"I WANT YOU TO THINK I'M PERFECT AND IT'S KILLING ME": THE INTERPERSONAL COMPONENTS OF PERFECTIONISM AND SUICIDE IN A TEST OF THE SOCIAL DISCONNECTION MODEL

by

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ABSTRACT

The current study tested a component of the social disconnection model (Hewitt, Flett, Sherry, & Caelian, 2006) by determining whether the interpersonal components of perfectionism and suicide outcomes in youth are mediated by experiences of being bullied, a marker of social disconnection. The perfectionism trait of socially prescribed perfectionism and the perfectionistic self-presentation facets, suicide outcomes, and experiences of being bullied were measured in a heterogeneous sample of 152 psychiatric outpatient youth, aged 8 to 20 (mean = 12.87, SD = 2.97; 83 males, 69 females). The current study found evidence in support of the social disconnection model whereby the perfectionistic self-presentation facet, nondisplay of imperfection, and suicide outcomes were mediated by experiences of being bullied. Implications of self presentational components of perfectionism and social disconnection in suicide outcomes for youth are discussed, in terms of both their conceptual and clinical significance.

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1 INTRODUCTION

Despite decades of research seeking to understand the perplexing human phenomenon of suicide (see Lester, 2000; Maris, Berman, & Silverman, 2000; Maris, Canetto, McIntosh, Silverman, 2000 for reviews of suicide research), suicide rates continue to increase in Canada and have tripled between 1950 and 1995 (Centre for Suicide Prevention, 1998). Suicide is consistently the second leading cause of death in youth between the ages of 10 and 24 (Canadian Mental Health Association, 2006) and suicide rates have increased dramatically in this age group in comparison to others (Sakinofsky, 2000). According to the Ministry of Children and Family Development of British Columbia (Ashworth, 2001), more than 15,000 years of potential life are lost in Canada each year as a result of youth suicides. Although much research and clinical work has been done to improve suicide prevention and intervention, the fact that suicide rates are increasing among Canadian youth, suggests that further research is needed.

Thoughts about suicide (i.e., suicide ideation) and suicide attempts occur much more frequently than completed suicides themselves (World Health Organization, 2008). One Canadian study found that there are as many as 200 suicide attempts for every suicide completion among adolescent girls (Bland, Newman, & Dyck, 1994). Suicide ideation and attempts are important predictors of actual suicide completions. Suicide completions are relatively rare compared to ideation and attempts and can only be investigated posthumously. Therefore, ideation and attempts are the best indicators we have that individuals are distressed to the extent that they may eventually take their own lives (e.g., O'Connor & Sheehy, 2000)[1].

Personality variables have long been considered important factors in determining risk for suicide ideation and attempts (Brezo, Paris, & Turecki, 2006). For over 50 years, personality

[1] The current study uses measures of suicide risk, suicide ideation, past suicide attempts, and likelihood of future suicide attempts to measure suicidality. For the sake of clarity and simplicity, the term suicide outcomes will be used throughout the paper to refer to suicide risk, ideation, and attempts.

traits, such as depression, hopelessness, self-criticism, and social problem solving, have been the focus of one area of investigation to better understand these suicide outcomes (Beck, Steer, Beck, & Newman, 1993; Brezo, et al., 2006; Chang, 1998; Kovacs, Goldston, & Gatsonis, 1993; Pfeffer, Zuckerman, Plutchik, & Mizruchi, 1984; Weishaar, 2000). More recently, both theoretical models and research have suggested that perfectionisms is a personality variable that may be particularly important in understanding suicide outcomes (see O'Connor, 2007 for a review).

1.1 Dimensions of Perfectionism and Perfectionistic Self-Presentation

It has been established in the perfectionism literature, that trait perfectionism is a multidimensional construct related to the need to be perfect (Hewitt & Flett, 1991; Frost, Marten, Lahart, & Rosenblate, 1990). According to a recent review of the conceptualization of perfectionism (Hewitt & Flett, in press), the construct of perfectionism comprises three broad domains of personality including personality traits (Hewitt & Flett, 1991), perfectionistic self-presentation styles (Hewitt, Flett, Sherry, Habke, Parkin, Lam, et al., 2003), and automatic cognitive processing (Hewitt & Genest, 1990). Automatic cognitive processing is not a component of the current study as it reflects primarily an *intra*personal, and not an *inter*personal, aspect of perfectionism. Automatic cognitive processing is related to having automatic thoughts regarding the need to be perfect and processing information in a perfectionistic manner (Flett, Hewitt, Blankstein, & Gray, 1998, Hewitt & Genest, 1990).

1.1.1 Perfectionism traits

According to Hewitt and Flett (1991), there are three perfectionism traits: self-oriented perfectionism, other-oriented perfectionism, and socially-prescribed perfectionism. Self-oriented perfectionism involves strong motivations for the self to be perfect including unrealistically high,

self-imposed standards, and strong self-criticism. Other-oriented perfectionism is the requirement for other people to be perfect. Socially prescribed perfectionism involves concern over and inability to meet the perceived perfectionistic expectations of others. Socially prescribed perfectionists believe they must meet the unrealistically high expectations of others in order to gain acceptance or approval (Hewitt & Flett, 1991).

In research with adults, many studies have shown that perfectionism traits are associated with various kinds of intra- and interpersonal distress and disorders such as depression, anxiety, eating disorders, personality pathology, and suicide (see Flett & Hewitt, 2002 for a general review, and Hewitt, Flett, Sherry, & Caelian, 2006 for a review of perfectionism and suicide). Moreover these findings, generally, extend to children and adolescents whereby self-oriented perfectionism and socially prescribed perfectionism have been shown to be differentially related to various forms of psychological disorders and symptoms, such as depression, anxiety, and anger (Hewitt, Caelian, Flett, Sherry, Collins, & Flynn, 2002).

1.1.2 Perfectionistic self-presentation

Perfectionism traits do not capture the whole picture of perfectionism, however. Additionally, Hewitt et al. (2003) have proposed the construct of perfectionistic self-presentation, which encompasses the interpersonal expression of perfectionism. Perfectionistic self-presentation is distinct from perfectionism traits in that it goes beyond the desire to *be* perfect, captured by perfectionism traits, and addresses the individuals' behaviours to *appear* perfect to others. That is, beyond the internal motivation to be perfect, perfectionistic self-presentation represents a drive to appear to others as if one is perfect (Hewitt et al., 2003).

The development of the perfectionistic self-presentation construct in adults and more recently in youth has shown that there are three facets to perfectionistic self-presentation:

perfectionistic self-presentation, nondisplay of imperfection, and nondisclosure of imperfection (Hewitt et al., 2003; Hewitt, Blasberg, Flett, Sherry, Medjuck, Caelian, et al., 2007). Research has shown that the facet of perfectionistic self-promotion involves proactively demonstrating perfection to others by proclaiming and displaying one's perfection in order to gain respect and admiration. A second facet of perfectionistic self-presentation is nondisplay of imperfection. This facet of perfectionistic self-presentation involves concealing the perceived imperfections of the self. Individuals who engage in nondisplay of imperfection are driven to avoid revealing imperfections in public and thus avoid engaging in any activities that may cause them to be seen as flawed or as failing. Nondisclosure of imperfection is the third facet of perfectionistic self-presentation. This facet is also related to concealing aspects of the self that are considered to be negative or imperfect by not verbally revealing any perceived personal imperfections.

In general, perfectionistic self-presentation has consistently been shown to be a factor in intrapersonal and interpersonal problems (Hewitt et al., 2003; 2007). Perfectionistic self-presentation facets are differentially related to anxiety, self-esteem, depression, eating disorders, and personality disorders (Hewitt et al., 2003; 2007; Hewitt, Habke, Lee-Baggley, Sherry, & Flett, 2008). Research has also shown that whereas these self-presentational facets are related to perfectionism traits, they also predict certain psychological difficulties, such as social anxiety and depression, over and above what can be accounted for by traits alone (Hewitt et al., 2003). Such findings demonstrate that perfectionistic self-presentation facets and perfectionism traits are different constructs which contribute unique information to our understanding of clinically relevant problems.

In sum, drawing from the traits and self-presentation facets germane to the current study, socially prescribed perfectionism, perfectionistic self-promotion, nondisplay of imperfection, and

nondisclosure of imperfection all constitute interpersonal aspects of perfectionism, whereas self-oriented perfectionism acts as an indicator of an intrapersonal aspect of perfectionism.

1.2 Theories of Perfectionism and Suicide

One important problem that has received attention in the perfectionism literature is suicidal behavior. Several theorists have presented models of suicide that suggest that perfectionism plays an important role in suicide outcomes. For example Baumeister's escape theory of suicide (1995), Orbach's taxonomy of suicide (1997), and Arie, Haruvi-Catalan, and Apter's clinical hypotheses pertaining to suicidal behaviour in adolescents (2005) all implicate perfectionistic tendencies into their explanations of suicidal behaviour. Baumeister's theory incorporates failure to meet high expectations and self-blame as precipitating the desire to escape negative self awareness, which is consistent with the experience of perfectionists (Baumeister, 1995; Dean & Range, 1996). Orbach's taxonomy of suicide (1997) identifies a depressed perfectionistic type, which involves intrapunitiveness, high expectations, and self-devaluation, as well as increased negative reactions to stressors such as loss, separation, rejection, failure, and disappointments. Additionally, based on diverse clinical work with suicidal adolescents, Arie et al. (2005) have hypothesized three sets of personality constellations underlying suicidality, including a narcissistic perfectionistic constellation, associated with an inability to tolerate failure and imperfection, and an unwillingness to self-disclose and seek help.

1.3 The Social Disconnection Model

The social disconnection model (Hewitt et al., 2006) has been specifically developed to explain the relationship between the interpersonal components of perfectionism and suicide. According to this model, the social components of perfectionism lead to a variety of interpersonal problems, the most important being social disconnection or a sense of not

belonging. This social disconnection is followed by many aversive outcomes including thoughts of suicide and suicide attempts. In other words, social disconnection accounts for the relationship between the interpersonal components of perfectionism and suicide outcomes due to the sense of aloneness and disconnection from others that the interpersonal components of perfectionism bring about in the individual's social world.

Hewitt et al. (2006) theorized that perfectionism can bring about social disconnection in a number of ways. A major motivating force driving socially prescribed perfectionism is the need to be accepted, approved of and cared for by others (e.g., Hewitt et al., 2006; Missildine, 1963; Rosenberg, 1965). For socially prescribed perfectionists, this strong need for acceptance and approval is compounded by an exquisite interpersonal sensitivity to rejection (Hewitt & Flett, 1991). Socially prescribed perfectionists often experience aloneness as they believe that they will not be accepted by others unless they are perfect. Moreover, socially prescribed perfectionists may also experience increased anger and suspicion towards others due to their inability to live up to the perceived unfair expectations of others. Anger and suspicion can further compound social disconnection by severing or impairing relationships. Thus, socially prescribed perfectionism, an interpersonal dimension of perfectionism, is thought to produce social disconnection and subsequent suicidal tendencies (Hewitt et al., 2006).

In addition to socially prescribed perfectionism, Hewitt et al. (2003) showed that individuals high in perfectionistic self-presentation attempt to appear perfect in order to garner the acceptance of others and bolster their own self-esteem (Hewitt, et al., 2003). Although perfectionists who engage in perfectionistic self-presentation do so to gain acceptance and approval, it is often the case that others often view this interpersonal style quite negatively. People presenting themselves as perfect tend to be perceived as lacking genuineness and warmth

(Hewitt, et al., 2003). Others feel distant from and experience less familiarity and liking towards people who do not self-disclose or are monitoring their behaviour in order to appear perfect (Hewitt, et al., 2003; 2007; 2008; Runge & Archer, 1981). Thus, perfectionistic self-presenters may continually find their social needs thwarted as others seek to distance themselves from them, despite ever increasing attempts to secure acceptance through maintaining perfect appearances. For someone whom being perceived as perfect and accepted by others is integral to their identity, this pervasive distance from others may be distressing to the point where suicide is considered (Hewitt et al., 2006). Therefore, facets of perfectionistic self-presentation, in addition to socially prescribed perfectionism, may produce social disconnection and a sense of not belonging which culminates in suicidal behavior.

It has been suggested by Baumeister and Leary (1995) that the need to belong is a fundamental human motivation. Belonging is integral to optimal, healthy human functioning. Given that perfectionists have maladaptive beliefs and interpersonal behaviours which cause experiences of social disconnection and interfere with their need to belong, they are much more at risk for negative mental health outcomes. When the interpersonal components of perfectionism lead to chronic social disconnection which stands in the way of core needs to be accepted and perceived as perfect, this is theorized to lead to suicide ideation and attempts. As stated by Hewitt et al. (2006):

> In terms of the interpersonal aspects of the perfectionism construct, the perfectionistic individual who experiences stressful failures and an inability to be perfect may eventually experience an inability to obtain approval and belonging, leading to a lack of social connection because of the inability to meet perceived demands from others or to maintain a "perfect" facade. If so, then variables such as social alienation, lack of belonging, and a sense of perceived hopelessness about future interpersonal outcomes should mediate the link between socially prescribed perfectionism and suicidality. (p. 226)

1.3.1 Interpersonal components of perfectionism and social disconnection

The social disconnection model posits that the interpersonal components of perfectionism in fact create experiences of aloneness and social disconnection. A number of studies have shown that the interpersonal facets of perfectionism, especially, socially prescribed perfectionism, and the nondisplay and nondisclosure of imperfection dimensions, are related to interpersonal problems such as intimacy and relationship problems in children, adolescents and adults (see Habke & Flynn, 2002 for a review). In adults socially prescribed perfectionism is related to marital difficulties including lower levels of sexual satisfaction (Habke, Hewitt, & Flett, 1999) and lower levels of general satisfaction, affection, cohesion, and consensus (Habke, Hewitt, Fehr, Callander, & Flett, 1997). Relationship problems in adults also include problems with forming a therapeutic relationship (e.g., Sharar, Blatt, Zuroff, Krupnick, & Sotsky, 2004; Hewitt, et al., 2008). In youth, relationship problems such as lower popularity, lower quality of relationships with teammates (e.g., less time spent together, fewer feelings of closeness, decreased ability to talk freely and openly), increased conflict with peers, and peer victimization are linked with the interpersonal components of perfectionism (Miller & Vaillancourt, 2007; Ommundsen, Roberts, Lemyre, & Miller, 2005; Ye, Rice, & Stoch, 2008). Interpersonal components of perfectionism are also related to poor social skills (Hewitt, Flett, & DeRosa, 1996), poor social problem-solving (Flett, Hewitt, Blankstein, Solnik, & VanBrunschot, 1996), low social self-esteem (Hewitt et al., 2003; 2007), social anxiety (e.g., Antony, Purdon, Huta, & Swinson, 1998), loneliness (Chang, Sanna, Chang, & Bodem, 2008; Ye, Rice, & Stoch, 2008; Yuan & Zhang, 2007), lower perceived social status and rank (Wyatt & Gilbert, 1998), interpersonal hostility (Hewitt et al., 2002; Hill, Zrull, & Turlington, 1997; Slaney, Pincus, Uliaszek, & Wang, 2006),

and more frequent negative interpersonal interactions (Flett, Hewitt, Garshowitz, & Martin, 1997).

The empirical research on perfectionism and interpersonal problems is consistent with the theoretical proposal of the social disconnection model that interpersonal problems are encountered by perfectionists and contribute to social disconnection through both severed or impaired relationships, and the phenomenological experience of aloneness (Hewitt et al., 2006). These objective and subjective experiences of social disconnection are postulated to mediate the relationship between socially prescribed perfectionism and suicide outcomes. To summarize the role of interpersonal facets of perfectionism in the social disconnection model: a) interpersonal components of perfectionism produce objective and subjective experiences of social disconnection and b) environmental conditions that are devoid of positive social connections, or are replete with subjective experiences of aloneness contribute to suicidal ideation and behaviour (Hewitt, et al., 2006).

1.3.2 Social disconnection and suicide outcomes

Experiences in the interpersonal domain have long been considered to influence suicidal behaviours, as is evidenced in part by the still influential work of Durkheim on the social causes and social types of suicide (1897/1951). According to Leary, Koch, and Hechenbleikner (2001) suicide can be considered an action tendency that is carried out in response to the emotions generated by interpersonal rejection. In a literature review on the clinical significance of loneliness, Heinrich & Gullone (2006) cite research describing loneliness as a vulnerability factor linked to suicide ideation, attempts, and completions. Additionally, Joiner (2003) suggests that interpersonal disconnection is a main precursor of suicidality in youth in his comprehensive

model of adolescent suicidal behaviour. Rutter and Behrendt (2004) provide empirical support for contention that social isolation is a key and risk factor in adolescent suicide.

1.3.3 Perfectionism traits and suicide outcomes

Although the social disconnection model is a relatively new model that has not been tested in terms of suicide outcomes, especially in youth, there is ample evidence that socially prescribed perfectionism is a powerful predictor of suicide behaviour. Over the past 15 years, empirical findings consistently suggest that socially prescribed perfectionism in particular is related to suicide risk, suicide ideation, suicide attempts, and high risk suicide attempts in children, adolescents, and adults (Hewitt, Newton, Flett, & Callander, 1997; Hewitt, Norton, Flett, Callander, & Cowan, 1998; Hewitt, Flett, & Turnbull-Donovan, 1992, Dean & Range, 1996; Dean, Range, & Goggin, 1996). For example, Hewitt et al. (1997) conducted one of the first studies to test the relationship between suicide and perfectionism traits in adolescents. They showed that socially prescribed perfectionism and not self-oriented perfectionism was related to higher levels of suicide ideation in a sample of adolescent psychiatric patients. Also, after controlling for hopelessness, socially prescribed perfectionism accounted for unique variance in suicide ideation.

Additionally, Caelian (2005) showed that in a sample of depressed adolescents socially prescribed perfectionism accounted for additional variance in suicide outcomes after controlling for depression and hopelessness. As depression and hopelessness are two well-established predictors of perfectionism (Beck, Brown, Berchick, Stewart, & Steer, 1990; Minkoff, Bergman, Beck, & Beck, 1973; Nekanda-Trepka, Bishop, & Blackburn, 1983; Salter & Platt, 1990; Wetzel, 1976), these findings that suggest that socially prescribed perfectionism plays a fairly significant role in understanding suicide outcomes in these youth.

Finally, a study by Beorgers, Spirito, & Donaldson (1998) investigating adolescents' self-reported reasons for suicide attempts provides strong evidence that socially prescribed perfectionism is related to high risk suicide outcomes. Adolescent suicide attempters who were higher in socially prescribed perfectionism also specifically endorsed a wish to die as their main motivation for their suicide attempt. Those who endorse a wish to die may engage in more lethal suicide attempts, thus, it is important to be able to distinguish between various motivations for suicide. Socially prescribed perfectionism appears to be useful in making this distinction.

Overall, the research on adolescents, as with the more extensive research on adults (see Hewitt et al., 2006 for a review), suggests that socially prescribed perfectionism is associated with suicide outcomes. However, the existing research does not clarify the nature of this relationship. Testing the social disconnection model with socially prescribed perfectionism and suicide outcomes in adolescents will provide an opportunity to clarify the nature of the relationship.

1.3.4 Perfectionistic self-presentation facets and suicide outcomes

Whereas there is evidence that socially prescribed perfectionism is an important interpersonal aspect of perfectionism related to suicide outcomes, no research to date has been conducted on perfectionistic self-presentation facets and their relationship to suicide; thus, this is a gap that exists in the current research. There are a number of reasons to expect that perfectionistic self-presentation facets would be related to suicide outcomes. For one, perfectionistic self-presentation, although distinct from socially prescribed perfectionism, is an interpersonal component of perfectionism that interferes with social connection and thus will likely have implications for suicide outcomes. Also, perfectionistic self-presentation may be particularly relevant in distress and suicide outcomes of adolescents given their heightened

concern about acceptance from peers. According to Hewitt and colleagues (1997) "…adolescents have a marked intolerance of failure, especially public failure, and this intolerance may be very significant in relation to suicide. If an adolescent perceives an inability to meet or maintain significant others' unrealistic expectations, this may be particularly aversive and distressing to the point where suicide may be considered" (p. 99). Concerns about interpersonal acceptance would be especially relevant for youth with high levels of perfectionistic self-presentation facets who are highly motivated to appear not just acceptable, but perfect in the interpersonal context (Hewitt et al., 2003).

Given that the connection between perfectionistic self-presentation facets and suicide outcomes has not yet been demonstrated empirically, particularly not in a study of youth, one goal of the current study is to determine whether perfectionistic self-presentation facets are relevant to suicide outcomes in children and adolescents. It will also be determined whether knowledge of perfectionistic self-presentation contributes to the understanding of suicide outcomes beyond what can be predicted by socially prescribed perfectionism, and depression and hopelessness.

1.3.5 Being bullied as an indicator of social disconnection in youth

There are many ways in which social disconnection can be experienced. Being bullied (i.e., being verbally, physically, and otherwise psychologically or socially attacked by a socially powerful peer or peers over time) is an experience encountered by youth which is a potent marker of relationship difficulties and social disconnection (Olweus, 1993; Craig & Pepler, 2007). Thus, one option for testing a component of the social disconnection model in youth is to focus on being bullied and teased by peers as an indicator of social disconnection. It is possible that the interpersonal components of perfectionism bring about impaired relationships and social

behaviours in youth that manifest in the form of becoming a target of peer victimization. Furthermore, for young perfectionists being bullied, made fun of, and publicly unaccepted by peers may be especially troubling given that they are attempting to maintain a façade of perfection during a stage in their life when peer approval and avoidance of public failure are salient interpersonal issues (e.g., Juvonen, 1996; Hewitt et al., 1997).

Being bullied fits nicely into the social disconnection model as research supports both the proposal that perfectionism may lead to this form of social disconnection, as well as the contention that being bullied leads suicide outcomes. Numerous studies have shown that being bullied is relevant to suicide outcomes in youth. For example, Brunstein-Klomek, et al. (2007) found evidence that that frequently being victimized by bullies was related to suicide ideation and attempts in 9^{th} to 12^{th} grade students. Additionally, there has been increasing media attention paid to the role of being bullied in youth suicides (e.g., CBC News Online, March 2005; Smith, 1994).

Recent studies on perfectionism and bullying suggest that perfectionism may play a significant role in becoming a target of peer victimization. Ye, Rice, and Storch (2008) found sensitivity to mistakes, an interpersonal aspect of perfectionism measured by the Adaptive/Maladaptive Perfectionism Scale (AMPS; Rice & Preusser, 2002), predicted poor peer relations, loneliness, and peer victimization in children with obsessive-compulsive disorder (OCD), above and beyond OCD symptoms. Another study suggesting that perfectionism plays a role in victimization by peers was conducted by Miller and Vaillancourt (2007). Their study demonstrated that memories of childhood peer victimization were related to current levels of self-oriented and socially prescribed perfectionism in university students.

The link between perfectionism and bullying is a particularly interesting connection to investigate. Although it is known that being bullied leads to a number of negative social, emotional, and physical health outcomes (Due et al., 2005; Hawker & Boulton, 2000), relatively little is known what makes someone a target of bullying (Roland, 2002). Using experiences of being bullied as a marker of social disconnection in the current model, not only allows the viability of the social disconnection model to be tested, but also helps to further understand the role that perfectionism may have as a personality trait that predisposes youth for peer victimization.

1.3.6 Summary of the social disconnection model for current study

The social disconnection model provides a theoretical context for understanding the relationship between perfectionism and suicide by proposing perfectionism as a personality variable that interferes with interpersonal connections to the point which suicide is considered. According to the social disconnection model, a socially disconnecting experience, such as being bullied or teased by peers, is brought about by the interpersonal components of perfectionism and, subsequently, leads to suicidal outcomes. Being bullied or teased by peers is a novel way of measuring social disconnection in the current model. Additionally, this study is the first to use perfectionistic self-presentation facets in the prediction of suicide outcomes. In summary, it has been posited by the social disconnection model that individuals who endorse high levels of the interpersonal components of perfectionism also experience being bullied by peers, and this form of social disconnection accounts for the relationship between perfectionism and suicide outcomes. The primary purpose of this study is to test this particular model of suicide with relation to perfectionism and suicide outcomes in youth.

1.4 Summary of Study, Goals, and Hypotheses

The overall goal of the current study is to contribute to the limited research on perfectionism and suicide in youth and to better understand the connection between the interpersonal components of perfectionism, socially prescribed perfectionism and perfectionistic self-presentation facets, and suicide outcomes. Self-report measures were used to measure the predictor and outcome variables in this study. The Child-Adolescent Perfectionism Scale (CAPS; Flett, Hewitt, Boucher, Davidson, & Munroe, 2000) was used in the measurement of perfectionism traits and the Perfectionistic Self-Presentation Scale-Junior Form (PSPS-Jr., Hewitt et al., 2007) was used to measure perfectionistic self-presentation facets.

In addition to measuring the interpersonal components of perfectionism as the main predictors of suicide behavior, both depression and hopelessness measures were included as control variables. Since depression and hopelessness are considered two of the best personality predictors of suicide outcomes (Beck, et al., 1990; Minkoff, et al., 1973; Nekanda-Trepka, et al., 1983; Salter & Platt, 1990; Wetzel, 1976), including them in the study provides a more stringent test of the interpersonal components of perfectionism's significance in the prediction of suicide outcomes. It also allows for the comparison of current findings to past research, which suggests that the interpersonal components of perfectionism predict suicide outcomes above and beyond these two key predictors.

Finally, a variety of indicators of suicide outcomes that have been used in previous studies (e.g., Caelian, 2005; Hewitt, et al., 1997) were used, including the Child-Adolescent Suicide Potential Index (CASPI; Pfeffer, Jiang, & Kakuma, 2000) to measure general suicide risk, the Suicide Ideation Questionnaire (SIQ; Reynolds, 1987), and ratings measuring past suicide attempts and likelihood of future attempts. The measure for bullying included a single rating of

bullying experiences that was selected from the available data. A sample of child and adolescent outpatients with heterogeneous clinical diagnoses was used in the current study. The benefits of using a heterogeneous clinical sample in suicide research are, firstly, that it ensures a wider range of scores on suicide measures as suicide outcomes are more common in psychiatric patients and, secondly, the sample will be more representative of child and adolescent psychiatric outpatients who are seeking help for psychological difficulties in treatment settings.

The goals of this study are: (1) to replicate findings that socially prescribed perfectionism is associated with suicide outcomes, (2) to determine for the first time whether the perfectionistic self-presentation facets are related to suicide, (3) to replicate past findings that socially prescribed perfectionism predicts suicide outcomes above and beyond depression and hopelessness, (4) to determine whether any of the perfectionistic self-presentation facets uniquely predict suicide outcomes, (5) determine if perfectionistic self-presentation facets predict suicide outcomes beyond perfectionism traits, and above and beyond depression and hopelessness, and (6) to test a component of the social disconnection model using socially prescribed perfectionism and perfectionistic self-presentation facets as indicators of the interpersonal components of perfectionism, and being bullied as a marker of social disconnection.

2 METHOD

2.1 Participants

A clinical sample of 158 child and adolescent psychiatric outpatients who were heterogeneous with respect to clinical diagnoses completed questionnaire packages. Six participants were removed as they answered no items on at least one of the relevant measures. Participants in the current study include 152 youth (83 males, 69 females) between the ages 8 and 20 (mean age = 12.87, SD = 2.97). In terms of ethnic background, the current study included primarily Caucasian Canadian (71.5%), European (9.2%), and Asian (6.6%) participants. Although structured clinical interviews were not done to obtain a diagnosis for the participants, the majority of children and youth seen at this clinic setting have diagnoses of depression, anxiety, and attentional difficulties.

2.2 Measures

Child-Adolescent Perfectionism Scale (CAPS; Flett et al., 2000). The CAPS (Flett et al., 2000) is a 22-item self report measure based on Hewitt and Flett's multidimensional conceptualization of perfectionism (1991). The CAPS measures children and adolescents' motivation to be perfect using two subscales: self-oriented perfectionism (e.g., "I feel that I have to do my best at all times") and socially prescribed perfectionism (e.g., "There are people in my life who expect me to be perfect). A five-point Likert-scale is used to rate the items ranging from 1, "not at all like me", to 5, "very true of me", with higher scores reflecting greater perfectionism.

The CAPS has been shown to predict perfectionism with an adequate level of reliability, internal consistency, and the multidimensional nature of the CAPS has been demonstrated via

factor analysis (Flett et al., 2000). The stability of the measure over a five week period has also been demonstrated for both self-oriented and socially prescribed perfectionism.

Perfectionistic Self-presentation Scale Junior Form (PSPS-Jr.; Hewitt, et al., 2007). The PSPS-Jr. scale is an 18-item self-report scale which measures perfectionistic self-presentation style (i.e., the interpersonal expression of perfectionism) in children and adolescents. Each item is rated on a five-point Likert Scale relating to how much each item is descriptive of the individual ranging from 1, "not at all true of me", to 5, "very true of me." The PSPS-Jr. measures three facets of perfectionistic self presentation (Hewitt et al., 2007): perfectionistic self-promotion (e.g., "I have to look like I am always doing things perfectly"), nondisplay of imperfections (e.g., "I do not want my friends to see even one of my bad points"), and nondisclosure of imperfections (e.g., "I do not let other people know when I fail at something"). These facets have been shown to have good internal consistency. Also, support has been provided for the concurrent, discriminant, and predictive validity of this child and adolescent version of the perfectionistic self-presentation scale (Hewitt et al., 2007).

Child-Adolescent Suicidal Potential Index (CASPI; Pfeffer, Jiang, & Kakuma, 2000). The CASPI is a 30-item self-report measure of overall risk for suicidal behaviour using three domains including anxious-impulsive depression, suicidal ideation and acts, and family distress. Respondents respond yes or no to each of the 30 statements to indicate whether or not a certain event occurred during the past 6 months. Acceptable internal consistency (alpha = .90) and adequate test-retest reliability (r = .76 over two weeks) have been demonstrated for the scale. Pfeffer et al. (2000) have provided evidence for the scale's convergent validity by demonstrating correlations with related constructs such as depression and hopelessness. Discriminant validity

has been demonstrated by the scale's ability to distinguish between youth with varying levels of suicidal behaviour (Pfeffer et al., 2000).

Suicide Ideation Questionnaire (SIQ; Reynolds, 1987). The SIQ is self-report inventory containing 30 items that measures current levels of suicidal ideation in youth. Items are rated on a seven-point Likert scale indicating the frequency of a particular suicidal thought ranging from "I never had this thought" to "Almost everyday". Items are scored from 0 to 6, with higher scores related to greater frequency of a number of different suicidal thoughts. Content and construct validity have been demonstrated for the SIQ, and reliability has been demonstrated in terms of internal consistency and test retest reliability (Reynolds, 1988). In terms of construct validity, the SIQ has been found to be highly correlated with measures of depression, hopelessness, self-esteem, and anxiety (Reynolds, 1988).

Suicide Ratings. Two ratings of suicidal behavior were used in the current study in order to assess prior suicide attempt and likelihood of attempting in the future. These ratings have been used in prior research with youth (Caelian, 2005). To measure prior suicide attempts, participants were asked: "Have you ever attempted to kill yourself?" and rated their response from 0 (never) to 3 (very often). To measure likelihood of future suicide attempts participants were asked: "How likely is it that you will attempt suicide someday?" and rated their response from 0 (not at all likely) to 5 (very likely).

Rating of Being Bullied by Peers. A single rating was used to assess being bullied or teased by peers. Participants were asked "Have you ever been bullied or teased by other kids?" and rated their response on a 4-point scale from Never (0) to Very Often (3). This item is similar to ratings used in other studies on bullying in youth (Brunstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Wilkins-Shurmer, et al., 2003; Ye, Rice, & Storch, 2008).

Children's Depression Inventory (CDI; Kovacs, 1983). The CDI is a 27 item self-report measure used to measure depression in children 8 to 17 years of age. CDI items describe a variety of symptoms of childhood depression, and children respond to the items based on which item in a set of statements best describes them during the preceding two weeks. The statements are scored on a scale from 0 to 2. The internal consistency of the CDI is good, ranging between 0.83 and 0.94, as has been demonstrated in several studies (Saylor, Finch, Spirito, & Bennett, 1984). Saylor et al. (1984) have also demonstrated that the CDI has good concurrent validity with other self-report measures of negative self-concept (Saylor et al., 1984).

Hopelessness Scale for Children (HSC; Kazdin, et al., 1986). The HSC is a 17-item self-report measure. Children are presented with items that are at a grade one to two reading level and asked to indicate whether or not the item is true or false for them (e.g., T/F "I might as well give up because I can't make things better for myself."). This scale has good levels of levels of internal consistency with a coefficient alpha of .97 and a Spearman-Brown split-half reliability of .96. The item-total score correlations are in the moderate range with a mean correlation of .44. Test-retest reliability over a 6-week period is also adequate with a Pearson product-moment correlation of .52. Validity for the scale has also been demonstrated by showing it is related to depression, self-esteem, and social behaviour (Kazdin, Rodgers, & Colbus, 1986).

2.3 Procedure

Participants were recruited from an outpatient psychiatric clinic at a children's hospital in British Columbia. While attending the outpatient clinic, youth and their parents were informed of the study, and given the opportunity to participate. If consent and assent were given by parents and youth respectively, the youth were asked to complete a questionnaire package and return them to the researchers by mail.

3 RESULTS

3.1 Descriptive Statistics and Correlations

Means, standard deviations, coefficients alpha, and intercorrelations of the variables for the total sample are presented in Table 1[2]. Results suggest that the present sample is comparable with other child and adolescent clinical samples. Additionally, Cronbach's alpha coefficients were found to be adequate for each measure.

Correlations in Table 1 include correlations between the perfectionism trait dimensions and perfectionistic self-presentation facets. Socially prescribed perfectionism has a significant moderate positive correlation with self-oriented perfectionism, as well as with nondisplay and nondisclosure of imperfection. Self-oriented perfectionism has small to moderate correlations with each of the perfectionistic self-presentation facets, and each of the perfectionistic self-presentation facets have low to moderate correlations with each other. This pattern of low to moderate correlations between the perfectionism traits and perfectionistic self-presentation facets is similar to the findings in past studies with adolescents and adults (Hewitt et al., 2003; 2007), which fits with the conceptualization of each of these domains of perfectionistic personality as related but distinct features of perfectionism.

In order to test the first goal, correlational analyses were conducted to determine whether socially prescribed perfectionism, and not self-oriented perfectionism, was related suicide outcomes. Consistent with previous studies, Table 1 shows that socially prescribed perfectionism was positively correlated with suicide risk, suicide ideation, prior suicide attempts, and likelihood of future suicide attempts. Self-oriented perfectionism was not significantly correlated with any of the suicide outcome measures.

[2] Data preparation procedures provided by Tabachnick and Flynn (2001) were used to handle missing data, outliers, examine distributions, and check for skewness.

Socially prescribed perfectionism was also significantly positively correlated with depression and hopelessness while self-oriented perfectionism was not. Neither socially prescribed nor self-oriented perfectionism was significantly positively related to being bullied or teased by peers (see Table 1).

Correlations between perfectionistic self-presentation facets and suicide outcomes, depression, hopelessness, and bullying were also examined. The second goal of the study was to determine whether perfectionistic self-presentation facets are related to suicide outcomes. It was found that perfectionistic self-promotion was significantly positively related to suicide risk and suicide ideation, nondisplay of imperfection was significantly positively related to suicide risk, and nondisclosure was significantly positively related to suicide risk, ideation, and likelihood of future suicide attempt (see Table 1).

Like socially prescribed perfectionism, all perfectionistic self-presentation facets were significantly positively correlated with depression and hopelessness. All perfectionistic self-presentation facets were also significantly positively correlated with being bullied or teased by peers. Being bullied or teased by peers was significantly positively correlated with depression, suicide risk, suicide ideation, and likelihood of future suicide attempts (see Table 1).

3.2 Perfectionism Traits and Predicting Suicide Outcomes

Prior to conducting further analyses, the impact of age and gender on the results was considered. A multivariate analysis of variance was conducted to examine mean differences for predictor and outcome measures on categorical demographic variables. Significant differences between male and female youth were found on the measures for suicide risk, $F(1, 150) = 6.45$, $p < .05$, suicide ideation, $F(1, 150) = 10.50$, $p = .001$, depression, $F(1, 150) = 8.24$, $p < .01$, and the

ratings on ever attempting suicide, $F(1, 150) = 11.90$, $p = .001$, and likelihood of future suicide attempts, $F(1, 150) = 7.69$, $p < .01$ with girls scoring higher on all of these measures.

For the continuous demographic variable of age, correlations between participant age and predictor and outcome variables were examined and significant positive correlations were found between age and socially prescribed perfectionism, suicide risk, suicide ideation, prior suicide attempts, likelihood of future suicide attempts, and depression (see Table 1). These findings regarding age and gender are consistent with past research providing evidence that these variables can influence suicide outcomes and perfectionism (e.g., Flett, Hewitt, Blaknstein, & Koledin, 1991; Frost, et al., 1990; Reynolds, 1988). Taking this into consideration, subsequent multiple regression analyses were run using age and gender as covariates to control for the effects of age and gender. Gender was used as a covariate rather than conducting separate analyses for each gender due to the fact that the respective samples of boys and girls were too small to have adequate power for the multiple regression analyses (Green, 1991).

The third goal of this study was to replicate findings that suggest that socially prescribed perfectionism predicted suicide outcomes beyond depression and hopelessness. Thus, to test the third goal of the current study, a set of hierarchical regression analyses was performed to asses the independent contributions of perfectionism traits to the prediction of suicide outcomes above and beyond depression and hopelessness. Depression and hopelessness were entered into the first predictor block of hierarchical regression analyses, along with age and gender as covariates, to predict suicide risk, suicide ideation, past suicide attempts, and likelihood of future suicide attempts. In each of these cases, depression and hopelessness contributed to a significant proportion of the variance in these outcome measures and depression contributed uniquely to the prediction of suicide measures, whereas hopelessness did not significantly predict these

outcomes (see Table 2). When perfectionism traits were added into the second predictor block, it was found that they did not contribute significant variance in the prediction of suicide measures, nor did socially prescribed perfectionism play a unique role in the prediction of suicide measures when controlling for depression and hopelessness.

3.3 Perfectionistic Self-Presentation Facets Predicting Suicide Outcomes

The fourth goal of the study was to determine whether any of the perfectionistic self-presentation facets were uniquely related to suicide outcomes. Correlational analyses presented above already suggest that theses facets are related to suicide outcomes. The following hierarchical regression analyses were conducted to determine whether any of the facets in particular uniquely predict suicide outcomes. Age and gender were entered as covariates into the first predictor block with the three perfectionistic self-presentation facets added into the second predictor block for all analyses (see Table 3). It was found that perfectionistic self-promotion, nondisplay of imperfection, and nondisclosure of imperfection together explained 12% of the variance present in suicide risk beyond age and gender, $F(3,146) = 7.47$, $p < .001$ and nondisclosure of imperfection provided unique variance in suicide risk, $\beta = .22$, $t(151) = 2.22$, $p < .05$.

For the prediction of suicide ideation, perfectionistic self-presentation facets significantly predicted 5% of the variance in suicide ideation, $F(3,146) = 2.81$, $p < .05$, and, again, nondisclosure of imperfection provided unique variance in suicide risk, $\beta = .21$, $t(151) = 2.12$, $p < .05$.

In terms of history of past attempt, perfectionistic self-presentation facets did not significantly predict past suicide attempts beyond what was predicted by age and gender, $R^2=$

.16, $\Delta R^2 = .02$, $F(3,146) = 1.01$, $p > .05$. This was also the case for likelihood of future suicide attempts, $R^2 = .12$, $\Delta R^2 = .03$, $F(3, 146) = 1.87$, $p > .05$.

Furthermore, the fifth goal of the study was to determine if any of the perfectionistic self-presentation facets predict suicide outcomes above and beyond perfectionism traits, and also above and beyond depression and hopelessness. Given the significant findings that the perfectionistic self-presentation facets predicted suicide risk and suicide ideation, hierarchical regression analyses were conducted in order to determine if the perfectionistic self-presentation facets contribute to the prediction of suicide risk and ideation beyond perfectionism traits. Table 4 shows that in Step 1 self-oriented perfectionism and socially prescribed perfectionism accounted for 19% of the variance in suicide risk, $F(5,147) = 8.51$, $p < .001$, and socially prescribed perfectionism was uniquely related to suicide risk, $\beta = .36$, $t(151) = 4.37$, $p < .001$. In Step 2 perfectionistic self-promotion, nondisplay of imperfection, and nondisclosure of imperfection accounted for an additional 7% of the variance in suicide risk, $F(3,144) = 4.45$, $p < .01$, and both socially prescribed perfectionism, $\beta = .31$, $t(151) = 3.63$, $p < .001$, and nondisclosure of imperfection, $\beta = .19$, $t(151) = 1.98$, $p = .05$, accounted for unique variance. A similar analysis was conducted for suicide ideation. Perfectionistic self-presentation facets did not account for significantly more variance in the prediction of suicide ideation than perfectionism traits, $R^2 = .24$, $\Delta R^2 = .03$, $F(3,144) = 1.68$, $p > .05$, and socially prescribed perfectionism alone significantly predicted suicide ideation, $\beta = .31$, $t(151) = 3.63$, $p < .001$.

Perfectionistic self-presentation facets were not found to significantly predict past suicide attempts or likelihood of suicide attempts above and beyond perfectionism traits, nor were any facets uniquely related to the prediction of these measures.

To further assess the fifth goal of the study, hierarchical regression analyses were conducted to determine if perfectionistic self-presentation facets predicted suicide outcomes above and beyond depression and hopelessness. The same method was followed as above, entering age, gender, depression, and hopelessness in the first predictor block and using perfectionistic self-presentation facets in the second predictor block. Table 5 demonstrates that the perfectionistic self-presentation facets predicted suicide risk above and beyond depression and hopelessness, $R^2 = .62$, $\Delta R^2 = 02$, F (3, 144) = 2.90, $p < .05$. No individual facet uniquely contributed to the prediction of suicide risk, although perfectionistic self-promotion approached significance, $\beta = .14$, $t(151) = 1.91$, $p = .058$. Perfectionistic self-presentation facets did not significantly predict suicide ideation, past suicide attempts, or likelihood of future attempts above and beyond depression and hopelessness.

3.4 Testing the Social Disconnection Model

In order to address the sixth and final goal regarding perfectionism, social disconnection, and suicide outcomes in the social disconnection model, a mediation analysis was conducted. The current mediation analysis combines Baron and Kenny's (1986) classic approach to mediation with bootstrapping techniques for significance testing (e.g., Davison & Hinkley, 1997; Efron & Tibshirani, 1993; Frazier, Tix, & Barron, 2004; MacKinnon, Fairchild, & Fritz, 2007; Shrout & Boldger, 2002). Barron and Kenny (1986) suggest that in order for mediation to be present: 1) the predictor must be shown to significantly predict the mediator, 2) the predictor must significantly predict the outcome variable and 3) when both the predictor and mediator are used to predict the outcome variable, the relationship between the mediator and the outcome variable, is significant, whereas the relationship between the predictor and the outcome is no longer significant. This third and final step of the mediation analysis shows that the relationship

between the predictor and the outcome is no longer present and the relationship demonstrated between the two is now fully explained by the pathway from the predictor to the mediator to the outcome.

In the current analysis, perfectionistic self-presentation facets were used as predictor outcomes in three separate mediation analyses with the rating for being bullied or teased by peers as the mediator and suicide risk as the outcome variable. Age, gender, depression, and hopelessness were used as covariates in the mediation model. To reduce the number of mediation analyses, suicide risk was selected as the outcome to test in the mediation analyses as this is the most general measure of suicide outcomes, incorporating both suicide ideation and attempts. This allowed mediation analyses to be completed without having to drastically adjust the alpha level to account for the number of analyses being run. To accommodate the number of mediation analyses being run, the alpha level used was reduced from .05 to .01. As only perfectionistic self-presentation facets showed significant correlations with being bullied, these interpersonal components of perfectionism were tested in the mediation analyses.

Mediated effects were tested via bootstrap analyses (Shrout & Bolger, 2002; Mallinckrodt, Abraham, Wei, & Russell, 2006). Random sampling with replacement was used to create 1000 (n = 152) bootstrap samples from the original data set. Bootstrap samples were used to estimate bias-corrected standard errors for indirect effects and 99% percentile confidence intervals for indirect effects. Following MacKinnon, Lockwood, Hoffman, West, and Sheets (2002), mediation was tested by evaluating the significance levels of indirect effects. According to these authors, a significant indirect effect indicates mediation has occurred (see also MacKinnon, Warsi, & Dwyer, 1995). Indirect effects were calculated by multiplying (a) path coefficients from predictor variables to mediator variables by (b) path coefficients from mediator

variables to criterion variables. Confidence intervals (CI's) were also placed around indirect effects. If zero is not included in the 99% CI for an indirect effect, then the indirect effect is significant at $p < .01$.

Table 6 shows the systematic steps for testing mediation suggested by Baron and Kenny (1986) as well as the results of the bootstrapping analysis to test the significance of the mediation effects. Nondisplay of imperfection, being bullied or teased by peers, and suicide risk were found to be partially consistent with a mediation model. As seen in Table 6, in Step 1, nondisplay of imperfection did not significantly predicted suicide risk but, in Step 2, nondisplay of imperfection did significantly predict being bullied or teased by peers. Step 3 showed a significant relationship between being bullied and suicide risk and the pathway from nondisplay of imperfection and suicide risk was not significant, suggesting mediation. Bootstrapping was used to obtain confidence intervals for the indirect effects, 99%CI [.001, .112]. The 99%CI does not contain zero, suggesting that the indirect effects were significant at the $p < .01$ level, therefore, according to Step 3 of the current analysis, the effect of nondisplay of imperfection on suicide risk is significantly mediated by being bullied or teased by peers, and the observed model is consistent with mediation (see also Figure 1). No other pathways between the interpersonal components of perfectionism and suicide measures were significantly mediated by being bullied or teased by peers (perfectionistic self-promotion as predictor, 99% CI [-.010, .054]; nondisplay of imperfection as predictor, 99% CI [-.026, .102]).

4 DISCUSSION

This study examined the relationships among perfectionism traits and perfectionistic self-presentation facets, suicide outcomes, and social disconnection, as indicated by being bullied or teased by peers, in a heterogeneous clinical sample of children and adolescents.

The first goal of the study was to replicate findings that socially prescribed perfectionism was related to suicide outcomes in youth. Initial findings regarding perfectionism traits indeed replicate past findings that socially prescribed perfectionism and not self-oriented perfectionism was related to suicide outcomes (Boergers, et al., 1998; Dean & Range, 1996; 1999; Dean, Range, & Goggin, 1996; Hewitt, et al., 1992; 1997; 1998; Hunter & O'Connor, 2003; Klibert, Langhinrichsen-Rohling, & Saito, 2005). This suggests that socially prescribed perfectionism plays a unique role in understanding suicide outcomes in children and adolescents. Furthermore, this provides evidence that perfectionism is indeed multidimensional, consisting of both intrapersonal and interpersonal trait dimensions, and that these dimensions are differentially related to psychological outcomes. The well-supported distinction between socially prescribed and self-oriented perfectionism traits in relation to suicide outcomes speaks to the importance of developing models (see Flett, Hewitt, Endler, & Bagyby, 1995), such as the social disconnection model, that can help us to better understand the observed differences between inter- and intrapersonal perfectionism traits.

Moreover, in contrast to past work with adults, socially prescribed perfectionism did not predict suicide outcomes above and beyond depression and hopelessness. Past research with adolescent psychiatric patients has not consistently found that socially prescribed perfectionism predicted suicide outcomes over and above both hopelessness and depression. One study by Hewitt et al. (1997) suggested that socially prescribed perfectionism adds to the prediction of

suicide outcomes above hopelessness in adolescents. These findings suggest that socially prescribed perfectionism contributes to the prediction of suicide outcomes differently for children and adolescents than adults. It is possible that there is a greater overlap between perfectionism and depression in childhood and adolescence which accounts for the lack of unique contribution of socially prescribed perfectionism to suicide outcomes beyond hopelessness in this age group.

An additional goal of this study was to investigate whether perfectionistic self-presentation facets are related to suicide outcomes. Both correlational and hierarchical multiple regression analyses suggest that perfectionistic self-presentation is indeed predictive of suicide outcomes, particularly suicide risk, and that the facet of nondisclosure of imperfection seems to play a unique role in the prediction of suicide risk in youth. Furthermore, it was found that perfectionistic self-presentation facets predicted suicide risk above and beyond perfectionism traits. This reveals that there is more that can be understood about suicide risk from perfectionistic self-presentation facets than what we can predict from perfectionism traits alone. In other words, non-redundant, and potentially clinically relevant information in predicting suicide risk can be gained by knowing about a youth's desire to *appear* perfect in addition to about a youth's desire to *be* perfect. The internal motivation to be perfect does not necessarily translate into interpersonal behaviours aimed at appearing perfect others (Hewitt et al., 2003). For example, one can imagine an adolescent who may be internally motivated to be perfect by living up to others standards but becomes frustrated with and rebels against others' standards, making no attempt to appear perfect (example similar to that provided by Hewitt et al., 2003). At the other end of the spectrum, it is easy to imagine an adolescent who is highly motivated to live up to the perfectionistic standards of others and also goes to great lengths to *appear* perfect to

others and maintain this façade at all costs (Hewitt et al., 2003). This latter perfectionism profile of children and adolescents appears to place them at greater risk for suicide outcomes, according to the current study.

Perfectionistic self-presentation facets were also found to predict suicide risk above and beyond depression and hopelessness. This demonstrates that perfectionistic self-presentation facets may be particularly important unique predictors of suicide risk in youth. This is important because it suggests that for youth who are already at a stage of development rife with concerns about with social acceptance, social integration, and avoidance of public failures (Berndt, 1979; Erikson, 1963), perfectionistic self-presentation concerns may greatly add to their distress, even beyond distress contributed by depression and hopelessness. Needing to appear perfect at all times at an already socially sensitive time of life may make the demands of childhood and adolescence even more difficult to navigate, to the point where suicide is considered.

It is particularly salient in the current study that perfectionistic self-presentation facets predicted suicide risk over and above depression and hopelessness as these variables together already accounted for a remarkably high proportion of the variance in suicide risk (59% of variance). That perfectionistic self-presentation facets were able to contribute to the prediction of suicide risk above depression and hopelessness suggests it is a particularly powerful unique predictor of suicide risk.

The perfectionistic self-presentation facet of nondisclosure of imperfection was found to play a unique role in the prediction of suicide risk and suicide ideation. The extra variance in the prediction of these suicide outcomes accounted for this facet above and beyond perfectionism traits and above and beyond depression and hopelessness may be accounted for by the particularly deleterious nature of nondisclosure on mental health. Unwillingness to seek help or

self-disclose in general has been shown to relate to poorer mental, and even poorer physical health outcomes, such as anxiety, depression, and various bodily symptoms (Cepeda-Benito & Short, 1998; Larson & Chastain, 1990). Recent research has found that self-concealment is responsible for greater psychological distress in perfectionists (Kawamura & Frost, 2004). According to this Kawamura and Frost (2004), active concealment of personal information may be more pathological than passive forms of nondisclosure. Furthermore, according to Horesh, Zalsman, and Apter (2004), "The inability to communicate feelings and thoughts to people close to oneself may be an important risk factor for suicidal behavior" (p. 837). This may be particularly true for perfectionists who are highly motivated to withhold all problems, imperfections, flaws, and difficulties they have from others, including therapists. The current finding that nondisclosure of imperfection plays a particularly significant role in predicting suicide outcomes is also consistent with Arie et al.'s (2005) work. Arie and colleagues hypothesize that narcissistic perfectionistic adolescents who are unwilling to self-disclose and seek help are at greater risk for suicide outcomes. Our findings are in keeping with this clinical hypothesis. Our findings are also consistent with empirical work showing that unwillingness to self-disclose differentiates serious suicide attempters from patients with suicide ideation, mild suicide attempts, and no history of suicidality (Apter, Horesh, Gothelf, Graffi, & Lepkifker, 2001). According to the current findings, knowing that a perfectionist is averse to disclosing any problems or flaws whatsoever appears to help predict suicide risk, which is consistent with theoretical and empirical research on perfectionism, nondisclosure, and suicide.

The final goal of this study was to test the social disconnection model by determining whether the socially disconnecting experience of being bullied or teased by peers mediated the relationship between the interpersonal components of perfectionism and suicide outcomes. The

current study found some support for the model. In particular, the relationship between the perfectionistic self-presentation facet of nondisplay of imperfection and suicide risk was mediated by experiences of being bullied or teased by peers. This is consistent with a pathway of the social disconnection model, suggesting that nondisplay of imperfection leads to being bullied or teased by peers, which in turn leads to suicide risk. This provides initial support for the proposed social disconnection model, showing at least one of the interpersonal components of perfectionism causes social disconnection which leads to suicide outcomes. Although all perfectionistic self-presentation facets were significantly correlated with being bullied, only nondisplay of imperfection was relevant in the mediation model suggesting that this variable is particularly salient. Given that the mediation analysis is consistent with a causal model, it also suggests that nondisplay of imperfection leads to being bullied or teased, while the other interpersonal components of perfectionism do not.

One limitation of the results in the current mediation analysis is that nondisplay of imperfection did not significantly predict suicide risk, and therefore was not consistent with the first step that Baron and Kenny (1986) suggest is necessary for mediation. The necessity of demonstrating a significant relationship between the independent variable and dependent variable in order to establish mediation has been called into question by a number of researchers (e.g., Collins, Graham, & Flaherty, 1998; Shrout & Bolger, 2002). Shrout and Bolger (2002) maintain that Baron and Kenny's (1986) first step is not rigidly required (p. 437). According to Shrout and Bolger (2002), the effect of the independent variable on the outcome variable may be distal and subtle and thus can only be explained by the presence of intervening variables which the independent variable has a greater impact on. In this case, given that age, gender, depression, and hopelessness were used as covariates, the ability to detect the relationship between

nondisplay of imperfection and suicide risk may have been attenuated due to the reduction in the variance of nondisplay of imperfection. Despite this reduction of variance, nondisplay of imperfection was still found to play an important role in a meditational path to suicide risk via its effect on being bullied or teased by peers. Thus, in light of Shrout and Bolger's perspective (2002), the current model may still be consistent with mediation.

The finding that being bullied was involved in the mediation pathway between nondisplay of imperfection and suicide can be understood in a number of ways. First of all, research with children and adolescents suggests that nondisplay of imperfection provided unique predictive power in negative outcomes beyond various personality trait measures and other facets of perfectionistic self-presentation (Hewitt, et al., 2007). Nondisplay of imperfection may be more broadly related to psychological difficulties in general, including depression and anxiety, which may lead youth to becoming targets of bullying (Salmon, James, & Smith, 1998; Swearer, Song, Cary, Eagler, & Mickelson, 2001).

Research on bullying consistently states that bullies do not select their victims randomly; they tend to be particularly good at detecting weakness and vulnerability in others and targeting those individuals over time (Kansas State Department of Education, 2008). Youth who are at risk for being bullied tend to exhibit signs of anxiety, social withdrawal, and poor self-concepts (Jordan, 2000; Kansas State Department of Education, 2008; US Department of Education, 2008). Nondisplay of imperfection has similarities with this victim profile. For one, nondisplay of imperfection uniquely predicts low self esteem and is also related to low academic, appearance, and social self-esteem (Hewitt et al., 2003). Additionally, like other victims of bullying, youth who endorse nondisplay of imperfection tend to be socially anxious, and

nondisplay of imperfection is related to overall levels anxiety beyond perfectionism traits and the other perfectionistic self-presentation facets (Hewitt et al., 2007).

According to Roland (2002), bullies select their victims because they respond in some way that is rewarding to them. It is clear that someone who is attempting to appear perfect at all times and is also being bullied is unable to achieve a façade of perfectionism in the interpersonal domain. This is likely to cause a fair amount of distress for these youth as it directly contradicts their strong need for perfect appearances (Hewitt, et al., 1997), self-esteem maintenance (Hewitt et al., 2003), and acceptance (Baumeister & Leary, 1995). Bullied youth who display behavioural correlates of anxiety, and who may exhibit emotional distress as a result of being exposed to others as imperfect via bullying, are likely to be more reinforcing to bullies as such reactions confirm bullies' feelings of power and dominance (Roland, 2002). Youth who attempt to hide their imperfections at all times and can no longer appear flawless in the interpersonal domain due to bullying may then become distressed to the point where suicide is contemplated.

Nondisclosure of imperfection, perfectionistic self-promotion, and socially prescribed perfectionism were not found to lead to bullying in the social disconnection model in the current study. Nondisclosure of imperfection may be more likely to relate to social disconnection by inhibiting the ability to develop close, intimate friendships due to lack of reciprocal self-disclosure (Runge & Archer, 1981) but does not appear to lead to social disconnection by becoming a target of bullying. Perfectionistic self-promotion has been shown to be correlated with narcissistic traits and appearing over-confident (e.g., Sherry et al., 2007); this boastful method of self-presentation is not related to the typical profile of a bullying victim (e.g., Jordan, 2000), although it still may lead to other forms of social disconnection from peers. Socially prescribed perfectionism had no relationship whatsoever to being bullied. This finding is

significant as it reinforces the conceptualization that socially prescribed perfectionism and perfectionistic self-presentation facets are similar yet distinct aspects of perfectionism which are differentially related to psychological distress and interpersonal problems (Hewitt et al., 2003; 2007). In the context of this study it suggests that an internal desire to be perfect does not elicit bullying, whereas an interpersonal style geared towards appearing perfect does effect the social environment in such a way as to increase the risk of being bullied.

With respect to the perfectionistic self-presentation facets, the current research reveals that the facets are potentially involved in different ways in understanding suicide risk. Nondisclosure of imperfection was found as a main effect in the prediction of suicide risk, that is, it contributed unique information in our ability to predict suicide risk above and beyond the other perfectionistic self-presentation facets. However, it did not play a significant role in the social disconnection model. In the current study it was found that nondisplay of imperfection was the sole facet that had significant role in the social disconnection model by leading to being bullied or teased by peers. This reinforces the contention that the perfectionistic self-presentation facets, although related, are indeed unique facets which interact in different ways in the experience of the individual, leading to different and useful understanding of the facets' roles in relation to psychopathology and interpersonal difficulties (Hewitt et al., 2003; 2007).

Overall, this study has highlighted the significant impact that the interpersonal components of perfectionism have on social disconnection and suicide outcomes in youth. This has important implications for how problems with perfectionism are addressed in clinical settings. In a recent review of perfectionism and suicidality, O'Connor (2007) suggests that the evaluative concerns of perfectionists are particularly relevant to the assessment and treatment of suicide risk. O'Connor (2007) and many others (e.g., DiBartolo, Frost, Dixon, & Almodovar,

2001; Ferguson & Rodway, 1994; Shafran, Cooper, & Fairburn, 2002) recommend cognitive-behavioural therapy (CBT) strategies to modify the cognitive factors which maintain perfectionism. However, the current study suggests that targeting perfectionistic thoughts alone is insufficient for dealing with the difficulties perfectionists encounter in their interpersonal environment. The current study suggests that people who are struggling with a perfectionistic personality style would also be helped by learning to change their self-presentation strategies, by learning to change their perceptions of the social environment, and by working towards building close interpersonal relationships and supportive social networks. This is consistent with the psychodynamic-interpersonal approaches to treating perfectionism which focuses on interpersonal precursors of perfectionism (Blatt & Ford, 1994; Blatt & Zuroff, 2002; Hewitt, Flynn, Mikail, Sherry, & Flett, 2007). In fact there is evidence that these approaches are particularly effective in the treatment of perfectionistic behavior (e.g., Blatt, 1992; 2004; Blatt, Auerbach, Zuroff, & Shahar, 2006; Blatt & Zuroff, 2005; Fredtoft, Poulsen, Bauer, & Malm, 1996; Flynn, 2001; Hewitt et al., 2007; 2008)

Finally, findings that the interpersonal components of perfectionism are relevant to suicide outcomes in youth are important since the majority of research conducted thus far has focused on the role of perfectionism in adult suicide outcomes. Furthermore, this is the first study to investigate perfectionistic self-presentation facets and suicide outcomes. Thus, the current study contributes to the limited literature on perfectionism and suicide in youth, and is the first study to contribute to the understanding of perfectionistic self-presentation and suicide outcomes in any population.

4.1 Limitations and Future Directions

There are several limitations to the current research and avenues for future work. For example, one limitation is that the original data collection was not designed for with studying bullying in mind, thus a single rating of bullying was selected from the available measures. Future research focusing on bullying and perfectionism would benefit from using a more extensive, empirically validated measure of bullying. Second, combining in vivo observation with peer and teacher reports of bullying would strengthen the measurement of bullying, and circumvent the issue that perfectionistic youth may be more likely to interpret social cues as signs of rejection or bullying (Miller & Vaillancourt, 2007). Third, using observer ratings of perfectionism traits and particularly perfectionistic self-presentation would contribute to the measurement of perfectionism in future studies and confirm that these interpersonal facets are indeed noticeable to others in the social environment (Hewitt et al., 2003). Fourth, although the mediation analysis used in this study suggests links causal between perfectionism and bullying, the cross-sectional correlational nature of the present research makes determination of causation impossible. The temporal sequence of perfectionistic self-presentation and bullying could be clarified in future research by conducting a longitudinal study measuring perfectionism at time one, and suicide ideation and bullying at time two. Other studies explicitly linking perfectionism and bullying (Miller & Vaillancourt, 2007; Ye et al., 2008) are also limited by correlational cross-sectional designs. Like Miller and Vaillancourt (2007), we also emphasize the importance of understanding the developmental role of perfectionism in leading to bullying outcomes over time.

An additional avenue for future research could focus on workplace bullying among adults. This has been increasingly studied in the bullying literature (e.g., Hershcovis et al., 2007).

Some studies on workplace bullying have discussed the potential for perfectionistic traits to attract bullies in the workplace however this connection has yet to be empirically established (Coyne, Seigne, & Randall, 2000).

The current study is also limited by its sole focus on being bullied or teased as a measure of social disconnection. There are many additional ways that social disconnection can be measured. Measures examining subjective and objective experiences of loneliness, perceived social support, social alienation, quality of peer relationships, levels of interpersonal conflict among other measures of social disconnection may play a relevant role in understanding the relationship between the interpersonal components of perfectionism, social disconnection, and suicide outcomes. As this is the first time the social disconnection model has been empirically tested, there are many more potential approaches to further assessing the viability of this model and for helping to understand suicide outcomes among perfectionistic individuals.

4.2 Conclusion

The current study suggests that interpersonal facets of perfectionism are uniquely related to the prediction of suicide outcomes in youth. The findings contribute new information to the literature on perfectionism and suicide outcomes in that perfectionistic self-presentation, the motivation to *appear* perfect to others, contributes to our understanding of suicide risk above and beyond the perfectionism traits (i.e., the motivation to *be* perfect), and above and beyond hopelessness and depression. Furthermore, initial support was found for the social disconnection model based on the finding that the relationship between nondisplay of imperfection and suicide risk was fully accounted for by the experience of being bullied or teased by peers. Although secondary to the overall test of the social disconnection model, findings that perfectionistic self-

presentation facets are related to being bullied provide further support for previous work suggesting perfectionism may lead to victimization from peers.

The significant role of socially prescribed perfectionism and perfectionistic self-presentation in predicting suicide outcomes has important implications for future suicide research and for clinical interventions with perfectionistic youth. Determining the role of perfectionistic self-presentation in suicide outcomes in youth, college students, and adults is a recommended direction for future research. Additional tests of the social disconnection model would also be useful to tap into other forms of social disconnection caused by interpersonal components of perfectionism that may be relevant in the trajectory towards suicide outcomes.

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Table 1

Means, Standard Deviations, Chronbach's Alpha and Correlations Coefficient for Measures of Perfectionism, Depression, Hopelessness, Suicide Outcomes, and Bullying

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-Oriented	--												
2. Socially Prescribed	.30***	--											
3. Self-Promotion	.46***	.38***	--										
4. Nondisplay	.41***	.10	.63***	--									
5. Nondisclosure	.23**	.20*	.60***	.50***	--								
6. CASPI	.11	.36***	.33***	.23**	.32***	--							
7. SIQ	.06	.34***	.17*	.11	.21*	.58***	--						
8. Ever Attempted	.00	.24**	.07	-.02	.10	.34***	.56***	--					
9. Future likelihood of suicide	.13	.18*	.14	.05	.17*	.33***	.61***	.69***	--				
10. Bullied	.04	.13	.20*	.27**	.17*	.35***	.23**	.09	.16*	--			
11. Depression	.08	.35***	.24**	.19*	.29***	.77***	.64***	.41***	.40***	.27***	--		
12. Hopelessness	.14	.29***	.23**	.19*	.26***	.49***	.48***	.23**	.30***	.13	.66***	--	
13. Age	-.07	.28***	.05	-.09	-.03	.18*	.27***	.31***	.22***	.06	.22***	.09	--
Mean	34.30	24.83	20.04	18.71	11.25	11.68	28.80	.28	.51	1.52	11.96	5.09	12.87
Standard Deviation	9.07	8.67	8.75	6.03	4.10	6.68	34.63	.63	1.22	1.03	8.63	3.23	2.97
Chronbach's Alpha	.84	.87	.92	.80	.71	.89	.97	n/a	n/a	n/a	.91	.74	n/a

*p<.05 **p<.01 ***p<.001

Table 2

Hierarchical Regression Analyses for Perfectionism Traits, Depression, and Hopelessness Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Suicide Risk					
Step 1	.60	.60	50.08***		
Age				.00	.06
Gender				.03	.51
Depression				.79	10.98***
Hopelessness				-.03	-.45
Step 2	.61	.01	2.26		
Age				-.02	-.40
Gender				.05	.96
Depression				.77	10.40***
Hopelessness				-.05	-.69
Self-oriented				.02	.33
Socially Prescribed				.12	1.90
Suicide Ideation					
Step 1	.45	.45	29.82***		
Age				.13	2.09*
Gender				.10	1.64
Depression				.52	6.12***
Hopelessness				.11	1.39
Step 2	.46	.01	1.65		
Age				.10	1.53
Gender				.13	1.98*
Depression				.48	5.62***
Hopelessness				.10	1.22
Self-oriented				-.02	-.24
Socially Prescribed				.13	1.79

Table 2 (continued)
Hierarchical Regression Analyses for Perfectionism Traits, Depression, and Hopelessness Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Past Attempts					
Step 1	.24	.24	11.86***		
Age				.21	2.97*
Gender				.17	.00
Depression				.36	3.98***
Hopelessness				-.05	-.52
Step 2	.25	.01	1.04		
Age				.18	2.30*
Gender				.19	2.52*
Depression				.33	3.24***
Hopelessness				-.06	-.66
Self-oriented				-.02	-.24
Socially Prescribed				.12	1.42
Likelihood of Future Attempts					
Step 1	.20	.20	8.90***		
Age				.13	1.66
Gender				.13	1.65
Depression				.29	2.83**
Hopelessness				.08	.83
Step 2	.21	.01	1.33		
Age				.14	1.74
Gender				.14	1.79
Depression				.29	2.75**
Hopelessness				.06	.64
Self-oriented				.12	1.57
Socially Prescribed				-.00	-.04

***p<.05 **p<.01 ***p<.001**

Table 3

Hierarchical Multiple Regression Analyses for Perfectionism Self-Presentation Facets Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Suicide Risk					
Step 1	.07	.07	5.17**		
Age				.15	1.94
Gender				.18	2.28*
Step 2	.19	.12	7.44***		
Age				.17	2.24*
Gender				.16	1.95
Self-Promotion				.17	1.59
Nondisplay				.01	.14
Nondisclosure				.22	2.22*
Suicide Ideation					
Step1	.12	.12	10.43***		
Age				.24	3.12**
Gender				.22	2.88**
Step2	.17	.05	2.81*		
Age				.26	3.37***
Gender				.20	2.59**
Self-Promotion				.03	.31
Nondisplay				-.02	-.17
Nondisclosure				.21	2.12*

Table 3 (continued)

Hierarchical Multiple Regression Analyses for Perfectionism Self-Presentation Facets Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Past Attempts					
Step 1	.15	.15	12.85***		
Age				.27	3.58***
Gender				.23	3.07**
Step 2	.16	.02	1.01		
Age				.28	3.66***
Gender				.22	2.88**
Self-Promotion				.03	.23
Nondisplay				-.11	-1.05
Nondisclosure				.14	1.43
Likelihood of Future Attempts					
Step 1	.09	.09	6.88**		
Age				.19	2.41*
Gender				.19	2.47*
Step 2	.12	.03	1.87		
Age				.20	2.56*
Gender				.18	2.22*
Self-Promotion				.06	.57
Nondisplay				-.08	-.76
Nondisclosure				.18	1.74

*p<.05 **p<.01 ***p<.001

Table 4

Hierarchical Regression Analyses for Perfectionism Traits and Perfectionistic Self-Presentation Facets Predicting Suicide Risk and Ideation

Variable	R^2	ΔR^2	ΔF	β	T
Suicide Risk					
Step 1	.19	.19	11.14***		
Age				.05	.64
Gender				.23	3.04**
Self-oriented				.02	.28
Socially Prescribed				.36	4.36***
Step 2	.26	.07	4.45**		
Age				.80	1.03
Gender				.19	2.50*
Self-oriented				-.07	-.85
Socially Prescribed				.31	3.63***
Self-Promotion				.06	.50
Nondisplay				.10	.97
Nondisclosure				.19	1.98*
Suicide Ideation					
Step 1	.21	.21	10.01***		
Age				.15	1.89
Gender				.26	3.55**
Self-oriented				-.00	-.04
Socially Prescribed				.32	3.95
Step 2	.24	.03	1.68		
Age				.18	2.22*
Gender				.24	3.23**
Self-oriented				-.02	-.22
Socially Prescribed				.31	3.63***
Self-Promotion				-.10	-.91
Nondisplay				.05	.55
Nondisclosure				.19	1.94

*p<.05 **p<.01 ***p<.001

Table 5

Hierarchical Regression Analyses for Perfectionistic Self-Presentation Facets, Depression, and Hopelessness Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Suicide Risk					
Step 2	.62	.02	2.90*		
Age				.01	.14
Gender				.03	.49
Depression				.76	10.59***
Hopelessness				-.05	-.76
Self-Promotion				.14	1.91
Nondisplay				-.01	-.10
Nondisclosure				.03	.46
Suicide Ideation					
Step 2	.45	.00	.22		
Age				.14	2.13*
Gender				.10	1.58
Depression				.51	5.84***
Hopelessness				.11	1.34
Self-Promotion				.00	.03
Nondisplay				-.04	-.44
Nondisclosure				.06	.71

Table 5 (continued)

Hierarchical Regression Analyses for Perfectionistic Self-Presentation Facets, Depression, and Hopelessness Predicting Suicide Outcomes

Variable	R^2	ΔR^2	ΔF	β	T
Past Attempts					
Step 2	.25	.01	.57		
Age				.21	2.75**
Gender				.17	2.24*
Depression				.36	3.53***
Hopelessness				-.05	-.49
Self-Promotion				.01	.13
Nondisplay				-.11	-1.20
Nondisclosure				.06	.62
Likelihood of Future Attempts					
Step 2	.21	.01	.58		
Age				.14	1.74
Gender				.12	1.58
Depression				.27	2.59*
Hopelessness				.08	.76
Self-Promotion				.05	.33
Nondisplay				-.09	-.91
Nondisclosure				.09	.93

*p<.05 **p<.01 ***p<.001

Table 6

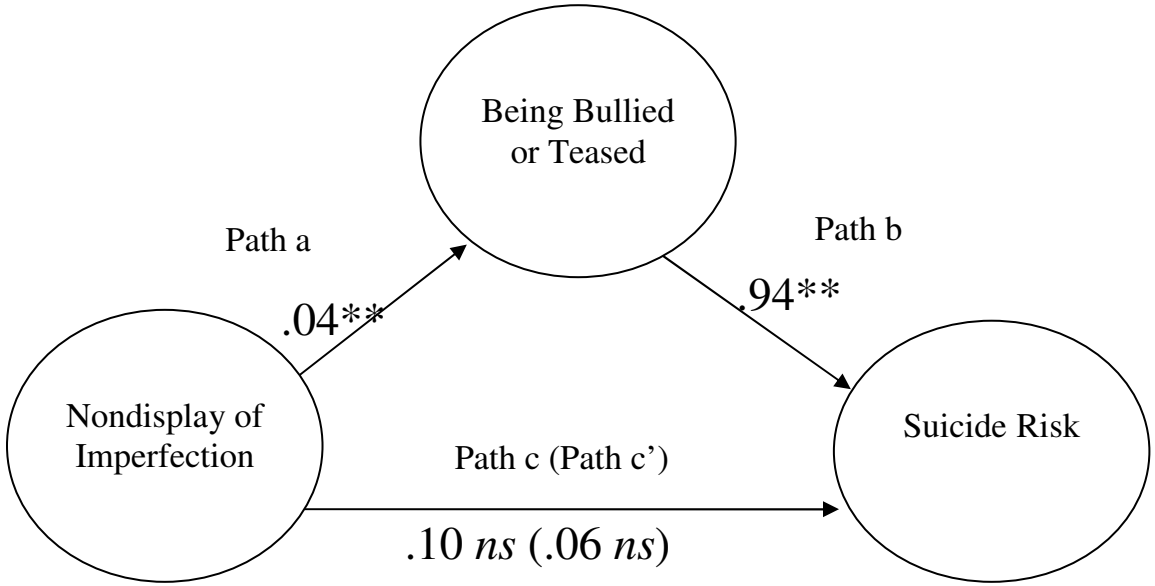
Testing Mediator Effects of Being Bullied in the Relationship Between Nondisplay of Imperfection and Suicide Risk Using Multiple Regression & Significance Test for Mediation Effects Using Bootstrapping

	B	*SE B*	T
Testing Step 1 (Path c)			
Outcome: Suicide Risk			
Predictor: Nondisplay	.10	.06	1.76
Testing Step 2 (Path a)			
Outcome: Being Bullied			
Predictor: Nondisplay	.04	.01	3.04**
Testing Step 3 (Paths b and c')			
Outcome: Suicide Risk			
Mediator: Being Bullied	.94	.35	2.70**
Predictor: Nondisplay	.06	.06	1.09
Testing Indirect Effects (Path a * Path b)			
Significance Test			99% CI = .001, .112**

*p<.05 **p<.01 ***p<.001

Figure 1

Mediation analysis with being bullied or teased as a mediator of the relationship between nondisplay of imperfection and suicide risk.



Note. All numbers represent unstandardized beta weights. ** $p < .01$, *ns* = non-significant