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Parent psychopathology and child perfectionism

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PARENT PSYCHOPATHOLOGY AND
CHILD PERFECTIONISM

by

Lisa Caitlin Cook

Bachelor of Arts
The College of William and Mary, Williamsburg, VA
2002

A thesis submitted in partial fulfillment
of the requirements for the

**Master of Arts Degree in Psychology
Department of Psychology
College of Liberal Arts**

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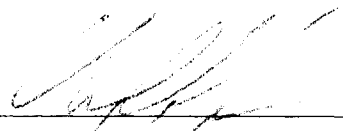
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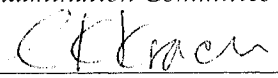
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ABSTRACT

Parent Psychopathology and Child Perfectionism

by

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Though perfectionism has been defined and measured in various ways, researchers generally agree that holding excessively high standards for oneself and/or others is central to the construct. Perfectionists are those individuals for whom merely doing well is never good enough. Perfectionism has been associated with many psychological disorders and signs of maladjustment. Though perfectionism is theorized as existing from childhood and onward, much of the research on this construct has used adult samples. Evidence suggests that parents are closely involved in the development of perfectionism in their children. For these reasons, research about perfectionism in children and relevant associations with parent characteristics is of significant importance.

The current study assessed self-oriented and socially prescribed perfectionism in children and their parents as well as symptoms of psychopathology in these children and parents. The first hypothesis was that perfectionistic parents would be more likely to have children who also reported high levels of perfectionistic cognitions and behaviors. Significant relationships were found between mothers' self-oriented and socially prescribed perfectionism and sons' self-oriented perfectionism. The second hypothesis was that parents who reported symptoms of anxiety, depression, obsessive-compulsive disorder, and general psychological distress would be more likely to have perfectionistic children than parents who did not report symptoms of these disorders. Indeed, parent symptomatology was related to self-oriented perfectionism in sons and maternal symptomatology predicted self-oriented perfectionism in sons. The third hypothesis was that parents and children who reported symptoms of anxiety, depression, obsessive-compulsive disorder, and general internalizing problems would also report higher levels of perfectionism. Self-oriented and socially prescribed perfectionism were each associated with and predicted symptomatology in male youth. Maternal symptoms of psychopathology were also predicted by self-oriented and socially prescribed perfectionism. Findings were consistent with the fourth hypothesis that a no ethnic or gender differences in perfectionism would be found.

TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF TABLES.....	vii
ACKNOWLEDGMENTS	viii
CHAPTER 1 INTRODUCTION	1
Defining Perfectionism: Early Conceptualizations.....	1
Recent Approaches to Defining Perfectionism.....	4
Perfectionism Terms and Definitions	5
CHAPTER 2 A REVIEW OF THE LITERATURE ON PERFECTIONISM	17
Personality Traits and Associated Characteristics	17
Comorbid Diagnoses.....	39
Theories of Development.....	55
Risk Factors	61
Assessment.....	65
Purpose of Study.....	79
Hypotheses.....	82
CHAPTER 3 METHODOLOGY	84
Participants.....	84
Parent Measures	85
Child Measures	88
Procedure	90
CHAPTER 4 DATA ANALYSIS	92
Hypothesis One.....	92
Hypothesis Two	95
Hypothesis Three	98
Hypothesis Four	107
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	109
Summary and Discussion of Results.....	109
Clinical Implications.....	127
Limitations and Recommendations for Future Study	136
APPENDIX	141

REFERENCES	152
VITA	183

LIST OF TABLES

Table 1	Perfectionism Terms and Definitions	5
Table 2	Means and Standard Deviations for Perfectionism Types.....	144
Table 3	Pearson Correlations between Maternal Types of Perfectionism and Child Types of Perfectionism	145
Table 4	Pearson Correlations between Paternal Types of Perfectionism and Child Types of Perfectionism	146
Table 5	Pearson Correlations among Types of Child Perfectionism and Parent Symptoms of Psychopathology.....	147
Table 6	Means and Standard Deviations for YSR Subscales indicating Child Symptoms of Psychopathology.....	148
Table 7	Means and Standard Deviations for the SCL-90-R Subscales indicating Parent Symptoms of Psychopathology.....	149
Table 8	Pearson Correlations among Types of Child Perfectionism and Child Symptoms of Psychopathology.....	150
Table 9	Pearson Correlations among Types of Parent Perfectionism and Parent Symptoms of Psychopathology.....	151

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CHAPTER 1

INTRODUCTION

Defining Perfectionism: Early Conceptualizations

Early literature on perfectionism described individuals as being perfectionistic or not. In an initial attempt to define perfectionism as a psychological construct, Hollender (1965) stated that a person should be considered a perfectionist if he “[demands] a certain level of performance of himself [and] cannot accept or be content with anything short of perfection” (p. 94). Hollender specified that a perfectionist does not view himself as being perfect, nor does he “strive to create an image of himself as a perfect being” (p. 94). The perfectionist’s goal is to do things perfectly and thereby earn the acceptance of others. The perfectionist regularly fails to accomplish this goal, however, which leads to feelings of failure and depression. Furthermore, Hollender noted that a perfectionist may restrict his activities to prevent being placed in a situation where failure is likely to be unavoidable. At the heart of perfectionism, in this case, is the set of demands the perfectionist places on himself.

Burns (1980) described perfectionists as those who consistently set standards for themselves that are beyond reach and who base their feelings of self-worth on their ability or inability to meet those standards. Burns (1980) observed that a perfectionist’s drive to excel is a self-defeating process that frequently leads to low self-esteem, anxiety, depression, and health, relationship, and other problems. In addition, Burns listed several

cognitive impairments, such as all-or-none thinking, overgeneralization, and the use of “should” statements that are frequently observed in perfectionists. Dichotomous (all-or-none) thinking is evidenced by a perfectionist’s belief that if he does not do something perfectly, then he is a complete failure. According to Burns, perfectionists overgeneralize by assuming that negative events will occur repeatedly (Burns, 1980). Should-statements such as “I should have done better” or “I shouldn’t have gotten a B” cause a perfectionist to focus on his mistakes, which leads to feelings of frustration and failure. In general, Burns viewed perfectionists as consistently setting unrealistically high standards for themselves and therefore making failure a likely and frequent result of their actions. He also believed that perfectionists tend to obsess about past failures rather than look to the future, a behavior that has the potential to make succeeding even more difficult. From this perspective, perfectionism is unhealthy and likely to result in negative consequences.

Other researchers introduced the notion that perfectionism may, in some instances, be adaptive. Hamachek (1978) differentiated normal perfectionists from neurotic perfectionists. Normal perfectionists strive for perfection in their own areas of expertise but recognize limits to their abilities. Normal perfectionists have high expectations for themselves but those self-expectations are not unreasonable. Furthermore, normal perfectionists “derive a very real sense of pleasure from the labors of a painstaking effort and feel free to be less precise as the situation permits” (Hamachek, 1978, p. 27). On the other hand, neurotic perfectionists tend to place demands on themselves that are unreasonable. As a result, neurotic perfectionists place themselves in the position of constantly failing to meet their own expectations. In short, according to Hamachek

(1978), “neurotics worry about their deficiencies and concentrate on how to avoid doing things wrong, [whereas] normals focus on their strengths and concentrate on how to do things right” (p. 28). These attitudinal differences can be extended to the manner in which each type of perfectionist approaches the tasks set before him. The neurotic perfectionist feels anxious and fearful as he prepares to begin a new task, while the normal perfectionist feels prepared and excited (Hamachek, 1978). Hamachek’s distinction between perfectionists who are essentially healthy or normal and those who are more neurotic is an important addition to the literature. As will become evident, more recent conceptualizations of perfectionism have frequently referred to, and built upon, this normal/neurotic distinction.

Pacht (1984) articulated an interesting response to Burns and Hamachek. He expressed the belief that anyone who truly wants to be perfect must have psychological problems. According to Pacht, “normal perfectionism” does not exist. Perfectionism involves impossibly high goals, an inability to recognize gradations of success and failure, mental distortions such as those described by Burns, and a desire to obtain the approval of others by demonstrating perfection (Pacht, 1984). Essentially, Pacht’s description of a perfectionist is a conglomeration of the definitions set forth by Hollender, Burns, and Hamachek. Disagreement among the authors as to whether a positive form of perfectionism exists is evident in the literature. From Pacht’s point of view, a positive perfectionist is someone who is particularly skilled in one or more areas of his life.

Definitions of perfectionism are fairly similar to one another and they focus on an individual’s absolute need to perform at a certain “perfect” level. When a perfectionist is unable to meet the unrealistically high goals he sets for himself, consequences tend to be

extremely negative and affect the perfectionist's self-worth. Researchers generally agree that perfectionists predispose themselves to fail by believing they will never succeed. Extant descriptions of perfectionism have been relatively simplistic. The following sections will describe more recent views on perfectionism that expand upon and deviate somewhat from previously described literature.

Recent Approaches to Defining Perfectionism

Adaptive/Maladaptive Perfectionism

The most common distinction made between types of perfectionism is one that differentiates seemingly positive or healthy aspects of perfectionism from negative or neurotic aspects of perfectionism. Examples of healthy perfectionistic characteristics include strong work ethic and desire to achieve. Negative aspects of perfectionism include setting unrealistic goals and experiencing depression when these goals are not achieved. These two dimensions of perfectionism have been referred to in the literature in several ways: positive and negative, normal and neurotic, functional and dysfunctional, adaptive and maladaptive, healthy and unhealthy, and satisfied and dissatisfied. Numerous factor analytic studies support a distinction between adaptive and maladaptive types of perfectionism (Bieling, Israeli, & Antony, 2004; Cox, Enns, & Clara, 2002; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Terry-Short, Owens, Slade, & Dewey, 1995). Table 1 lists perfectionism definitions.

Table 1

Perfectionism Terms and Definitions (in alphabetical order)

Term	Definition
Concern over mistakes	Reacting negatively to making mistakes, feeling as though making a mistake indicates failure, and expecting disapproval from others
Doubts about actions	Extent to which an individual doubts his ability to achieve goals or accomplish tasks
Maladaptive evaluative concerns	Negative aspects of perfectionism including socially prescribed perfectionism, concern over mistakes, doubts about actions, parental criticism, and parental expectations
Negative perfectionism	Perfectionistic behaviors that result from negative reinforcement and avoidance
Neurotic perfectionism	Striving for unrealistically high goals as a result of fear of failure and concern about disappointing others
Normal perfectionism	Striving for realistic but lofty goals that lead to feelings of satisfaction and increased self-esteem
Organization	Placing importance on order and neatness
Other-oriented perfectionism	Having excessively high standards for others
Parental criticism	Belief that parents are overly harsh
Parental expectations	Belief that parents set overly high standards for oneself

Positive achievement strivings	Positive aspects of perfectionism including self-oriented perfectionism, other-oriented perfectionism, high personal standards, and organization
Positive perfectionism	Perfectionistic behaviors that result from positive reinforcement
Self-oriented perfectionism	Having high standards of achievement for oneself and desire to attain perfection
Socially prescribed perfectionism	Belief that unrealistically high expectations are imposed on oneself by significant others

Note. The above table is partially adapted from Exhibit 1.1 in Flett & Hewitt, 2002, p. 14.

Adaptive perfectionism is associated with conscientiousness, setting reasonably high goals for oneself, and an ability to feel satisfied with and proud of one's achievements. Adaptive perfectionists have high standards but are able to relax those standards when the situation allows. They recognize that small mistakes do not necessarily equal failure. Consistent with Hamachek's observation that normal perfectionists are cognizant of their strengths and concentrate on how to do things correctly, some researchers believe that adaptive perfectionism is a function of positive reinforcement (Bieling et al., 2004; Slade & Owens, 1998; Terry-Short et al., 1995). Perhaps adaptive perfectionists can best be described as those whose efforts lead to reward and achievement.

In contrast, maladaptive perfectionism may result from self-defeating behaviors and punishment (Slade & Owens, 1998). Maladaptive perfectionists tend to predispose themselves to fail. They set impossibly high goals and feel they have failed completely

when unable to meet their own unreasonable standards. Additionally, maladaptive perfectionists focus primarily on fears of potential failure and negative evaluations from others. Concentrating on possible negative consequences is likely to contribute to actual negative consequences. The maladaptive perfectionist is overly self-critical and feels he can never do things well enough. Furthermore, as will be discussed in detail later, maladaptive perfectionism is associated with a plethora of psychological problems such as depression and suicidality, anxiety disorders, and eating disorders.

Multidimensional Perfectionism

Hewitt and Flett presented a new way of conceptualizing perfectionism when they introduced their Multidimensional Perfectionism Scale (1991b). Consistent with the trend toward perceiving perfectionism as a multifaceted construct, Hewitt and Flett measured perfectionism in terms of three components: self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism. These components of perfectionism differ with respect to the source (person demanding perfectionism) and subject (person from whom perfectionism is being demanded) of perfectionism. Self-oriented perfectionists place exacting demands on themselves, so the source and subject of perfectionism are internal. Socially prescribed perfectionists feel that significant others expect them to be perfect, which suggests that the source of the demands is external but the subject is internal. Finally, other-oriented perfectionists have high expectations for the performance of others. In this case, the source of perfectionism is internal but the subject of the perfectionistic demands is external. Based on this idea that perfectionism has interpersonal and intrapersonal aspects, Hewitt and Flett (1991b) asserted that a thorough understanding of perfectionism necessarily considers the various

aspects of self-oriented, socially prescribed, and other-oriented perfectionism.

Self-Oriented Perfectionism. Self-oriented perfectionism addresses an individual's standards for oneself alone. This component of perfectionism is related to levels of aspiration individuals set for themselves, concern over mistakes, and the extent to which individuals blame themselves or others. Self-oriented perfectionism is most closely related to the concept of perfectionism described by Hollender (1965), Burns (1980), and Hamachek (1978). Behaviors associated with self-oriented perfectionism include setting exceedingly high standards for oneself, maintaining stringent self-evaluation, focusing primarily on one's flaws or failures, and engaging in self-criticism. Cognitively, self-oriented perfectionism is related to the "generalization of unrealistic expectations and evaluations across behavioral domains" (Hewitt & Flett, 2002, p. 256). According to Hewitt and Flett (1991b), self-oriented perfectionism also has a motivational component. The self-oriented perfectionist strives to achieve perfectionism and to avoid failure.

The literature is divided on the extent to which self-oriented perfectionism is an adaptive or maladaptive construct. Among adults, self-oriented perfectionism has been found to correlate significantly with depression (Hewitt & Flett, 1990), anxiety (Flett, Hewitt, & Dyck, 1989), and eating disorders (Cooper, Cooper, & Fairburn, 1989). Researchers have also shown that self-oriented perfectionism is related to having high expectations for success, above average organizational abilities, and high levels of personal motivation to achieve (Frost et al., 1993). For children, self-oriented perfectionism is positively correlated with scholastic effort and enjoyment during learning (Flett, Hewitt, Boucher, Davidson, & Munro, 1997). Self-oriented perfectionism in children also seems related to intrinsic motivation, desire to meet one's own goals, and

personal desire for perfection (Flett et al., 1997). Consistent with the idea that self-oriented perfectionism involves the feeling that one must be perfect, self-oriented perfectionist children tend to rate appearance and weight control as more important than non-perfectionist children (Flett et al., 1997). At this point, research on self-oriented perfectionist children who have comorbid disorders is extremely limited. However, multiple studies indicate that self-oriented perfectionism is significantly linked with anorexia nervosa in children (Castro et al., 2004; Hewitt, Flett, & Ediger, 1995; McVey, Pepler, Davis, Flett, & Abdoell, 2002).

The fact that self-oriented perfectionism is significantly related to multiple disorders in adults and children indicates a less positive side of self-oriented perfectionism. A distinction within the self-oriented component of perfectionism that differentiates adaptive perfectionists from maladaptive perfectionists may exist. Thus far, however, the literature has not addressed any such distinction. Hewitt and Flett's own description of the construct of self-oriented perfectionism implies that self-oriented perfectionism is more consistently related to maladaptive than adaptive behaviors and cognitions in adults and children.

Socially Prescribed Perfectionism. Socially prescribed perfectionism is indicated when an individual feels unrealistically high standards are being imposed on him by significant others such as parents, teachers, partners, or peers (Hewitt & Flett, 2002). Because socially prescribed perfectionism involves the afflicted person and others, this dimension of perfectionism is considered interpersonal. Socially prescribed perfectionists are likely to believe they are incapable of meeting perfectionistic demands others may place on them. These individuals may also have external loci of control,

meaning they believe they have little control over events in their lives. Someone who believes he has no control over his life or its direction, and who feels he must meet unrealistically high expectations set by others, is likely to feel overwhelmed and incapable of succeeding. Furthermore, socially prescribed perfectionists feel they will be rejected or unloved when they fail to meet the demands of significant others. Socially prescribed perfectionists feel they would be accepted by others if only they seemed perfect (Hewitt & Flett, 2002). This perfectionism dimension is associated with fear of being negatively evaluated and a need to obtain positive attention from others and to avoid disapproval, social anxiety, procrastination, and public self-consciousness (Alden, Ryder, & Mellings, 2002).

In children, socially prescribed perfectionism has been linked to greater effort in school, extrinsic reasons for perfectionism-related behavior, external locus of control, and desire to gain approval from others (Flett et al., 1997; Hewitt & Flett, 2002). Socially prescribed perfectionism is significantly related to perceptions of parental desires for perfect behavior and is not associated with personal desire for perfection (Hewitt & Flett, 2002). Children who demonstrate characteristics associated with socially prescribed perfectionism report lower self-esteem, higher body image dissatisfaction, and more dysfunctional eating attitudes than their peers (Flett et al., 1997).

Because socially prescribed perfectionists believe that the expectations of others are impossible to meet and are uncontrollable, hopelessness and helplessness are common consequences (Chang & Rand, 2000; Flett, Hewitt, Blankstein, & Koledin, 1991; Hewitt & Flett, 1991a, 1991b; Hewitt, Norton, Flett, Callander, & Cowan, 1998). Many socially prescribed perfectionists anticipate negative future events and feel certain they will be

affected by those events. If a socially prescribed perfectionist feels that future distress is unavoidable and certain, then high levels of stress ensue (Hewitt & Flett, 2002). This negative effect of low perception of self-control is directly associated with research indicating that socially prescribed perfectionism is related to psychopathology (Flett, Hewitt, Blankstein, O'Brien, 1991; Hewitt & Flett, 1991a).

Socially prescribed perfectionism is significantly related to maladjustment in adults and children. More specifically, socially prescribed perfectionism is positively correlated with depression, hopelessness, anxiety, panic disorder, social phobia, obsessive compulsive disorder, and other psychopathologies and signs of maladjustment (Antony, Purdon, Huta, & Swinson, 1998; Chang & Rand, 2000; Flett & Hewitt, 1995; Hewitt & Flett, 1993; Sherry, Hewitt, Flett, & Harvey, 2003). With respect to children, socially prescribed perfectionism is significantly associated with depression, suicidality, thinking disorder, social introversion, hypochondriasis, eating disorders, and anxiety, among other problems (Donaldson, Spirito, & Farnett, 2000; Flett et al., 1997; Hewitt et al., 1995; Hewitt et al., 2002; Hewitt, Newton, Flett, & Callander, 1997; McVey et al., 2002). These associations are worthy of considerable attention and will be explored in more extensive detail in the comorbid diagnoses section of the second chapter.

Other-Oriented Perfectionism. The third dimension of perfectionism described by Hewitt and Flett is other-oriented perfectionism. Other-oriented perfectionism is an interpersonal dimension involving excessively high standards for other persons rather than for oneself. An other-oriented perfectionist places importance on others being perfect and harshly evaluates the performance of those individuals. Often the objects of

such unrealistic standards are significant others such as spouses, children, and employees of the individual.

Demanding that others meet exceedingly high ideals can lead to several detrimental effects (Hewitt & Flett, 1991b; Hewitt & Flett, 2002). First, the targets of excessively high standards and stringent evaluation are likely to respond negatively to being criticized and treated with hostility when they fail to meet difficult standards. Second, other-oriented perfectionists are apt to feel dissatisfied and distressed when others cannot meet their difficult expectations. Third, other-oriented perfectionists are prone to blame, mistrust, and feel hostile toward others because others are constantly disappointing them (Hewitt & Flett, 1991b). This dimension of perfectionism is also significantly correlated with histrionic, narcissistic, and antisocial personality disorders as well as authoritarianism and dominance (Hewitt & Flett, 1991b). As one might expect, other-oriented perfectionists generally have interpersonal problems that can result in loneliness, isolation, family conflict, and/or marital difficulties. On a more positive note, other-oriented perfectionism is positively correlated with self-esteem and generally associated with characteristics that may help an individual be an effective and skilled leader capable of motivating others to excel (Flett et al., 1991; Hewitt & Flett, 1991b).

Because Hewitt and Flett did not find evidence of other-oriented perfectionism in the literature on child perfectionism, they chose not to include this dimension in their assessment of child perfectionism. Perhaps other-oriented perfectionism is more evident when an individual is in a position of power over others. Due to the nature of the construct, children are generally better positioned to be the recipients of adults' other-oriented perfectionistic behaviors than to have perfectionistic expectations of others.

Multidimensional Perfectionism According to Frost and Colleagues

Frost, Marten, Lahart, and Rosenblate (1990) developed a comprehensive and precise definition of perfectionism as well as a corresponding measure to help guide and encourage research on perfectionism. Like Hewitt and Flett, Frost and colleagues (1990) concluded that perfectionism is best understood as a multidimensional construct. Additionally, these researchers wanted to distinguish individuals who set particularly high goals for themselves and who were successful in achieving those goals from those who had similar goals but were overly self-critical and who engaged in self-defeating behaviors. Central to this particular understanding of perfectionism is that perfectionists demonstrate “excessive concern over making mistakes” (Frost et al., 1990, p. 449). Perfectionists are motivated more by fear of failure than by a need to achieve or because they find intrinsic value in their goals (Frost et al., 1990). Research indicates that excessive concern over making mistakes is indeed common among perfectionists and is perhaps the core feature of perfectionism (Clavin, Clavin, Gayton, & Broida, 1996; Enns & Cox, 2002; Frost et al., 1990). In addition to concern over making mistakes, Frost and colleagues (1990) identified several other important components of perfectionism. These additional components of perfectionism included overly high personal standards, a tendency to doubt the quality of one’s own actions, the perception of high parental expectations, the perception of high parental criticism, and need for order and organization.

Based on these dimensions of perfectionism, Frost and colleagues (1990) developed the Multidimensional Perfectionism Scale (MPS – Frost version; not to be confused with the Multidimensional Perfectionism Scale published by Hewitt and Flett in 1991). The

MPS – Frost version yields an overall perfectionism score and subscale scores that reflect aspects of perfectionism most salient for each test-taker (i.e., concern over mistakes, personal standards, parental expectations, parental criticism, doubts about actions, and organization).

Research on the MPS – Frost version reaffirmed that perfectionism is related to several psychological disorders. Positive correlations have been found between perfectionism and eating disorders, somatization, anxiety, obsessive-compulsive behavior, hostility, phobic anxiety, social phobia, paranoid ideation, psychoticism, interpersonal sensitivity, and procrastination (Antony et al., 1998; Bulik et al., 2003; Clavin et al., 1996; Frost et al., 1990; Rosser, Issakidis, & Peters, 2003). Of the dimensions of perfectionism included in the MPS – Frost version, concern over mistakes is significantly associated with the largest number of indices of mental disturbance.

In one study, researchers compared Hewitt and Flett's perfectionism scale with that of Frost and colleagues (Frost et al., 1993). Results indicated substantial overlap between the MPS – Hewitt and Flett version and the MPS – Frost version. Frost and colleagues' total perfectionism score and combined scores of Hewitt and Flett's self-oriented perfectionism and socially prescribed perfectionism subscales each reflected a global concept of perfectionism (with other-oriented perfectionism contributing less to this overall picture) (Frost et al., 1993). Furthermore, a factor analysis of the nine subscales (self-oriented perfectionism, socially prescribed perfectionism, other-oriented perfectionism, concern over mistakes, personal standards, parental expectations, parental criticism, doubts about actions, and organization) revealed a clean two-factor solution (Frost et al., 1993). The authors labeled the two factors "maladaptive evaluative

concerns” and “positive achievement strivings.” Concern over mistakes, parental criticism, parental expectations, doubts about actions, and socially prescribed perfectionism comprised the maladaptive evaluative concerns factor. The positive achievement strivings factor consisted of personal standards, organization, self-oriented perfectionism, and other-oriented perfectionism subscales (Frost et al., 1993).

This two-factor solution is consistent with earlier research and theory described by these researchers. Previous studies have categorized the various perfectionism dimensions identified by Hewitt and Flett and by Frost and colleagues as similarly positive or negative. For example, Hewitt and Flett identified socially prescribed perfectionism (which loaded on the maladaptive evaluative concerns factor in Frost and colleagues’ (1993) experiment) as reflecting more negative characteristics associated with perfectionism and, as previously mentioned, found socially prescribed perfectionism to be significantly related to several pathologies. Similarly, researchers have classified concern over mistakes, perceived parental criticism and expectations, and doubts about actions as maladaptive aspects of perfectionism (Frost et al., 1990). Self-oriented perfectionism, which loaded on the positive achievement strivings factor, can be linked to more positive characteristics such as a strong desire to achieve and excel, though this healthy view of self-oriented perfectionism is not consistent throughout the literature. Likewise, personal standards and organization, as measured by the MPS – Frost version, are adaptive aspects of perfectionism associated with few psychopathological characteristics.

In this section, concepts and definitions central to understanding perfectionism have been discussed. Some of the literature germane to those fundamental concepts has also

been introduced. The following section will include further detail with respect to the literature on perfectionism in adults and children. Personality traits associated with perfectionism, comorbid diagnoses, theories of development, risk factors, and assessment of perfectionism will be discussed and related to the current study. Finally, the purpose of this study and specific hypotheses will be described.

CHAPTER 2

A REVIEW OF THE LITERATURE ON PERFECTIONISM

Personality Traits and Associated Characteristics

Learning about which elements of personality are related to perfectionism is an effective way of understanding the construct. Furthermore, because perfectionism has been associated with many psychological disorders, knowledge about the behaviors and traits associated with perfectionism has important clinical implications. Personality characteristics of perfectionist parents may also relate to whether children of perfectionists develop similar characteristics. The following section will include a review of the literature on personality traits and individual characteristics associated with perfectionism.

Perfectionism and the Big Five Factor Model

Personality traits are often condensed into five primary factors: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (Costa & McCrae, 1990a, 1990b; Costa & McCrae, 1997; McCrae & Costa, 1997). Each of these “Big Five” factors can be subdivided into six facets or lower order traits. For example, facets of neuroticism include anxiety, angry hostility, depression, self-consciousness, impulsivity, and vulnerability (Costa & McCrae, 1997; Westen, 1999).

Several researchers have examined relationships between dimensions of perfectionism and each of the Big Five Factors. Flett and colleagues (1989) found

perfectionism to be significantly related to neuroticism and trait anxiety. Using Hewitt and Flett's three dimensions of perfectionism, Hill and McIntire (1997) found socially prescribed perfectionism to be significantly related to neuroticism. More specifically, socially prescribed perfectionism was positively correlated with angry hostility, depression, self-consciousness, and vulnerability and negatively correlated with anxiety. Socially prescribed perfectionism was also inversely related to agreeableness (trust, straightforwardness, and compliance) and inversely related to extraversion (warmth, gregariousness, and positive emotions). Such relationships are consistent with the notion of socially prescribed perfectionism as maladaptive. Not surprisingly, individuals who are angry, hostile, and depressed and who lack warmth, gregariousness, trust, and positive emotions are likely to have psychological and interpersonal difficulties. Furthermore, the fact that socially prescribed perfectionism is associated with vulnerability and lack of trust is consistent with the fact that socially prescribed perfectionists perceive others as requiring them to meet extremely high standards.

Hill and McIntire (1997) also found self-oriented perfectionism to be positively correlated with conscientiousness and each of its related facets (competence, order, dutifulness, achievement-striving, self-discipline, and deliberation). Individuals who are conscientious and who exhibit the facets of this factor can also be described as determined, hard-working, diligent, goal-oriented, dependable, and ethically-minded. Logically, these descriptions can be applied to self-oriented perfectionists and lend support to the idea that self-oriented perfectionism is adaptive.

Other-oriented perfectionism correlated negatively with agreeableness and positively with conscientiousness and especially achievement (Hill & McIntire, 1997). These

results support a depiction of other-oriented perfectionists as having unreasonably high standards for others, being harsh with those individuals for whom they have such requirements, and regarding achievement as especially important (Hill & McIntire, 1997).

These studies of perfectionism and the Big Five factors of personality were conducted among adults. Parallel research has been completed academically talented children (Parker & Stumpf, 1995; Stumpf & Parker, 2000). As with adults, unhealthy perfectionism in children was most significantly associated with neuroticism and healthy perfectionism was most strongly related to conscientiousness (Parker & Stumpf, 1995; Stumpf & Parker, 2000). In one particular sample, unhealthy perfectionism was negatively correlated with extraversion, agreeableness, and conscientiousness and positively correlated with neuroticism. Healthy perfectionism was positively correlated with extraversion and conscientiousness (Parker & Stumpf, 1995).

The literature on perfectionism and the Big Five factors of personality in adults and children provides useful and enriching information about individuals who are perfectionistic. Furthermore, this research clearly delineates facets of personality that are separately related to each aspect of perfectionism and supports the idea that perfectionism is best understood as a multidimensional construct. More specifically, the personality literature supports the division of perfectionism into distinct and independent dimensions of adaptive and maladaptive. Similarly, characteristics associated with adaptive and maladaptive perfectionism relate differently to certain personality variables. In some cases, maladaptive perfectionism was even negatively correlated with characteristics strongly and positively associated with adaptive perfectionism, and vice versa.

Achievement Motivation and Academic Achievement

Perfectionists are motivated to achieve and do so in excess of their non-perfectionistic peers. An interesting question is whether perfectionists do achieve goals set for themselves. Researchers have attempted to answer this question for adults and children. One study found college students identified as perfectionistic to have higher grade point averages (GPAs) and Scholastic Aptitude Test scores than other students (Braver, 1996). Similar results were found with a sample of high school students for whom having high standards for personal performance significantly predicted GPA (Accordino, Accordino, & Slaney, 2000). These findings are consistent with the belief that having high standards for oneself is an adaptive aspect of perfectionism.

Unfortunately, these studies did not examine whether participants experienced a discrepancy between personal standards for performance and actual performance. A study conducted with undergraduate students indicated that having high standards was significantly associated with perfectionism (Bieling, Israeli, Smith, & Antony, 2003). More specifically, having high standards for an upcoming examination was associated with adaptive perfectionism more so than maladaptive perfectionism. Furthermore, the size of the discrepancy between performance standards and actual performance on the examination was positively associated with perfectionism as a whole. Only adaptive perfectionism was positively associated with actual examination performance (Bieling et al., 2003). Unexpectedly, adaptive and maladaptive perfectionism were positively related to standard-performance discrepancy despite the fact that standard-performance discrepancy is considered a negative aspect of perfectionism. Perhaps all perfectionists have unrealistically high standards for themselves. The difference between maladaptive

and adaptive perfectionists in this particular study seemed related to actual examination performance (Bieling et al., 2003).

None of these studies examined achievement of individuals with high personal standards because they perceived their parents or significant others as demanding certain levels of performance from them. Researchers have not determined whether high standards for performance are related to achievement when standards originate internally or when standards come from a significant other. What can be gathered from these studies is that adaptive perfectionism is inextricably linked to academic achievement and achievement motivation.

Type A Personality

Type A personality refers to individuals who are impatient, competitive, highly conscientious, ambitious, achievement-striving, hostile, aggressive, highly pressured, time-urgent, self-involved, cynical, and sensitive to evaluations of their performance (Flett, Hewitt, Blankstein, & Dynin, 1994; Matthews, 1982; O'Connor, 2002; Schaubroeck & Williams, 1993; Westen, 1999). Additional research has shown that Type A personality is connected with misapprehension, fear, and paranoiac suspicion of others (O'Connor, 2002). A large body of research indicates that people with Type A personalities are at increased risk for developing cardiovascular illness (Chou, Geng, Want, & Xu, 1993; Dembroski & Costa, 1987; Siegman, 1994). Furthermore, Type A behaviors correlate positively with anxiety, depression, somatic symptoms, and various measures of heart health problems (Edwards & Baglioni, 1991).

Type A personality is clearly related to serious health concerns. Type A characteristics such as competitiveness, conscientiousness, achievement striving,

ambitiousness, and sensitivity to evaluation from others may mean that Type A personality is also related to perfectionism. Indeed, Flett and colleagues (1994) found relationships between components of Type A behavior and self-oriented, other-oriented, and socially prescribed perfectionism. Like many self-oriented perfectionists, Type A persons set excessively high goals for themselves and have lofty aspirations (Flett et al., 1994; O'Keefe & Smith, 1988; Ward & Eisler, 1987). Similar to other-oriented perfectionists, Type A individuals require others to meet their high standards and react negatively or aggressively when others fail to meet these standards (Catipovik-Veselica et al., 1995; Flett et al., 1994; Moser & Dyck, 1989; O'Connor, 2002).

According to Flett and colleagues (1994), Type A personality is likely related to socially prescribed perfectionism for several reasons. First, parents of Type A individuals are likely to be "extremely demanding and utilize punitive standards when evaluating their children's performance" (Flett et al., 1994, p. 479; Kliever & Weidner, 1987; Matthews, 1977; Matthews, Stoney, Rakaczky, & Jamison, 1986). Second, anger seems more commonly experienced by Type A persons and socially prescribed perfectionists than by others (Hewitt & Flett, 1991b; Westen, 1999). Third, Type A behavior and socially prescribed perfectionism are associated with negative affect (Edwards & Baglioni, 1991; Flett & Hewitt, 2002; Flett, Hewitt, Blankstein, & Gray, 1998; Hewitt & Flett, 1991a, 1991b; Suls & Wan, 1989).

In support of their predictions, Flett and colleagues (1994) found self-oriented, other-oriented, and socially prescribed perfectionism to be correlated with various measures of Type A personality. Male and female participants differed significantly on several measures (Flett et al., 1994). Speed and impatience were correlated significantly with the

three dimensions of perfectionism for males but not for females and other-oriented perfectionism was correlated significantly with Type A cognitions for males but not females (Flett et al., 1994).

Further research on the relationship between perfectionism and Type A personality is certainly necessary. Type A individuals appear to be perfectionists in several ways. Correspondingly, self-oriented, other-oriented, and socially prescribed perfectionists most likely have some of the characteristics traditionally associated with Type A personality, such as anger, hostility, time-urgency, and impatience. Given these associations, one must consider the possibility that perfectionists are at risk for the same health problems, such as cardiovascular disease, that afflict Type A persons.

Current research on Type A children indicates that they are aggressive, have a need to win in competitive situations, are very active, tend to suppress their fatigue, use other children's performance as the standard with which to compete, are compulsive overachievers, and are impatient (Lopes & Best, 1987; Vega-Lahr & Field, 1986; Vistainer and Matthews, 1987). In other words, Type A personality appears from a very early age and is similarly manifested in children and adults. Empirical evidence also suggests that Type A personalities in children are partially inherited (Fackelmann, 1992; Vega-Lahr & Field, 1986).

Type A behavior has demonstrated negative effects on mental and physical health, is clearly associated with perfectionism, and is present early in life. This information is notable and has significant importance for clinicians who work with perfectionist children. Perhaps helping perfectionist children, especially those with Type A personalities, alter their maladaptive patterns of behavior and cognition will have the

added benefit of preventing physiological problems associated with Type A personality. Additionally, if Type A personality is partially inherited, perhaps a heritability component to dimensions of perfectionism also exists. Further, given that Type A personality is associated with many characteristics likely perceived by others as negative, and also that Type A persons tend to apply their exacting standards to others, perfectionist parents who have Type A personalities might be more likely to have children who are socially prescribed or maladaptive perfectionists than other perfectionists or nonperfectionists. These possibilities have significant meaning for researchers who focus on perfectionism in families.

Cognitive Styles

Research on the cognitive differences between perfectionists and non-perfectionists is a natural extension of the idea that perfectionism is related to one's thoughts and beliefs about environment and self. The tendency to have irrational beliefs is a core component of maladaptive perfectionism and is related to emotional distress. Irrational beliefs/cognitions include unrealistically high self-expectations, need for approval from others, tendency to blame oneself, and the belief that others are expecting perfection. Such cognitions are central to the construct of perfectionism and its relative effects on the well-being of individuals. For this reason, future research that addresses differences between cognitions of perfectionists and non-perfectionists, as well as cognitive differences among various types of perfectionists, will be especially meaningful. At this point in time, research on cognitive styles of perfectionists is sparse and has been limited to adults.

Burns and Fedewa (2004) examined adaptive and maladaptive perfectionism with respect to constructive thinking, coping styles, categorical thinking (the tendency to think in absolutes), and stereotyping. The authors conceptualized adaptive perfectionists as having realistic self-expectations and being motivated by positive reinforcers such as increased self-esteem. In contrast, maladaptive perfectionists were perceived as setting impracticable personal goals and being motivated primarily by fear of failure. Essentially, the goals of the adaptive perfectionist are viewed quite differently than the goals of the maladaptive perfectionist (Slade & Owens, 1998; Terry-Short et al., 1995). Results from Burns and Fedewa's (2004) study indicated that adaptive perfectionists tend to be positive, action-oriented, and conscientious with good behavioral coping skills. However, adaptive perfectionism was negatively correlated with emotional coping, indicating that adaptive perfectionists are oversensitive, have difficulty with self-acceptance, overgeneralize negative outcomes, and dwell on negative experiences. According to Burns and Fedewa (2004), adaptive perfectionists use distraction and problem-solving skills to cope with depression. Furthermore, these perfectionists endorsed positive stereotypes such as "hard work is rewarding" and "blondes have more fun" significantly more than negative stereotypes like "religious people are narrow-minded" and "Irish people drink a lot." The authors concluded that adaptive perfectionists have good emotional and behavioral coping skills.

The results of the Burns and Fedewa (2004) study were quite different for maladaptive perfectionists. Maladaptive perfectionism was negatively associated with constructive thinking, emotional coping, and behavioral coping. These results indicated that maladaptive perfectionists are relatively inflexible, pessimistic, worrisome,

overreactive, and have difficulty accepting themselves and things they cannot control. Additionally, maladaptive perfectionism was associated with categorical thinking and rumination. Finally, maladaptive perfectionism was positively correlated with negative stereotypes, depression, and dangerous activities such as consuming alcohol in response to depression. Burns and Fedewa (2004) demonstrated the extent to which perfectionism can manifest itself differently from one individual to another. While adaptive perfectionists seem to have thoughts that are generally positive, maladaptive perfectionists' cognitions are unrealistic and damaging. Furthermore, maladaptive perfectionists tend to cope with distress and problems in unhealthy ways (Burns & Fedewa, 2004).

Ferrari and Mautz (1997) examined relationships among self-oriented perfectionism, socially prescribed perfectionism, other-oriented perfectionism, attitudinal flexibility, psychomotor speed, and motor-cognitive rigidity. The results of this study are useful for providing more detailed knowledge of cognitive styles among different types of perfectionists. Additionally, knowing whether perfectionists are rigid and inflexible has significant implications for treating negative aspects of perfectionism. If an individual's style of thinking is generally inflexible, changing that individual's maladaptive perfectionistic cognitions is difficult.

Ferrari and Mautz (1997) found dimensions of perfectionism (self-oriented, socially prescribed, and other-oriented) to be negatively related to attitudinal flexibility. Perfectionists have difficulty adjusting to new scenarios. Self-oriented perfectionism was also significantly associated with motor-cognitive rigidity, which refers to difficulty shifting "from one activity to another with continuously changing situational demands"

(Ferrari & Mautz, 1997, p. 3). These results are particularly interesting because self-oriented perfectionism is often considered an adaptive dimension of perfectionism. In this study, however, self-oriented perfectionism was the dimension most clearly associated with rigidity. Perfectionists who are rigid in their thinking and unable to adjust may have particular difficulty coping with stress and change. Self-oriented perfectionists may be affected by such difficulties to an even greater extent than other-oriented and socially prescribed perfectionists. Perhaps these results indicate that self-oriented perfectionism is not necessarily adaptive. The fact that a self-oriented perfectionist's demands are internal does not necessarily mean he is better able to cope with those demands than his socially prescribed and other-oriented perfectionist peers.

A study on attributional style, perfectionism, and depressive symptoms provides further evidence that self-oriented perfectionism is not entirely adaptive (Chang & Sanna, 2001). Self-oriented perfectionism and socially prescribed perfectionism were positively correlated with depressive symptoms. As expected, the relationship between socially prescribed perfectionism and depressive symptoms was stronger than the relationship between self-oriented perfectionism and depressive symptoms. With respect to attributional style, self-oriented and socially prescribed perfectionism were associated with a negative attributional style. Persons with negative attributional styles tend to believe that life problems such as depression have internal, global, and stable causes. A person who is depressed and who has a negative attributional style may believe he is to blame for his own depression but cannot change his situation. Chang and Sanna (2001) also demonstrated that depressive symptoms are stronger for self-oriented and socially prescribed perfectionists when they have negative attributional styles. Given these

results, clinicians who work with perfectionists should consider the attributional style of their clients when making treatment decisions (Chang & Sanna, 2001).

Research on the cognitive styles associated with different aspects of perfectionism indicates that cognition may play an important role in differentiating maladaptive perfectionists from adaptive perfectionists. Specifically, maladaptive perfectionists seem to have difficulty adjusting to new situations. Maladaptive perfectionists are rigid thinkers, their emotional and behavioral coping skills are limited, their responses to depressed mood tend to be dysfunctional, and they have negative attributional styles. Interestingly, studies of self-oriented perfectionism and attitudinal flexibility, psychomotor speed, motor-cognitive rigidity, and attitudinal style suggest results inconsistent with other literature on self-oriented perfectionism. Cognitive studies indicate several negative aspects of self-oriented perfectionism, whereas research on other aspects of perfectionism has provided a more positive picture of self-oriented perfectionism. Clearly further research is necessary to determine which of these results can be replicated.

Hopelessness

Hopelessness, which is frequently linked with suicidality, can be defined as extremely negative or pessimistic expectations for the future (Hewitt & Flett, 2002; Hunter & O'Connor, 2003). Several studies have linked perfectionism with hopelessness and suicidality in adolescents and adults and among clinical and nonclinical samples (Beevers & Miller, 2004; Chang & Rand, 2000; Dean & Range, 1996; Hewitt et al., 1997; Hewitt, Flett, & Turnbull-Donovan, 1992; O'Connor & O'Connor, 2003; O'Connor, O'Connor, O'Connor, Smallwood, & Miles, 2004). The literature on suicidality will be addressed in

a later section of this paper. However, as hopelessness reflects a tendency to demonstrate certain patterns of cognitions, research on perfectionism and hopelessness is included here.

Hewitt and colleagues (1997) suggested that a relationship between perfectionism and hopelessness is logical because perfectionists are quick to feel a sense of failure when experiencing anything less than total success. In particular, socially prescribed perfectionism is likely to be associated with hopelessness because this dimension of perfectionism “can be conceptualized as a social-cognitive variable that includes negative expectations about the likelihood of being the target of criticism and mistreatment due to the certainty of experiencing unfair expectancies in the future” (Hewitt & Flett, 2002, p. 265). The idea that socially prescribed perfectionism is associated with a negative future schema is supported by the fact that socially prescribed perfectionism has been positively correlated with a measure of negative future thoughts (O’Connor et al., 2004). In this sense, socially prescribed perfectionists want to meet the unrealistically high expectations they believe others have for them, but see little hope they can.

Most studies on perfectionism and hopelessness have found positive associations between socially prescribed perfectionism and hopelessness, but not between other-oriented perfectionism and hopelessness (Dean & Range, 1996; Hewitt et al., 1997). Research on self-oriented perfectionism and hopelessness is inconsistent. Limited speculation suggests that self-oriented perfectionism might also be significantly correlated with hopelessness. This notion is primarily based on the fact that self-oriented perfectionists set exceedingly high standards for themselves and are unlikely to consistently meet those standards. Furthermore, self-oriented perfectionism has been

associated with indices of maladjustment (Flett, Hewitt, Blankstein, & O'Brien, 1991; Hewitt & Flett, 1991a). At least one study indicated that self-oriented and other-oriented perfectionism were negatively correlated with hopelessness (O'Connor et al., 2004), while another study found that self-oriented perfectionism was positively correlated with hopelessness in girls only (Hewitt et al., 1997). Additionally, O'Connor and O'Connor (2002) found that self-oriented perfectionism was not an independent predictor of hopelessness, but that low constructive coping (low use of positive reinterpretation, growth, and acceptance to cope) and self-oriented perfectionism interacted to predict hopelessness.

Strong evidence indicates that socially prescribed perfectionism is positively correlated with, and predictive of, hopelessness in adults and youth. Furthermore, socially prescribed perfectionism interacts with stress, avoidance coping, and negative future thoughts to predict hopelessness. Extant research suggests that other-oriented perfectionism is not significantly related to hopelessness, but research on self-oriented perfectionism and hopelessness is less clear. Given the strong relationships among perfectionism, hopelessness, and depression, assessing for perfectionism in children and adults may be an important step for identifying and treating individuals at risk for self-harm and depression. Later sections of this paper will cover associations between various aspects of perfectionism and specific psychological disorders in more detail.

Self-Esteem, Self-Criticism, and Inferiority

Perfectionism is closely related to an individual's self-concept. When a self-oriented perfectionist is able to meet high standards set for himself, he is likely to feel fulfilled and pleased with his ability to perform. However, the opposite can also be true. When an

individual believes he needs to meet impossibly high standards he sets for himself or feels others have set for him, and is unable to do so, he is likely to be self-critical, experience feelings of inferiority, and perhaps have low self-esteem. Several studies have linked self-esteem and perfectionism in children and adults.

In children, concern over mistakes, perceived parental criticism, and doubts about one's own actions, which are aspects of perfectionism generally considered to reflect more unhealthy characteristics of the construct, were negatively associated with self-esteem (Stumpf & Parker, 2000). Children who experienced maladaptive aspects of perfectionism tended to have lower self-esteem than non-perfectionist or healthy perfectionist peers. Two additional studies of self-esteem and perfectionism revealed similar results among adults where maladaptive perfectionism (socially prescribed perfectionism, concerns over making mistakes, doubts about one's actions, and critical relationship with parent) was inversely related to self-esteem (Flett, Hewitt, Blankstein, & O'Brien, 1991; Rice, Ashby, & Slaney, 1998). Individuals who feel that significant others have unrealistically high expectations for them, who are overly concerned about making mistakes, and who doubt their own abilities are likely to have low self-esteem. Adaptive perfectionism reflecting high personal standards and need for organization and order did not account for a significant amount of variance in self-esteem (Flett, Hewitt, Blankstein, & O'Brien, 1991; Rice et al., 1998).

The connection between self-esteem and perfectionism is understandable because an individual who places great importance on being perfect will inevitably experience failure and subsequent ill-effects on self-worth. A strong link exists between maladaptive aspects of perfectionism and self-esteem, and low self-esteem is largely related to

depression in adults and children (de Man, Gutierrez, & Sterk, 2001; Luxton & Wenzlaff, 2005; Serretti, Olgiati, & Colombo, 2005; Southall & Roberts, 2002). Furthermore, one study found that self-esteem mediated perfectionism and depression (Rice et al., 1998). The relationships between maladaptive perfectionism, self-esteem, and depression have important implications for treatment and indicate a need to further identify aspects of perfectionism that are detrimental or beneficial.

Self-criticism and feelings of inferiority are related to self-esteem and perfectionism. According to Powers, Zuroff, and Topciu (2004), “self-criticism can be conceptualized as harsh punitive evaluation of the self, often accompanied by guilt, feelings of unworthiness, and self-recrimination” (p. 61). Self-criticism can also involve oversensitivity to criticism from others and may present itself overtly (e.g., making self-critical statements before others) or covertly (e.g., self-critical cognitions). Socially prescribed perfectionism is the perfectionism dimension most strongly related to overt and covert self-criticism and depression (Powers et al., 2004). Concern over mistakes and doubting one’s actions are also significantly associated with self-criticism and depression, while self-oriented perfectionism is significantly correlated with covert self-criticism but not with overt self-criticism or depression.

This research indicates that self-criticism is a significant component of maladaptive perfectionism. Interestingly, covert expressions of self-criticism are significantly associated with self-oriented perfectionism, which is often considered a positive dimension of perfectionism. Perhaps measures of self-criticism reflect a self-evaluative component of perfectionism that is present regardless of whether the perfectionism has positive or negative effects. Powers and colleagues (2004) found self-oriented

perfectionism to be significantly related to a measure of covert self-criticism but not depression. This is in contrast to other types of perfectionism correlated with self-criticism and depression. Perhaps all perfectionists share some universal characteristics, such as being self-critical, but differ systematically in the extent to which they cope with more serious symptoms of psychopathology.

Inferiority has been viewed as a possible distinction between normal and neurotic perfectionism (Ansbacher & Ansbacher, 1956; Ashby & Kottman, 1996; Hamachek, 1978). Neurotic perfectionists may set inflexible and uniformly unrealistic goals they are consistently unable to meet, feel inferior as a result of their frequent failures, and feel overwhelmed by constant feelings of inferiority (Ashby & Kottman, 1996). Normal perfectionists are viewed as highly motivated to achieve but more flexible in the demands they place on themselves. When a “normal perfectionist” fails to meet self-expectations, he is likely to experience feelings of inferiority but not to the same extent as neurotic perfectionists. Furthermore, the normal perfectionist is able to use feelings of inferiority to motivate future achievement.

These theories are supported by Ashby and Kottman’s (1996) study of inferiority as a distinction between normal and neurotic perfectionism. Perfectionism was measured in terms of personal standards, need for order and organization, discrepancy between performance and standards, difficulty in interpersonal relationships, anxiety about tasks and performance, and procrastination (which are the subscales of the Almost-Perfect Scale – Revised or APSR – see later Assessment section for details). Normal perfectionism was distinguished from neurotic perfectionism on the basis of a discrepancy between actual performance and personal standards. Neurotic perfectionists

experienced significantly more feelings of inferiority than normal perfectionists (Ashby & Kottman, 1996). Additionally, needs for order and organization, which are considered adaptive aspects of perfectionism, were negatively related to feelings of inferiority. Neurotic perfectionism was significantly associated with emotional distress (as measured by anxiety, procrastination, and intimacy subscales of the APSR), whereas normal perfectionism was not. The ability to distinguish healthy and unhealthy forms of perfectionism may be used to develop treatments that address not only the manner in which perfectionism manifests itself but also the pathological effects that perfectionism has on some individuals. Differences between healthy and unhealthy perfectionist parents may also impact the manifestation of perfectionistic characteristics in their children.

Adjustment, Life Satisfaction, and Lifestyle Approaches

Several recent studies have examined relationships between various aspects of perfectionism and life satisfaction, overall adjustment in various settings, and lifestyle approaches in children (Gilman & Ashby, 2003a, 2003b; LoCicero, Ashby, & Kern, 2000). Gilman and Ashby (2003b) defined adaptive perfectionists as individuals who had high personal standards but who were realistic in recognizing their own limitations. Maladaptive perfectionists were characterized as having high standards for themselves but incapable of consistently meeting those standards. This particular study found that adaptive perfectionists rated their relationships with parents as positive and rated themselves as well-adjusted. Adaptive perfectionism was negatively correlated with stress associated with school and teachers and with school maladjustment and symptoms

of emotional distress. Middle school students classified as adaptive perfectionists seemed to be well-adjusted and relatively unaffected by high levels of distress.

Gilman and Ashby (2003b) found that parent relations, personal adjustment, and GPA were positive and significant predictors of adaptive perfectionism. School maladjustment and attitudes toward school and teachers that indicated distress were associated with lower levels of adaptive perfectionism. The results were quite different for maladaptive perfectionism. Multiple regression analysis indicated that clinical maladjustment and symptoms of emotional distress were positive and significant predictors of maladaptive perfectionism. GPA, personal adjustment, parent relations, and ability to cope with social stress were inversely related to maladaptive perfectionism. This study indicated that high personal standards are associated with good adjustment at home and school. However, when an individual sets personal standards he cannot meet, he is likely to experience interpersonal, intrapersonal, and academic adjustment problems (Gilman & Ashby, 2003b).

Gilman and Ashby (2003a) also examined adaptive and maladaptive perfectionism with respect to five domains of life satisfaction. These domains included family, friends, school, living environment, and self. Additionally, the authors examined perfectionism with respect to a global measure of life satisfaction. Adaptive perfectionists had significantly higher personal standards of performance than most of their peers. Maladaptive perfectionists had significantly higher standards of performance than peers but had the additional defining characteristic of experiencing greater discrepancy between standards and actual performance than adaptive perfectionists. Having high personal standards was positively related to all dimensions of life satisfaction. Experiencing a

discrepancy between standards and performance was negatively associated with all dimensions of life satisfaction.

These results indicate clear and significant differences between adaptive and maladaptive perfectionists with respect to life satisfaction. The differences reveal the importance of helping perfectionist children accept the fact that they may not be able to meet extraordinarily high standards. Interestingly, when compared to nonperfectionists, adaptive and maladaptive perfectionists indicated higher levels of self-satisfaction. Furthermore, perfectionists reported levels of satisfaction with families, friends, school, and living environments comparable to those reported by nonperfectionists. These results are important because they contradict the popular belief that perfectionists are less satisfied and happy with their lives than nonperfectionists. Furthermore, having high personal standards may be important to an individual's experience of self-satisfaction.

In contrast to these results, Flett and colleagues (1998) found high levels of perfectionistic cognitions to be associated with lower life satisfaction among adults. Unfortunately, no researchers have compared the perfectionistic cognitions and life satisfaction of adults and children. The differences in these studies may be age-related or may be due to differences in how perfectionism and life satisfaction were measured. This would be an interesting area for further research, particularly if differences in child and adult experiences of perfectionism were delineated.

LoCicero and colleagues (2000) refined an understanding of how adaptive perfectionists, maladaptive perfectionists, and nonperfectionists differ. Specifically, the researchers examined lifestyle approaches of perfectionists and nonperfectionists. Adaptive perfectionists and maladaptive perfectionists were defined in the same manner

as Gilman and Ashby (2003a). Results indicated that adaptive perfectionists are more likely to modify their behavior to fit social and environmental cues than maladaptive perfectionists and nonperfectionists. Adaptive perfectionists also had a greater sense of belonging, desire to cooperate, level of ease receiving praise and recognition, and need to strive for perfection than nonperfectionists. Maladaptive perfectionists indicated greater ease accepting praise and recognition for their achievements and reported greater striving for perfection than nonperfectionists.

These results indicate similarities and differences among adaptive and maladaptive perfectionists. The similarities are consistent with definitions of these two types of perfectionists, as each strives for higher levels of achievement. The results also support the idea that adaptive perfectionists have more positive experiences with respect to their perfectionism than maladaptive perfectionists. Though more research in this area is necessary, LoCicero and colleagues (2000) suggested that adaptive perfectionists may have better social skills than maladaptive perfectionists. If true, the social skills of adaptive perfectionists might contribute to a more favorable experience of perfectionism.

Overall, adaptive perfectionists do well in school, report being satisfied with life at home and at school, are well adjusted in various contexts, are socially adaptive, and desire praise for their accomplishments. In fact, adaptive perfectionists say they have more positive school, interpersonal, and intrapersonal experiences than maladaptive perfectionists and nonperfectionists (Gilman & Ashby, 2003b).

Maladaptive child perfectionists appear to experience some amount of distress with respect to home and school. This makes sense if socially prescribed perfectionism (perfectionist demands perceived as coming from significant others such as parents and

teachers) is a maladaptive aspect of perfectionism. If a student feels excessive demands he cannot meet are forced upon him by parents and/or teachers, he is likely to experience distress. Maladaptive perfectionism is also related to adjustment problems, symptoms of emotional distress, need for recognition, and low levels of satisfaction with respect to self, family, friends, school, and living environment. Unexpectedly, despite the fact that maladaptive perfectionism was negatively related to a measure of self-satisfaction, maladaptive and adaptive perfectionists rated themselves significantly more self-satisfied than nonperfectionists (Gilman & Ashby, 2003a). These results help clarify some areas in which individuals who demonstrate positive aspects of perfectionism differ from individuals who experience negative aspects of perfectionism. Equally importantly, perfectionism in children, particularly the aspect of perfectionism that involves setting high standards for oneself, is associated with greater feelings of self-satisfaction.

These sections have described the available literature on perfectionism and the relationships between perfectionism and various individual characteristics in adults and children. While the literature on perfectionism covers a number of personality characteristics associated with the construct in adults and youth, the extant literature lacks studies that compare children to parents on these characteristics. This is surprising because many studies have focused on aspects of personality frequently shared by parents and children (Bouchard & Loehlin, 2001; Solomon, 2000). Furthermore, literature on personality and perfectionism is far from exhaustive, and studies that have been conducted cover adult or child populations but not both. The research conducted so far provides a useful picture of how dimensions of perfectionism and personality relate to one another, but additional research in the area is certainly needed. In particular, research

that links personality characteristics of parents who may or may not be perfectionists to the development of perfectionism in children would be particularly interesting and informative. The following section will review literature that links perfectionism to various psychological disorders.

Comorbid Diagnoses

Depression

The relationship between perfectionism and depression has received a significant amount of attention in the literature. Aspects of perfectionism are highly correlated with depressive symptoms and diagnoses, and perfectionism predicts unique variance in depression in clinical and nonclinical adults (Bieling, Summerfeldt, Israeli, & Antony, 2004; Enns, Cox, & Clara, 2005; Flett, Hewitt, Blankstein, & O'Brien, 1991; Flett et al., 1998; Flett & Hewitt, 1995; Hewitt & Flett, 1986; Hewitt & Flett, 1990; Hewitt & Flett, 1993; Hewitt, Flett, Ediger, Norton, & Flynn, 1998; Powers et al., 2004; Rice et al., 1998; Sherry et al., 2003). Most studies on perfectionism and depression have used the Hewitt and Flett dimensions of perfectionism (socially prescribed, self-oriented, and other-oriented perfectionism). The preponderance of studies that used these dimensions to examine the relationship between perfectionism and depression indicate that socially prescribed perfectionism is positively correlated with symptoms or diagnoses of depression (Bieling et al., 2004; Hewitt & Flett, 1993; Sherry et al., 2003). Furthermore, socially prescribed perfectionism is a significant predictor of depression (Enns et al., 2005; Flett et al., 1998). A tendency to feel that significant others have unrealistically high standards for oneself is related to, and predictive of, symptoms of depression.

Socially prescribed perfectionism also interacts with interpersonal stress, achievement stress, low perceived self-control, and negative life events to predict depressive symptoms (Enns et al., 2005; Flett & Hewitt, 1998; Flett, Hewitt, Blankstein, & O'Brien, 1991; Hewitt & Flett, 1993).

Self-oriented perfectionism (demanding perfectionism from oneself) was significantly related to depression in some studies (Chang & Sanna, 2001; Hewitt et al., 1998; Sherry et al., 2003) but not others (Bieling et al., 2004; Powers et al., 2004). At this point, views on whether self-oriented perfectionism is associated with adaptive or maladaptive characteristics remain inconsistent. Some researchers believe that self-oriented perfectionism and its association with high standards for achievement is relatively adaptive because self-oriented perfectionism is positively correlated with GPA and conscientiousness (Braver, 1996; Hill & McIntire, 1997). Other literature indicates that self-oriented perfectionism can be associated with more negative constructs such as psychological disorders, attitudinal rigidity, and Type A personality (Ferrari & Mautz, 1997; Flett et al., 1994; Sherry et al., 2003). In addition to being positively correlated with depression in some studies, self-oriented perfectionism interacted with life stress in one sample to predict vulnerability to depression (Flett & Hewitt, 1995). Furthermore, Cox and Enns (2003) found self-oriented perfectionism to be a reliable risk factor for depression. This inconsistency with respect to self-oriented perfectionism is perpetuated in the research on self-oriented perfectionism and psychological disorders. Some studies on perfectionism and psychopathology provide evidence to suggest that self-oriented perfectionism is maladaptive, while other studies do not.

Additional research on self-oriented perfectionism and its relationship with various psychopathologies will be useful for determining whether self-oriented perfectionism is a risk factor for those disorders. Because self-oriented perfectionism is considered a relatively stable trait that demonstrates little or no state dependence, this aspect of perfectionism may be especially helpful for assessing psychopathology risk (Cox & Enns, 2003). While other aspects of perfectionism (socially prescribed perfectionism, concern over mistakes) are also stable traits, they are somewhat state dependent with respect to individuals' current affect (Cox & Enns, 2003). In other words, some maladaptive aspects of perfectionism such as socially prescribed perfectionism and excessive concern over mistakes are "stable individual difference variables that are elevated in the depressive state" (Cox & Enns, 2003, p. 124). Variables like socially prescribed perfectionism and concern over mistakes that are not consistently manifest may be less dependable predictors of psychopathology than stable trait variables like self-oriented perfectionism.

Research on the relationship between perfectionism and depression that examines other aspects of perfectionism reveals similar results. For example, Bieling and colleagues (2004) found concern over mistakes, feeling criticized by parents, doubts about actions, and socially prescribed perfectionism to be significantly correlated with mood disorders. Similarly, Powers and colleagues (2004) found socially prescribed perfectionism, concern over mistakes, and doubts about actions to be associated with depression. Results of another study indicated that measures of anxiety, procrastination, difficulty with interpersonal relationships, concern over mistakes, parental criticism, perception of high parent expectations, and doubts about actions were positively

associated with depression (Rice et al., 1998). In general, perceptions that others have unrealistically high personal expectations, doubts about one's ability to meet certain standards, tendencies to emphasize one's mistakes, and troubles in relationships with parents/significant others are related to and, in some cases predictive of, depression.

Some studies have found dimensions of perfectionism to correlate with depressive symptoms in children as well (Accordino et al., 2000; Hewitt et al., 2002). Specifically, Hewitt and colleagues (2002) found that socially prescribed and self-oriented perfectionism were correlated with depression for children aged 10-15 years. Accordino and colleagues (2000) found that having high personal standards for academic performance was inversely related to depression in adolescents. In this study, a discrepancy between personal standards for achievement and actual performance was related to increased levels of depression (Accordino et al., 2000). Unfortunately, the limited research on child perfectionism does not allow definitive conclusions about perfectionism and depression in youngsters. The available research indicates that, like adults, child perfectionists are at risk for symptoms of depression. Future efforts at assessing and treating depression in all age groups should reflect the fact that perfectionism is a potential risk factor or comorbid concern.

Several studies have indicated that perfectionism is a critical concern in the treatment of depression. Perfectionism appears to have a detrimental effect on the outcome of treatment for individuals with depression (Blatt, 1995; Blatt, Quinlan, Pilkonis, & Shea, 1995; Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998; Shahar, Blatt, Zuroff, Krupnick, & Sotsky, 2004; Shahar, Blatt, Zuroff, & Pilkonis, 2003). Blatt and colleagues (1995) found that high levels of perfectionism had a negative relationship with four brief types

of treatment for depression, including antidepressant medication with clinical management, placebo with clinical management, interpersonal therapy, and cognitive-behavioral therapy. Conversely, individuals who demonstrated low levels of perfectionism responded well to these treatment modalities. These results were replicated and extended in a later study indicating that perfectionism had negative effects on treatment effectiveness as measured by patients, therapists, and clinical evaluators (Blatt et al., 1998). This study also indicated that treatment progress in depressed perfectionists was particularly impeded during the second half of treatment. According to the authors, brief treatment may not be enough for perfectionists with depression because highly perfectionistic individuals may begin to experience a sense of failure and disillusionment as they become aware of the impending end of treatment and feel they have not healed (Blatt et al., 1998).

Further research on the detrimental effects of perfectionism suggests that perfectionism interferes with a patient's ability to develop and maintain a strong therapeutic alliance (Zuroff et al., 2000). This has an unfavorable impact on treatment effectiveness. Shahar and colleagues (2004) found that therapeutic alliance and patient social relations mediated patient pre-treatment perfectionism and depressive symptoms at the end of treatment. Highly perfectionistic individuals have difficulty establishing and maintaining therapeutic alliances and social relationships outside of treatment, which adds to the detrimental effects of perfectionism on overall treatment efficacy.

The implications of the research on perfectionism and its adverse relationship with treatment for depression are multiple. First, brief treatment may not be the best option for treating depressed perfectionists. A combination of treatments, such as medication

and psychotherapy, may be necessary when treating perfectionists with depression. Second, longer-lasting, open-ended treatment approaches are likely to be necessary for perfectionists. Third, as Blatt and colleagues (1998) suggested, perfectionists may respond negatively to having an end to treatment imposed on them. Fourth, spending more time in therapy developing a strong therapeutic alliance seems to be an essential component for treating individuals who are perfectionists and depressed. The effects of the therapeutic alliance appear to be important not only for overall treatment but also for patients' abilities to develop and maintain social relationships outside of therapy (Shahar et al., 2004).

Suicidality

Related to depression is the serious concern of suicidal behavior. Hewitt, Flett, and Weber (1994) found socially prescribed perfectionism and self-oriented perfectionism to be significantly associated with suicidal ideation in psychiatric patients. Furthermore, socially prescribed perfectionism and self-oriented perfectionism discriminated psychiatric patient groups with low, moderate, and high levels of suicidal ideation. These researchers also found that socially prescribed perfectionism, self-oriented perfectionism, and other-oriented perfectionism were positively correlated with suicidal ideation in university students (Hewitt et al., 1994). Again, socially prescribed perfectionism and self-oriented perfectionism discriminated participants who reported low and moderate levels of suicidal ideation. This study is the only one to support a positive relationship between self-oriented perfectionism and suicidal ideation.

More recent studies reveal positive correlations between socially prescribed perfectionism and suicidal ideation in adults and youth (Boergers, Spirito, & Donaldson,

1998; Donaldson et al., 2000; Enns, Cox, & Inayatulla, 2003; Hewitt et al., 1997; Hunter & O'Connor, 2003). Research suggests that socially prescribed perfectionism and impaired capacity to generate positive thoughts about the future may discriminate individuals who have engaged in deliberate self-harm from matched controls, beyond the effects of hopelessness, depression, and anxiety (Hunter & O'Connor, 2003). Additionally, high levels of socially prescribed perfectionism and depression significantly predicted wanting to die as the primary reason for suicide attempts in adolescents (Boergers et al., 1998). Socially prescribed perfectionism is thus a consistent and strong predictor of suicidal ideation and behavior in adults and youth. Socially prescribed perfectionism can be considered a risk factor for suicidal behavior, particularly when this dimension of perfectionism is combined with other predisposing factors such as hopelessness, depression, anxiety, and tendency to have negative thoughts about the future (Boergers, Spirito, & Donaldson, 1998; Donaldson et al., 2000; Enns, Cox, & Inayatulla, 2003; Hewitt et al., 1997; Hunter & O'Connor, 2003). These studies provide ample cause for professionals who work with individuals who are at risk for attempting suicide to assess socially prescribed perfectionism and perfectionism-related cognitive distortions.

Anxiety Disorders

State anxiety may stem from experiencing a discrepancy between one's actual self and a more ideal self (Flett et al., 1994-1995). According to Flett and colleagues (1994-1995), an individual who has particularly high standards for himself, or who feels that others have high standards for him, could experience substantial anxiety. The potential influence of perfectionism on the experience of anxiety is also evidenced in Heimberg,

Juster, Hope, and Mattia's (1995) theory on social phobia. These researchers claim that people with social phobia have three core beliefs. These beliefs reflect a fear of social situations that may result in humiliation, an expectation that humiliation can only be circumvented if exceedingly high standards of social performance are met, and an understanding that such standards are impossible to meet (Heimberg et al., 1995). Several researchers assessed the relationship between perfectionism and anxiety and found significant associations between the two constructs (Bieling et al., 2004; Christensen, Danko, & Johnson, 1993; Deffenbacher, Zwemer, Whisman, Hill, & Sloan, 1986; Dunkley et al., 2000; Flett et al., 1988; Flett et al., 1989; Flett et al., 1994-1995; Flett et al., 1998; Hankin, Roberts, & Gotlib, 1997; Hewitt et al., 2002; Juster et al., 1996).

Flett and colleagues (1988) found that perfectionism was correlated with trait anxiety. In addition, perfectionism has been associated with the cognitive-worry component of state anxiety (feeling uncertain, difficulty concentrating), the autonomic-emotional component of state anxiety (irregular breathing, sweaty palms), overall state anxiety, the social evaluation component of trait anxiety, and the ambiguous component of trait anxiety (being in an unfamiliar situation) (Flett et al., 1994-1995). Socially prescribed perfectionism was also correlated with trait anxiety but self-oriented and other-oriented perfectionism were unrelated to measures of anxiety (Flett et al., 1994-1995). Flett and colleagues (1998) found that individuals who reported more frequent perfectionistic cognitions also experienced more symptoms of anxiety. The tendency to have ruminative thoughts about attaining perfectionist standards and the discrepancy between current and ideal self may significantly influence an individual's anxiety. A broad study of

perfectionism and Axis I disorders found that concern about mistakes, parental criticism, doubts about actions, and socially prescribed perfectionism were positively related to anxiety disorder diagnoses (Bieling et al., 2004). These studies suggest that many aspects of perfectionism are significantly associated with anxiety in clinical and nonclinical populations.

Studies of perfectionism and specific anxiety disorders reveal that social phobia is associated with the tendency to doubt the quality of one's work and concern over making mistakes (Antony et al., 1998; Rosser et al., 2003). Rosser and colleagues (2003) found that concern over making mistakes was associated with anxiety about performing in front of others and with interpersonal relationship anxiety. Having doubts about one's work was associated with interpersonal interaction-related anxiety in the same study. Antony and colleagues (1998) found that people with panic disorder had higher levels of concern over mistakes, greater doubts about actions, and higher levels of perceived parental criticism than nonclinical participants. However, the same study found that people with panic disorder did not report higher levels of perfectionism than people with other anxiety disorders.

A study that compared nonclinical participants with people with panic disorder, obsessive-compulsive disorder, social phobia, and specific phobia found no significant differences among groups with respect to personal standards for achievement (Antony et al., 1998). This finding is noteworthy because having high personal standards for achievement is central to most definitions of perfectionism, with the possible exceptions of socially prescribed perfectionism and other-oriented perfectionism. The fact that individuals with various anxiety disorders could not be differentiated from one another,

or from a non-anxious control group, brings into question the feasibility of using perfectionism as a distinguishing factor. Given that several studies have found significant relationships between socially prescribed perfectionism and anxiety disorders, perhaps perfectionism is primarily related to anxiety disorders when the afflicted individuals feel that others have expectations for them they cannot meet.

Research on perfectionism and anxiety disorders in children is sparse. One study found that higher levels of socially prescribed perfectionism and self-oriented perfectionism in children were associated with higher levels of anxiety (Hewitt et al., 2002). The same study found that anxiety was correlated with achievement stress and social stress in youngsters. Obviously the results of a single study are far from definitive. However, this research does provide reason for others to study the relationships between dimensions of perfectionism and anxiety in younger populations. Perhaps children who feel anxious about others' expectations will be likely to be socially prescribed perfectionists. Alternately, parents who are anxious about their own performance may model this behavior for their children, resulting in children adapting the belief that they must also be perfectionists.

Obsessive-Compulsive Disorder

Psychodynamic, cognitive, and behavioral theoretical conceptualizations of obsessive-compulsive disorder (OCD) have long considered perfectionism a central feature of the disorder (Guidamo & Liotti, 1983 as cited in Frost & DiBartolo, 2002; Janet, 1903 as cited in Frost & Steketee, 1997; Jones, 1918; Mallinger, 1984; McFall & Wollersheim, 1979; Obsessive Compulsive Cognitions Working Group, 1997; Rachman, 1993; Rheaume, Freeston, Dugas, Letarte, & Ladouceur, 1995; Salzman, 1979; Straus,

1948). From a psychodynamic perspective, OCD behaviors represent attempts to control the environment so one can reduce or eliminate a perceived risk of personal harm (Carr, 1974; Mallinger, 1984; Salzman, 1979). In this conceptualization, people with OCD consistently overestimate the probability that some negative event will befall them and feel the only way to prevent such events is to perform perfectionist behaviors.

Rachman (1993) and Salkovskis (1985, 1989) described OCD in terms of having a dysfunctional sense of responsibility. From this perspective, people with OCD see the world in terms of how they may fail to protect themselves or others from harm (for example, by forgetting to lock a door). An excessive sense of responsibility for preventing such harm leads to automatic dysfunctional thoughts or obsessions, which cause feelings of discomfort. A person with OCD feels he must neutralize his discomfort through repetitive thoughts or compulsions (Rheaume et al., 1995).

McFall and Wollersheim (1979) outlined four central cognitions or beliefs that lead people with OCD to perceive the world as overly threatening:

- (1) One should be perfectly competent, adequate, and achieving in all possible respects in order to be worthwhile and to avoid criticism or disapproval by others or oneself, (2) making mistakes or failing to live up to one's perfectionistic ideals should result in punishment or condemnation, (3) one is powerful enough to initiate or prevent the occurrence of disastrous outcomes by magical rituals or obsessive ruminating, and (4) certain thoughts and feelings are unacceptable, having them could lead to catastrophe and one should be punished for having them (p. 335).

The first two cognitions relate to perfectionism and the second two relate to an individual's responsibility to prevent negative events from occurring. These OCD-related cognitions provide a clear example of how perfectionism may be fundamentally related to OCD. Guidano and Liotti (1983) developed another cognitive model from which they postulated that perfectionism, defined as a need for certainty and a belief that perfect solutions exist, is the core assumption of OCD.

Finally, a study conducted by the Obsessive Compulsive Cognitions Working Group (OCCWG, 1997) reviewed existing literature and theory on OCD and developed a standardized set of cognitive measures for the disorder. According to the OCCWG (1997), 6 belief domains appear central to OCD: "(1) inflated responsibility; (2) overimportance of thoughts; (3) excessive concern about the importance of controlling one's thoughts; (4) overestimation of threat; (5) intolerance of uncertainty; and (6) perfectionism" (p. 667). These theoretical conceptualizations are a few examples of how perfectionism has been viewed as central to OCD. Though several of the theories were proposed many years ago, the idea that perfectionism is an important factor in OCD remains popular and well-studied today.

Rheaume and colleagues (1995) sought to determine the relative importance of perfectionism and attributions of responsibility in obsessive-compulsive symptoms reported by French undergraduate students. Perfectionism and responsibility were significant predictors of obsessive-compulsive symptoms. Participants who reported higher levels of concern over mistakes, personal standards, parental expectations, parental criticism, and doubts about actions also reported higher levels of obsessive and compulsive symptoms. Research with psychiatric patients with OCD also revealed

higher levels of total perfectionism, concern over mistakes, and doubts about actions compared to non-patient controls (Frost & Steketee, 1997). A study that compared psychiatric patients diagnosed with anxiety disorders on indicators of perfectionism found those with OCD to differ significantly from those with social phobia on a measure of concern over making mistakes (Antony et al., 1998). In the same study, people with OCD reported significantly greater doubts about their own actions than nonclinical participants and people with panic disorder or specific phobia. However, the same researchers found that people with OCD reported lower concern over mistakes than people with other anxiety disorders. While perfectionism is significantly related to OCD, distinguishing individuals with OCD from individuals with other anxiety disorders on the basis of perfectionism is difficult at best.

A recent study by Rheume and colleagues (2000) distinguished functional perfectionists and dysfunctional perfectionists and compared these two groups along several obsessive-compulsive behaviors. Dysfunctional perfectionists experienced a high level of negative consequences as a result of their perfectionist tendencies. While the method for distinguishing dysfunctional from functional perfectionists was questionable (authors used a median split on the PI), the results are interesting nonetheless. Rheume and colleagues (2000) found that dysfunctional perfectionists reported more obsessive-compulsive tendencies, were more preoccupied with quality of performance than completion on a problem-solving task, and took more time than functional perfectionists to complete a precision task.

Limited research has assessed dimensions of perfectionism in youths with obsessive-compulsive disorder. Libby and colleagues (1994) found that youths with obsessive-

compulsive disorder scored higher on the concern about mistakes subscale of the MPS – Frost version than nonclinical participants. However, young participants with OCD were indistinguishable from others with anxiety disorders on the basis of perfectionism. Additional research on child perfectionism and OCD is necessary before definitive conclusions can be made. Overall, the theories and research on perfectionism and OCD suggest a perfectionism component of the disorder. However, perfectionism alone is unlikely to be useful in distinguishing OCD from other anxiety disorders. Additional relevant studies are necessary before researchers can conclude that perfectionism is an important predictor of OCD.

Eating Disorders

Perfectionism has long been considered a predisposing factor for eating disorders. Some theorists conceptualize the role of perfectionism in eating disorders in terms of exceedingly high expectations for oneself and overly-idealistic standards for thinness and physical attractiveness (Garner, Olmsted, & Polivy, 1983; Garner, Olmsted, Polivy, & Garfinkel, 1984; Hewitt et al., 1995). Slade (1982) viewed perfectionism and the need to “control completely some aspect of the life situation and/or attain total success in some area” as “setting conditions” for the development of an eating disorder (p. 172). Indeed, body weight and eating habits are relatively easy to control compared to many other aspects of life and many cultures place a high level of importance on being thin.

The literature on eating disorders and perfectionism is extensive, primarily due to the development of the Eating Disorders Inventory (EDI; Garner et al., 1983). The EDI was designed to measure psychological and behavioral traits associated with anorexia nervosa

and bulimia nervosa and includes a subscale for perfectionism. However, the role of perfectionism in eating disorders remains unclear.

The extant literature on anorexia nervosa, bulimia nervosa, and perfectionism almost universally supports the contention that perfectionism is a core aspect of eating disorders. In fact, most early studies on eating disorders and perfectionism used the EDI – Perfectionism subscale. Thompson, Berg, and Shatford (1987) found that female university students who met DSM-III criteria for bulimia nervosa or who had symptoms of bulimia nervosa had significantly higher levels of perfectionism than participants with no symptoms of an eating disorder. Another study utilizing the EDI – Perfectionism subscale found that high-school females who reported more eating disorder symptoms also reported higher levels of perfectionism in addition to higher levels of impulsivity, self-criticism, body image concerns, and lower levels of family cohesion (Steiger, Leung, Puentes-Neuman, & Gottheil, 1990). In contrast to the above two studies, a third study found no significant differences between psychiatric inpatients with eating disorders and general psychiatric outpatient controls who did not have eating disorder-related problems, with respect to perfectionism (Hurley, Palmer, & Stretch, 1990). Still, most studies have found that people with eating disorders often demonstrate symptoms of perfectionism.

As more detailed measures of perfectionism such as the MPS – Frost version and the MPS – Hewitt and Flett version became available, research on eating disorders and perfectionism incorporated these measures. Recent studies have found significant relationships between eating disorder diagnoses and various aspects of perfectionism. Bastiani, Rao, Weltzin, and Kaye (1995) assessed underweight individuals with anorexia nervosa, people with anorexia nervosa who had been restored to healthy body weights,

and healthy volunteer participants using the MPS – Frost version and the MPS – Hewitt and Flett version. Females with anorexia nervosa scored significantly higher than controls on concern over mistakes, personal standards, parent criticism, and doubts about actions subscales of the MPS – Frost version and on self-oriented perfectionism and socially prescribed perfectionism scales of the MPS – Hewitt and Flett version. For the most part, these differences were true even for participants with anorexia who had been restored to a healthy weight. These results are of particular interest because they suggest that perfectionism is not simply a state-related characteristic of individuals with eating disorders.

As with other psychological disorders, perfectionism clearly plays a role in eating disorders in adults and children. Bulik and colleagues (2003) found that doubts about actions and concern over mistakes were significantly associated with diagnoses of anorexia and bulimia in adults. In other studies of eating disorders and perfectionism, researchers found self-oriented perfectionism, perfectionistic self-presentation (defined as making considerable efforts to appear perfect and without defect or weakness in front of others), and concern over mistakes to be significantly related to disordered eating in female youngsters (McVey et al., 2002; Sassaroli & Ruggiero, 2005). Additional research reveals that self-oriented perfectionism is associated with symptoms of anorexia nervosa, while socially prescribed perfectionism is related to symptoms of anorexia nervosa, symptoms of bulimia nervosa, and body image disturbance (Hewitt et al., 1995). The same study suggests that patterns of relationships between dimensions of perfectionism and various aspects of anorexia nervosa and bulimia nervosa are complex.

Future research must examine in greater detail the various associations between dimensions of perfectionism and eating disorders.

These sections have provided a review of the literature on how various personality characteristics and psychological disorders are linked to perfectionism in adults and children. The following section includes an examination of existing theories about how perfectionism develops. Gaining an understanding of how perfectionism arises is a necessary step for understanding how different dimensions of perfectionism are linked to various negative and positive characteristics and psychological disorders.

Development of Perfectionism

Theories of Development

The literature on the origins of perfectionism can be divided into four theoretical models that are referred to as the social expectations model, the social learning model, the social reaction model, and the anxious rearing model (Flett, Hewitt, Oliver, & Macdonald, 2002). Common to each model is an emphasis on family factors involved in the development of perfectionism. Some models refer to the development of normal/adaptive versus neurotic/maladaptive perfectionism, while other models address perfectionism as a single construct. Each model will be described in detail next.

Social Expectations Model. The most frequently referenced model for the development of perfectionism is the social expectations model. The theory on which this model is based is partially derived from Rogers' work on contingent self-worth (1951). From a social expectations perspective, a child learns he is able to earn the approval and love of his parents by performing at a certain, high level. However, if the child fails to do

well enough, his parents withhold their approval. Hollender (1965) believed this process begins with a child who is insecure and who struggles to obtain the acceptance of his parents. In turn, the child's parents send the message that the child is not doing well enough and is therefore not deserving of their love and approval. According to Hollender, such parents reject anything less than perfection. The child learns that if he works hard enough, if he is perfect, then his parents will love him. Hollender asserted that, eventually, the struggle for approval is internalized by the child so the demand for perfect performance is no longer solely external but also internal. From this point of view, perfectionism is motivated by "an effort to create a better self-feeling or self-image and to obtain certain responses or supplies from other people" (Hollender, 1965, p. 99).

Hamachek (1978), Pacht (1984), and Sorotzkin (1998) described similar paths of development for perfectionists. The social expectations model is based on the perfectionist's notion that his parents would love him if only he was perfect (Pacht, 1984). Hamachek (1978) described the process that leads to such a belief in terms of "conditional positive approval." Approval is only granted to a child if he meets certain conditions. According to Hamachek (1978), parents of neurotic perfectionists make significantly more frequent expressions of conditional positive approval (I love you when you do well in school) than unconditional positive approval (I love you for who you are). In this manner, a child may feel the absence of approval is tantamount to punishment. From the social expectations perspective, parents are often viewed as overly critical and demanding (Sorotzkin, 1998). The perfectionist child learns from his parents' behaviors and attitudes toward him that he should base his self-worth entirely on the quality of his performance. This predisposes the perfectionist child for failure and feelings of

inferiority because he cannot always be perfect. Furthermore, feelings of inferiority and low self-worth often associated with perfectionism are most easily ameliorated by perfectionist performance, so the cycle perpetuates.

Flett and colleagues (2002) further explained the social expectations development of perfectionism when they said “children who are not capable of meeting parental expectations will experience a chronic sense of helplessness and hopelessness as a result of their inability to meet the standards imposed on them” (p. 90). Feelings of helplessness and hopelessness are intimately connected with a perfectionist’s sense of contingent self-worth. Hewitt and Flett (1991b) incorporated the social expectations model into their measure of perfectionism in the form of the socially prescribed perfectionism subscale. Items on the socially prescribed perfectionism subscale assess the level to which an individual feels he is expected to be perfect by significant others in his life. Similarly, Frost and colleagues (1990) included measures of parental expectations and parental criticism in their version of the MPS. Studies that have employed both measures of perfectionism provide support for this theory of development in the sense that socially prescribed perfectionism, parental criticism, and parental expectations all involve important aspects of the overall construct. Furthermore, numerous anecdotal accounts from clinical researchers and therapists suggest that this model can be applied to many perfectionists (Flett et al., 2002; Hamachek, 1978; Hollender, 1965; Pacht, 1984).

Social Learning Model. The social learning model of perfectionism is based primarily on Bandura’s (1986) research on children’s tendencies to observe and model behaviors of their parents. With respect to perfectionism, a child who has one or more

perfectionist parents may observe the parents' perfectionist behaviors and model them in his own life. According to Hamachek (1978), positive modeling occurs when a child closely identifies with a perfectionist parent and "has passed on the idea that there are preferable ways for doing things . . . correct, proper, and better than average [ways of doing things]" (p. 30). In this setting, a child learns that striving to do things well leads to feelings of satisfaction. Hamachek (1978) also posited that negative modeling can occur when a child grows up feeling emotionally frustrated because he lives with a parent who is the antithesis of a perfectionist. The child reacts to his emotional frustration by striving to be completely different from that parent and by being "more precise and meticulous, neater, tidier, and usually more organized" than the parent (Hamachek, 1978, p. 30).

Numerous studies have directly and indirectly tested the social learning model. Bandura and Krupers (1964) found children exposed to an adult model who self-rewarded only when performance met high standards were more likely to reward themselves only after they met similarly high standards. Children who observed a model reward himself after low standards were met were more likely to copy this pattern of self-reward.

Following the logic of the social learning model, parents of perfectionist children should be more likely than parents of non-perfectionist children to be perfectionists themselves. Frost, Lahart, and Rosenblate (1991) assessed levels of perfectionism in children (female undergraduate students) and their parents. Unfortunately, the only measure of parent perfectionism in this study was completed by the students and not by their parents. Additionally, the "child" participants were actually adults and were all

females. So, the measure of parent perfectionism was entirely subjective and the results were not highly generalizable. Despite these flaws, Frost and colleagues (1991) found that perfectionism in mothers, but not fathers, was significantly correlated with perfectionism in daughters.

Chang (2000) conducted research with another primarily female sample and also found perfectionism in children to be significantly associated with perfectionism in parents. Vieth and Trull (1999) found self-oriented perfectionism in daughters was positively correlated with self-oriented perfectionism in mothers, self-oriented perfectionism in sons was positively correlated with self-oriented perfectionism in fathers, and socially prescribed perfectionism in daughters was significantly related to socially prescribed perfectionism in mothers. This study also implemented measures of perfectionism exclusively completed by undergraduate “children” in the sample, so measures of parent perfectionism were from each child’s perspective. A better study of the relationship between child and parent perfectionism would involve measures of perfectionism completed by all relevant individuals. Overall, the literature supports the idea that perfectionism in some individuals develops partially as a result of observing and modeling parent behaviors and attitudes.

Social Reaction Model. The social reaction model addresses the development of perfectionism in children exposed to unusually harsh situational influences such as physical abuse, psychological abuse, or chaotic home environment (Flett et al., 2002). The social reaction model suggests that children exposed to such harsh environments may become perfectionists to cope with their life situations. Flett and colleagues (2002) proposed several goals that may be involved when perfectionism develops as a social

reaction. These goals include escape from an abusive environment, minimization of further abuse, decreased exposure to shame, and control over some aspect of an overwhelmingly unpredictable situation.

Research on perfectionism and eating disordered individuals provides some level of support for the social reaction model. Zlotnick and colleagues (1996) found that people with or without eating disorders who had been sexually abused rated themselves as significantly more perfectionistic than those with no history of sexual abuse. Other researchers found that women with bulimia who had been battered reported significantly higher levels of perfectionism than women with bulimia who had not been battered (Kaner, Bulik, & Sullivan, 1993). Schaaf and McCanne (1994) compared sexually abused, physically abused, and non-abused undergraduate students and found the physically abused group to have higher levels of perfectionism than the non-abused group. This evidence supports the idea that some people develop perfectionist characteristics in response to being exposed to damaging living environments. However, the social reaction model of perfectionist development has received less research attention than other models. The extent to which the social reaction model can be applied to the development of perfectionism has not yet been determined.

Anxious Rearing Model. A fourth model of development, the anxious rearing model, involves children exposed to parents who continually worry about being perfect (Flett et al., 2002). According to the anxious rearing model, perfectionist children model their parents' overconcern with the negative consequences of making mistakes. These parents tend to be overprotective and repeatedly warn their children to be wary of making mistakes. They may regularly remind their children of the potential emotional, physical,

and evaluative threats associated with making mistakes. Essentially, a child becomes a perfectionist because he learns that, if he is perfect, he can avoid mistakes and threats associated with mistake-making.

In support of the anxious rearing model, Flett, Sherry, and Hewitt (2001) found socially prescribed perfectionists to be more likely than other participants to report being raised by anxious parents. This is the only study that assessed development of perfectionism from the perspective of the anxious rearing model. The model should be further investigated as a possible path for the development of perfectionism.

All of the perfectionism development models are linked by the common element of parent involvement. While other factors may be related to the origination of perfectionism, parents are consistently implicated as actively involved in the development of perfectionism characteristics in children. In the following section, parent characteristics as well as other risk factors for the development of perfectionism are discussed.

Risk Factors

Biological Component. Perfectionism has been associated with several psychological disorders that are partially heritable. Research also suggests that perfectionism may run in families. As a result, researchers have considered the possibility that perfectionism is partially genetically determined. To date, only one study has empirically tested this idea. Tozzi and colleagues (2004) examined perfectionism in 1022 paired and unpaired female twins. The researchers asked participants to complete items from the personal standards, doubts about actions, and concern over mistakes subscales of the MPS – Frost version. Correlations between monozygotic twins were significantly higher than correlations

between dizygotic twins (Tozzi et al., 2004). According to a univariate twin analysis, additive genetic influences were greatest for personal standards, while a significant shared environment effect was found for concern over mistakes. Overall, these results indicate that perfectionism is moderately heritable (Tozzi et al., 2004).

Family Environment. A relatively large number of studies have investigated characteristics of parents of perfectionists. Psychological control on the part of parents has been consistently associated with child perfectionism (Brookings & Wilson, 1994; Findlay & Watts, 1998; Flynn, Hewitt, Flett, & Caelian, 2001; Foy, 1998; Rice, Ashby, & Preusser, 1996; Soenens, Vansteenkiste, Luyten, Buriez, & Goossens, 2005). Soenens and colleagues (2005) found psychological control exerted by mothers and fathers to be strongly associated with maladaptive perfectionism characteristics such as being excessively concerned about mistakes and having doubts about one's own actions in females. Another study found children with controlling mothers were more likely to be socially prescribed perfectionists than peers with less controlling mothers (Kenney-Benson & Pomerantz, 2005). Socially prescribed perfectionism has also been associated with increased familial control in adult samples (Flynn et al., 2001).

Parents of perfectionists have also been described as harsher than parents of non-perfectionists (Frost, Lahart, & Rosenblate, 1991), more achievement oriented (Brookings & Wilson, 1994; Flynn et al., 2001; Head & Williamson, 1990), more rejecting, and less tolerant and affectionate with their children (Findlay & Watts, 1998; Richter, Eisemann, & Perris, 1994). Moreover, families of perfectionists are often higher in conflict (Brookings & Wilson, 1994; Flynn et al., 2001; Graber et al., 1994), lower in

cohesion (Brookings & Wilson, 1994), and more maladjusted (Rickner & Tan, 1994) than families of non-perfectionists.

These descriptions are relatively consistent with theories on the parents and families of perfectionists. Notably, most of these studies used measures of perfectionism that reflect maladaptive aspects of perfectionism. This is important to consider because the results generally described parents and families of perfectionists as having many undesirable characteristics. However, families of adaptive perfectionists may look very different from families of maladaptive perfectionists. Rice, Ashby, and Preusser (1996) suggested that the type of perfectionism that develops (normal or neurotic) may be a function of demanding and harsh parents. These researchers found that neurotic perfectionists reported higher levels of parental criticism and parent expectations than normal perfectionists. Further research on the divergent relationships between parent factors and adaptive versus maladaptive dimensions of perfectionism will facilitate an understanding of the influence of family environment factors on development of perfectionism.

Parenting Styles. Researchers have also studied the relationship between parenting styles and child perfectionism. Generally, parenting styles are classified according to Baumrind's (1971) categories of authoritarian, permissive, and authoritative.

Authoritative parenting, which involves a balance between discipline and warmth, is considered to have the most beneficial results. Authoritarian parents are often described as controlling, punitive, restrictive, and overbearing. Permissive parents, on the other hand, are generally underinvolved in their children's lives and overly lenient.

Hewitt, Flett, and Singer (1995) found socially prescribed perfectionism to be significantly correlated with maternal and paternal authoritarianism. Additionally, self-oriented perfectionism in females was associated with maternal and paternal authoritative parenting. For males, other-oriented perfectionism was negatively associated with maternal permissiveness and socially prescribed perfectionism was positively correlated with paternal permissiveness. In a related study of adolescents, Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) found authoritarian and permissive parenting styles to be negatively associated with grades while authoritative parenting style was positively related to grades. The idea that authoritarian and permissive parenting styles are associated with less positive outcomes than authoritative parenting is reinforced by research on parenting styles and perfectionism. Authoritative parents tend to have children less likely to feel their parents placed unrealistically high demands on them and more likely to have high standards for personal achievement and to attain good grades.

Additional Developmental Influences. Theories on development of perfectionism during childhood have consistently focused on the effects of parent characteristics, parenting styles, and family environment factors. Environmental factors outside the home are also likely to influence the development of perfectionism. These include peers, teachers, and school influences. Child perfectionism may also be influenced by individual characteristics such as intelligence and gender. Additionally, the effects of culture and ethnicity are likely to impact how perfectionism is manifest.

Research on perfectionism in children and their parents is definitely in need of expansion. The areas mentioned here have received little or no attention in the literature. With the development of perfectionism measures that can be effectively used with

children and the recent upsurge of interest in the subject, researchers will hopefully begin to focus more of their efforts on these important areas. In any area of psychology, the development of empirically supported tools for assessment is an integral part of the research effort. While many aspects of perfectionism remain unstudied by researchers, this is not due to a lack of assessment tools. Indeed, assessment of perfectionism has received more attention than any other perfectionism-related topic. The following section describes measures created to assess perfectionism.

Assessment of Perfectionism

The Burns Perfectionism Scale. Assessment of perfectionism essentially began with the construction of the Burns Perfectionism Scale (BPS) (Burns, 1980). Burns defined perfectionists as “those whose standards are high beyond reach or reason, people who strain compulsively and unremittingly toward impossible goals and who measure their own worth entirely in terms of productivity and accomplishment” (1980, p. 34). Burns’ conceptualization of perfectionism concentrated solely on negative aspects of the construct. This focus is reflected in questions that comprise the self-report measure. Burns’ scale was derived from the Dysfunctional Attitudes Scale (Weissman & Beck, 1978) and includes ten statements that reflect maladaptive characteristics of perfectionism. Each statement is rated on a 5-point Likert scale that reflects one’s level of agreement with the statements (+2 = I agree very much; +1 = I agree somewhat; 0 = I feel neutral about this; -1 = I disagree slightly; and -2 = I disagree strongly). Higher scores reflect a higher level of perfectionism.

Several studies have provided modest support for the test-retest reliability, construct validity, internal consistency, convergent validity, discriminant validity, and predictive validity of the BPS (Broday & Sedlacek, 1998; Flett et al., 1989; Hewitt & Dyck, 1986; Hewitt, Mittelstaedt, & Wollert, 1989). The BPS is a unidimensional measure of perfectionism and is therefore not frequently used in current studies. Recent research indicates that perfectionism is better understood as a multifaceted construct. However, the BPS is considered an important landmark in this area of study.

Eating Disorders Scale – Perfectionism Subscale. The Eating Disorders Scale (EDI) was developed to assess various symptoms and behaviors associated with eating disorders (Garner, Olmstead, & Polivy, 1983). As described previously, perfectionism may play a significant role in the development of eating disorders (Garner et al., 1983; Hewitt et al., 1995; Steiger et al., 1990; Thompson et al., 1987). Consistent with this idea, the developers of the EDI included a perfectionism subscale (EDI-P). The EDI is a 64-item self-report questionnaire that consists of 8 subscales (drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears). The perfectionism subscale of the EDI includes six positively keyed items (e.g., “Only outstanding performance is good enough in my family” and “I feel that I must do things perfectly or not do them at all”). Items are rated as never, rarely, sometimes, often, usually, or always. A score of 1 is given for each item rated as often, 2 for each item rated usually, 3 for each item rated always, and 0 for items rated never, rarely, or sometimes. The EDI is used frequently as an assessment of eating behaviors and disorders. The EDI-P has good test-retest reliability, internal consistency, and validity in that the measure can distinguish individuals with eating disorders from

those without eating disorders (Bastiani et al., 1995; Cooper et al., 1985; Garner et al., 1983; Hurley et al., 1989; Wear & Pratz, 1987). However, the EDI-P has been primarily used in research on eating disorders and has not been validated as a general measure of perfectionism in other contexts.

Setting Conditions for Anorexia Nervosa Scale and Neurotic Perfectionism Questionnaire. The Setting Conditions for Anorexia Nervosa Scale (SCANS) (Slade & Dewey, 1986) and the Neurotic Perfectionism Questionnaire (NPQ) (Mitzman, Slade, & Dewey, 1994) are eating disorder assessments that also include items regarding perfectionism. The SCANS was based on Slade's theories on eating disorders (Slade, Phil, & Dewey, 1986). Slade and colleagues (1986) suggested that perfectionism and life/personal dissatisfaction are "setting conditions" that can lead to the need to completely control some aspect of life, often one's own body. According to this theory, the need to completely control one's own body results in the development of an eating disorder (Slade, Phil, & Dewey, 1986). The SCANS is a 40-item scale that assesses dissatisfaction, perfectionism, social/personal anxiety, adolescent problems, and need for control. These five constructs were hypothesized by the authors to be related to eating disorders and their development. Perfectionism and dissatisfaction are considered to be of primary importance. The SCANS Perfectionism subscale (SCANS-P) includes 8 items on a 5-point Likert scale. The psychometric properties of the SCANS-P have not been studied extensively. Several studies indicate that the SCANS-P can distinguish individuals with eating disorders from controls (Slade, Dewey, Kiemle, & Newton, 1990; Slade, Phil, & Dewey, 1986). However, the same studies indicate that the SCANS-P does not have high internal consistency. Normative data available for the SCANS-P are

also limited. Further study of the psychometric properties of the SCANS-P is warranted before the measure can be considered reliable and valid.

The NPQ was developed specifically to assess the “attitudes and experiences associated with various aspects of neurotic perfectionism thought to be linked specifically to eating disorders” (Mitzman et al., 1994, p. 517). A self-report measure, the NPQ comprises 42 items rated on a 5-point Likert scale from strongly disagree to strongly agree. NPQ items include: “I am ‘oversensitive’ to criticism,” “I try to avoid the disapproval of others at all times,” “I believe if I fail someone they will cease to respect me, or care for me,” and “I am harshly critical of myself” (Mitzman et al., 1994). Preliminary evidence suggests that the NPQ discriminates young adult controls and people with eating disorders (Davis, 1997; Mitelman et al., 1994). However, further study is necessary to establish the reliability and validity of the NPQ.

Multidimensional Perfectionism Scales. In the early 1990s, an important shift in thinking occurred with respect to perfectionism and its measurement. Several researchers concluded that perfectionism was best construed as a multidimensional rather than a unidimensional and wholly maladaptive construct. Two sets of researchers developed measures of perfectionism entitled the Multidimensional Perfectionism Scale. Because the development of both MPS scales has been described earlier in the paper, a cursory review of each measure is given here.

Frost and colleagues (1990) identified several aspects of perfectionism they considered the most important dimensions of the construct. These aspects included concern over one’s own mistakes in performance, exceedingly high personal standards, the perception of high parental expectations, the perception of high criticism from

parents, doubting the quality of one's own actions, and an emphasis on order and organization (Enns & Cox, 2002; Frost et al., 1990). The MPS – Frost version includes 35 statements that relate to these aspects. Respondents rate their level of agreement with each statement on a 5-point Likert scale. A score is obtained for each subscale (concern over mistakes, organization, parental criticism, parental expectations, personal standards, and doubts about actions) and a total perfectionism score is obtained by adding subscale scores (with the exception of the organization subscale, which has the weakest correlations with other subscales).

The psychometric properties of the MPS – Frost version have been studied extensively. The measure has good reliability, construct validity, concurrent validity, and discriminant validity (Clavin et al., 1996; Frost et al., 1990; Frost et al., 1991; Frost et al., 1993; Parker & Adkins, 1995; Parker & Stumpf, 1995). Furthermore, the MPS – Frost version has been used to measure perfectionism in individuals with various psychological disorders and has helped advance research on the role of perfectionism in various psychopathologies (DiBartolo & Barlow, 1996; Frost & DiBartolo, 2002; Frost & Steketee, 1997; Lundh & Ost, 1996).

The MPS – Hewitt and Flett version was developed in response to the authors' observation that preceding measures of perfectionism focused solely on self-directed cognitions and behaviors. Hewitt and Flett (1991b) believed that perfectionism is an interpersonal construct consisting of three dimensions (Enns & Cox, 2002; Hewitt & Flett, 1990; Hewitt & Flett, 2002). The first dimension, self-oriented perfectionism, is similar to previous descriptions of perfectionism and involves setting overly high standards for oneself. The second dimension, socially prescribed perfectionism, exists

when an individual believes significant others have unrealistically high expectations for him. The third perfectionism dimension, other-oriented perfectionism, involves having perfectionist expectations for others.

The MPS – Hewitt and Flett version is a 45-item measure such that 15 statements reflect each aspect of perfectionism. Participants rate their level of agreement with each item on a 7-point scale. MPS – Hewitt and Flett version items include: “I must always be successful at school or work,” “The people around me expect me to succeed at everything I do,” and “I do not have very high standards for those around me.” The MPS – Hewitt and Flett version is reliable, has good construct and discriminant validity, and can be used to predict various psychological disorders (Bastiani et al., 1994; Ferrari & Mautz, 1997; Hewitt et al., 1991; Hewitt et al., 1992; Hewitt et al., 1995; Hewitt et al., 1996; Hewitt & Flett 1991a, 1991b; Preusser, Rice, & Ashby, 1994).

Child-Adolescent Perfectionism Scale. The Child-Adolescent Perfectionism Scale (CAPS) is an adaptation of the MPS – Hewitt and Flett version that can be used with children aged 9-17 years (Flett et al., 1997). The CAPS is a 22-item measure that assesses self-oriented perfectionism and socially prescribed perfectionism. Children completing the CAPS are asked to rate how true each statement is for them on a scale of 1 (“false – not at all true of me”) to 5 (“very true of me”). The CAPS requires that raters read at a third grade level or better. Items include “I try to be perfect in everything I do,” “I always try for the top score on a test,” “My family expects me to be perfect,” and “I am always expected to do better than others.” Though the CAPS has only been used in a handful of studies, the scale’s psychometric properties appear to be acceptable (Donaldson et al., 2000; Enns et al., 2003; Flett et al., 1997; Hewitt et al., 1997; Hewitt et

al., 2002; McVey et al., 2002). Specifically, the authors found the self-oriented and socially prescribed perfectionism subscales to be internally consistent (alpha coefficients = .85 and .81 respectively) (Flett et al., 1997). Flett and colleagues (1997) also found the CAPS to have good concurrent and discriminant validity, adequate test-retest reliability ($r = .74$ for self-oriented and $r = .66$ for socially-prescribed perfectionism), and good construct validity.

Perfectionism Cognitions Inventory and Perfectionistic Self-Presentation Scale.

Hewitt and Flett have also worked with colleagues to develop two additional measures. The first, a measure of automatic thoughts associated with perfectionism, is called the Perfectionism Cognitions Inventory (PCI; Flett et al., 1998). The second measure assesses interpersonal expressions of perfectionism and is called the Perfectionistic Self-Presentation Scale (PSPS; Hewitt, Flett, Sherry et al., 2003). The PCI measures the frequency of automatic, perfectionism-related cognitions. Flett and colleagues (1998) developed the PCI because they believed that frequency of perfectionistic cognitions was related to symptoms of psychological distress. According to the developers of the PCI, items directly refer to a person's desire to be perfect (e.g., I should be perfect) and desire and striving to become more perfect (e.g., I can always do better, even if things are almost perfect) (Flett et al., 1998). Additionally, PCI items assess an individual's tendency to evaluate oneself in comparison to others (e.g., I have to be the best) and awareness of one's own imperfections (e.g., Why can't I be perfect?) (Flett et al., 1998). Individuals who complete the PCI are asked to indicate how often 25 different thoughts occurred to them over the past week. Ratings are made on a 5-point scale from not at all (0) to all of the time (4). A higher composite score indicates that an individual has

experienced a frequent number of perfectionistic cognitions over the past week. Flett and colleagues (1998) conducted five studies using the PCI and consistently found the inventory to be a reliable and valid measure of individual differences regarding perfectionism-related cognitions. Furthermore, higher levels of perfectionistic cognitions were reported by inpatient participants than nonclinical controls.

The PSPS was developed in response to the hypothesis that perfectionists may attempt to hide what they perceive as their own shortcomings (Flett & Hewitt, 2002). According to Hewitt, Flett, Sherry, and colleagues (2003), perfectionistic self-presentation involves perfectionistic self-promotion (letting others know how perfect one is), nondisplay of imperfection (concealing any indication that one might be less than perfect), and nondisclosure of imperfection (avoiding admitting one's imperfections to others). The creators of the PSPS suggested that, even among highly perfectionistic individuals, measurable and salient differences exist with respect to how perfectionists portray themselves. For example, two self-oriented perfectionists may be similar in many ways, such as having high expectations for themselves and being motivated to do their best, but still differ in how they appear to others. One self-oriented perfectionist may be relatively unconcerned with how others perceive him and only be concerned with the satisfaction derived from excelling, whereas another perfectionist may feel compelled to be certain that others know exactly how well he does in school and to hide any indications he is less than perfect. Hewitt, Flett, Sherry, and colleagues (2003) believe that, in being able to measure perfectionistic self-presentation, researchers can distinguish perfectionists on an additional set of intrapersonal variables.

The PSPS is comprised of 27 items. Ten items comprise the perfectionistic self-promotion subscale (e.g., I strive to look perfect to others), 10 items comprise the nondisplay of imperfection subscale (e.g., I hate to make errors in public), and 7 items comprise the nondisclosure of imperfection subscale (e.g., I should always keep my problems to myself) (Hewitt, Flett, Sherry et al., 2003). The PSPS has not been subjected to adequate scrutiny for any definitive conclusions to be made regarding the quality of its psychometric properties. However, the authors conducted several studies using the PSPS to indicate that the scale can discriminate the three hypothesized facets of perfectionism self-presentation (Hewitt, Flett, Sherry et al., 2003). Also, the PSPS can reliably discriminate individuals who have many perfectionism-related cognitions from those who do not. Furthermore, Hewitt, Flett, Shelly, and colleagues (2003) found the PSPS to have good test-retest reliability, construct validity, discriminant validity, predictive validity, and internal consistency.

As relatively new measures, the PCI and PSPS have not been frequently used. However, the PCI and PSPS show promise as measures of new perfectionism dimensions that may further our understanding of maladaptive and adaptive perfectionism. Moreover, information gleaned from studies utilizing the PCI and PSPS may be useful for developing interventions aimed at changing negative aspects of perfectionism.

Positive and Negative Perfectionism Scale. Terry-Short and colleagues (1995) theorized that, while socially prescribed perfectionism and self-oriented perfectionism were important constructs, the differences between positive and negative perfectionism superseded differences among the dimensions of perfectionism. Terry-Short and colleagues conceptualized positive and negative perfectionism with respect to their

underlying behaviors. According to these researchers, positive perfectionism primarily involves approach behaviors such as pursuit of excellence, success, and perfectionism. Negative perfectionism, on the other hand, generally involves escape behaviors such as avoiding failure, imperfection, and mediocrity.

Based on their perfectionism theories, Terry-Short and colleagues (1995) developed the Positive and Negative Perfectionism Scale (PANPS). The PANPS comprises 40 items. Ten PANPS items reflect positive perfectionism related to positive reinforcement, 10 items reflect negative perfectionism related to negative reinforcement, 10 items reflect personal perfectionism (e.g., setting goals for oneself), and 10 items reflect socially prescribed perfectionism (e.g., perception of overly high standards being set for oneself by others) (Terry-Short et al., 1995). For each item, participants rate their level of agreement on a scale of 1 (strongly disagree) to 5 (strongly agree).

When the PANPS was used in research with athletes, individuals with eating disorders, and depressed participants, significant differences were found among the clinical groups and between each clinical group and controls (Slade & Owens, 1998; Terry-Short et al., 1995). Athletes demonstrated high positive perfectionism, people with eating disorders demonstrated high positive and negative perfectionism, people with depression demonstrated high negative perfectionism, and controls were comparatively low on positive and negative perfectionism. Individuals experiencing different types of distress and/or success in their lives may present with varying experiences of perfectionism. Some individuals may be primarily motivated by a drive to pursue excellence, others by a need to avoid failure, and still others by a combination.

Because the development of the PANPS was based on reinforcement theory, the measure has the potential to be a particularly interesting addition to perfectionism assessment. Perhaps the measure could be used in research on perfectionism and its presence in individuals with various psychological disorders. The division between positive and negative perfectionism may be especially useful if it can help differentiate maladaptive from adaptive perfectionists. However, if the primary categories of the measure are not differentially related to healthy, adaptive individuals and individuals with symptoms of psychopathology, then the measure may not be particularly meaningful. Unfortunately, studies using the measure are almost nonexistent, so the psychometric properties of the PANPS have not been measured.

Almost Perfect Scales. The Almost Perfect Scale (APS) (Slaney & Johnson, 1992) and Almost Perfect Scale – Revised (APS-R) (Slaney, Rice, Mobley, Trippi, & Ashby, 2001) were developed by researchers who felt that previous multidimensional measures of perfectionism were based on the belief that perfectionism is essentially a maladaptive construct. Slaney and Johnson (1992), and later Slaney and other colleagues (2001), developed a measure of perfectionism that reflected positive and negative aspects of perfectionism. The initial version of the APS consisted of 32 items along four factors: standards and order, relationships, procrastination, and anxiety (Enns & Cox, 2002; Slaney & Johnson, 1992). Despite the authors' efforts to include positive and negative aspects of perfectionism in their scale, the items reflected mostly negative dimensions. Additionally, the APS has been criticized for including items that lack face validity (Enns & Cox, 2002). Preliminary evaluations of the APS suggest that the measure has good internal consistency, is reliable, and has adequate concurrent validity (Ashby, Mangine,

& Slaney, 1995; Johnson & Slaney, 1996; Slaney, Ashby, & Trippi, 1995). With respect to discriminant validity, researchers have found differing results (Ashby et al., 1995; Johnson & Slaney, 1996). In some cases when the APS was used to compare perfectionists and nonperfectionists, the groups did not differ as expected on all of the APS factors. Additionally, the APS factors did not, in some cases, distinguish problematic from non-problematic perfectionism (Enns & Cox, 2002; Johnson & Slaney, 1996).

The APS-R (Slaney et al., 1995) was developed in response to criticisms about face validity and structure. The APS-R retained items from the order and standards scale but separated them into two scales. Examples of items from the order and standards scales of the APS-R include: “I like to always be organized and disciplined” and “I expect the best from myself,” respectively. After reviewing the available literature on perfectionism, particularly maladaptive perfectionism, Slaney and colleagues (2001) included a third subscale entitled the discrepancy scale. The discrepancy scale measures perceived differences between desired levels of achievement and actual performance. Items on the discrepancy scale include: “I often feel frustrated because I can’t meet my goals” and “My performance rarely measures up to my standards.”

To assess construct validity, the APS-R was compared to the MPS – Hewitt and Flett version, the MPS – Frost version and several other measures of perfectionism (Slaney et al., 2001). Slaney and associates (2001) found patterns of correlations among the various measures that suggest the APS-R has good construct validity. At least one study successfully implemented the APS-R with a group of middle school students, indicating that the APS-R may be appropriate for use with youth (Gilman & Ashby, 2003). Because

the APS-R is a new measure, much additional research with the measure must be completed before the APS-R can be established as an empirically sound measure. However, the revised version of the scale does appear to be a better measure of perfectionism than the original version.

Adaptive/Maladaptive Perfectionism Scale. Rice and Preusser (2002) developed the Adaptive/Maladaptive Perfectionism Scale (AMPS) to assess adaptive and maladaptive aspects of perfectionism in children. The AMPS includes 27 items that load on four subscales: sensitivity to mistakes (e.g., When I make a mistake, I feel so bad I want to hide), contingent self-esteem (e.g., I feel super when I do something well), compulsiveness (e.g., I cannot relax until I have done all of my work), and need for admiration (e.g., I like to be praised for my work because then others will want to be like me). Rice and Preusser (2002) suggested that, in addition to making research on perfectionism in children more feasible, the AMPS might aid the process of acquiring a better understanding of the development of perfectionism, help researchers determine whether perfectionism in children mirrors perfectionism in adults, and assist psychoeducational and intervention efforts related to the maladaptive aspects of perfectionism in children. An extensive study of the psychometric properties of the AMPS has not yet been completed.

Perfectionism Inventory. The Perfectionism Inventory (PI) was developed by Hill and colleagues (2004). The PI is a conglomeration of scales from the MPS – Hewitt and Flett version and the MPS – Frost version. Hill and colleagues (2004) stated that both versions of the MPS contain subscales that are essential parts of a thorough measure of perfectionism. However, according to Hill and colleagues, some of the subscales of the

MPS – Hewitt and Flett version and MPS – Frost version are redundant when both measures are administered. As a result, Hill and colleagues (2004) developed a measure of perfectionism (PI) that includes seven subscales. The first PI subscale, striving for excellence, incorporates items from the Burns Perfectionism Scale, the personal standards subscale of the MPS – Frost version, and the self-oriented perfectionism scale from the MPS – Hewitt and Flett version. The second subscale, concern over mistakes, is the same as the MPS – Frost version CM subscale. A third subscale, high standards for others, is the same as the other-oriented perfectionism subscale from the MPS – Hewitt and Flett version. The fourth subscale is need for approval and includes items from the doubts about actions subscale of the MPS – Frost version and the socially prescribed perfectionism scale of the MPS – Hewitt and Flett version. The fifth PI subscale, organization, is the same as the organization subscale of the MPS – Frost version. The sixth PI subscale, perceived parental pressure, includes items from the parental criticism and parental expectations subscales of the MPS – Frost version. The seventh subscale, rumination, is included because the authors wanted to include this specific characteristic of obsessive-compulsive disorder in their measure of perfectionism (Hill et al., 2004).

Though the PI is quite new, the authors conducted several studies that support a description of the measure as an internally consistent measure of perfectionism with good test-retest reliability and construct validity (Hill et al., 2004). Additional studies using the PI are warranted so a more reliable description of the measure's psychometric properties can be obtained.

Much of the research on perfectionism has involved the development of various measures to assess the construct. Currently, various measures are available for assessing

perfectionism in adults. While only two measures of perfectionism have been developed specifically for children, the fact that those two measures exist at all is representative of the fact that research on perfectionism is rapidly expanding. The existing literature contains divergent opinions on how to best measure the construct of perfectionism. Some measures focus on differentiating adaptive and maladaptive aspects of perfectionism, whereas others have concentrated on the source and direction of perfectionist behaviors and cognitions. Currently, the literature supports a multidimensional conceptualization of perfectionism. However, a consensus definition of perfectionism has not yet been reached. One of the aims of the current study is to provide additional information regarding perfectionism as the construct is assessed in children. This and other objectives of the current research endeavor are described in detail next.

The Current Study

Purpose

Although the vast majority of the perfectionism literature addresses adults, researchers have begun recently to focus more on children. However, research in this area remains at an early stage. Gaining a better understanding of perfectionism in children is important several reasons. Extant literature indicates that perfectionism exists from childhood onward. Though no longitudinal studies have yet been completed, theory and retrospective accounts of perfectionists indicate that perfectionist behaviors and cognitions begin early in life. Because perfectionism seems to develop during childhood, the study of perfectionism in children is particularly important so more can be learned about the incipience of the construct.

Related to the idea that perfectionism develops during youth is the notion that family environment and genetics may have a large impact on the development of perfectionism. As discussed earlier, most theories on the origins and development of perfectionism indicate that parents are particularly involved. Specifically, parents who are perfectionists may contribute to the development of perfectionism in their children through modeling, having perfectionist expectations for their children, or even genetically. If any of these possibilities are true, then perfectionist parents should be more likely than non-perfectionist parents to have children who are perfectionist. As a result, research on perfectionism must involve learning more about perfectionist children and their parents.

Many studies have consistently demonstrated links between perfectionism and psychological disorders such as depression and suicidality, obsessive-compulsive disorder, social phobia, anorexia nervosa, and bulimia nervosa. Such psychological disorders are also more likely to be manifest in individuals with a family history of psychopathology. A person who has several family members with depression is more likely to have depression than a person who has no family history of depression. Given the links between several psychological disorders and perfectionism, as well as the connection between perfectionism in parents and children, perhaps parents who have symptoms of certain psychological disorders are more likely to have children who are perfectionistic. In addition, based on existing research, perfectionist children and parents can be expected to report more symptoms of psychological disorders and general distress than non-perfectionist individuals. This relationship between psychopathology and perfectionism may be stronger in individuals who believe they must meet perfectionist

expectations others have for them. The current study sought to develop a greater understanding of the connections between psychopathology and perfectionism in parents and children.

One additional area that deserves research attention is how perfectionism manifests itself in different cultures and among individuals with diverse ethnic backgrounds. Because research on this subject is nonexistent, specific, well-supported predictions about how perfectionism differs as a function of an individual's cultural background cannot be made. Cultures that emphasize individualism, competition, and personal achievement may have more self-oriented perfectionists. In contrast, collectivist cultures may have fewer perfectionists or a higher proportion of other-oriented and socially prescribed perfectionists due to the cultural emphasis on contributing to society as a whole. However, such observations are strictly speculative.

The present study sought to address some of these issues by examining perfectionism in children and parents, as well as symptoms of psychological disorders in children and parents. Specifically, perfectionism was measured in children and each of their parents. Symptoms of psychopathology were also measured in children and their parents via scales designed for this purpose. Furthermore, the study looked at differences in perfectionism associated with gender and ethnicity. Children demonstrating different levels of socially prescribed and self-oriented perfectionism were compared to parents who demonstrated different levels of socially prescribed, self-oriented, other-oriented perfectionism to examine significant relationships among these groups. Additionally, children and parents who ranged in their levels of demonstrated perfectionism were compared on measures of psychopathological symptomatology. Finally, the sample was

assessed for differences between gender groups and ethnic groups with respect to levels of each type of perfectionism.

Hypotheses

The first hypothesis of the study was that parents who reported high levels of perfectionism (self-oriented, socially prescribed, or other-oriented) would be more likely to have children who also reported high levels of perfectionism (self-oriented or socially prescribed). This hypothesis was based on existing theory that suggests perfectionism may be learned and that higher levels of perfectionism are found in children of perfectionist parents (Chang, 2000; Flett et al., 2002; Frost et al., 1991; Hamachek, 1978; Vieth & Trull, 1999). The current study evaluated children and parents using measures of self-oriented perfectionism and socially prescribed perfectionism. Other-oriented perfectionism was also assessed in parents.

The second hypothesis was that parents who reported high levels of depression, obsessive-compulsive symptoms, and anxiety would be more likely to have perfectionist children than parents who did not report symptoms of these disorders. The literature has consistently indicated that perfectionism is related to psychological disorders. However, the relationship between various disorders in parents and perfectionism in children has not yet been studied. Because perfectionism is significantly associated with depression, obsessive-compulsive disorder, anxiety, and eating disorders, parents with some of these disorders may be more likely to have children who are perfectionists. Parents who indicated high global levels of distress were also expected to be more likely to have perfectionist children.

The third hypothesis was that parent and child perfectionists would report more symptoms of depression, anxiety, obsessive-compulsiveness, internalizing problems, and higher global levels of distress compared to non-perfectionists. Parents and children who demonstrated high levels of perfectionism were expected to demonstrate high levels of psychopathology. The positive relationship between perfectionism and psychopathology was also expected to be significantly stronger for socially prescribed perfectionists than for non-perfectionists and self-oriented perfectionists.

Finally, the study examined gender and ethnicity regarding levels of perfectionism. Because the literature on these areas is sparse, specific predictions are difficult to make. However, existing literature does not seem to indicate large gender differences with respect to perfectionism, so males and females were expected to report relatively equal levels of self-oriented, socially prescribed, and (in the case of adults) other-oriented perfectionism. With respect to ethnicity, significant differences between ethnic groups were also not expected.

CHAPTER 3

METHODOLOGY

Participants

Child and parent participants in the current study were recruited through private schools, religious facilities, after-school activity groups, and community centers in southern Nevada. Potential participants received information regarding the study through flyers posted in these facilities and via word of mouth. Eligible study participants included children aged 11-17 years and their parents, all of whom spoke English as their first language. Families that chose to participate in the current study were given the option of entering into a drawing for four prizes of \$50 each.

Participants in the study included 97 children and their parents (249 parents and children total). Of the participating families, 3.1% reported an annual income of less than \$20,000, 11.3% reported an annual income of between \$20,000 and \$40,000, 15.5% reported an annual income of between \$40,000 and \$60,000, 11.3% reported an annual income of between \$60,000 and \$80,000, 28.9% reported an annual income of between \$80,000 and \$100,000, and 24.7% reported an annual income of greater than \$100,000. Five families (5.2%) chose not to report their annual income. In descending order of frequency, participants were European American ($n = 189$; 75.9%), Hispanic American ($n = 23$; 9.2 %), Asian American ($n = 15$; 6.0%), Multiracial ($n = 10$; 4.0%), African American ($n = 8$; 3.2 %), and Other ($n = 4$; 1.6%). Child participants were 11-17 years of

age ($M = 14.27$, $SD = 1.99$) and included 53 females (54.6%) and 44 males (45.4%). In total, 89 mothers and 63 fathers were included in the sample. Fifty-six (57.7%) of the families in the study included two parents and 38 (39.2%) were single-parent families. In three cases (3.1%), one of the parents was unavailable or unwilling to participate in the study. Five families (5.2%) included data from a stepparent and seven families (7.2%) included data from adoptive parents. In each case where one or more participating parents was not biologically related to the child participants, the non-biologically related parents had been living with their respective children for greater than 50 percent of the children's lives. Nineteen families (19.6%) had two children who were eligible and participated in the current study.

Parent Measures

Demographic and Background Assessment. Demographic and background information was obtained through a questionnaire completed by parents (see Appendix I). Requested information included ethnicity of each family member, parental occupation, parental education level, number of siblings in family, gender of each child, and age of each child. The questionnaire also covered whether each child was the biological child, adopted child, or stepchild of each parent.

Multidimensional Perfectionism Scale – Hewitt and Flett version. (MPS – Hewitt & Flett version; 1991). The MPS – Hewitt and Flett version is a self-report measure that assesses three core dimensions of perfectionism: self-oriented perfectionism (requiring oneself to be perfect), other-oriented perfectionism (requiring others to be perfect), and socially prescribed perfectionism (feeling that others expect one to be perfect). The MPS

– Hewitt and Flett version is a 45-item scale with 15-item self-oriented, other-oriented, and socially prescribed perfectionism subscales. Examples of these items include: “One of my goals is to be perfect in everything that I do” (self-oriented perfectionism), “I have high expectations for the people who are important to me” (other-oriented perfectionism), and “My family expects me to be perfect” (socially prescribed perfectionism).

Participants are asked to rate their level of agreement with each item on a 7-point scale.

While some items are reverse-keyed, the subscales are designed so higher scores indicate higher levels of perfectionism. A separate score is produced for each core dimension of perfectionism.

The MPS – Hewitt and Flett version subscales are internally consistent (coefficient alphas were .89 for self-oriented perfectionism, .79 for other-oriented perfectionism, and .86 for socially prescribed perfectionism in a sample of 1,106 university students) and have good test-retest reliability (three-month r values among 34 subjects were .88 for self-oriented perfectionism, .85 for other-oriented perfectionism, and .75 for socially prescribed perfectionism) (Hewitt & Flett, 1991). Research supports the three-factor structure of the MPS – Hewitt and Flett version with nonpatient and psychiatric patient groups. Self-ratings of the dimensions of perfectionism have been significantly correlated with observer ratings of those dimensions (Hewitt & Flett, 1991).

Furthermore, self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism correlate significantly with other measures of the constructs theorized to comprise those perfectionism dimensions (Hewitt & Flett, 1991). Self-oriented perfectionism is significantly correlated with measures of high self-standards, self-criticism, self-importance of performance, self-importance of goals, and all of the

Symptom Checklist-90-Revised (SCL-90-R) subscales (Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism). Other-oriented perfectionism is significantly correlated with other-blame, and socially prescribed perfectionism is highly correlated with measures of self-criticism, overgeneralization, self-blame, other-blame, fear of negative evaluation, approval of others, social importance goals, and all of the SCL-90-R subscales (Hewitt & Flett, 1991).

Symptom Checklist-90-Revised. (SCL-90-R) (Derogatis, 1994). The SCL-90-R is a self-report tool frequently used to assess nine major symptoms of psychopathology and current severity of those symptoms. The SCL-90-R can be administered to persons aged 13 years or older at a sixth grade reading level or better. The assessment comprises 90 items and generally takes 12-15 minutes to complete. Items are rated by the participant by severity (0 = not at all to 4 = extremely). The SCL-90-R has nine primary symptom dimension scales (Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism) and three global indices (Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and Positive Symptom Total (PST)). The primary symptom dimensions provide specific information regarding the nature of symptoms experienced by the participant. The GSI, which is a combined rating of the number of reported symptoms and the intensity of those symptoms, provides an overall measure of psychological distress. The PSDI is a measure of symptom intensity and the PST provides a number of symptoms reported by the participant. Scores on the SCL-90-R can be compared to one of four

normative groups: psychiatric outpatients, nonpatients, psychiatric inpatients, or nonpatient adolescents. The adolescent norms involved youths aged 13-17 years.

The SCL-90-R is a reliable and a valid measure (Derogatis, 1994; Derogatis & Savitz, 1999; Schmitz, Kruse, Heckrath, Alberti, & Tress, 1999). Internal consistency for the nine symptom dimensions ranges from .79 to .90 for psychiatric outpatients and .77 to .90 for “symptomatic volunteers” (Derogatis, 1994). Over a one-week interval, test-retest reliability ranged from .78 to .90, with most coefficients in the .80s (Derogatis & Savitz, 1999). Many studies have investigated the validity of the SCL-90-R. The SCL-90-R has been found to converge with the Minnesota Multiphasic Personality Inventory and the General Health Questionnaire on expected dimensions (Derogatis, 1994; Schmitz, et al., 1999). The literature supports the use of the SCL-90-R as a reliable and a valid measure of psychological distress.

Child Measures

Child and Adolescent Perfectionism Scale (CAPS) (Flett, Hewitt, Boucher, Davidson, & Munro, 1997). The CAPS is a 22-item self-report measure that assesses self-oriented perfectionism and socially prescribed perfectionism in children and adolescents.

Analysis of the CAPS indicates that participants completing the measure should have a third grade reading level or better. Items on the CAPS are rated on a 1-5 scale of “false,” “mostly false,” “neither true nor false,” “mostly true,” or “very true.” Twelve items reflect self-oriented perfectionism (e.g., “I want to be the best at everything I do”) and 10 items reflect socially prescribed perfectionism (e.g., “There are people in my life who expect me to be perfect”). The CAPS has been used with children aged 11-18 years in

psychiatric and nonpsychiatric populations (Donaldson et al., 2000; Enns et al., 2003; Hewitt et al., 1997; Hewitt et al., 2002; McVey et al., 2002). The available literature supports the use of the CAPS as a reliable and a valid measure of self-oriented and socially prescribed perfectionism in children. Internal consistency for the two factors, self-oriented and socially prescribed, is acceptable (.85 and .81 respectively) (Flett, et al., 1997). Test-retest reliability for a sample of adolescents who completed the CAPS on two occasions, separated by a period of five weeks, was .74 for self-oriented perfectionism and .66 for socially prescribed perfectionism (Flett et al., 1997).

Youth Self-Report. (YSR) (Achenbach & Rescorla, 2001). The YSR is a self-report measure derived from the Child Behavior Checklist/6-18 (CBCL/6-18) and designed for children aged 11-18 years. The YSR can be completed by appropriately aged youths who have fifth grade reading skills or better. Alternately, the YSR can be administered orally. The YSR has two subsections. The first subsection is comprised of 20 competence items that address child involvement in sports, hobbies, organizations, chores, friendships, and academics. The second subsection includes 112 items that measure eight syndrome scales: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior (Achenbach & Rescorla, 2001). Anxious/depressed, withdrawn/depressed, and somatic complaints are referred to as “internalizing.” Rule-breaking behavior and aggressive behavior are referred to as “externalizing.” The remaining subscales are classified as “mixed factors.” Each of the 112 items is rated as 0 = “not true,” 1 = “somewhat or sometimes true,” or 2 = “very true or often true” by the adolescent completing the YSR. A total problem score reflecting overall behavioral and emotional functioning is derived

from all responses in the syndrome scale section of the YSR. Additionally, DSM-IV related scores can be derived from this version of the YSR. Scores for the YSR are based on 1,057 nonclinical and 2,581 high-scoring youths.

Procedure

Administrators for private schools, religious facilities, after-school activity groups, and community centers in southern Nevada were contacted and informed of the nature and purpose of the current study. Permission to post flyers advertising the study was obtained. The flyer informed families that a doctoral student at UNLV was conducting research to gain a better understanding of certain personality and behavioral characteristics in children and their parents. Participants were also recruited via referral from previous participants. Families that were interested in participating in the study were asked to contact the primary investigator directly. If families choose to participate, they were given the option of completing the assessments at their own residence or in the Psychology Department at UNLV. All families participating in the study were eligible to win one of four prizes of \$50 each.

Parents and children involved in the study were provided with details of the study via oral explanation and a written consent form. Informed consent was obtained from parent and child participants. Parents and children were requested to refrain from talking to one another during completion of the assessments to ensure that responses were not unduly influenced by outside sources. Parents were asked to complete a demographic survey (one per family) and each parent was asked to complete the MPS and the SCL-90-R. Meanwhile, a research team member explained instructions for the CAPS and YSR to the

child. After ensuring that the child understood what he or she needed to do, the child was asked to complete the assessments. The research team member was available for questions as family members completed their respective assessments. Additionally, participants were provided with contact information for the primary investigator in the event they had questions about the study. All written materials were coded to protect the confidentiality of participants. Participation in the study took approximately 45 minutes per family.

CHAPTER 4

DATA ANALYSES

Hypothesis One

Regarding hypothesis one, that high levels of self-oriented, socially prescribed, and other-oriented perfectionism in parents would be associated with high levels of self-oriented or socially prescribed perfectionism in children, Pearson correlational analyses were conducted. Specifically, correlations were derived for (1) parent self-oriented, socially prescribed, and other-oriented perfectionism and (2) child self-oriented and socially prescribed perfectionism. Means and standard deviations for all perfectionism measures are in Table 2. Analysis of the combined data revealed no significant correlational relationships. However, when correlational analyses were conducted separately for male ($N = 44$) and female ($N = 53$) children, a significant positive correlation was found between (1) mothers' self-oriented perfectionism and (2) sons' self-oriented perfectionism ($r = .32, p = .04$). No significant correlational relationships were found between (1) fathers' self-oriented, socially prescribed, or other-oriented perfectionism scores and (2) self-oriented or socially prescribed perfectionism scores of sons or daughters. No significant correlational relationships were found between mothers' self-oriented, socially prescribed, and other-oriented perfectionism scores, and daughters' self-oriented or socially prescribed perfectionism scores. Tables 3 and 4

reveal the Pearson correlation coefficients for the parent-child construct associations, separated by child gender.

To further examine the significant relationship between perfectionism in mothers and their sons, hierarchical multiple regression analysis was conducted. Hierarchical multiple regression analysis allows the researcher to test a prediction model with multiple continuous independent variables and a single continuous dependent variable. Analysis of variance (ANOVA) is used to test the statistical significance of the overall model and the statistic R Square is derived and describes the proportion of variance in the dependent variable explained by all independent variables in the model. Hierarchical multiple regression analysis also facilitates comparison of the importance of independent variables in terms of their contributions to the predictive ability of the model. With this particular method of statistical analysis, the researcher enters independent variables into the model in a particular order. With the addition of each subsequent independent variable, the researcher can determine whether additional independent variables contribute significantly to the predictive ability of the overall model. The variance explained by the addition of each independent variable is represented by R Square Change. The significance of R Square Change is measured by an F-test such that, if a variable explains a statistically significant additional proportion of variance in the dependent variable, the F-test is significant at the .05 level. Finally, hierarchical multiple regression analysis allows one to determine which independent variables in the model make statistically significant unique contributions to the prediction of the dependent variable, above and beyond combined effects of the other independent variables. This determination is

possible via analysis of the statistical significance of Beta weights (β) derived for each independent variable.

Hierarchical multiple regression analysis was conducted to examine a model in which maternal self-oriented, socially prescribed, and other-oriented perfectionism were entered in that order as independent variables and sons' self-oriented perfectionism was entered as the dependent variable. A significant amount of variance in sons' self-oriented perfectionism was explained by the independent variables, resulting in a statistically significant model ($R^2 = .22$; $F(3, 38) = 3.27$, $p = .03$). Maternal self-oriented perfectionism explained 10.6% of the variance in sons' self-oriented perfectionism score ($p = .04$) and maternal socially prescribed perfectionism explained an additional 11.1% of the variance in sons' self-oriented perfectionism ($p = .03$) above the variance explained by maternal self-oriented perfectionism. Maternal self-oriented perfectionism ($\beta = .49$, $p = .02$) and maternal socially prescribed perfectionism ($\beta = -.40$, $p = .04$) made statistically significant unique contributions to the ability of the model to predict self-oriented perfectionism in sons, beyond the predictive ability of other independent variables in the model. The addition of maternal other-oriented perfectionism to the model did not explain a significant amount of additional variance in sons' self-oriented perfectionism ($R^2 \text{ Change} = .002$, $p = .79$) and subsequently was not found to represent a unique contribution to the prediction model beyond the combined contributions of other independent variables ($\beta = .05$, $p = .79$). Overall, maternal self-oriented perfectionism was the most important predictor of sons' self-oriented perfectionism. Maternal socially prescribed perfectionism was a significant negative predictor of sons' self-oriented perfectionism, indicating an inverse relationship between

these two variables. The results of this hierarchical multiple regression analysis are consistent with the above correlational analyses which indicated that higher levels of maternal self-oriented perfectionism are associated with higher levels of self-oriented perfectionism in sons. Additionally, variance in sons' self-oriented perfectionism appears to be explained, in part, by maternal socially prescribed perfectionism.

Hypothesis Two

The second hypothesis was that parents who reported high levels of depression, obsessive-compulsive, and anxiety symptoms would be more likely to have perfectionist children than parents who did not report high levels of these symptoms. This hypothesis was examined using one-way ANOVA. Specifically, parents with high, medium, and low levels of depression, obsessive-compulsive, and anxiety symptoms according to SCL-90-R subscale scores were compared vis-à-vis scores of self-oriented and socially prescribed perfectionism in children. T-scores greater than 63 on each subscale of the SCL-90-R were considered high scores, T-scores of 50-63 were considered medium scores, and T-scores less than 50 were considered low scores (Groth-Marnet, 2003).

One-way ANOVA was conducted with parent levels of depression, obsessive-compulsive symptoms, and anxiety as independent variables and child self-oriented and socially prescribed perfectionism as dependent variables. These analyses did not yield significant results and, in each case, higher levels of parent symptomatology were not significantly associated with greater self-oriented and socially prescribed perfectionism in children. When the same analyses were conducted separately for male and female children, the dependent variable of sons' self-oriented perfectionism was significant with

respect to the independent variable of mothers' obsessive-compulsive symptoms, $F(2, 38) = 3.52, p = .04$. Post-hoc comparisons were made using the Tukey HSD test. These comparisons revealed a significantly higher mean self-oriented perfectionism score for sons whose mothers reported high levels of obsessive-compulsive symptoms on the SCL-90-R subscale ($M = 51.67, SD = 9.99$) compared to mothers who reported low levels of obsessive-compulsive symptoms ($M = 41.00, SD = 8.00$) on the same subscale. The dependent variable of sons' self-oriented perfectionism was also significant with respect to the independent variable of mothers' depression symptoms, $F(2, 38) = 4.69, p = .02$. Specifically, a significantly higher mean self-oriented perfectionism score was found for sons whose mothers reported high levels of depressive symptoms on the SCL-90-R subscale ($M = 53.50, SD = 11.03$) compared to mothers who reported low levels of depressive symptoms ($M = 41.80, SD = 7.55$).

To further examine the relationships between parent symptoms of psychopathology and child self-oriented and socially prescribed perfectionism, Pearson correlational analyses were conducted. Specifically, correlations were derived for (1) child self-oriented and socially prescribed perfectionism and (2) maternal and paternal depression, obsessive-compulsive, and anxiety symptoms, as well as a global severity index. Pearson correlation coefficients for each child perfectionism – parent psychopathology association are in Table 5. Because one-way ANOVA results indicated gender differences with respect to associations between parent psychopathology and child perfectionism, the Pearson correlational analyses were conducted separately for male ($N = 44$) and female ($N = 53$) children. Significant positive correlations were found between (1) self-oriented perfectionism in sons and (2) maternal obsessive-compulsive symptoms

($p = .04$), symptoms of depression ($p < .01$), and a global measure of distress ($p = .02$). Additionally, significant positive correlations were found between (1) self-oriented perfectionism in sons and (2) paternal obsessive-compulsive symptoms ($p = .04$), symptoms of depression ($p = .02$), and a global measure of distress ($p = .02$). A significant positive correlation was also found between socially prescribed perfectionism in sons and paternal obsessive-compulsive symptoms ($p = .02$). No significant correlations were found among self-oriented or socially prescribed perfectionism in daughters and symptoms of psychopathology in mothers and fathers.

Hierarchical multiple regression analyses were conducted to further examine the above significant relationships between parent psychopathology and sons' self-oriented perfectionism. Specifically, two models were examined. In the first model, maternal depression, obsessive-compulsive, and anxiety symptoms were entered separately as independent variables and sons' self-oriented perfectionism was entered as the dependent variable. In examining this model, a statistically significant amount of variance in sons' self-oriented perfectionism was explained by maternal depression, obsessive compulsive, and anxiety symptoms ($R^2 = .20$; $F(3, 38) = 2.91, p < .05$). However, mothers' obsessive-compulsive symptoms ($R^2 \text{ Change} = .003, p = .71$) and symptoms of anxiety ($R^2 \text{ Change} = .01, p = .45$) only explained minimal additional variance in sons' self-oriented perfectionism, above the variance explained by mothers' symptoms of depression ($R^2 \text{ Change} = .18, p < .01$), which was statistically significant. While the model as a whole was significant, the only variable that came close to making a statistically significant unique contribution to the prediction of the dependent variable, was maternal depression ($\beta = .49, p = .06$).

For the second hierarchical multiple regression model, paternal depression, obsessive-compulsive, and anxiety symptoms were entered (in that order) as independent variables and sons' self-oriented perfectionism was entered as the dependent variable. The symptoms of paternal psychopathology predicted a nonsignificant amount of variance in sons' self-oriented perfectionism. However, when each predictor was examined individually, paternal depression did predict a statistically significant amount of variance in sons' self-oriented perfectionism ($R^2 \text{ Change} = .17, p = .02$).

Hypothesis 3

The third hypothesis was that parents and children with high perfectionism scores would report more (1) depression, anxiety, and obsessive compulsive symptoms, (2) internalizing problems, or (3) global distress than persons with low perfectionism scores. With respect to children, one-way ANOVA was used to compare children with high, medium, and low levels of perfectionism vis-à-vis YSR anxious/depressed subscale scores, internalizing T-scores, and total problem T-scores. With respect to parents, one-way ANOVA was used to compare parents with high, medium, and low levels of perfectionism vis-à-vis SCL-90-R depression, anxiety, and obsessive compulsive subscale scores and GSI scores. For parents and children, high, medium, and low levels of perfectionism were defined as the top third, middle third, and bottom third of MPS and CAPS scores, respectively.

To study child perfectionism and symptoms of psychopathology, one-way ANOVA was conducted in which (1) child self-oriented perfectionism was the independent variable and anxious/depressed, internalizing problems, and total problems scores from the YSR were dependent variables, and (2) child socially prescribed

perfectionism was the independent variable and the same YSR subscales were the dependent variables. Means and standard deviations for the dependent measures are in Table 6. These analyses did not yield statistically significant results.

Consistent with previous analyses, one-way ANOVA was conducted separately for male and female youth. Significant results were not found for female youth, indicating no statistically significant impact for levels of self-oriented and socially prescribed perfectionism on symptoms of psychopathology in this gender group. For male children, the dependent variable of anxious/depressed was significant with respect to the independent variable of self-oriented perfectionism, $F(2, 42) = 5.36, p < .01$. Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for male youth who were in the low self-oriented perfectionism group ($M = 53.60, SD = 5.92$), medium self-oriented perfectionism group ($M = 55.00, SD = 5.10$), and high self-oriented perfectionism group ($M = 61.89, SD = 9.02$) differed significantly from one another. As self-oriented perfectionism scores increased, so did anxious/depressed scores.

Significant findings were also demonstrated for the dependent variable of internalizing problems with respect to the independent variable of self-oriented perfectionism in male youth, $F(2, 42) = 4.52, p = .02$. Specifically, post-hoc comparisons showed that the internalizing problems mean score for individuals in the low self-oriented perfectionism group ($M = 47.35, SD = 11.97$) was significantly lower than the mean score for individuals in the high self-oriented group ($M = 60.33, SD = 13.31$).

The dependent variables of anxious/depressed, internalizing problems, and total problems were also significant with respect to the independent variable of socially prescribed perfectionism for male children. There was a statistically significant

difference in scores on the anxious/depressed subscale for individuals in the low, medium, and high socially prescribed perfectionism groups, $F(2, 42) = 3.38, p = .04$. Specifically, post-hoc analyses revealed that the mean score for the low socially prescribed perfectionism group of male youth ($M = 53.38, SD = 5.43$) was significantly lower than the mean score for the high socially prescribed perfectionism group ($M = 59.19, SD = 8.57$).

Significant findings also existed for the independent variable of socially prescribed perfectionism and the dependent variable of internalizing problems, $F(2, 42) = 3.40, p = .04$. The mean internalizing problems score for the low socially prescribed perfectionism group ($M = 47.63, SD = 11.67$) was significantly lower than the mean score for the high socially prescribed perfectionism group ($M = 58.44, SD = 12.44$). Finally, the dependent variable of total problems was also statistically significant with respect to the independent variable of socially prescribed perfectionism, $F(2, 42) = 3.37, p = .04$. Post-hoc comparisons demonstrated that the mean total problems score for male children in the low socially prescribed perfectionism group ($M = 48.25, SD = 12.17$) was significantly lower than that of the high socially prescribed perfectionism group ($M = 58.50, SD = 10.01$).

One-way ANOVA was also conducted to assess the independent variables of types of perfectionism (self-oriented, socially prescribed, and other-oriented) and dependent variables of a global measure of symptom severity and obsessive-compulsive, depression, and anxiety symptoms (measured via SCL-90-R subscales) in mothers and fathers. Means and standard deviations for the dependent measures are in Table 7. Again, participants were divided into low, medium, and high groups for the independent

variables of types of perfectionism. As with the above child analyses, the Tukey HSD test was used to make post-hoc comparisons among dependent variable mean scores for parent perfectionism groups when results for one-way ANOVA were statistically significant. No significant findings were demonstrated for fathers on any of these independent-dependent variable combinations. However, results of several of the conducted analyses were statistically significant for mothers.

The dependent variable of mothers' depression symptoms was significant with respect to the independent variable of self-oriented perfectionism, $F(2, 86) = 4.17, p = .02$. Specifically, the mean depression score was significantly higher for mothers in the high self-oriented perfectionism group ($M = 57.41, SD = 7.87$) compared to the mean depression score of mothers in the low self-oriented perfectionism group ($M = 51.58, SD = 7.94$). There was a statistically significant difference in anxiety scores for the low, medium, and high mothers' self-oriented perfectionism groups, $F(2, 86) = 4.27, p = .02$. The mean anxiety score for the low self-oriented perfectionism group ($M = 46.39, SD = 10.29$) was significantly lower than the mean anxiety score for the high self-oriented perfectionism group ($M = 53.41, SD = 9.80$). The dependent variable of mothers' global severity of symptoms also demonstrated significant findings with respect to the independent variable of self-oriented perfectionism, $F(2, 86) = 5.01, p < .01$. Specifically, the mean global severity score for mothers in the high self-oriented perfectionism group ($M = 57.74, SD = 8.17$) was significantly higher than the mean score for mothers in the low self-oriented perfectionism group ($M = 50.77, SD = 9.86$). Likewise, the mean global severity score for mothers in the medium self-oriented

perfectionism group ($M = 56.48, SD = 8.97$) was significantly higher than the mean score for mothers in the low self-oriented perfectionism group.

No significant findings were demonstrated for the dependent variables of symptoms of psychopathology in mothers with respect to the independent variable of other-oriented perfectionism. However, a statistically significant difference existed in mothers' anxiety scores for the low, medium, and high socially prescribed perfectionism groups, $F(2, 86) = 3.77, p = .03$. The mean anxiety score for mothers in the low socially prescribed perfectionism group ($M = 48.26, SD = 11.72$) was significantly lower than that of mothers in the high socially prescribed perfectionism group ($M = 54.56, SD = 8.02$).

Child types of perfectionism and symptoms of psychopathology, as well as parent types of perfectionism and symptoms of psychopathology were also subjected to Pearson correlational analyses. Correlation coefficients for these analyses are in Tables 8 and 9. For children, significant correlational relationships were found between (1) socially prescribed perfectionism and (2) symptoms of anxiety and depression ($r = .24, p = .02$), internalizing problems ($r = .23, p = .03$), and total problems ($r = .79, p = .03$). When the analyses were separated by gender, statistically significant correlational relationships between self-oriented and socially prescribed perfectionism, and symptoms of psychopathology existed only in male children. Specifically, significant correlational relationships were found between (1) self-oriented perfectionism and (2) symptoms of anxiety and depression ($r = .44, p = .003$) as well as internalizing problems in boys ($r = .43, p = .003$). Correlational relationships between (1) socially prescribed perfectionism and (2) symptoms of anxiety and depression ($r = .34, p = .03$), internalizing problems ($r =$

.37, $p = .01$), and total problems ($r = .41$, $p < .01$) in boys were also statistically significant.

With respect to parents, significant correlational relationships were found between (1) self-oriented perfectionism in mothers and (2) obsessive-compulsive ($r = .26$, $p = .01$), depression ($r = .28$, $p < .01$), and anxiety symptoms ($r = .26$, $p = .01$), as well as a global measure of distress ($r = .28$, $p < .01$). Significant correlational relationships also existed between (1) socially prescribed perfectionism in mothers and (2) depression ($r = .22$, $p = .04$), anxiety symptoms ($r = .25$, $p = .02$), and the global measure of distress ($r = .23$, $p = .03$). For fathers, significant correlational relationships existed for (1) other-oriented perfectionism and (2) obsessive-compulsive symptoms ($r = .28$, $p = .03$) and the global measure of distress ($r = .28$, $p = .03$).

For a more detailed analysis of the above significant findings related to perfectionism and symptoms of psychopathology, hierarchical regression analyses were conducted. For child perfectionism and psychopathology, three models were examined in which socially prescribed and self-oriented perfectionism were entered as independent variables and (1) anxious/depressed, (2) internalizing problems, and (3) total problems scores from the YSR were entered as the dependent variables. Of these three models, only the first yielded statistically significant results at the $p < .05$ level.

For the first model, child socially prescribed and then self-oriented perfectionism were entered as independent variables, and anxious/depressed symptoms were entered as the dependent variable. This model was statistically significant, indicating that a significant amount of variance in children's symptoms of anxiety and depression was explained by socially prescribed and self-oriented perfectionism ($R^2 = .06$; $F(2,$

94) = 3.19, $p < .05$). Socially prescribed perfectionism explained 5.8% of the variance in symptoms of anxiety and depression ($p = .02$), while self-oriented perfectionism only explained an additional 0.6% of the variance in the dependent variable ($p > .05$) beyond the variance explained by socially prescribed perfectionism. Only socially prescribed perfectionism made a unique contribution to the model's ability to predict symptoms of anxiety and depression that neared significance ($\beta = .21, p = .06$).

Because the above one-way ANOVA and correlational analyses for hypothesis 3 resulted in additional significant results for male youth when conducted separately for each gender, hierarchical multiple regression analyses were also conducted to assess models in which self-oriented and socially prescribed perfectionism predicted male child symptoms of psychopathology. For the first model self-oriented and socially prescribed perfectionism were entered as independent variables and anxious/depressed symptoms were entered as the dependent variable. A significant amount of variance in symptoms of anxiety and depression was explained by self-oriented and socially prescribed perfectionism in male youth ($R^2 = .23; F(2, 41) = 6.10, p < .01$). Self-oriented perfectionism explained 19.6% of the variance in anxious/depressed scores ($p = .003$) while socially prescribed perfectionism explained 3.3% of variance in the dependent variable above that explained by self-oriented perfectionism ($p > .05$). Only self-oriented perfectionism ($\beta = .37, p = .02$) made a statistically significant unique contribution to the model's ability to predict symptoms of anxiety and depression in male youth.

A second model was examined for male youth in which self-oriented perfectionism and socially prescribed perfectionism were the independent variables and the internalizing problems score from the YSR was the dependent variable. This model

was statistically significant, indicating that the two types of perfectionism did indeed explain a significant amount of variance in internalizing problems ($R^2 = .24$; $F(2, 42) = 6.35, p = .004$). For model two, self-oriented perfectionism explained 18.7% of the variance in the dependent variable ($p = .003$) and socially prescribed perfectionism explained an additional 4.9% of the variance in internalizing problems scores above and beyond the variance explained by self-oriented perfectionism ($p > .05$). Only self-oriented perfectionism made a statistically significant unique contribution to the model's ability to predict internalizing problems ($\beta = .34, p = .03$).

A third model was also examined for male youth where self-oriented and socially prescribed perfectionism were entered as independent variables and the dependent variable was a measure of total problems from the YSR. A significant amount of variance in total problems was explained by the independent variables ($R^2 = .18$; $F(2, 41) = 4.48, p = .02$). Self-oriented perfectionism explained 6.7% of the variance in male children's total problems scores ($p = .09$) and socially prescribed perfectionism explained an additional 11.3% of the variance in the dependent variable ($p = .02$). Only socially prescribed perfectionism made a significant unique contribution to the model's ability to predict total problems in male youth ($\beta = .36, p = .02$).

One-way ANOVA and Pearson correlational analyses both suggested significant relationships between perfectionism in mothers and symptoms of psychopathology, so hierarchical multiple regression analyses were also conducted to further examine these relationships. Because other-oriented perfectionism was not significantly related to symptoms of psychopathology in the above analyses, this type of adult perfectionism was not included in the regression analyses. Hierarchical multiple regression analyses were

conducted for four models. In each model, self-oriented and socially prescribed perfectionism were independent variables and (1) obsessive-compulsive, (2) depression, (3) anxiety, and (4) a global severity index scores were dependent variables.

Examination of the first model led to the finding that a significant amount of variance in mothers' obsessive-compulsive symptoms was explained by self-oriented and socially prescribed perfectionism ($R^2 = .07$; $F(2, 86) = 3.42, p = .04$). Maternal self-oriented perfectionism explained 6.9% of the variance in obsessive compulsive symptoms ($p = .01$), while maternal socially prescribed perfectionism did not explain a significant amount of additional variance in the dependent variable beyond that explained by self-oriented perfectionism ($R^2 \text{ Change} = .01, p > .05$). In this model, neither self-oriented ($\beta = .21, p > .05$) nor socially prescribed perfectionism ($\beta = .09, p > .05$) in mothers made a significant unique contribution to the model's ability to predict obsessive compulsive symptoms.

Self-oriented and socially prescribed perfectionism also explained a significant amount of variance in mothers' depression scores ($R^2 = .08$; $F(2, 86) = 3.88, p = .02$). While neither self-oriented ($\beta = .22, p > .05$) nor socially prescribed perfectionism ($\beta = .10, p > .05$) contributed significantly to the model beyond the combined contributions of the predictors, self-oriented perfectionism explained 7.6% of the variance in depression ($p < .01$) and socially prescribed perfectionism explained an additional 0.6% of the variance ($p > .05$).

In a third model, hierarchical multiple regression analyses were conducted with symptoms of anxiety as the dependent variable and mothers' self-oriented and socially prescribed perfectionism as independent variables. This model was also statistically

significant ($R^2 = .08$; $F(2, 86) = 3.92, p = .02$), with mothers' self-oriented perfectionism explaining 6.9% of the variance in anxiety ($p = .01$) and socially prescribed perfectionism explaining an additional 1.5% of the variance in anxiety ($p > .05$), above and beyond variance explained by self-oriented perfectionism. Neither self-oriented ($\beta = .18, p > .05$) nor socially prescribed perfectionism ($\beta = .15, p > .05$) made a significant and unique contribution to the model's ability to predict maternal anxiety when the overlapping effects of the variables were statistically removed.

In examining a fourth model, a significant amount of variance in global severity index scores was explained by self-oriented and socially prescribed perfectionism in mothers ($R^2 = .09$; $F(2, 86) = 4.04, p = .02$). Self-oriented perfectionism explained 8.0% of the variance in global severity index scores ($p < .01$) and socially prescribed perfectionism explained an additional .6% of variance in the dependent variable ($p > .05$). Neither of the independent variables made statistically significant contributions to the model's ability to predict global severity scores after contributions of other independent variables had been removed ($p > .05$). Beta weights for self-oriented and socially prescribed perfectionism were .23 and .10 respectively.

Hypothesis Four

The fourth hypothesis was that male and female parents and children would report equal levels of self-oriented and socially prescribed perfectionism. In addition, male and female parents were expected to report equal levels of other-oriented perfectionism. Independent sample t-tests were used to compare these levels of perfectionism in males and females. After Bonferroni corrections for Type I error, no statistically significant

differences were found between male and female children with regard to self-oriented or socially prescribed perfectionism. No statistically significant differences were found between male and female parents with respect to self-oriented, socially prescribed, or other-oriented perfectionism.

Finally, significant differences were not expected with respect to levels of perfectionism reported by parents and children of different ethnic groups. One-way ANOVA was used to determine whether differences existed among ethnic groups with regard to self-oriented and socially prescribed perfectionism in children and parents, as well as other-oriented perfectionism in parents. Regarding children and parents, no statistically significant effects were found for ethnicity.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Summary and Discussion of Results

The present study examined multiple types of perfectionism and symptoms of psychopathology among 97 children and their parents. Specifically, self-oriented perfectionism, or holding exceptionally high standards for oneself, and socially prescribed perfectionism, or believing that significant others have unrealistically high expectations of oneself, were measured in children and parents. Other-oriented perfectionism, or exceedingly high expectations of others, was also measured in parents. Symptoms of anxiety, depression, obsessive-compulsive disorder, general internalizing problems, and overall severity of symptoms were also measured.

The first expected finding was that parents who reported high levels of perfectionism would be more likely to have children who also reported high levels of perfectionism. Second, parents who reported high levels of depression, obsessive-compulsive symptoms, and anxiety were expected to be more likely to have children with high perfectionism than parents who did not report symptoms of these disorders. Third, parents and children high in perfectionism were expected to report more symptoms of depression, anxiety, obsessive-compulsiveness, internalizing problems, and global levels of distress compared to those low in perfectionism. Finally, no ethnic or gender differences were expected with respect to levels of perfectionism.

The current study produced several key findings. First, parent perfectionism was not significantly related to child perfectionism when the entire sample of children was examined, but significant relationships did emerge when the sample was examined by gender. Specifically, maternal perfectionism was related to perfectionism in sons. Maternal self-oriented perfectionism predicted self-oriented perfectionism in sons and a negative predictive relationship was found between maternal socially prescribed perfectionism and self-oriented perfectionism in sons. In other words, mothers with exceptionally high expectations for themselves were likely to have sons who expected much from themselves. In contrast, mothers who felt others held them to very high standards were less likely to have sons who held themselves to high standards.

A significant mother-son relationship was also found when parent symptoms of psychopathology and child perfectionism were assessed. Maternal depression, obsessive-compulsive, and anxiety symptoms predicted self-oriented perfectionism in sons. The relationship between maternal depression and sons' perfectionism was the strongest parent psychopathology-child perfectionism relationship. A positive relationship was found between fathers' severity of symptoms and symptoms of depression and obsessive-compulsive disorder, and self-oriented perfectionism in sons.

Associations between child perfectionism and child psychopathology, as well as between parent perfectionism and parent psychopathology, were also studied. When the entire sample was examined, socially prescribed perfectionism and self-oriented perfectionism in children predicted symptoms of anxiety and depression, with socially prescribed perfectionism being the most important predictor. Socially prescribed perfectionism in children was also related to internalizing problems and symptoms of

distress. When females were assessed separately from males, no significant relationships between perfectionism in female children and symptoms of psychopathology existed. For male children, however, socially prescribed and self-oriented perfectionism predicted symptoms of anxiety and depression as well as internalizing problems and general psychological distress.

Symptoms of psychopathology were not generally related to perfectionism in fathers. The only exception was that other-oriented perfectionism in fathers was related to obsessive-compulsive symptoms and to a global measure of symptom severity. With respect to mothers, self-oriented and socially prescribed perfectionism predicted overall symptom severity and symptoms of anxiety, depression, and obsessive-compulsive disorder.

Child and Parent Perfectionism

Previous research indicates that higher levels of perfectionism may be found among children of perfectionist parents (Chang, 2000; Frost et al., 1991; Vieth & Trull, 1999). Extant theories on the etiology of perfectionism generally center on parents as the greatest influence on whether a child develops perfectionism (Flett & Hewitt, 2002). An expected result of the current study, therefore, was that higher levels of perfectionism in parents (self-oriented, socially prescribed, and other-oriented) would be associated with higher levels of perfectionism in children (self-oriented and socially prescribed). However, no significant relationship emerged between parent (maternal or paternal) perfectionism and child perfectionism. A more detailed examination, however, revealed that mothers with high self-oriented perfectionism tended to have sons with high self-oriented perfectionism.

Frost and colleagues (1991) measured perfectionism among adult daughters and their parents and found that mothers' (but not fathers') perfectionism was associated with perfectionism in daughters. Similarly, Vieth and Trull (1999) assessed self-oriented, socially prescribed, and other oriented perfectionism among undergraduate students and their parents. These researchers found that daughters' self-oriented perfectionism and socially prescribed perfectionism were positively correlated with the same types of perfectionism in their mothers. In contrast, sons' self-oriented perfectionism was significantly correlated with father's self-oriented perfectionism and was negatively correlated with mother's self-oriented perfectionism. Chang (2000) also found a significant relationship between perfectionism in mothers and daughters. Flynn and colleagues (2001) examined self-rated perfectionism and perceptions of parent perfectionism in undergraduates. Participants' ratings of their own self-oriented, socially prescribed, and other-oriented perfectionism corresponded most strongly with ratings of their parents on the same dimensions.

An important discrepancy between the above studies and the current study is that previous research on perfectionism in parents and children has solely examined adult samples. In each case, undergraduate samples were examined instead of children and their parents. In contrast, this study directly assessed perfectionism in children and perfectionism in parents. Because findings from previous studies differ somewhat from results of the present study, one must consider the possibility that adult children and their parents appear more similar on perfectionism dimensions than young children and their parents.

As previously mentioned, most theories on the development of perfectionism focus on the impact of parent factors (Flett et al., 2002). Parents may facilitate the development of perfectionism in their children when they have especially high expectations for performance (e.g., in academics, sports, or appearance) and withhold approval, love, and/or warmth unless such expectations are met. Perfectionism may also develop when children emulate perfectionism modeled by their parents. Exposure to parents who demonstrate overconcern about making mistakes and potential negative evaluation from others could also lead to the development of perfectionism in children. In each case, these parent factors may reflect parent perfectionism. For example, perfectionist parents are likely to want their children to be perfect or to demonstrate high standards of performance. Similarly, perfectionist parents will model perfectionism and perhaps overconcern about errors or negative evaluation from others. When parents engage in behaviors likely to produce perfectionism in their children, a positive relationship should exist between dimensions of perfectionism in parents and children. This relationship would likely be more evident in children exposed to the influences of their perfectionist parents for many years (i.e., undergraduate “children”). Comparatively, younger children may not evidence the impact of their parents’ perfectionism to the same extent due to less lengthy exposure. Perhaps difference in time of exposure to parent influences explains the apparent closer relationship between “child” and parent perfectionism in adult samples compared to the relationship between younger children and their parents.

Alternatively, characteristics of the current sample may have impacted the lack of significant results regarding relationships between child and parent perfectionism. Children in this study reported relatively lower levels of self-oriented and socially

prescribed perfectionism than participants in other youth samples that used the same measure of child perfectionism (Caelian et al., 2002; Donaldson et al., 2000; Enns et al., 2003; McVey et al., 2002). However, many other studies using the CAPS as a measure of child perfectionism have included clinical samples, whereas the current sample was nonclinical. Clinical samples have tended toward higher levels of each type of perfectionism. Normative clinical and nonclinical samples have not been created for this particular measure, so one cannot determine whether the current sample differs significantly from the child population at large.

Perfectionism in fathers was unrelated to perfectionism in children and perfectionism in daughters was unrelated to perfectionism in either parent. That perfectionism in fathers was unrelated to perfectionism in children is generally consistent with findings in the previously mentioned studies of “child” and parent perfectionism in adult samples (Chang, 2000; Flynn et al., 2001; Frost et al., 1991; Vieth & Trull, 1999). This finding is also consistent with the tendency for mothers to be the primary caregivers in most Western families, and to therefore spend more time with children than fathers. Research indicates greater personality similarity between children and the parent with whom they most strongly identify and, in most cases, between mothers and children (Fox, 2000; Welch, 1996). As a result, one can speculate that fathers might have less influence on the development of perfectionism in children than mothers.

According to the current study, self-oriented perfectionism in sons was indeed closely related to self-oriented perfectionism in mothers. Additionally, self-oriented and socially prescribed perfectionism in mothers predicted self-oriented perfectionism in sons. These findings are consistent with the notion that mothers’ perfectionist characteristics do

somehow relate to the development of similar characteristics in their children. Mothers who hold high standards for themselves tend to have sons with similar lofty expectations for themselves. This tendency may best be explained by a social learning model for perfectionism in which children idealize and imitate their parents (Bandura, 1986; Flett et al., 2002). When parents model behaviors such as being pleased only when complete success is achieved, or self-rewarding only for very high levels of performance, children may observe and imitate these behaviors. Modeling may have more of an impact on mother-child relationships than father-child relationships if children have more opportunities to observe mothers' behaviors. This would especially be true during childhood years instead of later in life when children spend more time with fathers, other adult role-models, and peers.

In contrast to the relationship between maternal self-oriented perfectionism and self-oriented perfectionism in sons, socially prescribed perfectionism in mothers was a negative predictor of self-oriented perfectionism in sons. Mothers who felt that others held them to unrealistically high standards of performance were less likely to have sons who demanded high levels of achievement from themselves. One possible explanation for this effect is that mothers unhappy with perfectionist demands placed upon them by others seek to ensure that their children do not have the same experience. Mothers who experience high levels of socially prescribed perfectionism may take actions so their children (or at least, their sons) do not feel the same pressure. As a result, their children may not place a particularly high level of importance on achievement.

Sons whose mothers are socially prescribed perfectionists may also observe the negative impact of others placing unrealistic demands on their mothers and may thus

behave in a manner to avoid negative consequences. Sons whose mothers are socially prescribed perfectionists may learn that being a perfectionist is associated with being unhappy (as is often the case with adult socially prescribed perfectionists). Sons may thus reject perfectionist demands altogether.

Relatively few studies of perfectionism and even fewer studies of perfectionism in children have examined gender differences. As a result, differences in the relationships between male and female child perfectionism and parent perfectionism in the current study are particularly difficult to explain. Additionally, when gender differences have been found in previous studies, results have been mixed. Some studies indicate same-sex concordance with respect to perfectionism in children and their parents and other studies indicate no gender differences (Chang, 2000; Flynn, 2001; Frost et al., 1991; Vieth & Trull, 1999). Again, however, the majority of previous studies used adult samples, so the results cannot necessarily be generalized to children.

Flett and colleagues (1995) found gender differences in parental authority styles as they related to self-oriented and socially prescribed perfectionism in sons and daughters. The patterns of these gender differences were similar to those found in the current study in that greater parent influence was demonstrated for males than females. Authoritarian parenting was associated with socially prescribed perfectionism in sons, indicating that controlling, restrictive, and demanding parents were more likely to have sons who felt others demanded perfection of them. The same result was not found for daughters. The authors suggested that parents may place greater emphasis on achievement and competitiveness with their sons, while encouraging daughters to develop relationships and social skills. That parents encourage and reward achievement in their sons more so

than daughters might be cause for perfectionism in sons to be more strongly related to perfectionism in parents. The same researchers also found a significant relationship between self-oriented perfectionism in daughters and having warm and authoritative parents. Flett and colleagues (1995) suggested that females may be especially likely to set high goals for themselves when they have a supportive family. The path for development of perfectionism in daughters may rely less on factors such as parent expectations and modeling than for sons. However, these speculations are based on a very small literature base. Additional research on gender differences in child perfectionism, as well as gender differences regarding child-parent personality associations, is warranted before definitive conclusions can be drawn.

Parent Psychopathology and Child Perfectionism

Existing research has consistently found relationships between depression, anxiety, and obsessive-compulsive symptomatology and perfectionism. While most studies of perfectionism and psychopathology have been conducted with adult samples, research with children indicates similar results. The current study sought to advance research on perfectionism and psychopathology by examining whether symptoms of psychopathology in parents might be related to perfectionism in children. In doing so, important gender differences were found.

Consistent with the previously described relationship between maternal perfectionism and perfectionism in sons, maternal depression, obsessive-compulsiveness, and anxiety predicted self-oriented perfectionism in sons. A positive relationship was also found between sons' self-oriented perfectionism and depression, obsessive-compulsiveness, and

overall distress in fathers. In contrast, daughters' perfectionism was unrelated to symptoms of psychopathology in parents.

A number of possible explanations exist for the connection between child perfectionism and parent symptoms of depression, obsessive-compulsive disorder, and anxiety. From one perspective, this relationship may reflect child reactions to tendencies in their parents. For example, the social reaction model of perfectionism development described by Flett and colleagues (2002) posits that children become perfectionists from being exposed to a troublesome family environment. Such an environment is likely to include general chaos, low expression of warmth and love from parents, or even physical and/or psychological abuse. A child might seek to control his or her situation or at least minimize exposure to negative aspects of his circumstances by behaving as "perfectly" as possible. Perfectionism may thus be a self-protective mechanism.

The social reaction model of development could be applied to the development of perfectionism in a child who lives with a mother who is depressed, overanxious, or obsessive-compulsive. Anxious parents have been described as more critical, less affectionate and warm, and more likely to catastrophize than non-anxious parents (Hirshfeld, Biederman, Broday, Faraone, & Rosenbaum, 1997; Turner, Biedel, Roberson-Nay, & Tervo, 2003; Whaley, Pinto, & Sigman, 1999). According to the social reaction model, a child whose mother demonstrated such characteristics might be more likely to become a perfectionist to avoid maternal criticism and to solicit hard-to-come-by affection, warmth, and positive regard.

Family members of obsessive-compulsive parents report being drawn into the compulsive rituals of their obsessive-compulsive parents; they also report higher family

conflict than controls (Black, Gaffney, Schlosser, & Gabel, 1998). Depressed parents have been described in the literature as controlling, insensitive to the needs of their children, emotionally uninvolved, hostile, disengaging, and demonstrating more negative and fewer positive interactions with their children compared to non-depressed parents (Jaser et al., 2005; Lovejoy, Graczyk, O'Hare, & Neuman, 2000). A child living with an anxious, depressed, or obsessive-compulsive parent could react strongly and defensively to the tumultuous environment fostered by his parents. According to the social reaction model, a child's defensive reaction might involve perfectionism so he is less likely to elicit negative responses from a disordered parent. This pattern may be especially true for mother-son dyads.

The anxious rearing model for development of perfectionism suggests that parents who are overly anxious, particularly about making mistakes, may contribute to the development of perfectionism in their children. Flett and colleagues (2002) suggested that parents who are overprotective, model excessive concern about mistakes, and ensure their children are aware of others' negative evaluations may contribute to the development of perfectionism in their children. Research has shown that children are able to perceive anxiety in their parents (especially mothers) (Turner et al., 2003). Anxious mothers also tend to catastrophize more than non-anxious mothers (Whaley et al., 1999). Given the connection between maternal anxiety and perfectionism in sons in this study, the anxious rearing model provides another explanation for how the behaviors of an anxious mother might contribute to the development of perfectionism in her child.

Parents who are depressed, anxious, or obsessive-compulsive are more likely to withhold affection and be critical than parents without this symptomatology. Children

whose parents demonstrate symptoms of these disorders may therefore have to work harder or perform better to elicit warmth and approval from parents. This suggests another path for development of child perfectionism that is particularly relevant for children of disordered parents. Children may learn to meet exceptionally high standards because this is a primary way to obtain positive attention and approval from parents.

An explanation for the lack of connection between daughters' perfectionism and mothers' behaviors is not immediately clear. Perhaps development of perfectionism in daughters is simply less affected by parent characteristics. Alternatively, parents may universally treat their daughters differently than sons by having lower performance expectations for daughters. If sons are generally held to higher standards by their parents (Flett et al., 1995), they may be more prone than daughters to becoming perfectionists in response to controlling behavior, criticism, contingent approval, and other parent behaviors associated with depression, anxiety, and obsessive-compulsiveness. As previously mentioned, parent expectations for their daughters may focus more on social achievements such as having numerous friends and being well-liked. If so, characteristics of disordered parents might be more likely to contribute to social-evaluative concerns in daughters and less likely to result in perfectionism. The diversity of findings with respect to male and female children and perfectionism warrants replication and further research before definitive explanations can be made.

Child Perfectionism and Psychopathology

Research on the relationship between child perfectionism and psychopathology remains limited. Extant research does indicate that self-oriented and socially prescribed perfectionism are associated with symptoms of some psychological disorders. Hewitt

and colleagues (2002) found self-oriented and socially prescribed perfectionism in children to be significantly correlated with depression and anxiety. These researchers did not find significant gender differences. Other studies found that socially prescribed perfectionism and, in some cases, self-oriented perfectionism were related to hopelessness as well as suicidal thoughts and behaviors in youth (Boergers et al., 1998; Donaldson et al., 2000; Enns, Cox, & Inayatulla, 2003; Hewitt et al., 1997). The current study sought to extend research on child perfectionism and psychopathology. In fact, socially prescribed perfectionism and self-oriented perfectionism were positively correlated with child symptoms of anxiety and depression as well as internalizing and overall problems. These relationships were stronger for male youth than female youth. Self-oriented and socially prescribed perfectionism also predicted the same types of symptomatology in male children.

These results confirm and expand upon previous research regarding child perfectionism and psychopathology. This study bolsters the contention that adopting high standards or feeling that others have excessively high expectations for oneself are correlated with, and predictive of, anxiety, depression, and general psychological distress. Child studies consistently indicate that self-oriented perfectionism *and* socially prescribed perfectionism are associated with undesirable symptomatology. This study indicates that the adverse relationship between perfectionism and psychopathology is especially potent for young male perfectionists.

Parent Perfectionism and Psychopathology

Perfectionism in adults has long been associated with symptoms of psychopathology. Socially prescribed perfectionism, self-oriented perfectionism (in some cases), and

various other aspects of perfectionism have been consistently associated with depression, suicidal ideation, eating disorders, social phobia, obsessive-compulsive disorder, and other disorders (Shafran & Mansell, 2001). This study reconfirms results of previous research. Self-oriented and socially prescribed perfectionism were related to symptoms of depression, anxiety, obsessive-compulsive disorder, and overall symptom severity in mothers. In fact, self-oriented and socially prescribed perfectionism predicted symptomatology in mothers. Perfectionism in female adults appears to be a risk factor for various disorders.

Findings with respect to fathers were less consistent. Fathers' self-oriented and socially prescribed perfectionism were not significantly related to symptoms of psychological disorders. Notably, many studies on adult perfectionism used largely female samples, perhaps because females are diagnosed with depression, anxiety, eating, and other disorders related to perfectionism more so than males. As a result, an overrepresentation of females in extant research may contribute to the finding that perfectionist adults as a whole group are at greater risk for the aforementioned disorders. The lack of significant results regarding adult male perfectionism and psychopathology in the current study warrants additional examination. If the results are replicated, then further consideration should be given to gender differences in the correlates of perfectionism in adults as well as the meaning behind such differences.

Proposed Developmental Model

Existing research suggests that the development of perfectionism is a complex process impacted by various factors. Most research has focused on separate potential

pathways of development to perfectionism as opposed to an overall model for development. However, a developmental model that incorporates factors most likely to lead to the development of perfectionism would be conceptually useful. Flett and colleagues (2002) made a preliminary attempt to develop such a model. They posited that child, parent, and environmental factors were primarily responsible for the development of perfectionism. While providing a useful integration of possible etiological factors, these researchers did not attempt to explain how perfectionism may develop over the course of an individual's childhood. A proposed model of development of perfectionism that begins at infancy and continues through adolescence is described here.

From very early in life, biological and temperamental factors play a role in child development. From a biological perspective, researchers have suggested that perfectionism may be partially inherited. A biological predisposition to perfectionism is consistent with results of a twin study by Tozzi and colleagues (2004). These researchers found that having high personal standards, demonstrating significant concern about making mistakes, and having doubts about personal abilities were moderately heritable. Findings that perfectionism in children is related to perfectionism in parents also support the possibility of a genetic contribution to the development of perfectionism.

Child temperament has the potential to influence whether a youngster becomes a perfectionist. The dimensions of temperament suggested by Cloninger (1986) were examined in relation to perfectionism. Self-oriented perfectionism was associated with low novelty-seeking, high reward dependence, and high persistence (Kobori et al., 2005). The same study found socially prescribed perfectionism to be related to temperamental

characteristics of low novelty-seeking and high harm avoidance. While research on temperament and perfectionism has been primarily conducted with adults, elements of temperament such as emotionality, interest, anger, pleasure, persistence, and fearfulness can be found in infants (Flett et al., 2002; Goldsmith, Buss, Plomin, & Rothbart, 1987; Hane, Fox, Polak-Toste, Ghera, & Guner, 2006). Temperamental characteristics such as fearfulness and persistence may contribute to the development of components of perfectionism such as fear of failure and achievement striving (Flett et al., 2002). Infants who are highly emotional and require significant attention from parents to be soothed or comforted may become highly dependent on reinforcement from others. In such cases, a child may seek reinforcement via perfectionist behaviors. Essentially, early temperamental characteristics may be associated with perfectionism; they may also lead to interactions with others that facilitate the development of perfectionism.

During early childhood years, additional personal and environmental factors may contribute to perfectionism. First, parents may model perfectionism by emphasizing the importance of success, acting overanxious about making mistakes, and showing disappointment when personal perfection is not achieved. Young children tend to idealize their parents and may therefore emulate their parents' behaviors. As children begin to attend school, they may also be influenced by peer and teacher models. In each case, children may observe and experience the reinforcement of perfectionist behaviors. As a result, children begin to learn that perfectionist behaviors (e.g., doing well on school assignments and performing well in athletic endeavors) lead to positive consequences such as praise and social approval, whereas making mistakes and failure to do well may lead to negative consequences or absence of reinforcement.

Additional parent factors that may further influence perfectionism development include parenting style and parents' achievement goals for their children. Children with authoritarian parents who are overcontrolling, restrictive, and punitive may be more likely to feel as though unrealistic demands are placed upon them. Consequently, young children with authoritarian parents may be more likely to develop socially prescribed perfectionism. Indeed, Flett and colleagues (1995) did find significant relationships between maternal and paternal authoritarianism and socially prescribed perfectionism in children. In a similar manner, parent achievement goals for their children may also contribute to the development of perfectionism. Specifically, parents with high performance expectations for their children may have children who perceive their parents as critical and having high personal expectations, concern about making mistakes, and doubt about their abilities to do well (Ablard & Parker, 1997). The influence of parent performance goals for children is especially likely to impact children as they enter school and begin receiving tangible evaluations such as grades. In each case, authoritarian parents and parents with high performance goals for their children likely pressure their children to meet high expectations.

Parent psychopathology may also impact child development of perfectionism. Specifically, parents (especially mothers) who are depressed, anxious, or obsessive-compulsive may be more controlling, catastrophizing, hostile, and disengaging than healthy parents. Parents with such symptomatology are also less sensitive to the needs of their children. They may withhold affection and demonstrate less positive regard than healthy parents. In some cases, children may respond to these parent characteristics by behaving in a perfectionist manner to avoid their parents' undesirable behaviors and to

seek more positive attention. Children with symptomatic parents may have to work much harder to obtain warmth and affection from their parents than children with healthy parents. As a result, these children may be more likely to develop perfectionism.

Parent influences alone are unlikely to produce child perfectionism. However, in conjunction with other influences such as biology, temperament, and reinforcement, parental influences may strengthen the tendency for a child to become a perfectionist. The extent to which a child internalizes the need to be perfect will also be influenced by his ability to meet perfectionist standards. An intelligent child who has the opportunity to experience reinforcement from academic success, for example, may be more likely to strive for perfection in this area. By contrast, a child who lacks innate ability may be less likely to develop perfectionist strivings in a particular area. In these ways, children's natural abilities may impact their tendency toward or away from perfectionism.

As children enter adolescence, they become more aware of external influences from peers, teachers, and school. Peer acceptance or rejection may affect whether perfectionist behaviors are manifest. For example, individuals regarded with respect and admiration from peers for achieving high grades or demonstrating excellence in other areas of life will experience reinforcement for their perfectionism. In contrast, individuals who are teased for perfectionist strivings may feel less desire to pursue lofty goals. As youth advance in school, pressure to do well intensifies because performance is associated with future opportunities such as attending college or receiving a scholarship.

Many internal and external influences likely determine whether an individual develops perfectionism. Parent factors are often perceived as having the largest impact. However, an integrative model of development best demonstrates the truly complex

nature of perfectionism. While any single factor may contribute to the development of perfectionism in an individual, none is likely sufficient. Furthermore, perfectionism is best understood as a multidimensional construct, so different combinations of child, parent, and environmental factors may lead to different manifestations of perfectionism.

Clinical Implications

Research on treating maladaptive aspects of perfectionism is limited. However, this study could provide researchers with much needed information regarding self-oriented and socially prescribed perfectionism in children as well as the negative impact that perfectionism can have on the well-being of an individual. Furthermore, the study addressed the relationships between parent perfectionism and psychopathology, and child perfectionism. Results of this research have direct implications for the assessment and treatment of perfectionism and related psychopathologies in youth.

First, self-oriented and socially prescribed perfectionism are clearly related to symptoms of depression, anxiety, internalizing concerns, and overall psychological problems in children. This seems especially true for young male perfectionists. Clinicians who work with youth must be aware of a connection between perfectionism and psychopathology so they can assess for perfectionism before beginning treatment. This is especially important because previous research indicates that perfectionism had a deleterious effect on treatment outcome in adults treated for depression in the National Institute of Mental Health's (NIMH) Treatment of Depression Collaborative Research Project (TDCRP; Blatt et al., 1995; Shahar et al., 2004; Zuroff, 2000). Researchers found depressed individuals with high pre-treatment levels of perfectionism to experience

significantly fewer treatment gains from brief cognitive-behavioral therapy, brief interpersonal therapy, or pharmacotherapy plus clinical management (Blatt et al., 1995).

Considering the evidence that perfectionism in children is linked with symptoms of psychological disorders, as well as research indicating that perfectionism negatively impacts the treatment of at least one major disorder, pretreatment assessment for perfectionism seems especially pertinent. Children who seek psychological treatment for symptoms of internalizing disorders in particular should be assessed for perfectionism so the most relevant course of treatment can be pursued. Initial assessment of child perfectionism should include a self-report measure of perfectionism such as the CAPS and parent reports of perfectionism-related behaviors. These measures of perfectionism will help a therapist to determine whether perfectionism is a relevant concern. They will also provide useful initial information about the type of perfectionism (self-oriented or socially prescribed) affecting the child, which can be used to inform treatment decisions. While self-oriented and socially prescribed perfectionism have both been associated with symptomatology in children, they differ with respect to the perceived source of perfectionist expectations. Socially prescribed perfectionists believe that they must meet the perfectionist standards held by significant others, while self-oriented perfectionists set exceptionally high standards of achievement for themselves. As a result, the associated cognitions and maintaining factors are likely to differ for children best described as socially prescribed versus self-oriented perfectionists.

Should child perfectionism be a relevant treatment consideration, more extensive assessment will be warranted. First, a therapist should to determine what areas of a child's life are most affected by perfectionism (e.g., academics, sports, appearance).

While no specific tools have been developed for this purpose, interviews with a child and his or her parents may suffice. In some cases, standards of perfection will be applied to one or two specific areas of a child's life. In other cases, a child may feel she must be perfect in most areas of her life. The areas of a child's life most affected by perfectionism can become foci for treatment.

An assessment of frequency and types of perfectionism-related cognitions will also inform treatment decisions and help measure treatment success. Flett and colleagues (1998) developed a measure of frequency of cognitions related to perfectionism (the PCI) for adults. Ideally, this measure could be validated as a child measure of perfectionism cognitions or modified so the measure can be used with youth. Greater frequency of perfectionism-related cognitions has been related to greater psychological distress (Flett et al., 1998). The PCI or a similar measure would provide therapists with a better understanding of the extent to which thoughts related to perfectionism actually affect the client. This type of assessment could also be used to measure change during treatment, with decrease in frequency of perfectionism cognitions indicating progress. Further assessment of the nature of the perfectionism-related thoughts is also necessary so maladaptive and/or unrealistic thoughts can be identified and later addressed in treatment. Examples of perfectionism cognitions include: "I have to be the best at everything I do" and "if I don't get an A on every test, I am a total failure." Initial examples of these thoughts can be obtained via item analysis of the CAPS completed by the child. Further details and examples can then be solicited via interview.

Finally, functions of child perfectionism should be assessed. For some children, perfectionism is likely maintained via positive reinforcers such as praise from peers,

parents, teachers, and/or coaches. Tangible rewards may also play a role in reinforcing a child's need to be perfect in one or more areas of life. Other children may strive for perfection to avoid punishment or disapproval from significant others. Additionally, for some child perfectionists, the need to be perfect comes from within and perfectionism is maintained because the child is motivated by the extreme satisfaction that comes with success. Alternatively, a child may seek to avoid feelings of disappointment, failure, and even depression that come with performing imperfectly.

A thorough assessment of child perfectionism that addresses the aforementioned areas will help therapists most effectively treat maladaptive aspects of perfectionism. Effective treatment of perfectionism will occur when a therapist can accurately identify and change maladaptive perfectionism-related thoughts and behaviors. This can be accomplished via cognitive-behavioral techniques such as identification and replacement of automatic negative thoughts. Maladaptive behaviors may be changed by altering patterns of reinforcement that maintain such behaviors. For example, if a child pursues perfection to obtain praise from parents, the child's parents can be trained to provide praise for effort rather than achievement of perfection. A child may also be exposed to making mistakes when fear of failure maintains maladaptive behaviors. The specific techniques used in therapy should closely reflect information obtained via the assessment procedures described above. This is particularly important given the relationship between perfectionism and psychopathology. Additional treatment considerations can be derived from research regarding the impact of perfectionism on treatment of psychological disorders.

As was previously discussed, cognitive-behavioral, interpersonal, and pharmacological treatments for depression in the NIMH's TDCRP were significantly less effective with adults who had high pre-treatment levels of perfectionism. These individuals appeared to have greater difficulty contributing to the development of therapeutic alliance, an effect that mediated the relationship between perfectionism and therapeutic outcome (Zuroff et al., 2000). Additionally, individuals who demonstrated high levels of pre-treatment perfectionism had less well-developed social networks, which also predicted poorer treatment outcome (Shahar et al., 2004). Because the negative impact of perfectionism on treatment for participants in the TDCRP appeared to occur later in treatment, researchers have also suggested that brief forms of treatment may not be appropriate for perfectionists (Blatt et al., 1998).

The results of the TDCRP and results of the current study suggest that perfectionism in children may negatively impact treatment of serious psychological concerns. Children with depression, anxiety, or other psychological difficulties may respond less well to classic methods of treatment if they demonstrate high levels of perfectionism. Additionally, the current study suggests that children who demonstrate higher levels of self-oriented and socially prescribed perfectionism are indeed at greater risk for developing such psychopathologies.

If the results of the above studies from the TDCRP can be applied to children (which remains to be seen), then perfectionist youth who seek treatment for one or more disorders (especially internalizing disorders) may have difficulty establishing working alliances with their therapists and/or may be less likely to develop positive social networks. Both conditions may negatively impact treatment outcome. Therapists

working with perfectionist youth may enhance the effectiveness of treatment by emphasizing a strong therapeutic alliance with their clients and helping their clients improve current social relationships and develop new friendships. A strong therapeutic alliance may best be formed when the therapist spends substantial time learning about a child and her interests at the beginning of therapy as well as addressing concerns the child may have regarding therapy. The child's social skills and quality of social relationships should also be assessed at the beginning of therapy. If skills for developing meaningful social relationships are lacking, then social skills training should become an area of therapeutic focus. In general, acquisition and maintenance of friendships will likely be an important component of therapy.

Brief forms of therapy may not be appropriate for self-oriented and socially prescribed perfectionist youth. As Blatt and colleagues (1998) suggested, perfectionists may experience a sense of failure as a predetermined end to therapy nears. In light of the tendency of perfectionists to engage in all-or-nothing thinking, self-oriented perfectionists may believe they have failed to meet their own standards if they do not experience complete recovery within the prescribed number of treatment sessions. Socially prescribed perfectionists may believe they have not met expectations of significant others and/or their therapist if they have not experienced complete remission of symptoms by the end of treatment. Therefore, long-term therapy may be optimal for young perfectionists seeking treatment.

A second major theme of the current study that has particular relevance for clinical practice with child perfectionists is that maternal perfectionism and psychopathology were related to perfectionism in male youth. Mothers who demanded perfect

performance from themselves tended to have sons who held themselves to exceptionally high standards. Mothers who felt others demanded perfection from them tended not to have sons who were especially demanding of themselves. Mothers who had symptoms of general distress, depression, anxiety, and obsessive-compulsive disorder also tended to have sons high in self-oriented perfectionism.

Patterns of mother-son relationships regarding perfectionism and psychopathology warrant attention in clinical practice. Therapists who treat youth with perfectionist tendencies should pay particular attention to the relationships between young clients and their mothers, with special attention given to dyads where the mother is highly self-demanding or shows symptoms of the aforementioned disorders. The current study suggests that, in such cases, the youth are at greater risk for being overly demanding of themselves and for developing symptoms of anxiety and depression.

Given the relationships between maternal factors and child perfectionism and psychopathology, assessment and treatment of perfectionist youth will most likely necessitate a family-oriented approach. Perfectionism and symptoms of psychopathology in mothers should be evaluated to determine the extent to which such factors may affect child perfectionism and overall well-being. This can be accomplished by completing one or more perfectionism self-report measures (e.g., MPS – Hewitt and Flett version) and a measure of symptomatology such as the SCL-90-R. From a treatment perspective, educating mothers about how they impact children's levels of distress and maladaptive perfectionism will be especially important. For example, perfectionist mothers can be taught that their excessive emphasis on being perfect or performing perfectly can have negative personal outcomes. Additionally, to the extent that mothers model self-oriented

perfectionism, their children may be likely to adopt similar standards, and therefore maladaptive consequences, themselves.

Other research has suggested that mothers who are overly controlling of their children's behavior are more likely to have socially prescribed perfectionist children (Kenney-Benson & Pomerantz, 2005). These mothers were also more likely to have children with symptoms of depression. In conjunction with the current study's finding that maternal factors impact child perfectionism, these results imply that mothers of perfectionist children would benefit from learning how their controlling behaviors negatively impact their children. Examples of controlling behaviors might include reminding one's child of the importance of getting good grades on a report card or becoming overly involved in the completion of school projects.

Mothers who are depressed, anxious, and/or obsessive-compulsive are more likely to be harsh, controlling, emotionally withdrawn, and critical than mothers without symptoms of psychopathology. Children of these mothers may become perfectionists to avoid negative attention from mothers. When a perfectionist child is being treated in therapy and has a mother who demonstrates the above symptoms, treatment may necessarily involve referring the mother for treatment of her own symptoms. Within the context of the child's therapy, the mother could be educated on how her behaviors negatively impact her perfectionist child. Additionally, behavioral techniques may be used to help the mother identify and modify her maladaptive behaviors. For example, a mother who is controlling can be taught to identify controlling behaviors such as completing her child's school projects when she thinks she can do better. She can then be taught to replace those behaviors with more adaptive responses such as offering her

child assistance with obtaining materials for a school project, but allowing him to complete the project independently and praising his accomplishment.

In some cases, mothers who are particularly anxious may encourage the development and maintenance of perfectionism in their children by modeling anxiety in the form of overconcern about making mistakes. These mothers may benefit from cognitive-behavioral treatment that helps them identify their automatic thoughts about mistakes and challenge the authenticity of their concerns. Automatic negative thoughts about mistakes can then be replaced with more realistic thoughts. When automatic negative thoughts are reduced, mothers may be less likely to model overconcern about making mistakes. Additionally, they may help reverse effects of their previous overconcern with mistakes by modeling more realistic thought processes and behaviors for their children.

In sum, the current study has several major implications for the treatment of maladaptive symptoms of self-oriented and socially prescribed perfectionism in children. The suggestions are especially relevant for perfectionist youth with symptoms of psychopathology. First, these youngsters may best be served by treatment designs that place particular emphasis on the development of strong therapeutic alliances. Second, treatment should provide social skills training that enables the youth to develop and maintain additional positive relationships with peers. Third, treatment of perfectionist children and their related symptomatology may best be accomplished via a treatment plan that does not have a prescribed number of sessions so an imposed termination does not thwart therapeutic efforts. Fourth and perhaps most important given the findings of this study, assessment and treatment must involve the primary caregiver (usually the mother) and must attend to specific parent characteristics outlined above that are likely to impact

child perfectionists. Specifically, treatment of the child will necessitate providing the mother with a better understanding of how her behaviors impact her child's perfectionism as well as behaviorally training the mother to interact with her child in new and adaptive ways.

Limitations and Recommendations for Future Research

A number of limitations to the current study deserve attention. The first of these limitations is the correlational nature of the data. Perfectionism and symptoms of psychopathology were measured in children and parents and a number of significant relationships emerged (particularly those between mothers and sons). However, determination of causality is not possible. In other words, while maternal self-oriented perfectionism appeared to be related to self-oriented perfectionism in sons, one cannot determine that maternal perfectionism caused perfectionism in sons. While seemingly less likely, sons' perfectionism may have influenced the development of perfectionism in mothers. Alternatively, some third variable such as genetics or a familial emphasis on individual achievement could have led to the development of perfectionism in both mothers and sons. In the same way, causal inferences cannot be drawn for relationships found between parent symptoms of psychopathology and child perfectionism or between perfectionism and symptomatology within individuals.

Data collected for this study were in the form of self-report measures. Self-report measures are subject to social desirability effects. Individuals may have perceived some items on the perfectionism measures as reflecting desirable characteristics and therefore rated themselves to indicate greater perfectionism than was accurate. The opposite may

also be true. Even more conceivable is the possibility that individuals rated themselves as having fewer symptoms of psychopathology on the YSR and SCL-90-R than was true, in an effort to appear healthier.

The current study might also have benefited from the use of multiple measures of each construct. In this study, perfectionism in children, perfectionism in parents, symptoms of psychopathology in children, and symptoms of psychopathology in adults were assessed via single measures. In the case of child perfectionism, the CAPS was the only measure previously used in multiple studies and had undergone substantial reliability and validity testing. However, future research would benefit from the use of additional measures of child perfectionism such as the more recently developed AMPS if this measure demonstrates adequate reliability and validity (Rice & Preusser, 2002). With respect to parent perfectionism, a number of alternative measures are available. The MPS – Frost version is perhaps the most notable for frequency of use in the literature and the interesting manner in which the measure subdivides perfectionism into an alternative set of dimensions (Frost et al., 1990). In each case, use of multiple perfectionism measures might provide more detail regarding the nature of perfectionism in children and adults.

Child and parent measures of psychopathology were limited to selected subscales from the YSR and the SCL-90-R, respectively. These assessments provided simple and quick measures of symptoms of interest. However, more detailed analyses of symptomatology could be derived by using separate measures designed to assess each disorder of interest. In the case of child participants, symptoms of anxiety and depression were measured together in a single YSR subscale. Ideally, anxiety and depression should

be measured as separate constructs. Anxiety might be measured via the State-Trait Anxiety Inventory for Children (Spielberger, 1973) or Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985). Child symptoms of depression could be measured via the Children's Depression Inventory (Kovacs, 1980). Separate measures of each disorder of interest for adults might also provide more meaningful information, particularly if the measures were designed to limit social desirability bias.

Future studies should also incorporate measures of constructs that are not self-report measures whenever possible. For example, the Anxiety Disorders Interview Schedule for Children, DSM-IV: Child and Parent Versions could be used to incorporate parent assessment of child symptomatology (Silverman & Albano, 1996). Additionally, coded behavior observations that assess perfectionism and manifestations of psychopathology in parents and children would add greatly to existing research. Research on parent and child perfectionism would also benefit from measures of parents' perceptions of perfectionism in their children and children's perceptions of perfectionism in their parents. A possibility exists that the development of perfectionism in children is more directly related to children's perceptions of perfectionism in their parents than to parent's perceptions of their own perfectionism.

The significant findings of the current study are subject to verification via replication with different samples. The sample used in this study lacked diversity in that the participants were uniformly gathered from a single geographic region. Additionally, the majority of participants were European-Americans, with far smaller numbers of participants in different ethnic groups. While significant differences in perfectionism were not found among ethnic groups in the current study, the small numbers of ethnic

minorities may have limited the validity of these particular findings. The above factors as well as the moderate sample size of the study limit generalizability of the findings. Additionally, the sample was comprised of intact as well as single-parent families, which is consistent with the population at large. Future research might benefit from assessing for systematic differences in the impact of characteristics of single versus dual parents on the development of perfectionism in their children.

Major findings of the current study centered on mother-son relationships with respect to parent psychopathology and child perfectionism as well as parent and child perfectionism. The tendency for mothers' characteristics to be more strongly related to perfectionism in their children than fathers' characteristics is a finding consistent with other research (Frost et al., 1991; Rice et al., 1996; Vieth & Trull, 1999). Some differences exist in the finer details of these findings from one study to the next. For example, two studies have found significant relationships between mothers' characteristics and perfectionism in daughters (Frost et al., 1991; Vieth & Trull, 1999). These results contrast with results of the current study that found significant relationships between mothers and sons. The two studies that found significant mother-daughter relationships, however, used data from undergraduate women and their parents as opposed to the current study's use of children aged 11-17 years and their parents. Additional research will be necessary to fully explain the impact of parent characteristics on the development of perfectionism in sons and daughters. Furthermore, gender differences in perfectionism and related symptoms of psychopathology should also be examined in greater detail.

The current study focused on the impacts of current parent perfectionism and psychopathology on perfectionism in children. This area of research is of particular interest because parent characteristics are generally viewed as influencing the development of perfectionism in children. However, a number of other factors are likely to impact the development of perfectionism. Some of these factors include genetics, teachers, peers, culture, and temperament. In other words, the development of perfectionism is certainly not solely the result of parent influences on their children. In the future, researchers should extend their study of the development of perfectionism to include these additional areas of potential influence. Such steps will be necessary before a more complete model of development can be defined.

APPENDIX I

DEMOGRAPHIC QUESTIONNAIRE

1. Please indicate which family member is completing this questionnaire by checking the appropriate box:
 - ☐ Mother
 - ☐ Father
2. Please select the category below that best describes your current marriage/partnership status (check the appropriate box):
 - ☐ Married/ Committed Partners (two parents living in the same household)
 - ☐ Single Parent
 - ☐ Divorced
 - ☐ Separated
 - ☐ Widowed
3. Please describe your current occupation: _____
4. If you have a partner, please describe his/her current occupation:

5. Please check the box next to the category that best describes your highest level of completed education:
 - ☐ High School
 - ☐ Some college
 - ☐ Associate's Degree
 - ☐ Bachelor's Degree
 - ☐ Master's Degree
 - ☐ Doctorate (Ph.D., M.D., Ed.D., etc.)
 - ☐ Other (please describe): _____
6. Please check the box next to the category that best describes your partner's highest level of completed education (if applicable):
 - ☐ High School
 - ☐ Some college
 - ☐ Associate's Degree
 - ☐ Bachelor's Degree

- ☐ Master's Degree
- ☐ Doctorate (Ph.D., M.D., Ed.D., etc.)
- ☐ Other (please describe): _____

7. How many children are in your family? _____

8. Of the children in your family, how many are boys? _____ girls? _____

9. Are any of your children adopted? (please circle): Yes/No

10. Please check the box next to the ethnic group that best describes...

You:

- ☐ African American
- ☐ Asian American
- ☐ European American
- ☐ Hispanic American
- ☐ Multiracial
- ☐ Other _____

Your spouse (if applicable):

- ☐ African American
- ☐ Asian
- ☐ European American
- ☐ Hispanic American
- ☐ Multiracial
- ☐ Other _____

The child participating in this study:

- ☐ African American
- ☐ Asian
- ☐ European American
- ☐ Hispanic American
- ☐ Multiracial
- ☐ Other _____

11. Please check the box next to level of income that best describes your family's combined household income:

- ☐ Below \$20,000
- ☐ Between \$20,000 and \$40,000
- ☐ Between \$40,000 and \$60,000
- ☐ Between \$60,000 and \$80,000
- ☐ Between \$80,000 and \$100,000
- ☐ Above \$100,000

For the following questions, please refer to the child participating in this study.

12. Is the participating child a boy or a girl? _____
13. How old is he/she? _____
14. Is the participating child your first born child, second born child, etc? _____
15. Has the participating child lived with both parents for his/her entire life? _____
16. If the answer to question 15 is no, please describe how much time each parent has spent living with the participating child (e.g., each parent lived with the child participant for 100% of the first 10 years, then 50% shared custody for 4 years).

17. What school grade is your child in (or about to begin)? _____
18. Is the participating child your (please check the appropriate box below):
☐ Biological child
☐ Adopted child
☐ Stepchild
☐ Other (please describe): _____
19. Is the participating child your partner's (please check the appropriate box below if applicable):
☐ Biological child
☐ Adopted child
☐ Stepchild
☐ Other (please describe): _____

Table 2

Means and Standard Deviations for Perfectionism Types			
	N	Mean	Standard Deviation
Child Perfectionism (both genders)			
Self-Oriented Perfectionism	97	28.45	6.87
Socially Prescribed Perfectionism	97	22.09	6.10
Male Child Perfectionism			
Self-Oriented Perfectionism	44	26.77	6.00
Socially Prescribed Perfectionism	44	22.34	6.73
Female Child Perfectionism			
Self-Oriented Perfectionism	53	29.85	7.28
Socially Prescribed Perfectionism	53	21.89	5.57
Maternal Perfectionism			
Self-Oriented Perfectionism	89	51.19	9.47
Socially Prescribed Perfectionism	89	50.56	10.20
Other-Oriented Perfectionism	89	53.07	8.50
Paternal Perfectionism			
Self-Oriented Perfectionism	63	52.43	11.30
Socially Prescribed Perfectionism	63	50.63	9.40
Other-Oriented Perfectionism	63	54.65	10.29

Table 3

Pearson Correlations between Maternal Types of Perfectionism and Child Types of Perfectionism

Child Type of Perfectionism	Mother Self-Oriented	Mother Other-Oriented	Mother Socially Prescribed
Male Children (n = 44)			
Self-Oriented	.33*	.14	-.13
Socially Prescribed	.20	.14	-.04
Female Children (n = 53)			
Self-Oriented	.14	.19	.10
Socially Prescribed	.13	.02	.17

Note. * = Correlation is significant at the 0.05 level (2-tailed).

Table 4

Pearson Correlations between Paternal Types of Perfectionism and Child Types of Perfectionism

Child Type of Perfectionism	Father Self-Oriented	Father Other-Oriented	Father Socially Prescribed
Male Children (n = 44)			
Self-Oriented	.19	.09	-.20
Socially Prescribed	.19	.14	-.12
Female Children (n = 53)			
Self-Oriented	.27	.14	.31
Socially Prescribed	-.09	-.12	-.02

Table 5

Pearson Correlations among Types of Child Perfectionism and Parent Symptoms of Psychopathology

Parent Symptoms of Psychopathology	Child Perfectionism			
	Male Children (N = 44)		Female Children (N = 53)	
	Self-Oriented	Socially Prescribed	Self-Oriented	Socially Prescribed
Mother (N = 89)				
Obsessive-Compulsive	.33*	.18	-.03	.15
Depression	.43**	.23	-.14	-.01
Anxiety	.29	.20	.10	.14
Global Severity	.37*	.21	-.01	.03
Father (N = 63)				
Obsessive-Compulsive	.37*	.41*	-.33	-.02
Depression	.41*	.23	-.19	-.06
Anxiety	.32	.26	.01	.01
Global Severity	.40*	.31	-.19	-.08

Note. * = Correlation is significant at the 0.05 level (2-tailed). ** = Correlation is significant at the 0.01 level (2-tailed).

Table 6

Means and Standard Deviations for YSR Subscales indicating Child Symptoms of
Psychopathology

	N	Mean	Standard Deviation
Child Symptoms (both genders)			
Anxious/Depressed	97	56.44	7.50
Internalizing Problems	97	52.97	12.71
Total Problems	97	53.92	11.88
Male Child Symptoms			
Anxious/Depressed	44	55.77	7.02
Internalizing Problems	44	52.73	12.43
Total Problems	44	53.45	11.77
Female Child Symptoms			
Anxious/Depressed	53	57.00	7.90
Internalizing Problems	53	53.17	13.05
Total Problems	53	54.30	12.06

Table 7

Means and Standard Deviations for SCL-90-R Subscales indicating Parent Symptoms of Psychopathology

	N	Mean	Standard Deviation
Maternal Symptoms			
Obsessive-compulsive	89	56.90	8.85
Depression	89	54.93	8.47
Anxiety	89	50.63	10.45
Global Severity Index	89	54.88	9.47
Paternal Symptoms			
Obsessive-compulsive	69	56.10	10.37
Depression	69	55.11	10.97
Anxiety	69	51.78	9.88
Global Severity Index	69	56.21	10.81

Table 8

Pearson Correlations among Types of Child Perfectionism and Child Symptoms of Psychopathology

Child Symptoms of Psychopathology	Child Perfectionism			
	Male Children (N = 44)		Female Children (N = 53)	
	Self-Oriented	Socially Prescribed	Self-Oriented	Socially Prescribed
Anxious/depressed	.44**	.34*	-.03	.17
Internalizing Problems	.43**	.37*	-.05	.10
Total Problems	.26	.41**	-.17	.04

Note. * = Correlation is significant at the 0.05 level (2-tailed). ** = Correlation is significant at the 0.01 level (2-tailed). Child symptoms of psychopathology refer to YSR subscale scores.

Table 9

Pearson Correlations among Types of Parent Perfectionism and Parent Symptoms of Psychopathology

		Parent Perfectionism		
Parent Symptoms of		Socially		
Psychopathology	Self-Oriented	Prescribed	Other-Oriented	
Mother (N = 89)				
Obsessive-compulsive	.26*	.21	.17	
Depression	.28*	.22*	.15	
Anxiety	.26*	.25*	.12	
Global Severity Index	.28*	.23*	.16	
Father (N = 64)				
Obsessive-compulsive	.23	.06	.28*	
Depression	.10	.04	.13	
Anxiety	.09	.08	.13	
Global Severity Index	.21	.10	.28*	

Note. * = Correlation is significant at the 0.05 level (2-tailed). ** = Correlation is significant at the 0.01 level (2-tailed). Parent symptoms of psychopathology refer to SCL-90-R subscale scores.

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