID (e.g., mood and anxiety problems, substance abuse, etc.). Potential participants were identified by review of the roster of all patients aged 13 to 20 years old seen in the CYFP within six months of the onset of the present study. Adolescents were considered eligible if they could be pair-

matched with a youth from the GID group on the basis of biological sex and age (± 1 year). Attending clinicians were asked whether they agreed to allow contact with these individuals (or their guardian, when under the age of 16) and request their participation in the study. In 96 (85%) cases, permission was granted. The main reason for declining permission was client instability or broken contact, on the part of the patient, from the CAMH. Telephone contact was established with 79 families, while 17 potential participants could not be contacted. Thirty-two individuals declined to participate (most often due to lack of interest and/or time) or failed to attend a scheduled testing session and could not re-contacted. Thus, 59% of those contacted participated in the study and, of the original sample of potential participants identified, there was a 42% participation rate.

The second comparison group was a non-referred control group (hereafter, the “normal control” or “NC” group), consisting of 55 adolescents (19 males and 36 females) between 12 and 20 years of age (M age = 16.91). These adolescents were recruited by advertisements and flyers (Appendix A) posted in community centres, public spaces (e.g., bus stops), and on the internet (i.e., www.craigslist.ca). So as not to bias recruiting (e.g., towards a sample with poor peer relations or an atypical gender identity), advertisements did not describe the nature of the research questions beyond saying that it was a study of “peer relationships and gender identity.” Adolescents (or parents of adolescents) who responded to these postings were considered for participation if they had no prior or pending contact with a mental health agency or with a Children’s Aid Society and were enrolled in a regular class at school (according to their self-report). Potential participants were selected with the aim of approximating the GID group’s age and sex characteristics.

Procedure

In most cases, participants in the GID group completed study measures during an initial assessment session in the Gender Identity Service at the CAMH. Measures were administered by the staff psychologist overseeing the assessment, after consent to participate was signed (Appendices B and C), in conjunction with the standard psychological assessment battery completed by all adolescents seen in the Gender Identity Service.⁴ For the purposes of the present study, the Network of Relationships Inventory (NRI) (Furman & Buhrmester, 1985) and the PREVNet Bullying Assessment Tool (PREVNet Inc., 2010) were added to the typical assessment battery (Appendices E and F, respectively). Adolescents who had been assessed prior to this study's data collection period (N = 7) were administered the NRI and PREVNet scale at the CAMH, by a staff psychologist or a graduate student (trained in the study's methodology), at the time of a scheduled visit for therapy or follow-up.

Regarding the two comparison groups, participating adolescents (or their guardian if under the age of 16) were contacted via telephone (see script in Appendix G). Following a short phone interview, which involved an initial screening and a brief description of the study, the researcher scheduled an appointment for the adolescent (and their guardian, if appropriate) at the CAMH with a graduate student or staff psychologist (trained in the study's methodology). Participation involved one visit of approximately an hour in length. During the visit, after consent to participate in the study was obtained, each adolescent was administered the Youth Self-Report (YSR) (Achenbach, 1991), the

⁴ Standard assessment protocol includes a demographic questionnaire, selected subtests from the Wechsler Intelligence Scale (WISC-IV or WAIS-III), the Rorschach test, the Draw-a-Person test, the Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (Appendix D), the Youth Self-Report, the Child Behavior Checklist (CBCL), semi-structured family interviews, etc. For a detailed description of the of the assessment battery, see Zucker, Wood, Singh, and Bradley (2012).

Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA) (Deogracias et al., 2007; Singh et al., 2010), the PREVNet Bullying Assessment Tool (PREVNet Inc., 2010), and the NRI.

All participants in the study were compensated \$20.

Measures

Youth Self-Report. The YSR is a questionnaire divided in two parts: Competencies and Problems. In the present study, only the problem scale was used. It consists of 112 items, covering different symptoms/behaviours each rated on a 3-point scale (“2” indicates that the statement is *True or Very True*, “1” indicates that it is *Somewhat or Sometimes True*, and “0” indicates that it is *Not True*). All ratings refer to symptoms or problems experienced during the preceding six months.

The YSR yields two broad-band scales: an Internalizing scale (comprised of symptoms of anxiety/depression, withdrawal, and somatic complaints) and an Externalizing scale (comprised of delinquent and aggressive behaviours), as well as a Total Problems scale which accounts for all YSR items. For the purposes of the present study, in order to limit cross-measure contamination, the three items that assess peer relations were not included in YSR Total Problems score. For a detailed discussion of this procedure, see Zucker, Wood, and VanderLaan (2014).

The YSR has been widely used in clinical research and services, as reported in over 200 publications as of 1994 (Brown & Achenbach, 1994). The measure has been shown to demonstrate strong psychometric properties. Achenbach and Rescorla (2001) found the mean test-retest reliability for empirically based syndromes to be .82. For DSM-oriented scales, the test-retest reliability was .79. Internal consistencies of problem

scales, as measured by Cronbach's alpha, ranged from .71 to .95 for the YSR, with the highest alphas found for the broad-band scales. The YSR has also demonstrated strong criterion-related validity. Achenbach and Rescorla (2001) found problem scales to significantly differentiate between demographically-matched referred and non-referred youths. Referred youths scored significantly higher on all problem items and scales ($p < .01$), and odds ratios showed the YSR to significantly differentiate between referred and non-referred youths when problem scores were dichotomized into normal or borderline/clinical ranges.

Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults. The GIDYQ-AA contains 27 items that pertain to gender identity and gender dysphoria. The items were developed by the North American Task Force on Intersexuality (NATFI) Research Protocol Working Group (Kessler, Meyer-Bahlburg, Schober, and Zucker) and were designed to capture multiple indicators of gender identity and gender dysphoria, including subjective ($n = 13$ items), social ($n = 9$ items), somatic ($n = 3$ items), and sociolegal ($n = 2$ items) parameters. The GIDYQ-AA has parallel male and female versions. Each item was rated on a 5-point response scale ranging from 1 (never) to 5 (always) based on a time frame of the past 12 months. Total score was calculated by summing scores on the completed items and dividing by the number of marked responses. Lower scores indicate more gender dysphoria.

The psychometric properties of the GIDYQ-AA were examined by Deogracias et al. (2007) with a sample of 462 participants that included both university students and gender identity patients. A principal factor analysis indicated a one-factor solution was the best fit (eigenvalue = 16.54), with all items having a factor loading greater than .30

(median = .82; range = .34-.96), accounting for 61.3% of the total variance (Cronbach's alpha = .97). The measure successfully discriminated gender identity patients from both heterosexual and nonheterosexual controls ($ps < .01$). Using a cut-point of less than or equal to 3, obtained by visual inspection of the frequency distributions of mean scores, Deogracias et al., found the scale to be adequately sensitive (sensitivity for the gender identity patients was 90.4%) and specific (specificity was 99.7% for the controls). Similarly, Singh et al. (2010) found a specificity rate of 100% and sensitivity rates of 93.3% and 87.3% for adolescents and adults with GID, respectively. These findings suggest that the GIDYQ-AA can be used to identify "caseness" in patients referred to a specialized gender identity clinic and is not simply a reflection of clinical problems in general.

PREVNet Bullying Assessment Tool. Victimization experiences were assessed with the Victimization subscale of the PREVNet Bullying Assessment Tool (PREVNet Inc., 2010). Participants were asked to indicate how often, and for how long, they have fallen victim to 7 specific forms of bullying behaviours (i.e., physical, verbal, social, electronic, racial, sexual/gender, and disability bullying) in the past 12 months. Severity was rated on a 5-point Likert-type scale ("*I have not been bullied*" to "*2 or more times a week*"), and duration was rated on a 6-point Likert-type scale ("*I have not been bullied*" to "*more than a year*"). If a participant endorsed having been bullied, the questionnaire included 4 follow-up questions regarding the demographics of the assailants (e.g., "How old was the bully?").

The PREVNet Bullying Assessment Tool was developed by 22 Canadian researchers. Newly generated items were added to those drawn from past well-established

measures (e.g., The Bully/Victim Questionnaire [Olweus, 1986] and the Pacific-Rim Bullying Measure [Taki, Slee, Sim, Hymel, & Pepler, 2006]) in an attempt to create a more comprehensive scale. Though psychometric properties are not yet available, the measure is currently used by The Promoting Relationships and Eliminating Violence Network (PREVNet) to assess victimization in adolescence.

Network of Relationships Inventory. A subset of the NRI, focused on social support, was used in the present study. This subset consisted of 21 questions, which assessed the following 7 provisions of support derived from Weiss' (1974) theory: (a) companionship, (b) instrumental aid, (c) intimacy, (d) nurturance, (e) affection, (f) admiration, and (g) reliable alliance.

Participants considered the following relationships while making their ratings: (a) a same-sex friend, (b) an other-sex friend, (c) a transgender friend, and (d) a romantic friend, in each of the following contexts: (i) at school, (ii) outside of school, and (iii) online. These categories were selected in an attempt to assess peer networks and were based on preliminary findings that adolescents with GID may not find similar peer support in all contexts (Devor, 1997). In some cases, an adolescent knew more than one person in one of the categories; if so, they were asked to rate the relationship that was most important to them. In other cases, an adolescent did not know anyone in one of the categories; if this was the case, they were asked to leave the field blank.

Participants were asked the extent to which a particular relational quality occurred in each relationship (e.g., "How much free time do you spend with each of these persons?"). Ratings were made on a 5-point Likert scale. The anchor points were the same on all scales (1 = *little or none* to 5 = *the most*). Responses to the three items

assessing each relationship quality were summed for each relationship. Thus, 7 scale scores were obtained for each type of relationship rated. These 7 scores were then combined into one dimension of support.

The NRI possesses satisfactory psychometric properties. For example, using a sample of 199 children in public schools, Furman and Buhrmester (1985) found that the internal consistencies of the scale scores were acceptable (M Cronbach's alpha = .80) and that the alphas of all scale scores used to assess relationships with friends and siblings were greater than .60. Furman and Buhrmester (1992) demonstrated very similar findings when they examined the support composite using a sample of 554 participants that ranged from children to young adults (M Cronbach's alpha = .81).

Chapter 3

Results

Sample Characteristics

Preliminary analyses were conducted to determine the suitability of including the 7 “old” GID cases in the present sample. *t*-tests showed that the Youth Self-Report (YSR) sum score and GIDYQ-AA score of these 7 “old” participants did not significantly differ from those of the 49 “new” participants (*ds* = .17 and -.55, respectively).⁵ Thus, it was determined that their inclusion in the study was appropriate.

The demographic characteristics of the GID, CC, and NC groups are shown in Table 1. A univariate analysis of variance (ANOVA) showed that there was no significant between-group difference in age. Chi-square tests showed that the groups did not vary in terms of sex, but did vary in terms of ethnicity, with the GID group having a significantly higher proportion of Caucasian participants compared to both the CC group and the NC group. Preliminary analyses showed that ethnicity did not have a significant effect on the results when entered as a covariate. For this reason, it was not included in the analyses below.

Gender Dysphoria

Figure 1 shows the means and SDs for self-reported gender dysphoria, as measured by the GIDYQ-AA. A 2 (Sex) x 3 (Group) ANOVA showed a significant main effect for Group, $F(2, 151) = 670.01, p < .001, \eta_p^2 = .90$. Post hoc analyses⁶ showed that the GID group endorsed significantly more gender dysphoria than the other two groups ($ps < .05, d = -4.85$ and -9.06 , respectively), and that the CC group endorsed significantly

⁵ The statistics, though not significant, carry a moderate effect size (likely due to sample size). However, if they differ from the new referrals, it appears that these 7 participants may be more extreme in their gender dysphoria and self-reported behavioural problems, making their inclusion in the study relevant.

more gender dysphoria than the NC group ($p < .05$, $d = -.77$).⁷

Using a cut-point of less than or equal to 3, previously used by others to identify “caseness” (e.g., Singh et al., 2010), the sensitivity rate for the GID group was found to be 98%, while specificity rates were found to be 98% for the CC group and 100% for the NC group.

Table 1
Demographic Characteristics of the Sample as a Function of Group

Variables	Group			$F(2, 155)$ or $\chi^2(2)$	
	GID ($n = 56$)	CC ($n = 47$)	NC ($n = 55$)		
Age (in years)	M	16.94	17.01	16.91	< 1
	SD	1.81	1.73	1.94	
Sex					
Male	N	22 (39%)	16 (34%)	19 (35%)	< 1
Female	N	34 (61%)	31 (66%)	36 (65%)	
Ethnicity					
Caucasian	N	45 (80%)	28 (60%)	34 (62%)	6.39*
Other ^a	N	11 (20%)	19 (40%)	21 (38%)	

^aFor ethnicity, the category “Other” includes all participants who did not classify their own ethnicity as “Caucasian” or “white.”

* $p < .05$

⁶ Duncan’s multiple range test was used for all post hoc analyses, as it is thought to be the most appropriate method for comparing the means of groups with unequal n ’s.

⁷ α was not adjusted to limit Type I error, despite such a risk existing with the great number of analyses run in the present study. This was done to limit Type II error in a burgeoning field of research, where several research questions were considered exploratory in nature, missed findings could have negative social consequence, and the target population is difficult to sample. Though the findings carry a low probability of Type I error, and many build on past empirical research, several of the present study’s results should be interpreted with caution and future research will be required to strengthen their validity.

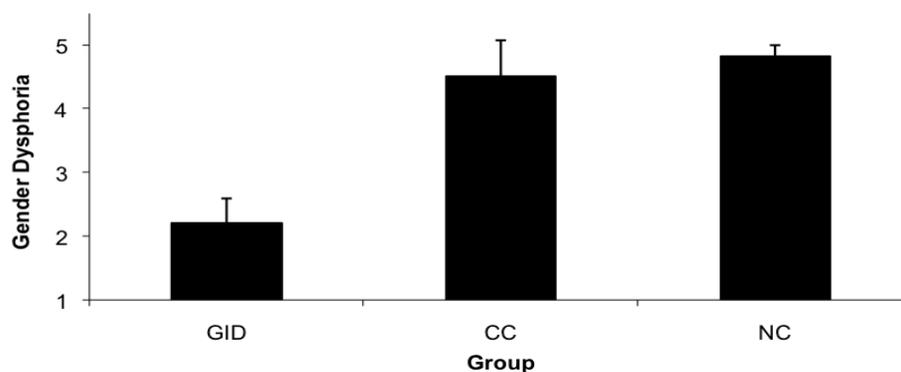


Figure 1. Self-reported gender dysphoria, as measured by the GIDYQ-AA.
Note. Lower scores are indicative of more gender dysphoria. Absolute range, 1-5.

Behavior Problems

Figure 2 shows the means and SDs for self-reported behavior problems on the YSR. A 2 (Sex) x 3 (Group) ANOVA showed a significant Sex x Group interaction for the Total Problem index of the YSR, $F(2, 152) = 4.49, p < .05, \eta_p^2 = .06$.⁸ Exploring the interaction, a between-group difference existed for females ($p < .001, \eta_p^2 = .32$), with post hoc tests showing that the CC group scored higher than the GID group ($p < .05$), which in turn scored higher than the NC group ($p < .05$). A between-group difference also existed for males ($p < .01, \eta_p^2 = .20$), with the GID group and the CC group both scoring significantly higher than the NC group ($ps < .05$), but not significantly different from each other. Finally, an independent samples *t*-test showed that, in the CC group, females scored significantly higher than males, $t(45) = 2.91, p < .01, d = .87$. Within the GID group and NC group, there was no significant sex difference.

⁸ Analyses were also run for the Internalizing and Externalizing scales of the YSR. Results were found to be similar to those reported for the Total Problems scale. To avoid redundancy, they were not included in this write-up.

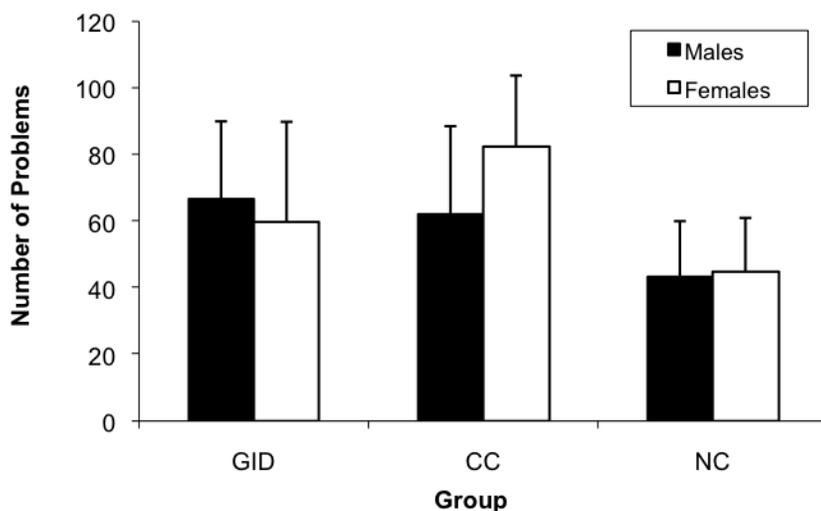


Figure 2. Self-reported Total Problems, as measured by the YSR (Absolute range, 0-202).

Using a cut-point of $T \geq 63$ on the Total Problems scale (the cut-point used to define scores falling in the “clinical range”) (Achenbach, 1991), the percentage of participants in the clinical range were 45% for the GID group, compared to 75% for the CC group and 9% for the NC group.⁹

Bullying

Experiences of peer bullying were measured by the PREVNet Bullying Assessment Tool. One-way ANOVAs were conducted for each individual item assessing bullying frequency within the past year. For ease of interpretation, a summary of the between-group differences can be found in Table 2.

Figure 3a shows the means and SDs for Item 1, which asked, “How often have you been bullied in the past 12 months?” A 2 (Sex) x 3 (Group) ANOVA showed a significant main effect for Group, $F(2, 152) = 4.23, p < .05, \eta_p^2 = .05$. Post hoc analyses

⁹ For this analysis of sensitivity/specificity only, the 3 YSR items that assess peer relations were included in the YSR Total Score.

showed that the GID and CC groups both reported more bullying than the NC group (p s $< .05$; $d = .45$ and $.50$), and that the two clinical groups did not significantly differ in their reporting of bullying.

Table 2

Summary of the Between-Group Differences Found for Bullying Variables

Peer Metric	Statistical Test	Summary
Bullied in past 12 months	Group	GID, CC > NC
Bullying prior to the past 12 months	Group	GID, CC > NC
Type of bullying		
Physical bullying	Group	GID > NC
Social Bullying	Sex x Group	Males: GID > NC Females: <i>ns</i> GID Males > GID Females
Verbal bullying	Sex x Group	<i>ns</i>
Electronic bullying	Sex x Group	<i>ns</i>
Reason for bullying		
Gender/Sexual Bullying	Group	GID > CC, NC
Racial Bullying	Sex x Group	Males: NC > GID, CC Females: CC > GID, NC NC Males > NC Females

Note. Only significant results have been reported ($p < .05$).

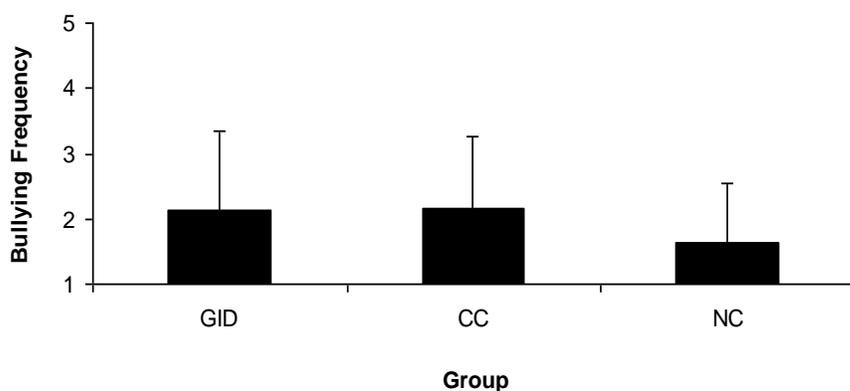


Figure 3a. Self-reported bullying frequency, within the past 12 months, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

Participants who reported having been bullied within the past 12 months were asked follow-up questions about the specific forms of bullying they experienced. If a participant reported that they had not been bullied within the past 12 months, they were coded as having not experienced the various specific forms of bullying. Within the GID group, 39% reported that they had not been bullied in the past 12 months, compared to 28% of the CC group and 55% of the NC group.

A 2 (Sex) x 3 (Group) ANOVA showed a significant main effect for Group on the item assessing Physical Bullying, $F(2, 152) = 3.92, p < .05, \eta_p^2 = .05$ (see Fig. 3b). Post hoc analyses showed that the GID group reported significantly more physical bullying than the NC group ($p < .05, d = .38$) while neither group differed significantly from the CC group.

A 2 (Sex) x 3 (Group) ANOVA showed a significant Sex x Group interaction on the item assessing Social Bullying $F(2, 152) = 4.56, p < .05, \eta_p^2 = .06$ (see Fig. 3c). Exploring the interaction, a significant group difference was found for males ($p < .05, \eta_p^2 = .14$), with GID males reporting significantly more social bullying than NC males ($p < .05, d = .92$), and neither group differing significantly from the CC group. A significant group difference was not found for females ($\eta_p^2 = .02$). Examining sex differences within each group, a t -test showed GID males reported significantly more social bullying than GID females, $t(54) = -2.77 (p < .01, d = -.71)$.

A 2 (Sex) x 3 (Group) ANOVA showed a significant main effect for Group on the item assessing Gender/Sexual Bullying, $F(2, 151) = 22.84, p < .001, \eta_p^2 = .21$ (see Fig.

3d). The GID group reported significantly more gender/sexual bullying than both of the comparison groups ($ps < .05$; $d = .57$ and 1.13 , respectively).

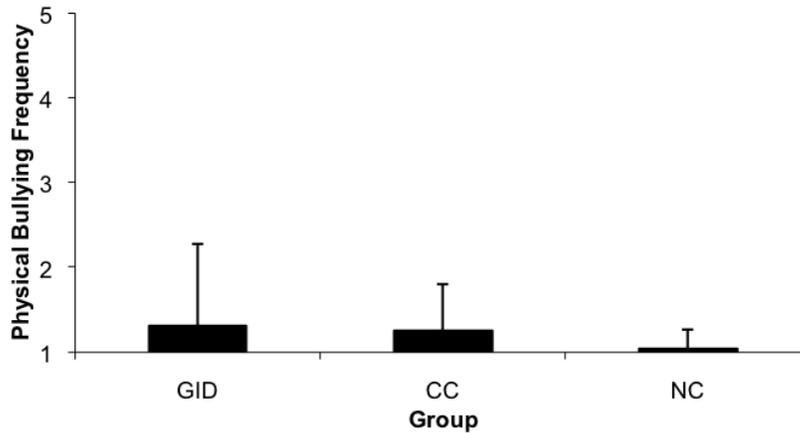


Figure 3b. Self-reported physical bullying frequency, within the past 12 months, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

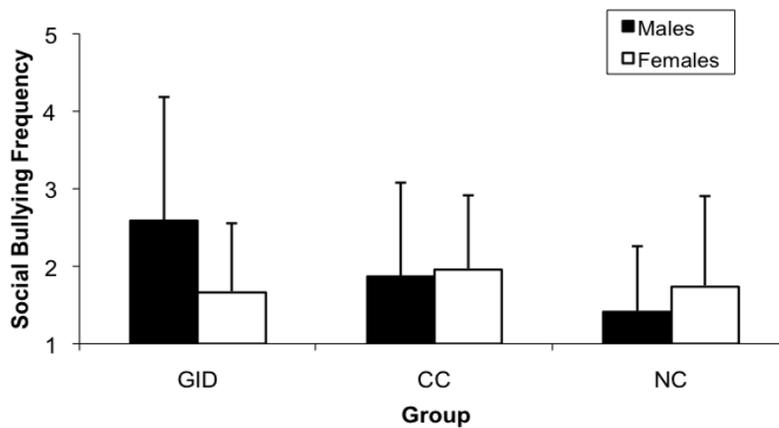


Figure 3c. Self-reported social bullying frequency, within the past 12 months, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

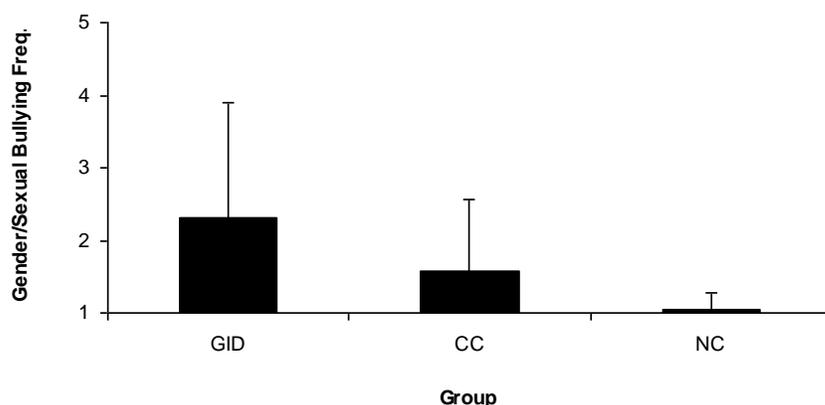


Figure 3d. Self-reported gender/sexual bullying frequency, within the past 12 months, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

A 2 (Sex) x 3 (Group) ANOVA showed a significant Sex x Group interaction on the item assessing Racial Bullying (despite ethnicity being entered as a covariate), $F(2, 151) = 6.59, p < .01, \eta_p^2 = .08$ (see Fig. 3e). Examining each sex independently, a significant group difference was found for males ($p < .05, \eta_p^2 = .12$) as well as for females ($p < .05, \eta_p^2 = .09$). For males, the NC group reported significantly more racial bullying than the other two groups ($ps < .05$). For females, the CC group reported significantly more racial bullying than the other two groups ($ps < .05$). Within the NC group, males reported significantly more racial bullying than females, $t(53) = -2.73, p < .01, d = -.66$.

No significant between-group differences were found for frequency of self-reported experiences of verbal bullying or electronic bullying.

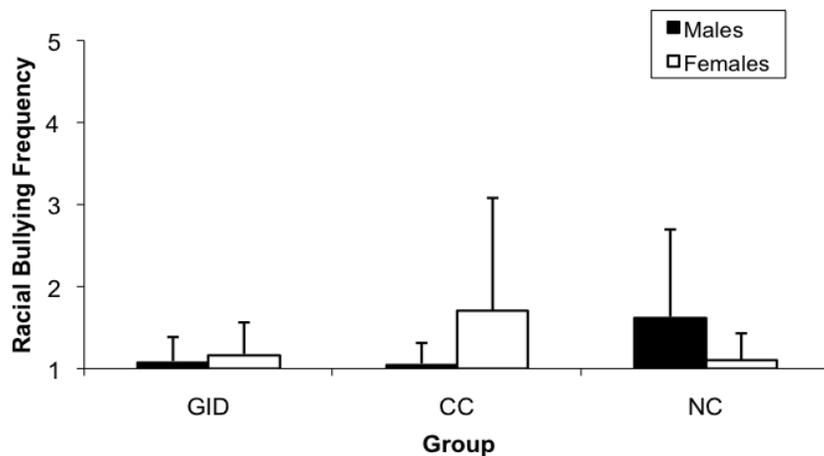


Figure 3e. Self-reported racial bullying frequency, within the past 12 months, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

A 2 (Sex) x 3 (Group) ANOVA was conducted on the item assessing past experiences of bullying (prior to the last 12 months). Results showed a significant main effect for Group, $F(2, 120) = 6.75, p < .01, \eta_p^2 = .10$ (see Fig. 3f). The GID group and the CC group both endorsed significantly more past bullying than the NC group ($ps < .05$).

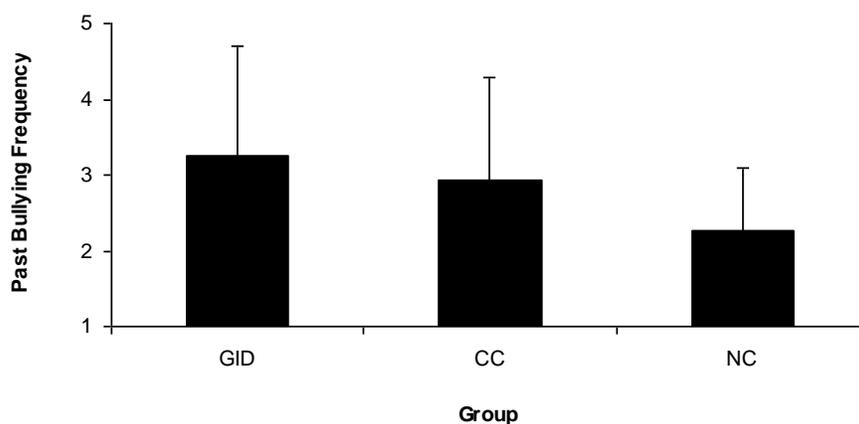


Figure 3f. Self-reported past bullying frequency, as measured by the PREVNet Bullying Assessment Tool (Absolute range, 1-5).

Friendship

Experiences of friendship were measured by the NRI. The measure assessed a number of different elements of the youths' friendships, including number of friends, friendship length and experiences of support. Table 3 summarizes the key between-group differences found.

Table 3

Summary of the Between-Group Differences Found for Friendship Variables

Peer Metric	Statistical Test	Summary
Number of Friends		
At school	Group	GID < CC, NC
Outside school	Group	GID < CC, NC
Internet	Sex x Group	Males: <i>ns</i> Females: NC < CC < GID GID Males < GID Females NC Females < NC Males
Same-sex at school	Group	GID < CC < NC
Opposite-sex at school	Group	CC, NC < GID
Same-sex outside school	Group	GID < CC, NC
Opposite-sex outside school	Group	<i>ns</i>
Friendship Length	Group	GID, CC < NC
Peer Support		
Same-sex school friends	Group	GID < CC, NC
Opposite-sex school friends	Group	<i>ns</i>
Friends outside of school	Group	<i>ns</i>

Note. Only significant results have been reported ($p < .05$). See text for detailed results, including significant within-group differences.

Number of Friends by Context. Figure 4 shows the frequencies for self-reported number of close friends, as measured by the NRI. A 2 (Sex) x 3 (Group) x 3 (Friendship Context) mixed-model ANOVA showed a significant Sex x Group x Context interaction, $F(4, 304) = 2.53, p < .05, \eta_p^2 = .03$. A series of ANOVAs were then conducted to explore the interaction.

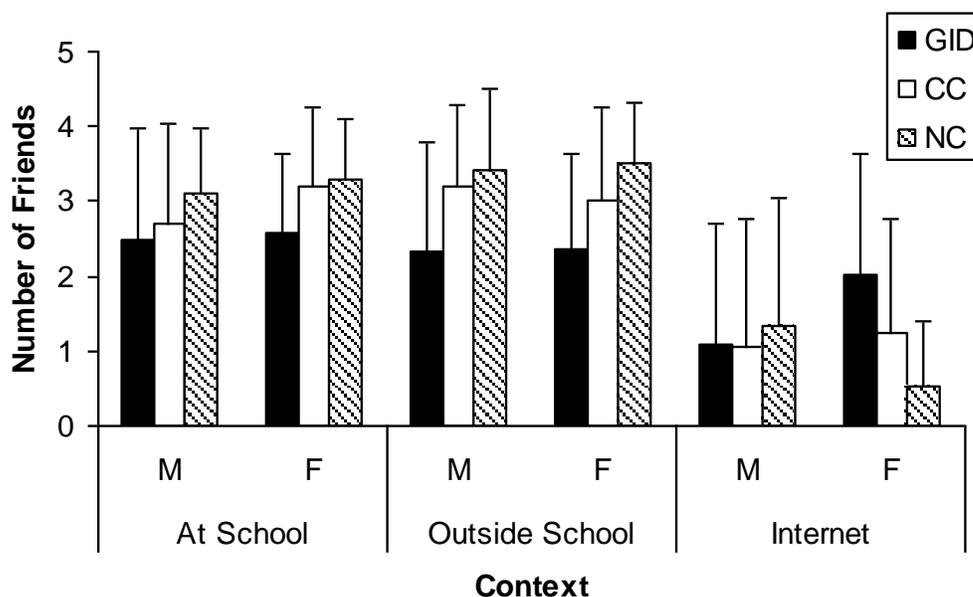


Figure 4. Self-reported number of close friends, by context.

First, 2 (Sex) x 3 (Group) ANOVAs were conducted at each level of Friendship Context. In terms of the number of self-reported friends *at school*, there was a significant main effect for Group ($p < .05$, $\eta_p^2 = .06$). Post hoc analyses showed that the GID group reported significantly fewer friends than both the NC group ($p < .05$, $d = -.64$) and the CC group ($p < .05$, $d = -.39$). *Outside of school*, there was also a significant main effect for Group ($p < .001$, $\eta_p^2 = .14$), with the GID group reporting significantly fewer friends than both the NC group ($p < .05$, $d = -.99$) and the CC group ($p < .05$, $d = -.57$). Finally, *on the internet*, there was a significant Sex x Group interaction ($p < .05$, $\eta_p^2 = .05$). For females, there was a significant between-group difference ($p < .001$, $\eta_p^2 = .18$), with GID females reporting more friends on the internet than females in the CC group ($p < .05$, $d = .51$), which in turn reported more internet friends than the NC group ($p < .05$, $d = .56$). This pattern did not hold for males, who showed no significant between-group differences. Within the GID group, females reported having significantly more friends on the internet

than males, $t(54) = 2.14$, $p < .05$, $d = .59$. Conversely, within the NC group, males reported having significantly more friends on the internet than females ($p < .05$, $d = -.51$).

Next, 2 (Sex) x 3 (Friendship Context) mixed-model ANOVAs were conducted at each Group level. In the NC group (but not in the other two groups), there was a significant Context x Sex interaction ($p < .05$, $\eta_p^2 = .07$). This can be accounted for by the NC group's sex difference in number of friends on the internet, reported above. For both sexes, members of the NC group and the CC group had more friends at school and outside of school than they did on the internet ($ps < .05$).

Finally, 3 (Group) x 3 (Friendship Context) mixed-model ANOVAs were conducted for each Sex. For females, there was a significant Context x Group interaction ($p < .001$, $\eta_p^2 = .22$). This interaction can be accounted for by the females' between-group difference in number of friends on the internet, reported above. Further analyses showed that, for females in the GID group, there was no significant difference between Contexts ($ps > .05$). However, for females in the control groups, the number of friends on the internet was significantly less than the number of friends at school and outside of school ($ps < .001$).

Number of Friends by Context and Friends' Sex. Figure 5 shows the means and SDs for self-reported number of close same-sex and other-sex friends, as measured by the NRI. A 2 (Sex) x 3 (Group) x 2 (Friends' Sex) x 3 (Context) mixed-model ANOVA was conducted to explore group differences in friendship type. Results showed a significant Group x Friends' Sex x Context interaction, $F(4, 304) = 20.25$, $p < .001$, $\eta_p^2 = .13$. A series of ANOVAs were then conducted to explore the interaction.

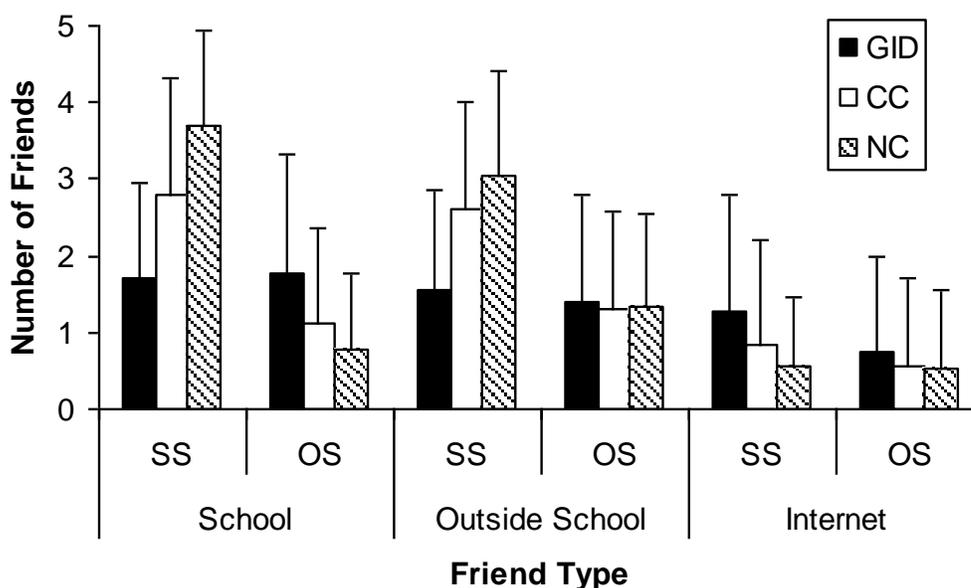


Figure 5. Self-reported same-sex and opposite-sex “close friends.”

First, 3 (Group) x 2 (Friends’ Sex) mixed-model ANOVAs were conducted at each level of Friendship Context. Regarding the number of self-reported friends *at school*, there was a significant Group x Friends’ Sex interaction ($p < .001$, $\eta_p^2 = .25$). The interaction was explored with a series of ANOVAs and paired-samples *t*-tests. Regarding *same-sex friends at school*, there was a main effect for Group ($p < .001$, $\eta_p^2 = .29$), with the GID group having significantly fewer same-sex friends than the CC group ($p < .05$, $d = -.80$), and the CC group having significantly fewer same-sex friends than the NC group ($p < .05$, $d = -.63$). Regarding *opposite-sex friends at school*, there was also a main effect for Group ($p < .001$, $\eta_p^2 = .10$), with the GID group having significantly more opposite-sex friends than both the CC group ($p < .05$, $d = .46$) and the NC group ($p < .05$, $d = .77$). Within the CC group ($p < .001$) and the NC group ($p < .001$), the number of self-reported same-sex friends was greater than the number of opposite-sex friends. However, within

the GID group, there was no significant difference between the number of same-sex and opposite-sex friends.

Regarding self-reported friends *outside of school*, there was a significant Group x Friends' Sex interaction ($p < .001$, $\eta_p^2 = .09$). The interaction was explored with a series of ANOVAs and paired-samples *t*-tests. In terms of *same-sex friends outside of school*, there was a main effect for Group ($p < .001$, $\eta_p^2 = .18$), with the GID group having significantly fewer same-sex friends than both the CC group ($p < .05$, $d = -.77$) and the NC group ($p < .05$, $d = -1.11$). However, there was no significant group difference for self-reported *opposite-sex friends outside of school* ($p = .93$, $\eta_p^2 = .00$). Within the CC group ($p < .001$) and the NC group ($p < .001$), the number of same-sex friends outside of school was greater than the number of opposite-sex friends outside of school. However, within the GID group, no significant difference was found.

Regarding self-reported friends *on the internet*, there was a significant main effect for Group ($p < .05$, $\eta_p^2 = .04$), with the GID group having significantly more friends on the internet than the NC group ($p < .05$, $d = .50$), while neither group differed significantly from the CC group.

Next, 3 (Group) x 3 (Context) mixed-model ANOVAs were completed for each level of Friends' Sex. For *same-sex friendships*, there was a significant Group x Context interaction ($p < .001$, $\eta_p^2 = .19$). This could be accounted for by the group differences within each context (reported above) and by differences, within each group, between contexts. Paired-samples *t*-tests showed that, within the NC group, the number of same-sex friends at school was greater than the number of same-sex friends outside of school ($p < .01$), which was greater than the number of same-sex friends on the internet ($p <$

.001). Within the CC group, the number of same-sex friends at school did not differ from the number of same-sex friends outside of school, but both were both greater than the number of same-sex friends on the internet ($ps < .001$). Within the GID group, the number of same-sex friends did not significantly differ across contexts ($ps > .05$).

For *opposite-sex friendships*, there was also a significant Group x Context interaction ($p < .05$, $\eta_p^2 = .03$). This could be accounted for by the group differences within each context (reported above) and by differences, within each group, between contexts. Paired-samples *t*-tests showed that, within the NC group, the number of opposite-sex friends outside of school was greater than the number of opposite-sex friends at school ($p < .01$) and on the internet ($p < .001$). For the GID group and the CC group, the number of opposite-sex friends at school did not significantly differ from the number of opposite-sex friends outside of school ($ps > .05$) and, for both groups, the number of opposite-sex friends on the internet was significantly less than the number reported in both other contexts ($ps < .05$).

Finally, groups were examined in isolation, with differences in Friends' Sex analyzed for each Context. For the CC group and the NC group, there were more same-sex friends than opposite-sex friends at school and outside of school ($ps < .001$), but no significant difference for friends' sex was found on the internet. Conversely, for the GID group, a difference in friends' sex was only found on the internet ($p < .05$). At school and outside of school, the GID group did not significantly differ in their reported number of same-sex vs. opposite-sex friends.

Transgender Friends. Table 2 shows the frequencies of self-reported number of close transgender friends, as measured by the NRI. A 2 (Sex) x 3 (Group) x 3 (Context) mixed-model ANOVA showed a significant Group x Context interaction, $F(4, 304) = 4.98, p < .01, \eta_p^2 = .06$. A series of ANOVAs and t -tests were then conducted to explore the interaction. Within each Context, there was a significant main effect for Group; at school ($p < .05, \eta_p^2 = .04$), outside of school ($p < .001, \eta_p^2 = .11$), and on the internet ($p < .001, \eta_p^2 = .18$). In each case, the main effect was powered by the GID group, which reported having more transgender friends, in each context,¹⁰ than the control groups ($ps < .05$). Within the GID group, participants reported more transgender friends on the internet than they did at school ($p < .01$) or outside of school ($p < .05$). No significant differences were found within the other groups.

Within the GID group, 71% of transgender friends were reported to be of the same birth sex as the participant. Also, within the GID group, of the reported same-sex internet friends ($n = 72$), 36% were transgender; of the reported opposite-sex internet friends ($n = 41$), 27% were transgender. Within the control groups, only females reported having any transgender friends ($n = 6$). Of these friends, 83% were reported to be of the same birth sex as the participant.

¹⁰ A significant group difference did not exist between the GID and the CC group at school ($p > .05, d = 2.00$).

Table 4

Frequencies of Self-Reported Close Transgender Friends as a Function of Group and Sex

Variables	#	Males			Females		
		GID (n = 22)	CC (n = 16)	NC (n = 19)	GID (n = 34)	CC (n = 31)	NC (n = 36)
Friends at School	0	21	16	19	29	28	36
	1 or more	1	0	0	5	3	0
	Total	22	16	19	34	31	36
Friends Outside School	0	17	16	19	26	30	35
	1 or more	5	0	0	8	1	1
	Total	22	16	19	34	31	36
Friends on the Internet	0	15	16	19	22	30	36
	1 or more	7	0	0	12	1	0
	Total	22	16	19	34	31	36

Best Friends. On the NRI, participants were asked to identify a best friend in 9 categories: same-sex friend, opposite-sex friend, and/or transgender friend; at school, outside of school, and/or on the internet (i.e., 3 x 3). After these friends were identified, participants were asked follow-up questions on the nature of these friendships. Figures 6a and 6b show the frequency of how many participants could identify a friend in each individual category, as a function of group and sex.¹¹

¹¹ While these data are relevant, the findings were not analyzed in depth, as it was thought to be redundant with the analyses of friendship numbers, reported above.

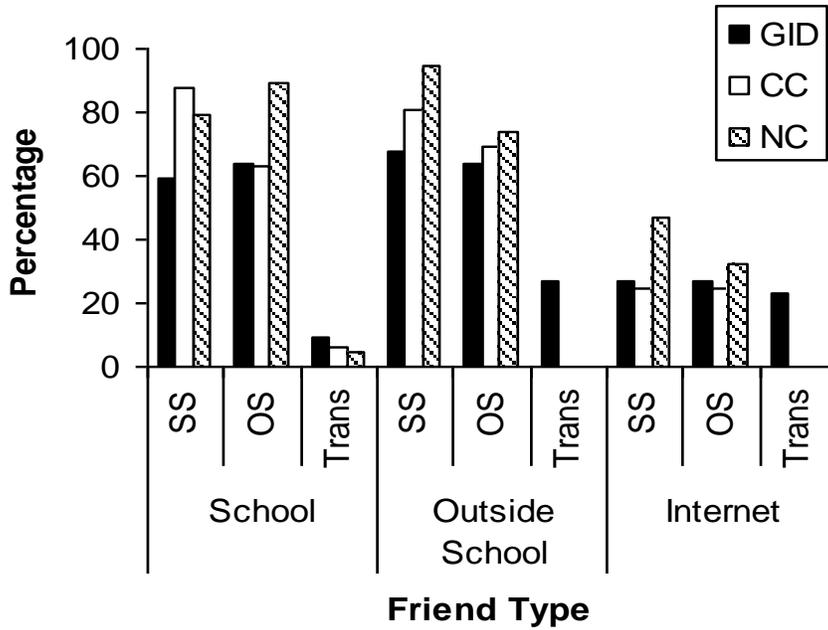


Figure 6a. Frequency by which males could identify a friend within 9 NRI categories.

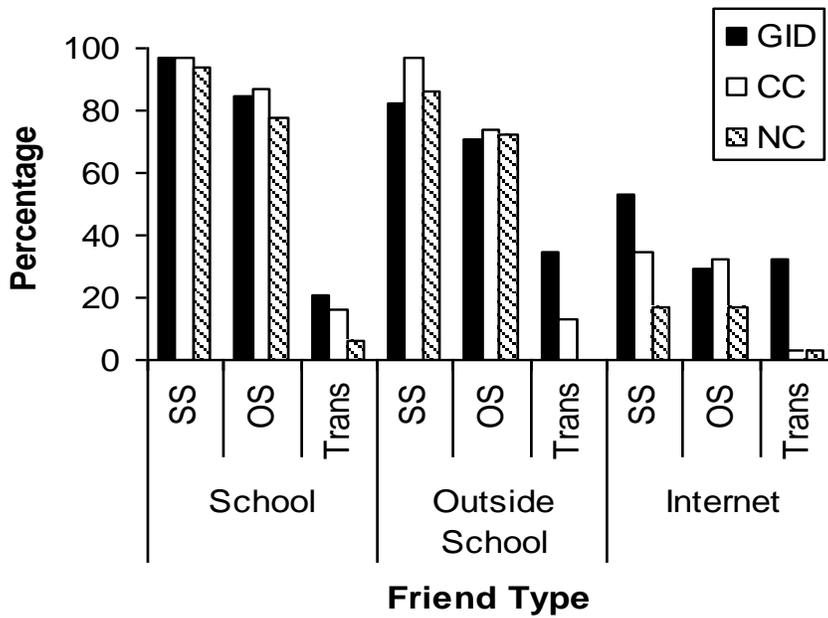


Figure 6b. Frequency by which females could identify a friend within 9 NRI categories.

Friendship Length. Once a friend was identified, participants were asked to record the length of the friendship. Figure 7 shows the means and SDs for Friendship Length, by category. A 2 (Sex) x 3 (Group) ANOVA showed a significant main effect for Group on mean friendship length (collapsed across friendship categories), $F(2, 152) = 7.52, p < .01, \eta_p^2 = .09$. Post hoc analyses showed that, on average, the NC group reported significantly longer friendships than both the GID group and the CC group ($ps < .05; d = .65$ and $.63$, respectively), while the two clinical groups did not differ significantly from each other.

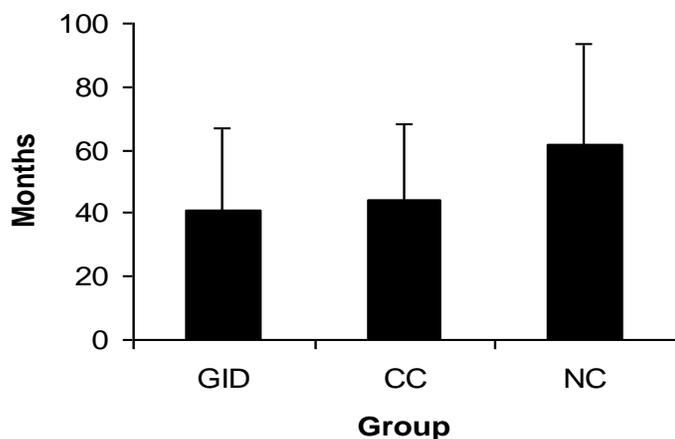


Figure 7. Mean length of identified friendships (in months), collapsed across 9 friendship categories on the NRI.

Next, friendship length was assessed using a 2 (Sex) x 3 (Group) x 2 (Friend's Sex) x 3 (Context) mixed-model ANOVA was conducted. For the purpose of this analysis, if a participant did not identify a friend in a category, friendship length was scored as 0. Results showed a significant Group x Context interaction, $F(4, 304) = 2.85, p < .05, \eta_p^2 = .04$ (see Fig. 8). Exploring the interaction, each context was examined

independently. Regarding length of school friendships, there was a significant group difference ($p < .05$, $\eta_p^2 = .04$), with the NC group reporting significantly longer school friendships than the GID group ($p < .05$, $d = -.48$), but neither group differing significantly from the CC group. For friends outside of school, there was also a significant group difference ($p < .01$, $\eta_p^2 = .08$), with the NC group reporting longer non-school friendships than the GID group ($p < .05$, $d = -.65$) and the CC group ($p < .05$, $d = -.55$). For friends on the internet, a significant group difference was not found. Then, differences within each group were examined. Within each group, participants reported longer friendships for friends outside of school than at school,¹² and longer friendships with school friends than internet friends ($ps < .001$).

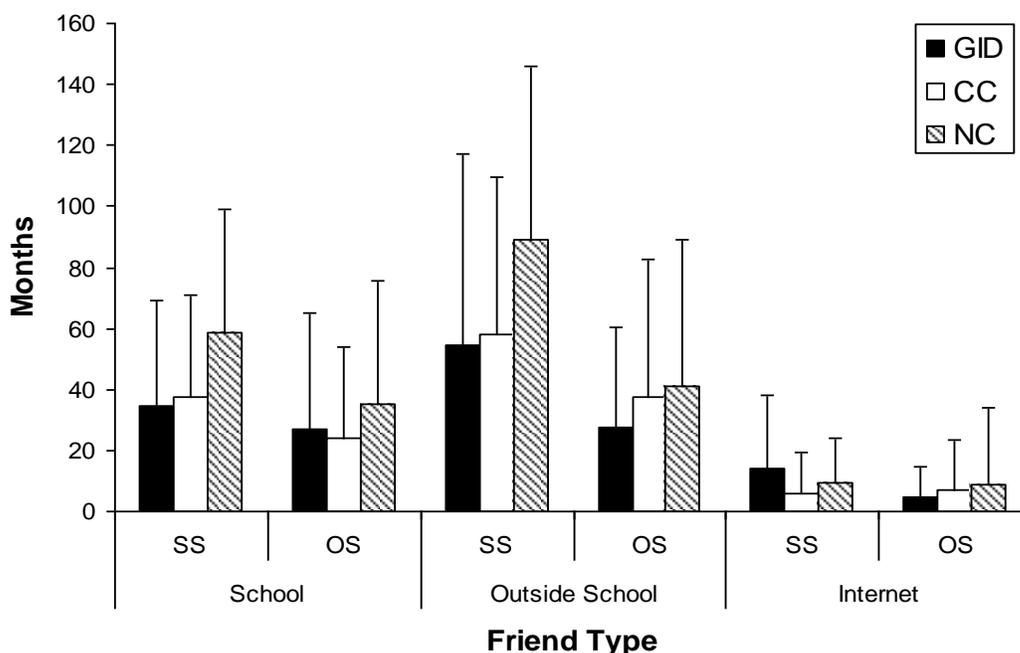


Figure 8. Mean length of friendships (in months).

¹² For the NC group, this difference was significant ($p < .01$). For the GID group and the CC group, it was a trend approaching significance ($ps = .07$ and $.09$)

Social Support. Participants were asked questions regarding the amount of social support they experienced receiving from each best friend. Figure 9 shows the means and SDs for self-reported experiences of peer social support, as measured by the NRI.

Collapsing across all relationships, a Total Support score was derived. A 2 (Sex) x 3 (Group) ANOVA showed a significant Sex x Group interaction, $F(2, 152) = 3.95, p < .05, \eta_p^2 = .05$. Exploring the interaction, in both the GID group ($p = .06, d = .50$) and the CC group ($p < .01, d = 1.01$), females reported higher levels of peer support than males. This sex difference was not found within the NC group ($d = -.30$). Significant group differences were not found for either sex.

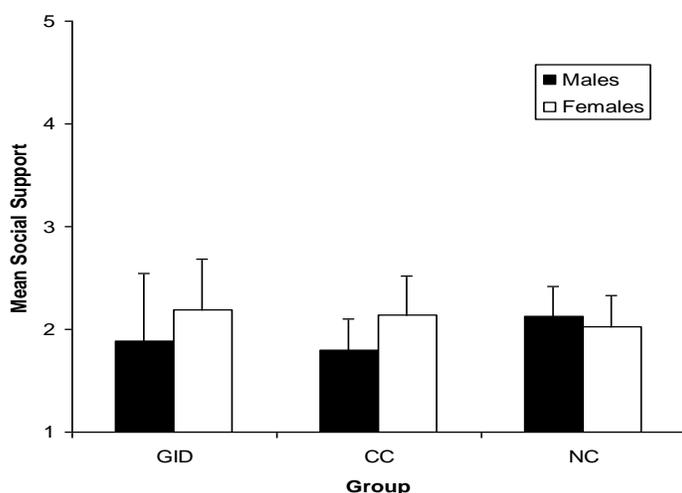


Figure 9. Self-reported experiences of peer social support, across friendship type, as measured by the NRI.

Next, social support by friendship type was analyzed using a 2 (Sex) x 3 (Group) x 2 (Friend's Sex) x 3 (Context) mixed-model ANOVA (see Fig. 10). Results showed a significant Group x Friend's Sex x Context interaction, $F(4, 304) = 3.36, p = .01, \eta_p^2 = .04$. Exploring the interaction, each setting was examined independently. For school friends, there was a significant Group x Friend's Sex interaction ($p = .001, \eta_p^2 = .08$). The

GID group reported significantly less social support from same-sex school friends than both the CC group ($p < .05$, $d = -.50$) and the NC group ($p < .05$, $d = -.93$). This group difference did not exist for opposite-sex school friends ($\eta_p^2 = .00$). The CC group and the NC group ($ps < .001$) both reported more social support from same-sex than opposite-sex school friends, a difference that was not found within the GID group ($p = .16$). For friends outside of school, there was a significant main effect for Friend's Sex ($p < .001$, $\eta_p^2 = .24$), with participants generally reporting greater social support from same-sex than opposite sex friends outside of school. Finally, for friends on the internet, no significant results were obtained.

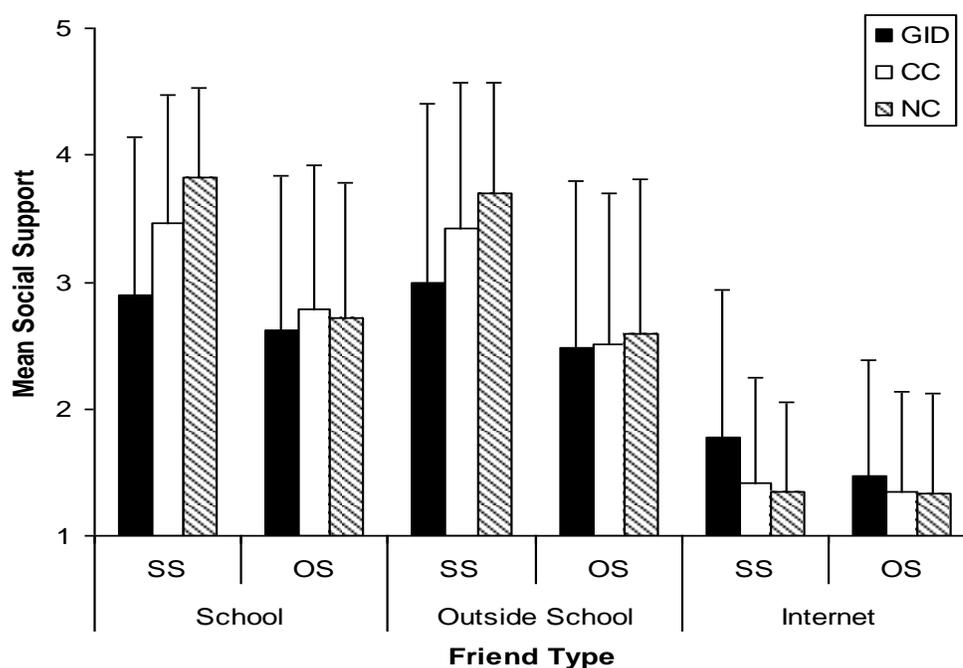


Figure 10. Self-reported experiences of peer social support, as measured by the NRI, collapsed across sex.

Each level of Friend's Sex was examined independently. For same-sex friends, there was a significant Group x Context interaction ($p < .001$, $\eta_p^2 = .10$). In addition to the group differences in same-sex friendships within each context (described above), it was found that, for all groups, participants reporting receiving significantly less social support from internet friends than face-to-face friendships ($ps < .001$). A similar main effect for Context was found for opposite-sex friendships ($p < .001$, $\eta_p^2 = .34$), with internet friendships being rated as providing less support than face-to-face friendships for all groups.

Finally, each group was examined independently. In addition to differences across context, for each level of friend's sex, described above, differences between friend's sex (for each context) were found. For the CC group and the NC group, same-sex friendships at school ($ps < .001$) and outside of school ($ps < .001$) were reported to be more supportive than opposite-sex friendships in these contexts; while no significant difference was found between friend's sex for internet friendships. For the GID group, same-sex friendships outside of school ($p < .05$) and on the internet ($p < .05$) were reported to be more supportive than opposite-sex friendship in these contexts; while no significant difference was found between friend's sex for school friendships.

Social Support from Transgender Friends. A 2 (Sex) x 3 (Group) ANOVA showed a main effect for Group for total social support garnered from transgender friendships, $F(2, 152) = 19.46$, $p < .01$, $\eta_p^2 = .20$. The GID group reporting more social support from transgender friends than the CC group ($p < .05$, $d = .83$) and the NC group ($p < .05$, $d = 1.07$). Within the GID group, participants reported garnering more social

support from same-sex and opposite-sex friends (who were not transgender) than from transgender friends ($ps < .01$).

Associations between Variables of Interest

Table 3 shows the correlations between the YSR, the GIDYQ-AA, and variables of peer relations (i.e., friendship variables and bullying variables). Only those relational variables that differed significantly at the group level were included, with the goal of assessing the clinical relevance of the group differences described above. The analyses also served as a preliminary step in determining which variables would be included in subsequent analyses of mediating effects.

Collapsing across Group and Sex, gender dysphoria was significantly correlated with YSR Total Problems, $r(156) = .15, p < .05$.^{13,14}

Collapsing across Group and Sex, all bullying variables assessed were significantly positively correlated with YSR Total Problems ($ps < .01$). As well, a significant correlation was found between social bullying and YSR Problems in males ($p < .01$), a correlation that was not assessed for females, as significant differences were not found at the group level.

A number of friendship variables were significantly negatively correlated with YSR Problems for the entire sample: number of school friends ($p < .01$), number of same-sex school friends ($p < .01$), support from same-sex school friends ($p < .05$), mean friendship length ($p < .01$), and community friendship length ($p < .01$). As well, a

¹³ On the GIDYQ-AA, lower scores represent more gender dysphoria. For the purposes of these analyses, the results were inverted for ease of interpretation. A positive correlation signifies that more severe gender dysphoria is associated more YSR Problems.

¹⁴ This correlation is influenced by the fact that the GID group is “high” in both gender dysphoria and YSR Problems, the CC group is “low” in gender dysphoria and “high” in YSR Problems, and the NC group is “low” in both variables. Thus, if the CC group were to be eliminated from the analysis, the correlation would strengthen ($r = .40, p < .001$). The group differences reported earlier continue to be a more meaningful analysis of these variables.

significant positive correlation was found between the number of internet friends and YSR Problems in females ($p < .01$), a correlation that was not assessed for males, as significant differences were not found at the group level.

Table 5

Correlations of Friendship Variables, Bullying Variables, and Gender Dysphoria with YSR Problems

Variables	Total Problems		
	Entire Sample ($n = 158$)	Females ($n = 101$)	Males ($n = 57$)
Gender Dysphoria	.15*		
Bullying	.33**		
Physical Bullying	.24**		
Social Bullying			.36**
Gender Bullying	.34**		
Past Bullying	.38**		
Number of School Friends	-.17*		
Number of Community Friends	.04		
Number of Internet Friends		.24**	
Number of Same-Sex School	-.25**		
Number of Opposite-Sex School	.05		
Number of Same-Sex Community	-.07		
Friendship Length	-.29**		
School Friend Length	-.11		
Community Length	-.19**		
SS School Support	-.16*		

* $p < .05$; ** $p < .01$

Assessing Models of Mediation. Two analyses were performed to evaluate the pathway from gender dysphoria to YSR Total Problems. The first model assessed whether gender/sexual bullying mediated the relation between gender dysphoria and YSR Problems (see Fig. 11). Gender/sexual bullying was selected due to its theoretical importance, its association with gender dysphoria at the group level, and its association

with YSR Problems at the individual level. A Sobel's test showed gender/sexual bullying mediated the relation between gender dysphoria and individual differences in YSR Total Problems ($z = -3.72, p < .001$). When controlling for gender/sexual bullying, the relation between gender dysphoria and Total Problems lost its significance ($r = .01$).

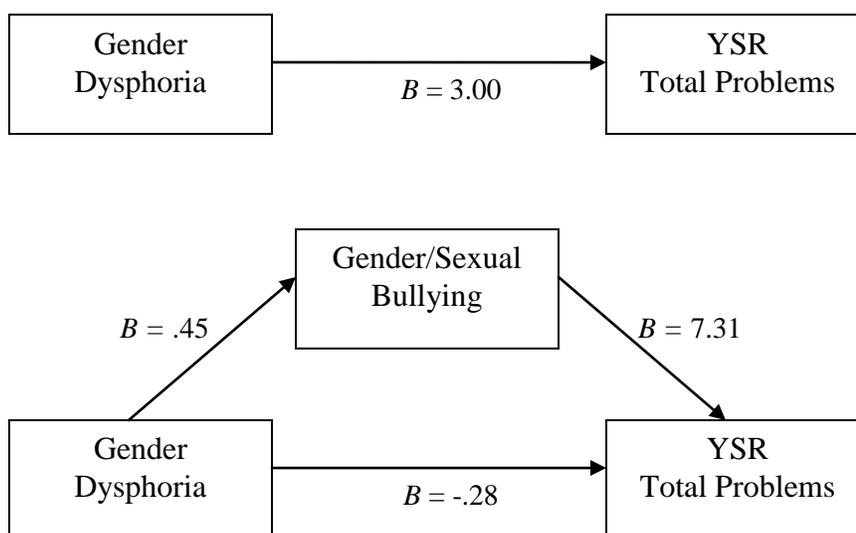


Figure 11. Gender/sexual bullying as a mediator between gender dysphoria and YSR Total Problems.

A second model assessed whether (a lack of) social support from same-sex school friends mediated the relation between gender dysphoria and YSR Problems (see Fig. 12). This variable was selected due to its theoretical importance, its relation with gender dysphoria at the group level, and its relationship to YSR Problems at the individual level. A Sobel's test showed (a lack of) support from same-sex school friends mediated the relation between gender dysphoria and individual differences in YSR Total Problems ($z =$

-1.87, $p < .05$). When controlling for support from same-sex school friends, the relation between gender dysphoria and Total Problems lost its significance ($r = .10$).

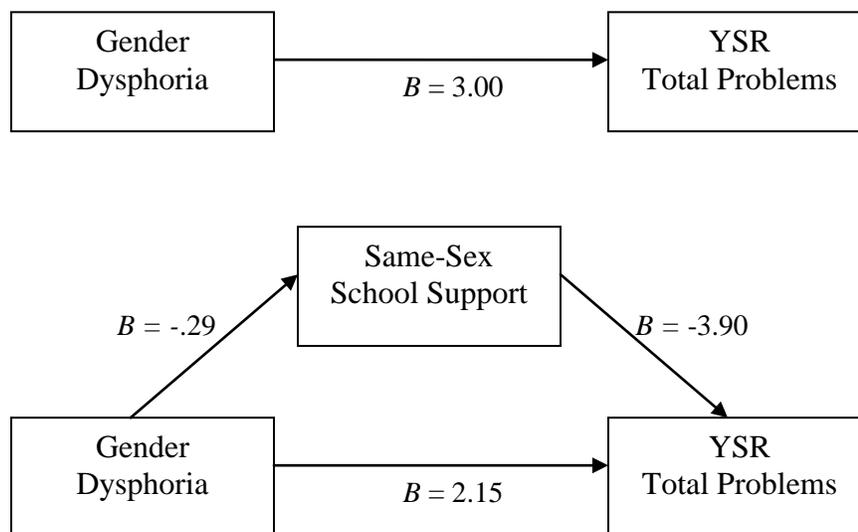


Figure 12. Support from same-sex school friends as a mediator between gender dysphoria and YSR Total Problems.

After determining the utility of gender/sexual bullying and support from same-sex school friends as mediating variables between gender dysphoria and YSR Total Problems, a final regression analysis was performed to assess the unique contributions of each of these variables in predicting the variance in Total Problems for the GID group alone (see Table 4). Results showed that, for adolescents with GID, gender/sexual bullying ($p < .01$) and support from same-sex school friends ($p < .05$) each predicted a unique proportion of the variance in YSR Total Problems.

Table 6

Assessing Unique Contributions of Gender/Sexual Bullying and Support from Same-Sex School Friends to the Variance in YSR Total Problems for the GID Group (n = 56)

Predictor	ΔR^2	<i>B</i>	SE	<i>p</i> -value
Step 1	.15 ^a			.003
Gender Bullying		6.55	2.14	
Step 2	.07 ^b			.029
SS School Support		-5.99	2.66	

^a $\chi^2(1) = 9.41$

^b $\chi^2(1) = 5.07$

Chapter 4

Discussion

The aim of the present study was to gain a more complete understanding of the peer relationships of adolescents with GID. A clinical sample of adolescents with GID was compared to adolescents with other clinical problems and also to those from a community sample on self-report measures of victimization and experiences of friendship (e.g., support garnered from friendships). This dissertation extended the growing literature on adolescents with GID, highlighting a robust association between gender atypicality and victimization (McGuire et al., 2010; Wilson et al., 2005) and adds to the preliminary findings suggesting decreased experiences of peer support in this population (Devor, 1997). Taken together, results suggest that adolescents with GID experience a very different peer environment than their more gender-typical peers.

Sample Characteristics

Before providing an analysis of the key findings, a comment on the composition of the study's groups should be made, as group characteristics lay the foundation of the study's validity and of the implications that can be drawn from results.

Gender Dysphoria. Gender dysphoria was assessed using a self-report questionnaire (GIDYQ-AA). Results provided support for group classification. Participants in the GID group endorsed, on average, significantly more cross-gendered feelings and behaviour than participants in the clinical and normal control groups. Participants in the CC group endorsed more gender dysphoria than those in the NC group, but the size of the difference between these control groups was small by comparison (to the difference between controls and the GID group). Only a single

member of the clinical control group scored above threshold to meet criterion for “caseness” for gender dysphoria, while only a single member of the GID group did not meet this criterion. The sensitivity for cross-gendered behaviour and identity among the GID group and the specificity rates of the control groups were thought to be adequate and, in the present study, was hypothesized to be the unique feature accounting for differences in peer relationships.

Behavior Problems. Adolescents completed a standardized questionnaire which asked about a variety of social-emotional problems (YSR). The measure produced a Total Problems index that accounted for all items (i.e., including both internalizing and externalizing symptomatology). In line with the study’s hypotheses, results showed that participants in the two clinical groups (i.e., GID and CC groups) had, on average, significantly more Total Problems than participants in the NC group.¹⁵ Only 9% of the participants in the NC group fell above the threshold of clinical concern ($T \geq 63$), compared to 45% of the GID group and 75% of the CC group. Taken together, these results distinguished both clinical groups from normal controls and thus provided quantitative evidence of the NC group’s “normalcy” and the CC group’s difficulties in adjustment. The pattern of responding was consistent with previous studies that have shown higher rates of behavioural problems in youths with GID than a demographically-matched non-referred sample (Zucker & Bradley, 1995).

In addition to the above group-level analysis, an analysis of the entire sample (collapsed across groups) showed gender dysphoria to be associated with Total Problems on the YSR (comprised of both internalizing and externalizing symptomatology). While

¹⁵ For females only, the CC group scored significantly higher than the GID group.

this association was significant, it was likely influenced by the fact that the GID group scored (relatively) “high” in both gender dysphoria and adjustment difficulties, while the CC group only scored high in adjustment difficulties and the NC group scored low in both variables. Thus, the correlation was strengthened when the CC group was filtered from the analysis. Nevertheless, results at both the group and individual levels showed that the more gender atypical an adolescent is, the more psychological problems they had—a finding that has been demonstrated repeatedly in the past (Zucker & Bradley, 1995). Past literature has argued that a comprehensive biopsychosocial model is needed to understand the etiology of GID and the psychopathology associated with it. The present study focused on just one aspect of the social component of such a model. For a detailed discussion of the connection between behavioural difficulties and GID, see Zucker et al., 2014.

Bullying

Consistent with past literature, which has shown increased rates of victimization for gender atypical youth (McGuire et al., 2010; Wilson et al., 2005), adolescents with GID reported being bullied by peers significantly more than normal controls. However, the GID group did not significantly differ from the clinical controls in their reporting of victimization frequency. Only on an item specifically assessing gender/sexual bullying (e.g., teasing about gender identity) did the GID group report significantly more victimization than both of the control groups.

Significant sex differences were found on an item assessing social bullying, with GID males reporting significantly more social bullying than GID females and NC males (but not significantly different than CC males). This finding was consistent with past

literature, which suggests that gender-atypical males face harsher consequences for norm violations, being judged more negatively for feminine behaviours by other males than females are for masculine behaviours by their same-sex peers (Blakemore, 2003; Zucker & Bradley, 1995; Zucker et al., 2012). An explanation of this finding may be related to the desirability of “masculine” traits in Western society, where assertiveness and athletic achievement are prized. Alternatively, it could be due to the decoupling of female masculinity and homosexuality (as opposed to male femininity and homosexuality). Results suggest that supportive networks and policy makers should be sensitive to the fact that gender dysphoric males can struggle with less overt forms of peer victimization, typically thought to be more relevant for female peer groups.

Taken together, these findings appear to support past research suggesting adolescents with an atypical gender identity are bullied more than gender-typical community controls (Blakemore, 2003; Zucker & Bradley, 2005; Zucker et al., 2012), but may suggest that the general frequency of victimization experiences is not dissimilar to that of adolescents with other clinical problems. Past research in the area of bullying and gender identity has not quantitatively compared a gender-referred sample to clinical controls, so further research in this area is needed to speak confidently to this finding. Regardless, differences from non-referred controls, and reports of gender/sex specific bullying, highlight some of the difficulties adolescents with GID face.

Explanations of bullying in general have typically centred on theories of social position—the bully acts to improve his/her own social position by selecting a target in the marginalized out-group who is of weak social standing (Verkuyten, Weesie, & Eijberts, 2011). Another explanation, drawn from Bromberg’s (1996) work on self states in the

field of relational psychology, is that bullies target GID youth as victims when the bullies see in them an unacceptable (unintegrated) part of themselves.¹⁶ This theoretical orientation (and other psychodynamic perspectives) might posit that the victim is targeted because they represents aspects of the self (or historical others) rather than being a purely external/separate object. An even more controversial explanation for bullying might explore the function being bullied serves for the victim. For example, bullying might cause a parent to become more active/nurturing, might reaffirm a persecutory worldview, might locate anger/hatred in an outside object (perhaps through the process of projective identification), and so on. The present study did not seek to gain a complete understanding of the reasons why this population is bullied, but rather sought to clarify the frequency by which they are. It seems possible that any (or a combination) of the above reasons make a plausible explanation, but future research is needed to better our understanding and further hone preventative and supportive efforts.

Bullying and Behavior Problems. Group differences in bullying were made even more clinically relevant by results at the individual level, which showed all forms of bullying to be associated with psychological problems. These results were consistent with increasing evidence in the literature that bullying is related to an array of negative outcomes (depression, suicide, substance use, etc.) (Sourander et al., 2007) and could be explained through a lens of trauma (e.g., difficulty incorporating emotionally-laden information into a narrative), operant conditioning (e.g., escaping an undesirable stimulus though avoidant behaviours), or any other number of theoretical camps. That the

¹⁶ From an ego psychology perspective, this might be explained using the defense mechanism of reaction formation (turning an impulse into its opposite); from a self psychology perspective, the act of bullying might be explained as the use of a *selfobject* to maintain narcissistic tendencies; from an object relations perspective, it might be explained as relating to a harsh observing ego.

association has been repeatedly demonstrated emphasizes the dire need to intervene to prevent bullying and assist those that have experienced it.

Consistent with the study's hypotheses and the minority stress hypothesis (Meyer, 1995), the present study found experiences of gender/sexual bullying to mediate the relation between gender dysphoria and YSR Total Problems, with the association between gender dysphoria and Total Problems diminishing significantly when this bullying variable was considered. Although cross-sectional in nature, results are consistent with a theoretical pathway, in which an adolescent experiences gender dysphoria, is bullied specifically for that reason, and then goes on to experience psychological problems as a result of that bullying. This finding was consistent with past research with community samples that suggest peer experiences mediate the association between gender nonconformity and well-being (Smith & Leaper, 2006; Yungger et al., 2004). As the data were correlational in nature, it cannot definitively be said whether identity issues lead to social-emotional problems (through the above pathway) or whether social-emotional problems can lead to identity issues (perhaps precipitated by family of origin factors, like maternal depression). Arguments could be made for both cases, or for a model in which variables interact in a mutually influential manner. However, that the bullying variable used in the present study specifically related to bullying about gender and/or sex suggests that the adolescent was exhibiting a non-conforming gender identity first. The results highlight the continued importance of efforts to create safer environments for gender atypical youths, and to intervene with those that have been victimized, in order to prevent and ameliorate the negative effects of bullying.

Friendship Variables

Number of Friends by Context. To gather a more holistic view of the peer environment of adolescents with GID, another central goal of this dissertation was to explore experiences of friendship in this population. Past research has made limited forays into this area of study with the target population. As such, this element of the study was considered exploratory in nature and likely to make novel contributions to knowledge about this group. Results showed that adolescents with GID reported having fewer friends at school and outside of school than both clinical and community controls. These findings provide quantitative evidence of the difficulties GID adolescents have with forming and/or maintaining a network of friendships; a finding that has, to date, mainly been described qualitatively in the literature (Wilson et al., 2005).

The number of friends an adolescent has, often thought of as “social standing,” is thought to be related to both individual characteristics that facilitate relating to others (e.g., attachment history, extroversion, etc.) and social attractiveness that facilitates others wanting to befriend them (Rubin et al., 2009). Adolescents with GID may be compromised in both of these categories, as increased psychological problems and identity confusion may make it difficult to reach out to others while others may be unmotivated to relate to an adolescent who presents atypically (e.g., for reasons discussed in the bullying section above).

Interestingly, the pattern of internet friendship numbers differed from that found for in-person friendships. Females in the GID group reported having more friends on the internet than females in both control groups but there was no significant group difference in the number of internet friends for males (a stark contrast to the group differences in

face-to-face friendships). In fact, GID females were the only subsample that had just as many friends online as they did in person. Past literature has discussed the internet's potential for allowing marginalized populations, who may not interact as much face-to-face with others, to interact with peers (Gross, Juvonen, & Gable, 2002). This literature points to increased anonymity and decreased social cues and stressors, which allow individuals to experiment with variations in self without as much perceived social risk. There may also be a greater opportunity online to connect with individuals who share similar worldviews and/or developmental pathways. The present study represents preliminary quantitative evidence that adolescents with GID (and particularly females) may not have as much difficulty finding friendship on the internet as they do in person (as compared to gender-typical controls). Past research has produced mixed results on the benefits of online friendships—with some studies touting the value of the social support and self-expression gained through these relationships (Rohall, Cotter & Morgan, 2002) and other studies noting the risks of replacing face-to-face interactions with screen time (Allison, von Wahlde, Shockley & Gabbard, 2006; Matsuba, 2006). This appears to be an important area of future research in this population.

Number of Friends by Context and Friends' Sex. Past research has suggested that gender-referred children tend to be rejected by same-sex peers but find acceptance in peers of the opposite-sex (Wallien et al., 2010). The present study sought to examine whether this result could be extended to an adolescent population. For school friendships, the finding was replicated. The GID group reported having fewer same-sex and more opposite-sex friends at school than both control groups. Outside of school, the results were similar but not as marked. The GID group reported having fewer same-sex friends

outside of school than the control groups, but did not differ from control groups in the number of opposite-sex friends. Both at school and outside of school, adolescents in the control groups reported having more same-sex than opposite-sex friends while this difference was not found for GID adolescents.

When added to the results on total number of friends (reported in the section above), the present findings suggest that adolescents with GID may not report as many total friends as gender-typical controls because they have fewer same-sex friends specifically. Gender-typical adolescents show a strong inclination towards same-sex friendships while gender-atypical adolescents generally have equal numbers of same-sex and opposite-sex friends. Drawing on past literature, it could be theorized that this finding is the result of a combination of the GID group's preference to be friends with opposite-sex peers (Leroux, 2008) with whom they identify and/or feel more comfortable around and by a difficulty in forming same-sex friendships with whom they may less identify and may be rejected by (Zucker & Bradley, 1995) (for reasons explained above).

On the internet, a different trend emerged, with adolescents in the GID group reporting a significantly greater number of internet friends than community controls (but not differing significantly from clinical controls).¹⁷ Both control groups reported more same-sex friends in person than online but, within the GID group, the number of same-sex friends did not significantly differ across contexts. As discussed above, the internet may provide a forum for connecting with same-sex peers that are accepting of variations in gender identity (as opposed to the more limited options afforded at school) and/or may allow gender atypical youths to behave in ways that they do not in face-to-face interactions (e.g., in a less inhibited fashion).

¹⁷Due to the infrequency of internet friendships in general, this result should be interpreted with caution.

Friendship Length. Past research has identified friendship length (often referred to as “stability”) as an important variable in predicting healthy adjustment (Bagwell, Newcomb, & Bukowski, 1998; Rubin et al., 2009). To date, no studies have described the typical length of friendships for adolescents with GID as compared to controls. The present study found adolescents with GID to generally have similar length friendships to clinical controls, with normal controls reporting lengthier friendships than both clinical groups. This finding is in line with the propensity for general adjustment difficulties in the GID group, as internalizing and externalizing problems have been found to be associated with difficulties in maintaining friendships (Murray, 2011; Rubin et al., 2009).

On the internet, there was no significant group difference in friendship length. Results suggested that internet friendships were fairly transient. It is likely that adolescents have just recently been afforded the opportunity to form friendships on the internet (due to restrictions during childhood), so longer friendships have not had the opportunity to develop. It also seems possible that the nature of these friendships are such that adolescents do not wish for them to be long term—rather, they may just be using these friendships as a short-term testing ground to explore fantasies and varieties of self. Finally, due to the fact that any contact is of an intentional nature (as opposed to school friends that one necessarily sees every day) and these relationships do not impact on other social realms, a relationship can be terminated at any moment.

Social Support. Early theories of human development often minimized the role of friendships, regarding parenting variables as the key factors in predicting future outcomes (Erikson, 1950). However, with ongoing research on the phenomenon since the 1970’s, social support garnered from peer relationships has increasingly been thought of

as central to development (Rubin et al., 2009). The present study found no significant group differences in the total score of peer social support. This was likely due to interactions in the data that were uncovered when the total score was broken down by context and friend's sex. It was also likely influenced by the depression in total scores (and decreased variability) that resulted from the number of friendship categories that went unanswered. That is, total scores were derived by collapsing across 10 different friendship types (e.g., same-sex school friend, opposite-sex internet friend, etc.) and members of all groups left categories blank, resulting in lower total scores. Though the finding may suggest that members of both clinical groups perceived themselves as receiving a level of social support from peers that was generally commensurate with normal controls, breaking down the total score was likely to be more informative.

At school, adolescents with GID reported receiving less social support from same-sex friends than gender-typical controls. Both control groups reported more support from same-sex than from opposite-sex school friends, but the GID group did not differ in this regard, with levels of support from each sex not found to be significantly different. Outside of school, no significant group differences were found, with all participants reporting more support from same-sex than from opposite sex friends. As well, group differences did not exist for support from opposite-sex friends. Thus, it appears to be same-sex school interactions that are most related to gender typicality. In general, these results were in line with the previously reporting findings regarding the number of friends by context and friends' sex.

Regarding differences between contexts, for all groups, more support was garnered from in-person friendships than from internet friendships. This finding was

commensurate with the fact that adolescents in all groups had more friends in person than they did on the internet and points to the continued importance, for all adolescents, of in-person friendships. However, for the GID group only, more support was garnered from same-sex than from opposite-sex internet friendships. Thus, it seems possible that the properties of internet interactions allowed adolescents with GID to find some support from same-sex internet friendships in a manner which they did not at school. At school, a lack of same-sex peer options and fear of negative reprisals from same-sex peers may lead to social inhibition on the part of adolescents with GID. On the internet, these youths may be afforded the anonymity to be freer in their expression without fear of social consequence and the opportunity to find same-sex peers that carry a similar worldview (while also feeling freer to interact without social consequence).

Social support findings were influenced by whether an adolescent was able to identify a friend in a given category at all. For example, if an adolescent was not able to identify a same-sex friend at school, they were scored as receiving no social support in this friendship category. Thus, an explanation of the above findings would likely hinge on parameters similar to those discussed for friendship numbers—rejection from same-sex peers and individual characteristics that make forming friendships difficult (e.g., introversion). However, post hoc analyses showed that it was also the case that existing same-sex school friendships were of poorer quality for the GID group. Gender dysphoria may cause same-sex friends to maintain some distance (e.g., because they prefer to be close friends with same-sex peers who are more gender-typical) or may cause adolescents with GID to foreclose close same-sex friendships (e.g., because they would prefer to have close relationships with opposite-sex friends, feel insecure around same-sex friends, etc.).

As well, the school environment may act to constrict same-sex friendships for gender atypical youths, limiting the range of potential friends and/or creating a climate where free expression is less tolerated. Conversely, outside of school, youths may be less restricted in their friendship options and, finding a more private or less judgmental climate where negative consequences are not as imminent, may be able to interact more freely to foster friendships of better quality. Regardless of the explanation, the finding that adolescents with GID generally did not experience as much social support from same-sex school friends as controls carries significant practical and clinical implications. In adolescence especially, when issues of identity and independence come to the fore, the school environment becomes a key forum for the development of a sense of self. Results suggest that efforts need to be made at every level of these youths' supportive systems in order to prevent and/or buffer against the negative outcomes associated with such experiences.

Transgender Friends. In addition to examining the friendships of adolescents with GID, the present study examined friendships with adolescents who participants labeled as transgendered. Given the low prevalence of GID (Bradley & Zucker, 1997), and the present study's quantitative evidence that adolescents with GID have fewer friends than gender-typical peers, it should not be surprising that relatively few participants identified having a transgender friend. The GID group reported having more transgender friends and garnered more support from transgender friends than both control groups, with not a single control male (in either group) reporting having a transgender friend. The GID group reported having more transgender friends on the internet than in person and reported garnering more social support from both same-sex and opposite sex

friends than from transgender friends (who were mostly reported to be of the same birth-sex as themselves).¹⁸

These findings help to round out our descriptive understanding of these youths' peer relational landscape. Adolescents with GID were more likely than gender-typical peers to be friends with (and thus gain support from) other peers who are transgendered. This finding was in line with literature from various areas of psychology (Winnicott [1953] in the psychoanalytic literature and Sunnafrank [1984] in the social psychology literature) that suggests, as humans, we are drawn to, and form relationships with, those we perceive as similar to ourselves (e.g., in worldview or life experiences). Adolescents with GID may find greater acceptance in other youth who express gender-atypicality, may feel more comfortable as they anticipate being met with acceptance, and/or may be motivated to learn and share experiences with a peer who is perceived to be of a same marginalized community. The fact that not a single male control in the study reported having a transgender friend further elucidates the peer context (of isolation and/or rejection by same-sex peers) that transgender youth (and males in particular) develop in.

Friendship and Behavior Problems. Group differences in friendship variables are made more clinically relevant when those variables are associated with indices of well-being. The present study found that having more school friends, more same-sex school friends, longer friendships, longer community friendships, and more support from same-sex school friends were all associated with fewer psychological problems. While conclusions on causality cannot be drawn from these findings, it is likely that these associations are often bi-directional in nature. Youths with less psychopathology likely have less difficulty forming and sustaining quality friendships, and those friendships are

¹⁸ This social support finding was heavily influenced by the number of friends being reported on.

likely to contribute to psychological well-being. Conversely, for females, having more internet friends was associated with more Total Problems. This result may reflect the appeal of online interaction to youths with social difficulties (e.g., inhibition or rejection) and, if so, suggests psychopathology may precede the formation of online friendships.

Consistent with a priori hypotheses that expected to find the minority stress hypothesis to extend to the present sample, analyses showed support from same-sex school friends to mediate the relation between gender dysphoria and Total Problems. Thus, the model suggests a theoretical pathway in which gender dysphoria predicts less support from same-sex school friends, which in turn predicts more psychological problems. As well, a regression analysis showed that, for adolescents with GID, this friendship variable accounted for a unique proportion of the variance in psychological problems, even when gender/sexual bullying was accounted for. Again, conclusions on causality cannot be drawn from the present study, but the findings, in line with past research, such as Meyer's (1995) minority stress hypothesis, highlight the importance of understanding the peer context in which adolescents develop and may go a long way in clarifying our understanding of the lives of adolescents with GID, for whom these friendship variables appear to be particularly relevant. This understanding may be used to increase efforts to create more supportive environments (especially at school) and may help improve the empathy and decision-making of those who interact with these adolescents.

Study Limitations and Directions for Future Research

The present study had a number of limitations that temper interpretations while also orienting future research directions. As knowledge regarding peer relations in

adolescents with GID is scant, and many of the research questions were exploratory in nature, the study included a great number of analyses. While attempts were made to balance curiosity and appropriate statistical methodology, and the pattern of results formed a coherent narrative of the experiences of these adolescents, the possibility of a Type 1 error (i.e., finding a significant result by chance) remains. Future replications, which can now be guided by stronger a priori hypotheses, will add reliability and validity to these findings. As well, as the data from the present study were cross-sectional and correlational in nature, conclusions of causality cannot be drawn. While the present study serves an important function in providing an exploratory, quantitative description of the peer experiences of adolescents with GID, future longitudinal research would be helpful in fostering an understanding of how and why these youths' relational context got to be this way and what implications such a relational context has for current functioning and future development.

Future efforts to understand the peer relations of adolescents with GID would also benefit from the inclusion of a third control group, composed of other sexual minorities (e.g., a group of homosexual youth). Past research examining peer relations in sexual minorities have often lumped various subgroups together (e.g., sampling a composite LGBT group) and, in doing so, may be missing important information relating to the unique experiences of each. For example, it would be interesting to assess whether homosexual adolescents are victimized in a similar fashion (e.g., for similar reasons and in similar ways) to adolescents with GID and whether their victimization has a similar effect on indices of their well-being. It may also be interesting to explore how the relational experiences of these groups vary for those that are attempting to conceal their

sexuality/identity as compared to those that are “out.” Are the mechanisms underlying minority stigma the same for these groups or is there something unique when it comes to identity? Including a sexual minority comparison group would help hone in on an understanding of the peer relations of adolescents with GID, partialing out the generic effects of being in a minority group, and thus creating a clearer picture of the nature and consequences of the discrimination they may face.

The inclusion of more study variables that could potentially be influencing and/or confounding the results would also improve our understanding of the phenomenon. The present study marked an exploratory attempt to describe the peer relationships of this population and, as such, did not delve into nuances of GID that could influence peer experiences. As eluded to in the previous paragraph, including factors specific to this population would be relevant: whether adolescents are in the process of physically transitioning and, if so, at what point in the process they are (e.g., exploring the use of hormone suppressants or cross-gender presentation); whether they are early- or late-onset in their gender dysphoria (which could affect the course of childhood friendships); whether they are in an alternative school placement or are involved in an LGBTQ group, etc. Future research would also benefit from the inclusion of variables that are not specific to this population but are still relevant to understanding peer relationships and could account for study findings (e.g., IQ and SES). The present study assessed ethnicity, but only as a dichotomous variable (i.e., Caucasian and “other”). This limited ethnocentric approach was used for simplicity and due to the high percentage of Caucasians in the sample, but it is possible that something was lost in this reductive strategy. It is quite likely that, within the population of adolescents with GID, there are

subsamples, based on variables such as those above that differentiate those who have had poor experiences with their peer group and those that have found support and avoided rejection.

A major limitation of the present study is that all measures were self-report in nature. Future research in this area would greatly benefit from the use of collateral informants to potentially increase the validity of self-reports. Regarding reporting on problem behaviours, past research demonstrates only moderate agreement between YSR scores and the corresponding CBCL (provided by parents) and TRF scores (provided by teachers), with adolescents generally reporting more problems than their parents or teachers (Achenbach & Edelbrock, 1987; Verhulst & VanDerEnde, 1992). Past research with this population specifically has found YSR and CBCL scores to be significantly correlated for natal females, but not for males (Zucker et al., 2012). The YSR is high in face validity (i.e., you can tell what the question is asking), and one can surmise numerous reasons why adolescents in a single group would be motivated to over- or under-report their problems. A notable example, relevant for the GID group, is that psychological stability is an important criterion that must be indicated in order for a youth to receive support for hormonal therapy (de Vries, 2011). In addition to motivated reasons to intentionally misrepresent themselves, certain groups may be more likely to unintentionally over- or under-report due, for example, to deficits in insight or to their comparative context. The present study found adequate group means, in terms of psychological problems, to support group inclusion but, nonetheless, collateral reports would have lent additional support in this regard.

The same was true of reports of peer experiences. Methodologies that have included collateral reports, like peer nomination studies, have shown that self-reports of friendship and social standing tend to lack reliability (Schofield & Whitley, 1983). Again, in using self-report measures, one group may have a tendency to over- or under-report peer difficulties. For example, hypothetically, GID adolescents may over-report peer problems in order to make a case for receiving hormonal therapy to improve their life circumstances or, if they are projecting their dysphoria out onto the world, may erroneously believe that others do not like the way they look and may misinterpret neutral behaviour as bullying, etc. Collateral reports would go a long way in improving the reliability and robustness of the current study's findings but, despite this limitation, the adolescent perspective likely remains the most crucial to understanding relations among the study variables.

The sample size of the present study was another notable limitation. The study included three groups of approximately 50 participants, but much of the analyses required Group x Sex comparisons, significantly reducing the statistical power available. As such, the current results must be interpreted with caution. Replicating the present study's findings with larger groups would lend further support for the significance of group and sex differences, and may help to locate significant findings from currently marginal or non-significant ones. A limitation of conducting research in this area is that adolescents with GID represent an extremely small sample of the general population. Prevalence rates of GID in adolescence are not clearly defined, but researchers have reported that less than 1% of adult men are diagnosed with the disorder (Zucker & Bradley, 2007). This small ratio makes individuals with GID a particularly difficult group to recruit and study,

especially in consideration of time and financial restraints. Data from the current study should be considered preliminary and future replication of the results is necessary to clarify understanding.

Limitations with the measures used for evaluating peer relationships in the present study provide further avenues for future research. Regarding bullying, the PREVnet measure employed here, though gaining momentum for empirical and practical use, only uses single items to assess the frequency of various forms of bullying (or general bullying). Using single items to measure a construct may cause problems for the reliability and validity of assessment and limits the type of analyses that can be performed. Future researchers examining experiences of bullying in this population may wish to develop a more robust measure to this end.

Regarding measurement of peer social support, the NRI has its limitations as well. Though the NRI demonstrates strong psychometric properties, its original intention was to measure social support from family members. When applied to the peer group, the NRI may fail to capture individual differences in the composition of friendship networks. Participants were asked to nominate their best friends in 9 different categories. Thus, if an individual has multiple close friends in a single category, this goes unrepresented. In other words, an individual who has 2 (or more) very close same-sex friends but no opposite-sex friends may look like they are receiving less social support than an individual with a moderately close same-sex friend and a moderately close opposite-sex friend (and no very close friends). A related problem with using the NRI as a measure of social support (identified by Brown, 2004) is that focusing on one level of peer interaction (i.e., close friendships) may cause one to miss the holistic perspective on

participation in the peer group. Brown argued that to gain a full appreciation for peer group experiences, one must examine every level of interaction, including experiences with cliques and crowds, as well as close friendships. Thus, future research might adopt a more holistic approach for examining peer social support. Finally, the present study did not employ the NRI scales that measure negative friendship qualities (e.g., coercion). It is possible that it is these negative qualities, and not the positive/supportive qualities that were measured in the present study, that were the more important variables for predicting well-being among adolescents. For example, past research has shown that juvenile delinquents manifest many positive features in their friendships, but also have more negative friendship features than community controls (Dishion, Andrews, & Crosby, 1995). Although one strength of this dissertation was the inclusion of measures of bullying and of positive peer relationships, future research ought to explore further elements of adolescents with GID's friendships to come to a more complete understanding of their relational experiences and noted psychological difficulties.

The present study provided quantitative evidence that adolescents with GID (and particularly females) may not have the same difficulties connecting with their peers on the internet as they do in person. However, having more internet friendships was associated with internalizing problems. The present study did not examine the reasons for online interactions or preferred forums for interaction (e.g., videogames vs. social media sites) nor could it explore the causal impact online interactions may have. Increasingly, for the entire population of adolescents in Western society and for adolescents with GID specifically, the internet is becoming an important forum for social connectedness. Future research should continue to delve into the relations between gender atypicality and

internet use, exploring the nuances of online interaction and the relative costs and benefits of relationships in this context.

Implications and Conclusions

The present study's findings represent further quantitative evidence in support of existing qualitative data, clinical impressions, and popular beliefs that adolescents with GID struggle in their peer relationships. Nuances found in the results may have important implications for clinical practice and public policy.

Past research has demonstrated an association between gender atypicality and bullying in transgender adolescents (McGuire et al., 2010; Wilson et al., 2005). The present quantitative study served to extend this finding to a larger clinical sample of adolescents with GID, who reported being bullied (in general and physically) more than gender-typical non-referred peers. Bullying was associated with psychological problems, and gender/sexual bullying mediated the relation between gender dysphoria and psychological problems reaffirming the recent academic and practical push to understand and curb the incidence of bullying. Clinicians and front-line workers will have to be sensitive to the fact that adolescents with GID have a higher likelihood of getting bullied by their peers, creating the need for continued improvements to policies like staff monitoring in high schools and increased communication between supportive networks (e.g., schools, parents, and clinicians) to fully understand and support the needs of these youths.

The present study also took important steps in understanding the friendship patterns of adolescents with GID. Adolescents with GID report having fewer friends in general, fewer same-sex friends in particular, friendships of shorter duration, and

experienced less support from same-sex peers than adolescents with a more typical gender identity.¹⁹ While some of these findings have been described qualitatively in past literature (Wilson et al., 2005), the results of the present study served to quantitatively document the great difficulties adolescent males and females with GID have in forming and maintaining quality friendships. Several of these friendship variables were found to be inversely associated with psychological problems (e.g., friendship length and number of same-sex school friends) and support from same-sex school friends was found to mediate the relation between gender dysphoria and psychological problems, indicating the need for supportive networks to be aware of the importance of friendships for these youths, continuing to incorporate efforts to increase peer support and connectivity into educational policy and therapeutic efforts.

In contrast to the noted difficulties adolescents with GID have with in-person, same-sex friendships, results indicated that adolescents with GID did not differ from control peers in terms of internet friendships. In fact, GID females reported a greater number of internet friendships, lengthier friendships, and more support than their more gender typical peers. However, for females, having more internet friendships was associated with psychological problems. The internet usage of adolescents with GID has never been examined empirically and the findings of the present study carry important implications for building understanding of their relational experiences. Clinical impressions suggest that adolescents with GID are drawn to the increased anonymity and opportunity to interact with like-minded individuals afforded by the internet. However, it

¹⁹ This statement summarizes several findings and washes over many nuances in the results. For example, while gender atypicality was associated with friendships of shorter duration, the GID group only differed significantly from the NC group and not the CC group. Refer to the above sections of the discussion for a more complete breakdown of findings.

is yet unclear whether these friendships carry long-term risks or benefits. This is an important area for future research.

This study was driven by the clinical impression that adolescents with GID struggle with their peer relationships and that these struggles impact a great deal on their sense of self. To date, due to the relatively small size of this population and the past empirical focus on clarifying the construct of GID, the relational experiences of these adolescents have gone relatively unstudied. Results provided descriptive evidence of this population's difficulties with peer relationships and associated psychopathology. In addition to aiding in the creation and honing of public policies, a greater understanding of these youths' relational experiences may serve to improve our empathy, thereby improving clinical effectiveness. Continued research in this area will be important to help inform clinical work and public policy with this unique population.

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Appendix B

**CONSENT TO PARTICIPATE IN RESEARCH**

Name of Study: Peer Relations and Gender Identity in Adolescents

Responsible Investigators: Kenneth J. Zucker, Ph.D. 416-535-8501 ext. 4040
Primary Onsite Investigator

Marc Shiffman, M.A. 416-535-8501 ext. 4114
Co-Investigator

Susan Lollis, Ph.D. 519-824-4120 ext. 53003
Research Supervisor

Purpose: The present study is Mr. Shiffman's doctoral dissertation project. The purpose of this study is to gain a better understanding of gender identity development in adolescence, and investigate how it relates to experiences within the peer group. Approximately 120 adolescents will take part in this study.

Procedures: If you choose to participate in the study, you will be asked to complete 4 questionnaires during a single session that will last approximately 1 hour, including breaks. The questionnaires will ask about your gender identity, your experiences with peers, and how you are feeling in general. We are interested in examining group patterns and will not be looking at or reporting on individual results. You may request a summary of the study findings, once they become available.

Confidentiality: Your identity will be kept confidential. No one outside of the research team will know about your participation. To ensure confidentiality of the data and the participants, a participant number will appear on all surveys. All written information will be stored in a securely locked cabinet at the Centre for Addiction and Mental Health. Your personal information will be shredded ten years after the completion of the study. In the event you choose to withdraw from participation, your information will be shredded within three days of notification. Neither your name nor any other personal identifier will be used in any reports or publications arising from this study.

In an effort to provide the utmost care to you as a participant of the study, confidentiality may need to be limited if you endorse thoughts of self-harm and it is deemed necessary to find support to keep you safe.

As part of continuing review of the research, your study records may be assessed on behalf of the Research Ethics Board. A person from the research ethics team may contact you (if your contact information is available) to ask you questions about the research study and your consent to participate. The person assessing your file or contacting you must maintain your confidentiality to the extent permitted by law.

Compensation: You will receive \$20 to compensate you for your time, including the cost of transportation.

Benefits: You may find that you gain some insight from sharing your thoughts, feelings and experiences. This study will also benefit society. By learning more about gender identity development, we hope to develop recommendations for how schools and mental health agencies can better meet the needs of struggling youth.

Risks: When completing questionnaires, some participants find it upsetting, time-consuming or frustrating. Efforts have been made to reduce this risk for participants.

Voluntary Participation: Your participation in this study is voluntary. You may choose to withdraw from the study at any time. In addition, the investigators or the staff responsible for this study may, at their discretion, end your participation at any time. If your participation ends early for whatever reason, you will be fully compensated. Your choice to participate, not participate, withdraw, or your dismissal by us will not affect any treatment service that you might have at the Centre for Addiction and Mental Health now or in the future.

Additional Information: If you have questions about the study that are not answered in these Information Sheets, please ask them. In addition, if you have questions in the future you may contact the study investigators at the telephone numbers given on the first page.

If you have questions regarding the rights of research participants, please contact:

Dr. Pdraig Darby
Research Ethics Board
Centre for Addiction and Mental Health
Phone: 416-535-8501, Ext. 6876

Sandra Auld, Research Ethics Coordinator
University of Guelph, Office of Research
437 University Centre
Guelph, ON, N1G 2W1
Phone: (519) 824-4120, Ext. 56606
E-mail: sauld@uoguelph.ca

AGREEMENT TO PARTICIPATE

I, _____, have read (or had read to me) the Information Sheet for the study named 'Peer Relations and Gender Identity in Adolescents.' My role in the study is as a research volunteer to help the investigators collect information about gender identity development. My questions, if any, have been answered to my satisfaction. By signing this consent form, I do not waive any of my rights.

Dr. Pdraig Darby, Chair, Research Ethics Board, Centre for Addiction and Mental Health, may be contacted by research subjects to discuss their rights. **Dr. Darby may be reached by telephone at 416-535-8501 ext. 6876.**

Alternatively, you may contact Sandra Auld, Research Ethics Coordinator, University of Guelph. Ms. Auld may be reached by telephone at **519-824-4120 ext. 56606**

I agree to participate.

Research Volunteer:

Signature: _____

(Of caregiver if participant is under 16 years)

Date: _____

Name of participant: _____

Please Print

Name of caregiver: _____

(if applicable)

Please Print

_____ I have been given a copy of this form to keep. (Please note 'yes' or 'no')

Person Obtaining Consent:

Signature: _____

Date: _____

Name: _____

Please Print

Appendix C



ASSENT TO PARTICIPATE IN RESEARCH

Name of Study: Peer Relations and Gender Identity in Adolescents

Responsible Investigators: Kenneth Zucker, Ph.D. 416-535-8501 ext. 4040
 Primary Onsite Investigator

Marc Shiffman, M.A. 416-535-8501 ext. 4114
 Co-Investigator

Susan Lollis, Ph.D. 519-824-4120 ext. 53003
 Research Supervisor

Purpose: The present study is Mr. Shiffman's doctoral dissertation project. The purpose of this study is to gain a better understanding of gender identity development in adolescence, and investigate how it relates to experiences within the peer group. Approximately 120 adolescents will take part in this study.

Procedures: If you choose to participate in the study, you will be asked to complete 4 questionnaires during a single session that will last approximately 1 hour, including breaks. The questionnaires will ask about your gender identity, your experiences with peers, and how you are feeling in general. We are interested in examining group patterns and will not be looking at or reporting on individual results. You may request a summary of the study findings, once they become available.

Confidentiality: Your identity will be kept confidential. No one outside of the research team will know about your participation. To ensure confidentiality of the data and the participants, a participant number will appear on all surveys. All written information will be stored in a securely locked cabinet at the Centre for Addictions and Mental Health. Your personal information will be shredded ten years after the completion of the study. In the event you choose to withdraw participation, your information will be shredded within three days of notification. Neither your name nor any other personal identifier will be used in any reports or publications arising from this study.

In an effort to provide the utmost care to you as a participant of the study, confidentiality may need to be limited if you endorse thoughts of self-harm and it is deemed necessary to find support to keep you safe.

As part of continuing review of the research, your study records may be assessed on behalf of the Research Ethics Board and, if applicable. A person from the research ethics team may contact you (if your contact information is available) to ask you questions about the research study and your consent to participate. The person assessing your file or contacting you must maintain your confidentiality to the extent permitted by law.

Compensation: You will receive \$20 to compensate you for your time, including the cost of transportation.

Risks: When completing questionnaires, some participants find it upsetting, time-consuming or frustrating. Efforts have been made to reduce this risk for participants.

Benefits: You may find that you gain some insight from sharing your thoughts, feelings and experiences. This study will also benefit society. By learning more about gender identity development, we hope to develop recommendations for how schools and mental health agencies can better meet the needs of struggling youth.

Voluntary Participation: Your participation in this study is voluntary. You may choose to withdraw from the study at any time. In addition, the investigators or the staff responsible for this study may, at their discretion, end your participation at any time. If your participation ends early for whatever reason, you will be fully compensated. Your choice to participate, not participate, withdraw, or your dismissal by us will not affect any treatment service that you might have at the Centre for Addiction and Mental Health now or in the future.

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E-mail: sauld@uoguelph.ca

AGREEMENT TO PARTICIPATE

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Alternatively, you may contact Sandra Auld, Research Ethics Coordinator, University of Guelph. Ms. Auld may be reached by telephone at **519-824-4120 ext. 56606**

I agree to participate.

Research Volunteer:

Signature: _____

Date: _____

Name of participant: _____

Please Print

Name of caregiver: _____

(if applicable) Please Print

_____ I have been given a copy of this form to keep. (Please note 'yes' or 'no')

Person Obtaining Consent:

Signature: _____

Date: _____

Name: _____

Please Print

Appendix D

Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (Male Version)²⁰

Time Frame: Past 12 Months

Boys may vary a lot in how they think and feel about themselves in terms of gender, ranging from feeling totally comfortable in being a boy to uncertainty through pursuing a change into a girl

The following questions ask how you have been thinking and feeling in this regard about yourself during the past 12 months.

Please answer each of the questions with one of the five answers of *Always*, *Often*, *Sometimes*, *Rarely*, or *Never*. Please feel free to use the comments section after each question to write anything important for your answer.

01. In the past 12 months, have you felt satisfied being a boy?

ALWAYS__OFTEN__SOMETIMES__RARELY__NEVER__[12 months]

Comments:

02. In the past 12 months, have you felt uncertain about your gender, that is, feeling somewhere in between a boy and a girl?

ALWAYS__OFTEN__SOMETIMES__RARELY__NEVER__[12 months]

Comments:

03. In the past 12 months, have you felt pressured by others to be a boy, although you don't really feel like one?

ALWAYS__OFTEN__SOMETIMES__RARELY__NEVER__[12 months]

Comments:

²⁰ This version of the questionnaire was administered to natal males. The version given to natal females merely reversed the gender specific language (i.e., "girl" instead of "boy").

04. In the past 12 months, have you felt, unlike most boys, that you have to work at being a boy?²¹
05. In the past 12 months, have you felt that you were not a real boy?
06. In the past 12 months, have you felt, given who you really are (e.g., where you like to do, how you act with other people), that it would be better for you to live as a girl rather than as a boy?
07. In the past 12 months, have you had dreams in which you were a girl?
08. In the past 12 months, have you felt unhappy about being a boy?
09. In the past 12 months, have you felt uncertain about yourself, at times feeling more like a girl and at times feeling more like a boy?
10. In the past 12 months, have you felt more like a girl than like a boy?
11. In the past 12 months, have you felt that you do not have anything in common with either boys or girls?
12. In the past 12 months, have you been bothered by seeing yourself identified as a male or having to check the box “M” for male on official forms (e.g., employment applications, driver’s license, passport)?
13. In the past 12 months, have you felt comfortable with using boys’ restrooms in public places?
14. In the past 12 months, have strangers treated you as a girl?
15. In the past 12 months, at home, have people you know, such as friends or relatives, treated you as a girl?
16. In the past 12 months, have you had the wish or desire to be a girl?
17. In the past 12 months, at home, have you dressed and acted as a girl?
18. In the past 12 months, at parties or at other social gatherings, have you presented yourself as a girl?
19. In the past 12 months, at work or at school, have you presented yourself as a girl?
20. In the past 12 months, have you disliked your body because it is male (e.g., having a penis or hair on your chest, arms, and legs)?

²¹ The format of questions 4-27 is the same of that for questions 1-3 above. In the interest of space, they have been presented as a list here.

21. In the past 12 months, have you wished to have hormone treatment to change your body into a girl's?
22. In the past 12 months, have you wished to have an operation to change your body into a girl's (e.g., to have you penis removed or to have a vagina made)?
23. In the past 12 months, have you made an effort to change your legal sex (e.g., on your driver's licence or credit card)?
24. In the past 12 months, have you thought of yourself as a "hermaphrodite" or an "intersex" rather than as a boy or girl?
25. In the past 12 months, have you thought of yourself as a "transgender person"?
26. In the past 12 months, have you thought of yourself as a girl?
27. In the past 12 months, have you thought of yourself as a boy?

Appendix E

Network of Relations Inventory

Friends can often be an important part of our lives. The following questions are designed to help us understand your relationships with your friends.

1) How many close friends do you have **at school**?

- i. (a) none (b) 1 (c) 2 or 3 (d) 4 or 5 (e) more than 5

ii. Please indicate the first name and biological sex of up to 5 close **school friends**:

1. Name: _____ Sex: M / F. Is your friend transgender? Y / N
2. Name: _____ Sex: M / F. Is your friend transgender? Y / N
3. Name: _____ Sex: M / F. Is your friend transgender? Y / N
4. Name: _____ Sex: M / F. Is your friend transgender? Y / N
5. Name: _____ Sex: M / F. Is your friend transgender? Y / N

2) How many friends do you have **outside of school** (i.e., from your neighborhood or workplace)?

- i. (a) none (b) 1 (c) 2 or 3 (d) 4 or 5 (e) more than 5

ii. Please indicate the first name and biological sex of up to 5 close **non-school friends**:

1. Name: _____ Sex: M / F. Is your friend transgender? Y / N
2. Name: _____ Sex: M / F. Is your friend transgender? Y / N
3. Name: _____ Sex: M / F. Is your friend transgender? Y / N
4. Name: _____ Sex: M / F. Is your friend transgender? Y / N
5. Name: _____ Sex: M / F. Is your friend transgender? Y / N

3) How many friends do you have **on the internet** (i.e., that you haven't met in person)?

- i. (a) none (b) 1 (c) 2 or 3 (d) 4 or 5 (e) more than 5

ii. Please indicate the first name and biological sex of up to 5 close **internet friends**:

1. Name: _____ Sex: M / F. Is your friend transgender? Y / N
2. Name: _____ Sex: M / F. Is your friend transgender? Y / N
3. Name: _____ Sex: M / F. Is your friend transgender? Y / N
4. Name: _____ Sex: M / F. Is your friend transgender? Y / N
5. Name: _____ Sex: M / F. Is your friend transgender? Y / N

The rest of the questions ask about your relationships with each of the following people:

- (A) a same-sex friend at school,
- (B) an opposite-sex friend at school,
- (C) a transgender friend at school,
- (D) a same-sex friend outside of school (i.e., from your neighborhood or workplace),
- (E) an opposite-sex friend outside of school,
- (F) a transgender friend outside of school,
- (G) a same-sex friend on the internet,
- (H) an opposite-sex friend on the internet,
- (I) a transgender friend on the internet.
- (J) a romantic partner.

First, you will be asked to identify the friends about whom you will be thinking of. Few people would be expected to be able to identify a friend in each category, so if you are unable to think of anyone who fits a certain category, please feel free to skip it. Make sure that you do NOT select the same person for more than one category.

- (A) Please choose the most important **same-sex friend** you have **at school** (i.e., the same as your birth sex). If you cannot think of anyone who fits this category, please skip to B. Do not select a sibling or romantic partner.

Same-Sex School Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

- A.** Yes **B.** Friends, but not as close as we used to be **C.** No

- (B) Please choose the most important **opposite-sex friend** you have **at school** (i.e., the opposite of your birth sex). If you cannot think of anyone who fits this category, please skip to C. Do not select a sibling or romantic partner.

Opposite-Sex School Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

- A.** Yes **B.** Friends, but not as close as we used to be **C.** No

- (C) Please choose the most important **transgender friend** you have **at school**. If you cannot think of anyone who fits this category, please skip to D. Do not select a sibling or romantic partner.

Transgender School Friend's First Name _____

Transgender Friend's Birth Sex? (M / F)

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (D) Please choose the most important **same-sex friend** you have **outside of school** (i.e., from your neighborhood or workplace). If you cannot think of anyone who fits this category, please skip to E. Do not select a sibling or romantic partner.

Same-Sex Non-School Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (E) Please choose the most important **opposite-sex friend** you have **outside of school** (i.e., from your neighborhood or workplace). If you cannot think of anyone who fits this category, please skip to F. Do not select a sibling or romantic partner.

Opposite-Sex Non-School Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (F) Please choose the most important **transgender friend** you have **outside of school** (i.e., from your neighborhood or workplace). If you cannot think of anyone who fits this category, please skip to G. Do not select a sibling or romantic partner.

Transgender Non-School Friend's First Name _____

Transgender Friend's Birth Sex? (M / F)

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (G) Please choose the most important **same-sex friend** you have **on the internet** (i.e., that you have not met in person). If you cannot think of anyone who fits this category, please skip to H. Do not select a romantic partner.

Same-sex Internet Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (H) Please choose the most important **opposite-sex friend** you have **on the internet** (i.e., that you have not met in person). If you cannot think of anyone who fits this category, please skip to I. Do not select a romantic partner.

Opposite-sex Internet Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (I) Please choose the most important **transgender friend** you have **on the internet** (i.e., that you have not met in person). If you cannot think of anyone who fits this category, please skip to J. Do not select a romantic partner.

Transgender Internet Friend's First Name _____

How long is the friendship? ____ years ____ months (*please fill in numbers*)

Are you close friends now?

A. Yes **B.** Friends, but not as close as we used to be **C.** No

- (J) Please choose the most important **romantic partner** you are dating. If you do not currently have a romantic partner, you can select the most important romantic partner you have had in the past year. If you choose a past partner, please answer the questions as you would have when you were in the relationship. If you have not had a romantic partner in the past year, please skip to question #4.

Romantic Partner's First Name _____

Romantic Partner's Birth Sex: **A.** Same as me **B.** Opposite as me

How long is/was the relationship? ____ years ____ months (*please fill in numbers*)

Are you seeing this person now? **A.** Yes **B.** No

Now you will be asked to answer questions about the people you have selected above. Please tear off the back page of this booklet and fill in just the first names of the friends you selected – this will help you when answering the following questions.

Sometimes the answers for different people may be the same but sometimes they may be different. If you skipped a category above, please skip it in the following questions as well (for example., if you could not identify an Opposite-Sex Non-School friend, leave that category blank in all of the following questions).

4. How much free time do you spend with this person?

	None	A bit	Average amount	A lot	The Most
(A) Same-Sex School	1	2	3	4	5
(B) Opposite-Sex School	1	2	3	4	5
(C) Transgender School	1	2	3	4	5
(D) Same-Sex Non-School	1	2	3	4	5
(E) Opposite-Sex Non-School	1	2	3	4	5
(F) Transgender Non-School	1	2	3	4	5
(G) Same-Sex Internet	1	2	3	4	5
(H) Opposite-Sex Internet	1	2	3	4	5
(I) Transgender Internet	1	2	3	4	5
(J) Romantic Partner	1	2	3	4	5

5. How much does this person teach you how to do things that you don't know?

	None	A bit	Average amount	A lot	The Most
(A) Same-Sex School	1	2	3	4	5
(B) Opposite-Sex School	1	2	3	4	5
(C) Transgender School	1	2	3	4	5
(D) Same-Sex Non-School	1	2	3	4	5
(E) Opposite-Sex Non-School	1	2	3	4	5
(F) Transgender Non-School	1	2	3	4	5
(G) Same-Sex Internet	1	2	3	4	5
(H) Opposite-Sex Internet	1	2	3	4	5
(I) Transgender Internet	1	2	3	4	5
(J) Romantic Partner	1	2	3	4	5

6. How much do you talk about everything with this person?

	None	A bit	Average amount	A lot	The Most
(A) Same-Sex School	1	2	3	4	5
(B) Opposite-Sex School	1	2	3	4	5
(C) Transgender School	1	2	3	4	5
(D) Same-Sex Non-School	1	2	3	4	5
(E) Opposite-Sex Non-School	1	2	3	4	5
(F) Transgender Non-School	1	2	3	4	5
(G) Same-Sex Internet	1	2	3	4	5
(H) Opposite-Sex Internet	1	2	3	4	5
(I) Transgender Internet	1	2	3	4	5
(J) Romantic Partner	1	2	3	4	5

7. How much do you help this person with things she/he can't do by her/himself?²²
8. How much does this person like or love you?
9. How much does this person treat you like you're admired and respected?
10. How sure are you that this relationship will last no matter what?
11. How much do you play around and have fun with this person?
12. How much does this person help you figure out or fix things?
13. How much do you share your secrets and private feelings with this person?
14. How much do you protect and look out for this person?
15. How much does this person really care about you?
16. How much does this person treat you like you're good at many things?
17. How sure are you that your relationship will last in spite of fights?
18. How often do you go places and do enjoyable things with this person?
19. How often does this person help you when you need to get something done?
20. How much do you talk to this person about things that you don't want others to know?
21. How much do you care about this person?
22. How much does this person have a strong feeling of affection (loving or liking) toward you?
23. How much does this person like or approve of the things you do?
24. How sure are you that your relationship will continue in the years to come?
25. Who, of all these people, is your best friend?

(A) Same-sex School	(B) Opposite-sex School	(C) Transgender School
(D) Same-sex Non-School	(E) Opp-sex Non-School	(F) Trans Non-School
(G) Same-sex Internet	(G) Opposite-sex Internet	(I) Transgender Internet
(J) Romantic Partner		

²² The format of questions 7-24 is the same of that for questions 4-6 above. In the interest of space, they have been presented as a list here.

Appendix F

PREVNet Bullying Scale - Information

*There are lots of different ways to bully someone. Bullying is not an accident. A person who bullies **wants** to hurt the other person, and does it more than once. Bullying is unfair. The person who bullies has an advantage over the person being victimized. For example, the person who bullies is older, or stronger, or bigger. Sometimes a group of students will gang up on one student. The following are different forms of bullying that students might experience:*

1. Physical bullying

- when someone hits, shoves, kicks, spits at, or beats up on others

2. Verbal bullying

Using words to:

- call someone names, make fun of them, or tease them in a mean way
- humiliate someone, or make them feel stupid
- threaten someone by saying something bad will happen to them

3. Social bullying

- not letting someone join the group
- gossiping or spreading rumours about someone making sure others don't make friends with the person

4. Electronic bullying

Using a computer or phone text messages, or pictures to:

- threaten someone or hurt their feelings
- embarrass someone or make them look bad
- single someone out spread rumours or reveal secrets about someone

5. Racial bullying

- treating people badly because of their racial or ethnic background
- saying bad things about a cultural background
- calling someone racist names
- telling racist jokes saying hurtful comments about food, clothes, customs

6. Sexual/Gender bullying

- leaving someone out or treating them badly because they are a boy or a girl
- making someone feel uncomfortable because they are a boy or a girl
- making someone feel uncomfortable because they act like the opposite sex
- making sexist comments or jokes
- touching, pinching or grabbing someone in a sexual way
- making crude comments about someone's sexual behaviour
- spreading a sexual rumour about someone calling someone gay, a fag, a lesbian, a tranny or other names like that

7. Disability bullying

- leaving someone out or treating them badly because of a disability (e.g., learning, physical, speech)
- making someone feel uncomfortable because of a disability making comments or jokes to hurt someone with a disability

PREVNet Bullying Scale - Questions

1) How often have you been bullied in the past 12 months?

- I have not been bullied
- It has only happened a few times
- It has happened about once a month
- It has happened about once a week
- It has happened two or more times a week

2) How long have you been bullied?

- I have not been bullied
- One week
- Four weeks
- Several months
- One year
- More than one year

3) Have you been bullied physically by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Physical bullying includes: being hit, pushed, shoved, slapped, kicked, spit at, or beaten up.	<input type="radio"/>				

4) How long has physical bullying been going on?

- I have not been bullied physically
- One week
- Four weeks
- Several months
- One year
- More than one year

5) Have you been bullied verbally by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Verbal bullying includes: being called names, teased hurtfully, insulted, humiliated, threatened.	<input type="radio"/>				

6) How long has verbal bullying been going on?

- I have not been bullied verbally
- One week
- Four weeks
- Several months
- One year
- More than one year

7) Have you been bullied socially by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Social bullying includes: being excluded from a group, made to look dumb by someone, or gossiped about; having rumours spread about you.	<input type="radio"/>				

8) How long has social bullying been going on?

- I have not been bullied socially
- One week
- Four weeks
- Several months
- One year
- More than one year

9) Have you been bullied electronically by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Electronic bullying includes: being threatened, embarrassed, singled out, gossiped about, or made to look bad through the internet, or phone text messages or pictures.	<input type="radio"/>				

10) How long has electronic bullying been going on?

- I have not been bullied electronically
- One week
- Four weeks
- Several months
- One year
- More than one year

11) Have you been bullied about your race, ethnic background or religion by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Racial/ethnic/cultural/religious bullying includes: being treated differently or badly because of your race, culture, ethnic background, skin colour or religion; hearing jokes or negative things said about your race, culture, ethnic background, skin colour or religion.	<input type="radio"/>				

12) How long has racial / ethnic / religious bullying been going on?

- I have not been bullied due to racial / ethnicity / religion
- One week
- Four weeks
- Several months
- One year
- More than one year

13) Have you been bullied sexually or about your gender by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Sexual bullying includes: being touched, pinched, or grabbed in a sexual way; being called "gay" or a "lesbian" or a "tranny" in a way meant to upset you; having sexual gestures or crude comments made at you; having rumours spread about your sexual behaviour or gender identity.	<input type="radio"/>				

14) How long has sexual / gender bullying been going on?

- I have not been bullied sexually or due to my gender
- One week
- Four weeks
- Several months
- One year
- More than one year

15) Have you been bullied about your disability by other students in the past 12 months?

	Not at all	A few times	About once a month	About once a week	2 or more times a week
Disability bullying includes: being excluded from a group or treated badly because of a disability; being made to feel uncomfortable or hearing cruel comments or jokes about your disability.	<input type="radio"/>				

16) How long has bullying about your disability been going on?

- I have not been bullied due to a disability
- One week
- Four weeks
- Several months
- One year
- More than one year

17) Bullying is sometimes done by one student and sometimes by a group of students. In the past 12 months, were you bullied by:

	Never	A few times	Lots of times
Mainly one boy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A group of boys	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mainly one girl	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A group of girls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Both boys and girls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18) How well did you know the student(s) who was bullying you?

- Not at all
- A bit
- Very well

19) Was the student who bullied you a friend of yours?

- No
- Sort of
- Close friend

20) How old was the student who bullied you?

- At least a year younger
- About the same age
- At least a year older

21) How upset were you when you were bullied?

- Not at all
- A little bit
- Somewhat
- A lot
- Really a lot

22) Have you ever been bullied in the past (i.e., before the last 12 months)?

- I was not bullied in the past
- It only happened a few times
- It happened about once a month
- It happened about once a week
- It happened two or more times a week

If you answered "I was not bullied in the past," you may end the questionnaire here. Otherwise, please proceed with #23.

23) How long were you bullied?

- One week
- Four weeks
- Several months
- One year
- More than one year

24) What type of bullying did you experience in the past? (you may check more than one if applicable)

- Physical Bullying (e.g., hitting)
- Verbal Bullying (e.g., name calling)
- Social Bullying (e.g., excluding from the group)
- Electronic Bullying (e.g., hurtful messages on a computer)
- Racial Bullying (e.g., racist names)
- Sexual/Gender Bullying (e.g., sexual jokes or sexual touching)
- Disability Bullying (e.g., hurtful comments about a disability)

Study: Peer Relations and Gender Identity in Adolescents
Phone Script: Clinical and Normal Controls

Hello, this is Marc Shiffman calling from the study of peer relationships that is being conducted at the Centre for Addiction and Mental Health. You left a message on our study's voicemail indicating that you are interested in finding out more about the study. [Or: Your clinician, Dr./Mr./Ms. _____, provided us with your contact information at your request and indicated that you are interested in finding out more about the study].

Is now a good time to tell you more about the study?

May I first ask your age? (If participant is hesitant to disclose age, then say "I am required to ask your age first before telling you more about the study.")

[If under the age of 16, skip to Part B]

[If 16 or older, proceed]:

The purpose of the study is to learn more about peer relationships. Specifically, we are interested in understanding adolescents' experiences of peer support and victimization in relation to their gender development. Participation will involve one visit to the CAMH during which you will be asked to complete a demographic information form and four questionnaires. The questionnaires will take 45-60 minutes to complete and will include questions that ask about your peer experiences and gender identity. You will be compensated \$20 for your time. Is this a study that you would be interested in participating in?

[If yes, an appointment would be scheduled]

Do you have any questions?

Part B [for youths under the age of 16]:

Because you are under the age of 16, I am required to get permission from your parent or guardian in order to proceed with the study. Is a parent or legal guardian available to give permission?

[If yes, proceed with parent]

[If no, schedule a time to call back]

Hello, this is Marc Shiffman calling from a study of peer relationships that is being conducted at the Centre for Addiction and Mental Health. Your son or daughter left a message on our study's voicemail indicating that he or she is interested in finding out more about the study. The purpose of the study is to learn more about peer relationships. Specifically, we are interested in understanding adolescents' experiences of peer support

and victimization in relation to their gender development. Participation will involve one visit to the CAMH during which your son or daughter will be asked to complete a demographic information form and four questionnaires. The questionnaires will take 45-60 minutes to complete and will include questions that ask about peer experiences and gender identity. He or she will be compensated \$20 for their time. Because your son or daughter is under the age of 16, you will need to accompany him or her to the appointment and provide consent for him or her to participate. Do you have any questions? Does this sound like a study that you would be interested in having your son or daughter participate in?

[If yes, proceed]:

I would like to relay the study information to your son or daughter as well and make sure he or she is still interested.

[To youth]:

Hi, I spoke with your mother or father and he or she said it would be okay to talk to you about the study. The purpose of the study is to learn more about peer relationships. Specifically, we are interested in understanding adolescents' experiences of peer support and victimization in relation to their gender development. Participation will involve one visit to the CAMH, accompanied by a parent or legal guardian, during which you will be asked to complete a demographic information form and four questionnaires. The questionnaires will take 45-60 minutes to complete and will include questions that ask about your peer experiences and gender identity. You will be compensated \$20 for your time. Do you have any questions? Is this a study that you would be interested in participating in?

[If yes, an appointment would be scheduled with the youth and their parent]



SUPPORT SERVICES AVAILABLE FOR YOUTHS IN THE TORONTO AREA

Thank you for your participation in the study, *Peer Relations and Gender Identity in Adolescents*. If you find that you would like to talk to a professional or require support, the following is a list of services for youths in the Toronto area.

1) Turning Point Youth Services

A multi-service accredited children's mental health centre. Located in Toronto's downtown core and provides a range of mental health, counseling and support services to at-risk and vulnerable youth 12-24 and their families.

95 Wellesley St. E., Toronto

Phone #: 416-925-9250

Website: www.turningpoint.ca

2) Central Toronto Youth Services

A community-based, accredited Children's Mental Health Centre with locations on Wellesley Street, Adelaide Street and in York Region. Since 1973, CTYS has been on the forefront of serving at-risk youth.

Multiple Locations in Toronto

Intake Phone #: 416-924-2100

Kids Help Phone #: 1-800-668-6868

Website: www.ctys.org

3) The Griffin Centre

Griffin Centre is an accredited non-profit, charitable, multi-service, mental health agency providing flexible and accessible services to youth, adults and their families.

24 Silverview Dr., North York

Phone #: 416-222-1153

Website: www.griffin-centre.org

4) East Metro Youth Services

A multi-service adolescent mental health centre, accredited by the Children's Mental Health Ontario (C.M.H.O.), which has been serving young people and their families in East Toronto since 1974.

1200 Markham Rd., Suite 200, Scarborough

Phone #: 416-438-3697

Website: www.emys.on.ca