Perfectionism as a Mediator Between Attachment and Depression in Children and Adolescents

Ariel Ko, Paul L. Hewitt, Chang Chen, and Gordon L. Flett

Abstract

Perfectionism is a personality style involving the requirement for the self and/or others to be perfect or to present the self as perfect, and it is a vulnerability factor to many clinical and non-clinical problems in both children and adults. Hewitt, Flett, and Mikail's (2017) Perfectionism Social Disconnection Model (PSDM) posits that perfectionism arises from insecure attachment originated in asynchronous parent-child relationships, and individuals with elevated perfectionism experience objective and/or subjective social disconnection, placing them at risk for psychopathology (e.g., depression). Researchers have found that perfectionism mediated the link between insecure attachment and depression in adults, but this has not yet been examined in children and adolescents. The present study investigated whether the relationship between insecure attachment and depression was mediated by perfectionism in 8- to 15-year-old children and adolescents. In line with the PSDM, we found significant associations among insecure attachment, perfectionism, and depression. Furthermore, mediation analyses showed that socially prescribed perfectionism, nondisplay, and nondisclosure of imperfections mediated the link between insecure attachment and depression. This is the first study to investigate the insecure attachment–perfectionism–depression link in children and adolescents, and our results provide empirical support for the PSDM.

***Keywords*: perfectionism, insecure attachment, depression, Perfectionism Social Disconnection Model, children, adolescents**

Hewitt, Flett, and Mikail (2017) define perfectionism as a dysfunctional, pernicious, and multifaceted personality style involving trait, self-presentational, and intrapersonal components. The trait component of perfectionism reflects stable personality dispositions exhibiting a strong need for the self and/or others to be perfect (Hewitt & Flett, 1991). Three traits of perfectionism are self-oriented perfectionism (SOP; requirement for the self to be perfect), other-oriented perfectionism (OOP; requirement for others to be perfect), and socially prescribed perfectionism (SPP; perception that others require the self to be perfect). The self-presentational component of perfectionism represents behavioural expressions of perfection to appear perfect to others (Hewitt et al., 2003). The three perfectionistic self-presentational facets are perfectionistic self-promotion (overpromotion of one's "perfection"), nondisplay of imperfections (concealment of behaviours that may be viewed as flaws or mistakes), and nondisclosure of imperfections (verbal concealment of shortcomings or "imperfections"). Lastly, intrapersonal components of perfectionism indicate automatic perfectionistic thoughts and recriminating self-statements regarding the absolute attainment of perfection (Flett, Hewitt, Blankstein, & Gray, 1998). In a ruminative fashion, thoughts involving the need to be perfect (e.g., "My work should be flawless" or "Why can't I be perfect?") become automatic and dominate the individual's internal dialogue.

Perfectionism Social Disconnection Model

Hewitt et al.'s (2017) Perfectionism Social Disconnection Model (PSDM) offers a two-part theoretical framework on the developmental pathway of perfectionism and the link between perfectionism and maladjustment. Based in part on early writers on perfectionism (Hollender, 1965; Horney, 1950) and on several psychodynamic theoretical models (Bowlby, 1969; Kohut, 1971), Hewitt et al. (2017) suggested that perfectionism stems from actual or perceived childhood experiences and is specifically rooted in the quality of the relationship between early caregivers and children (Missildine, 1963).

Hewitt et al. (2017) proposed that the development of the need for and/or the appearance of perfection is relationally driven in order to gain acknowledgement, feel valued by important others, and garner a sense of belongingness, as well as to correct the sense of being defective and flawed.

More specifically, Hewitt et al. (2017) proposed that perfectionism arises from asynchronous parent-child relationships. Asynchrony represents an incompatibility between the nurturance and responsiveness of the caregiver and the needs of the child. According to attachment theory (Bowlby, 1969), children with parents who are unresponsive or inconsistently responsive tend to develop working models of others as untrustworthy, incapable, or unwilling to provide support, care, and safety (i.e., attachment insecurity). Consistent asynchrony paves the way for attachment insecurity, understanding of the self as fragile and defective, and a vulnerability to intense negative affective states and characterological states of shame, fear of rejection/abandonment, and guilt. The need to belong and need to protect one's self-worth become driving factors for the establishment of perfectionistic tendencies and behaviours. The individual learns that by appearing perfect, others may accept them, fulfilling their sense of belongingness and repairing their sense of the self as defective. The PSDM further posits that individuals with elevated levels of perfectionism experience subjective and objective social disconnection whereby the individual feels rejected, disconnected, and isolated from others. This disconnection places the individual at risk for a host of psychological dysfunctions. Thus, in the model, insecure attachment rooted in asynchronous parent-child relationships is hypothesized to contribute to the development of perfectionism, in turn increasing the risk for negative outcomes.

One outcome that Hewitt et al. (2017) suggested as a result of the development of perfectionism is a vulnerability to depression. There is extensive literature on perfectionism and depression in adults (Cha, 2016; Cox & Enns, 2003; Cox, Enns, & Clara, 2002; Hewitt, Flett, Ediger, Norton, & Flynn, 1998; Hewitt, Flett, & Endler,

1995; Sherry et al., 2013), with self-oriented and socially prescribed perfectionism most consistently associated with depression. For instance, in a series of studies, Hewitt and colleagues showed that SOP and SPP were not only elevated among depressed patients in comparison to clinical and normal controls, but that each interacted with achievement and interpersonal stressors to longitudinally predict depressive symptoms (Hewitt & Flett, 1991, 1993; Hewitt, Flett, & Ediger, 1996). More recently, in a meta-analysis of ten longitudinal studies, Smith et al. (2016) demonstrated that various perfectionism dimensions, including SOP and SPP, were associated with future depressive symptoms after controlling for neuroticism. Similar to findings in adults, SOP and SPP has been linked with depression in a sample of grade 4 and grade 7 students (Stornelli, Flett, & Hewitt, 2009) and a sample of 8- to 12-year-old children (Dry, Kane, & Rooney, 2015). SPP was also a significant predictor of a diagnosis of depression in a group of 10- to 11-year-old children (Huggins, Davis, Rooney, & Kane, 2008). Given the robust empirical findings that perfectionism is not only associated with depression, but is a vulnerability factor to developing depression, it is imperative to better understand the developmental mechanisms underlying the pathway from perfectionism to depression.

Attachment, perfectionism, and depression

The development of perfectionism described in the PSDM postulates attachment insecurity as a key contributing factor (Hewitt et al., 2017). The relationship between insecure attachment and trait and self-presentational perfectionism has been shown and replicated in numerous studies (Boone, 2013; Chen, Hewitt, & Flett, 2015; Chen et al., 2012; Taylor, Couper, & Butler, 2017). For example, in sample of 344 young adults, both attachment anxiety and attachment avoidance, types of insecure attachment, were significantly correlated with all perfectionism components (except OOP), and attachment anxiety and avoidance, along with a defective sense of self, mediated the relationship between adverse parenting and

perfectionism (Ko, Hewitt, Cox, Flett, & Chen, 2019). Furthermore, research on trait, self-presentational, and intrapersonal components of perfectionism show significant evidence for the pernicious nature of perfectionism. In children and adolescents, perfectionism is associated with depression, anxiety, obsessive-compulsive disorder, and eating disorders (Morris & Lomax, 2014). There is also strong empirical evidence for the link between attachment insecurity and psychopathology, such as greater depressive symptoms, elevated distress, and interpersonal dysfunction (Dozier, Stovall-McClough, & Albus, 2008; Lopez & Brennan, 2000; Mikulincer, Shaver, & Pereg, 2003).

The aforementioned studies on attachment, perfectionism, and various psychological disorders provide some initial support for specific components of Hewitt et al.'s (2017) PSDM. Currently, three studies have indirectly provided a closer examination of Hewitt and colleagues' (2017) PSDM by linking adult attachment, perfectionism, and depression. Wei, Mallinckrodt, Russell, and Abraham (2004) simultaneously examined attachment insecurity (i.e., anxiety and avoidance types), perfectionistic concerns (i.e., perceived discrepancy between one's expectations and performance, concern over mistakes, and doubts about actions), and depressive mood in a sample of undergraduate students. Findings demonstrated that perfectionistic concerns fully mediated the link between attachment avoidance and depressive mood, and partially mediated the link between attachment anxiety and depressive mood. To follow up, Wei, Heppner, Russell, and Young (2006) conducted a longitudinal study that looked at insecure attachment, perfectionistic concerns, ineffective coping, and depression in young adults. They found that insecurely attached individuals were more likely to develop perfectionistic concerns and engage in ineffective coping, resulting in higher levels of depression. More recently, Gnilka, Ashby, and Noble (2013) demonstrated the mediating effect of perfectionistic concerns on adult attachment insecurity and depression, hopelessness, and life satisfaction. To our knowledge, these are the only studies to concurrently examine attachment, perfectionism, and depression.

Together, these studies provide preliminary evidence for Hewitt et al.'s (2017) PSDM, but these findings have not yet been reproduced in younger populations.

Previous studies examining the attachment–perfectionism–depression link used Slaney, Rice, Mobley, Trippi, and Ashby's (2001) and Frost, Marten, Lahart, and Rosenblate's (1990) conceptualization of attitudinal factors in perfectionism (i.e., perceived discrepancy between one's expectations and performance, concern over mistakes, and doubts about actions). Other trait and self-presentation components of perfectionism have not been investigated in relation to attachment and depression. More importantly, given the prior research conducted on adults, it is unknown whether the relationship between attachment, perfectionism, and depression also exists in children and adolescents. Thus, the present study examined specific components of the PSDM as it pertains to depression among youngsters. We hypothesized that insecure attachment, perfectionism, and depression would be intercorrelated. Moreover, we predicted based on the PSDM that trait and self-presentational components of perfectionism would mediate the relationship between insecure attachment and depression in children and adolescents.

Method

Participants and Procedure

Children and adolescents (N = 97) ages 8- to 15-years old (M = 11.58, SD = 1.70) were recruited through the University of British Columbia's Early Development Research Group (EDRG) database. Of the participants, 60.8% identified as female and 39.2% identified as male.

The majority of participants were Caucasian (51.5%), with 19.6% identifying as mixed race, 11.3% as Chinese, and 16.6% as other race/ethnicity categories. This study was approved by the university behavioural research ethics board, and informed consent and assent were obtained from both parents and children.

Measures

Child-Adolescent Perfectionism Scale (CAPS; Flett et al., 2016). The CAPS is a 22-item measure of trait perfectionism (except for other-oriented perfectionism) in children and adolescents. Participants are asked to rate each statement on a scale from 1 (*false–not at all true of me*) to 5 (*very true of me*). Examples of items include: "I try to be perfect in everything I do" (self-oriented perfectionism) and "There are people in my life who expect me to be perfect" (socially prescribed perfectionism). Items are summed for each subscale and high scores indicate greater endorsement of perfectionistic traits. The CAPS is associated with the Eating Disorders Inventory (EDI) perfectionism subscale, demonstrating good concurrent validity, and test-retest reliability was .65 for self-oriented perfectionism and .59 for socially prescribed perfectionism within a one-year period (Flett et al., 2016). Cronbach's alpha for the current study sample was .90 for self-oriented perfectionism and .86 for socially prescribed perfectionism.

PSPS-Junior Form (PSPS-Jr; Hewitt et al., 2011). The PSPS-Jr is an 18-item measure of perfectionistic self-presentation styles in children and adolescents. Participants are asked to rate each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Statements include: "I always have to look as good as I can" (perfectionistic self-promotion), "I do not want my friends to see even one of my bad points" (nondisplay of imperfection), and "I should always keep my problems secret" (nondisclosure of imperfection). Items are summed to obtain an overall score on each of the subscales, and high scores reflect higher levels of perfectionistic self-presentation. Consistent with the PSPS measure in adults, the PSPS-Jr subscales are associated with the CAPS subscales, depression symptoms, and maladaptive outcomes, providing support for the validity of the PSPS-Jr (Hewitt et al., 2011). Cronbach's alpha for the study sample was .91 for perfectionistic self-promotion, .75 for nondisplay of imperfections, and .61 for nondisclosure of imperfections.

Attachment Questionnaire for Children (AQC; Muris, Meesters, van Melick, & Zwambag, 2001). The AQC is a 1-item mea-

sure of children's attachment style adapted from Hazan and Shaver's (1987) 1-item measure of adult attachment. Three descriptions of feelings towards relationships are presented, and participants are asked to select the one that best describes them. Each description reflects an attachment style (i.e., secure, ambivalent, and avoidant), and participants are classified into one attachment style depending on their response. For the purposes of our study, children and adolescents who select ambivalent or avoidant attachment descriptions are classified as insecurely attached due to the small sample size in either avoidant or ambivalent categories. The AQC shows good convergent and discriminant validity with secure attachment being positively associated with trust and negatively related to feelings of alienation (Muris et al., 2001), and insecure attachment being linked with elevated levels of anxiety and depression (Muris, Mayer, & Meesters, 2000; Muris, Meesters, Merckelbach, & Hülsenbeck, 2000). Cronbach's alpha for the AQC cannot be determined as it is a 1-item measure.

Patient Health Questionnaire-9 (PHQ-9; Spitzer, Kroenke, & Williams, 1999). The PHQ-9 is a self-report measure of depression based on criteria outlined in the DSM-IV. Participants are asked to rate each of the items on a scale from 0 (*not at all*) to 3 (*nearly every day*). Items are summed to obtain an overall score and higher scores indicate higher severity of depression. The PHQ-9 has demonstrated good psychometric properties, such as test-retest reliability, criterion validity, construct validity, and external validity (Kroenke, Spitzer, & Williams, 2001). Cronbach's alpha for the study sample is .88 for the PHQ-9.

Results

Descriptive statistics and bivariate correlations are displayed in Table 1. Cronbach alphas (i.e., .61 – .91) were acceptable for all variables. In support of our hypothesis and consistent with previous research (Boone, 2013; Chen et al., 2015; Chen et al., 2012; Gnilka et al., 2013; Wei et al., 2006; Wei et al., 2004) insecure attachment,

Table 1

Bivariate Correlations, Means, Standard Deviations, and Coefficients Alpha of Trait Perfectionism, Perfectionistic Self-Presentation, Insecure Attachment, and Depression (n = 97).

Variable	Self-Oriented	Socially Prescribed	Self-Promotion	Nondisplay	Nondisclosure	Insecure Attachment	Depression
Self Oriented	-						
Socially Prescribed	.65**	-					
Self-Promotion	.61**	.57**	-				
Nondisplay	.63**	.48**	.69**	-			
Nondisclosure	.41**	.36**	.54**	.56**	-		
Insecure Attachment	.42**	.28**	.37**	.50**	.43**	-	
Depression	.38**	.37**	.33**	.48**	.42**	.51**	-
M	35.81	23.73	18.96	18.88	10.77	1.21	5.31
SD	10.32	7.95	7.21	4.63	3.08	.410	5.49
α	.90	.86	.91	.75	.61	-	.88

Note: **p < .01 (two-tailed); Cronbach's alpha for insecure attachment cannot be computed because it is a one-item measure

Table 2

Trait and Self-Presentational Perfectionism as Mediators of the Association Between Insecure Attachment and Depression

Dependent Variable (DV)	Mediator (M)	Insecure Attachment (IV) on Mediator	M on DV	Direct Effect	Indirect Effect	Indirect Effect 95% CI	Total Effect
	Total effect Self-Oriented	10.41***	.10*	5.71***	1.08	-.08 – 2.41	6.79***
	Total effect Socially Prescribed	5.41**	.17**	5.88***	.91	.21 – 1.90	6.79***
Depression	Total effect Self-Promotion	6.44***	.11	6.07***	.72	-.41 – 2.18	6.79***
	Total effect Nondisplay	5.54***	.34**	4.90***	1.89	.38 – 3.68	6.79***
	Total effect Nondisclosure	3.22***	.43*	5.40***	1.39	.41 – 2.69	6.79***

Note: Bolded confidence intervals do not include a zero, indicating a significant indirect (i.e., mediating) effect. *p <.05, **p < .01, ***p < .001.

all trait and self-presentational components of perfectionism, and depression were significantly intercorrelated.

Mediational findings are displayed in Table 2. Multiple mediation analyses by bootstrapping were conducted using the PROCESS Model 4 (Hayes, 2013). This approach takes 5,000 random samples of the original sample with replacement and computes the indirect effect and 95% confidence intervals. A bias-corrected confidence interval that does not contain zero indicate a significant indirect effect (Hayes, 2013). According to Fritz and MacKinnon (2007), a minimum sample size of 71 participants is needed to detect a medium effect size using bias-corrected bootstrap. Our current sample of 97 meets this requirement. The mediation models with insecure attachment (predictor variable) affecting depression (outcome variable) through five indirect pathways: 1) self-oriented perfectionism, 2) socially prescribed perfectionism, 3) perfectionistic self-promotion, 4) nondisplay of imperfections, and 5) nondisclosure of imperfections are illustrated in Figure 1. The results mostly support our hypothesis that the association between insecure attachment and depression are mediated by trait and self-presentational components of perfectionism. Specifically, socially prescribed perfectionism, nondisplay of imperfections, and nondisclosure of imperfections were significant mediators of the relationship between insecure attachment and depression.

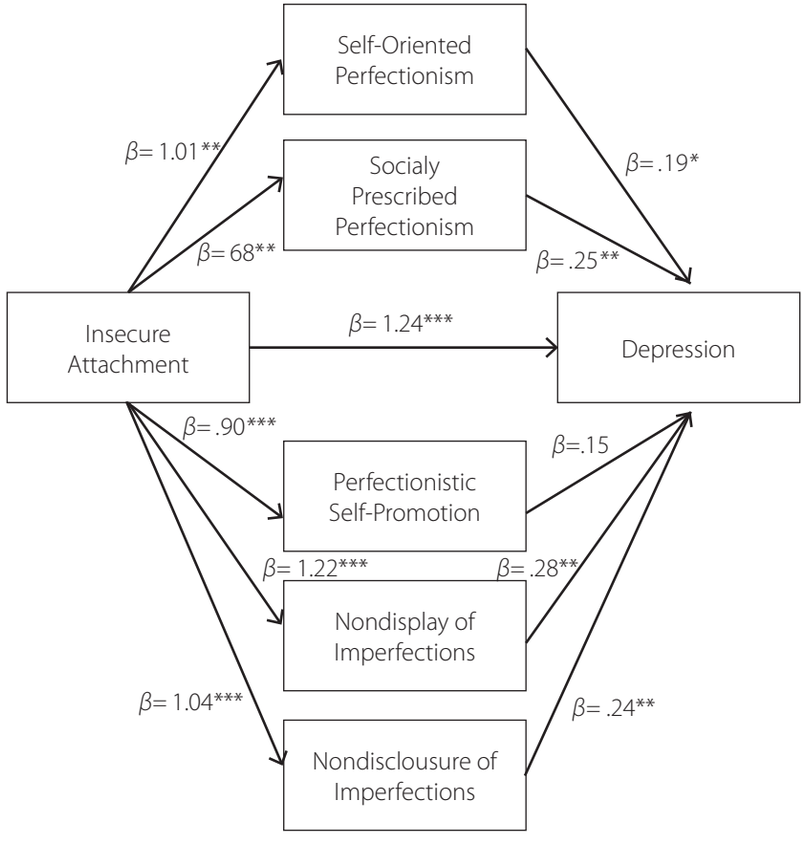

Figure 1. Mediation model with self-oriented perfectionism, socially prescribed perfectionism, perfectionistic self-promotion, nondisplay of imperfections, and nondisclosure of imperfections as mediators between insecure attachment and depression. *Note*. *p<.05, **p<.01, ***p<.001.

Discussion

In this study, we investigated the associations between insecure attachment, perfectionism, and depression in children and adolescents. Additionally, we examined whether various components of perfectionism mediated the link between insecure attachment and depression. First, insecure attachment was associated with higher levels of depression. Second, insecure attachment was positively correlated with SOP, SPP, and all facets of perfectionistic self-presentation. Third, all trait and self-presentational components of perfectionism were significantly related to depression. Finally, the association between insecure attachment and depression was mediated by socially prescribed perfectionism, nondisplay, and nondisclosure of imperfections. Altogether, our results provide additional empirical support for Hewitt et al.'s (2017) PSDM in children and adolescents.

The intercorrelations among insecure attachment, various perfectionism dimensions, and depression is consistent with previous research on children and adolescents. Similar to previous research (Brumariu & Kerns, 2010; Groh, Roisman, van IJzendoorn, Bakermans-Kranenburg, & Fearon, 2012; Khan, Fraley, Young, & Hankin, 2019), our findings show that insecure attachment is associated with higher levels of depression in youth. Additionally, our results indicate that insecure attachment was positively associated with all perfectionism dimensions. This is similar to past studies where secure attachment was negatively correlated with nondisplay and nondisclosure of imperfections and insecure attachment was positively associated with perfectionistic self-promotion and nondisclosure of imperfections in a sample of 16- to 19-year-old adolescents (Chen et al., 2012), while perfectionistic self-promotion was associated with anxious attachment in a group of 14- to 20-year-old youth (Boone, 2013). Moreover, our findings demonstrate significant relationships between perfectionism and depression. In line with prior findings (Dry et al., 2015; Huggins et al., 2008; Stornelli et al., 2009), both SOP and SPP are linked with depression in children and adolescents. Beyond trait perfectionism, we found that all facets of perfectionistic self-presentation are also associated with depression.

The present mediational findings in which the relationship between insecure attachment and depression can be partially explained by socially prescribed perfectionism, nondisplay and nondisclosure of imperfections, reproduces and extends upon the findings with adults (Wei et al., 2004; Wei et al., 2006; Gnilka et al., 2013). More importantly, these findings are consistent with specific components of the PSDM (Hewitt et al., 2017). According to the PSDM, perfectionism develops as a result of attachment insecurity. Attachment theory asserts that early childhood experiences, particularly the quality of the caregiver-child relationship, have lasting influences on an individual's psychological connectedness to others (Bowlby, 1969). It is theorized that those with parents who are unavailable, uninvolved, or indifferent, are more likely to endorse negative working models of the self and others, fixate on personal defects and failures, and ingrain a sense of the self as unworthy and unlovable. As such, individuals engage in perfectionistic tendencies and behaviours in an attempt to secure love and acceptance and repair their fragile concept of the self (Hewitt et al., 2017). Although perfectionistic individuals believe that by appearing to be perfect will garner the warmth and acceptance they desire, their hypersensitivity to criticism and rejection place them at a greater risk for social disconnection. This exacerbates their sense of loneliness and alienation, risk factors for psychological dysfunction, such as depression (Hewitt et al., 2017; Sherry, Hewitt, Flett, & Harvey, 2003).

While our mediational results provide support for specific elements outlined in the PSDM—namely, perfectionism rooted in insecure attachment, and the link between perfectionism and depression—our findings only support the relevance of certain dimensions of perfectionism (i.e., SPP, nondisplay and nondisclosure of imperfections). The nonsignificant findings for SOP and perfectionistic self-promotion may speak to the specificity of different insecure attachment dimensions on various perfectionism dimensions. For example, in a recent study, attachment anxiety but not attachment avoidance mediated the relationship between adverse

parenting and SOP and perfectionistic self-promotion (Ko et al., 2019). Furthermore, in a group of 14- to 20-year-old youth, SPP was related to both anxious and avoidant attachment styles, while perfectionistic self-promotion was associated with anxious attachment (Boone, 2013). It is possible that attachment anxiety plays a larger role in the development of SOP and perfectionistic self-promotion. Because in the present study we combined ambivalent and avoidant attachment styles into an insecure attachment category, we cannot assess the specificity of insecure attachment dimensions on various components of perfectionism.

Nonetheless, the finding that attachment insecurity was related to depression via different types of perfectionism (i.e., SPP, nondisplay and nondisclosure of imperfections) underscores the importance of relational factors in the development of perfectionism and depression in children and adolescents. The period from childhood to adolescence is accompanied by significant developmental and social changes that can alter the quality of the child-caregiver relationship. Several studies have shown that changes in attachment patterns can occur during childhood and adolescence (Jones et al., 2017; Weinfield, Sroufe, & Egeland, 2000). More importantly, changes in attachment quality is associated with changes in depressive symptoms over time in youth (Khan et al., 2019). Our findings that the relationship between insecure attachment and depression is mediated by perfectionism sheds light on possible treatment methods for perfectionistic children and adolescents dealing with depression. Such treatment models may focus on attachment-based family therapy with early interventions involving parents to help children and adolescents rebuild a secure base of attachment figures.

There are several limitations to note in this study. First, the present study implemented a cross-sectional design. As such, the directionality and temporal stability of the results cannot be determined. Future research should consider using a longitudinal study design to examine the casual pathway of the various constructs. Second, this study relied solely on participants' self-report and certain

study variables (i.e., attachment) may be better captured through interview techniques for younger children. Lastly, by classifying participants into secure or insecure attachment categories, we simplified attachment as a unidimensional construct. Although the reason for doing so was due to the small sample size in each of the insecure attachment categories (i.e., ambivalent and avoidant), it is possible that specific insecure attachment dimensions affect different perfectionism dimensions. Future studies should look at attachment as a multidimensional construct to examine whether types of insecure attachment differentially influence perfectionism and depression in children and adolescents.

Implications and conclusion

This is one of the first studies to investigate the mediational effect of trait and self-presentational perfectionism on the relationship between insecure attachment and depression in children and adolescents. Our findings not only provide robust evidence for perfectionism as a mediator in the link between attachment insecurity and depression, but also presents further empirical support for Hewitt et al.'s (2017) Perfectionism Social Disconnection Model. More importantly, our findings underscore the importance of attachment in perfectionism and depression. Treatment of perfectionism and depression in children and adolescents may benefit from focusing on early relational experiences and/or relationships with important adults in children's lives.

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