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Perfectionism and the role of self-esteem

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ABSTRACT

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Over the past two decades, research interest has peaked in the specific study of perfectionism as a trait and risk factor for psychopathology, namely depression. This current study hypothesized that perfectionism's impact on an individual's mental health is mediated by that individual's feelings of self-esteem. Research by Preusser, Rice, and Ashby (1994) and Rice, Ashby, and Slaney (1998) have noted evidence for this mediational relationship of self-esteem between perfectionism and depression. Using a sample of 189 undergraduate student volunteers (64 men and 125 women), results indicated that self-esteem was a significant mediator in the relationships between maladaptive perfectionism and depression, as well as anxiety and general distress. In relation to adaptive perfectionism, self-esteem was not a significant mediator, but may serve as a protective factor against adverse mental health outcomes. Thus, self-esteem appears to represent a critical determinant of perfectionism-related distress.

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CHAPTER 1

INTRODUCTION

The descriptive term "perfectionism" and the specific attitudes, beliefs, and behaviors believed to be represented by it have been the subject of much debate and scrutiny for more than a century. As this term has garnered widespread use in mainstream vernacular, its use and connotations vary considerably. While a common lay impression of perfectionism may highlight the exacting standards and flawless performance of tasks on the part of the perfectionist, the effects of such striving on the individual seem to be less obvious to outside individuals. From a clinical perspective, it seems to be that the resultant toll of such perfectionistic striving on the individual has been shown to be the most decisive factor in separating "true perfectionists" from high achievers. Research on the subject has sought to clarify the nature of perfectionism and further elucidate its core elements.

Given that the definition of what makes one a true perfectionist has been such a point of contention in research, it is important to highlight a few of the more noteworthy conceptualizations. In general, perfectionism seems to be a condition in which an individual routinely sets goals that, to most people, appear unreasonably difficult to meet and allow little room for error. For those who *suffer* from such perfectionism, failure to achieve the highest standard (that of perfection) results in distress that negatively impacts

feelings of self-worth. Hollender (1965, p. 94) cited a performance-based definition earlier presented in a dictionary of psychological terms (English & English, 1958) that defined perfectionism as "the practice of demanding of oneself or others a higher quality of performance than is required by the situation." The dimension of overly critical self analysis of one's performance was emphasized by Frost, Marten, Lahart, and Rosenblate (1990, p. 450), who conceptualized perfectionism as, "The setting of excessively high standards for performance which are accompanied by tendencies for overly critical evaluation of one's own behavior." Other theorists have suggested that some "extreme" perfectionists demand flawlessness across many, if not all, aspects in their lives (Flett & Hewitt, 2002). The founder of Rational-Emotive Behavior Therapy, Albert Ellis, in a 1956 American Psychological Association conference presentation, defined perfectionism as "the idea that one should be thoroughly competent, adequate, intelligent, and achieving in all possible respects" (Ellis, 2002, p. 217).

One primary point of separation of problem perfectionism, or unhealthy perfectionism, from high achievement striving, is that the individual's self-worth is damaged when excessive standards are not met. In an often cited and commonly applied definition of perfectionism, Burns (1980) described 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. For these people, the drive to excel can only be self-defeating. (p. 34)

In contrast to persons whose high standards offer opportunities to witness defeat, individuals who can enjoy the fruits of their labors, and derive a sense of accomplishment

and joy from their work would most aptly be labeled as high achievers or, "normal perfectionists" according to Hamachek (1978). Like "pathological" perfectionists (Hamachek, 1978), these are individuals whose exacting standards and dutifulness might be highly prized and rewarded in achievement-oriented societies (Ferguson & Rodway, 1994). Unlike pathological perfectionists, "normal perfectionists" are motivated by a desire to succeed that is not superseded by a fear of failure. Thus, persons with problematic or pathological perfectionistic tendencies are expected to have difficulty separating their personhoods from the quality of their work, which will often be perceived as flawed, even if performance outcomes are otherwise satisfactorily met.

The impact of pathological perfectionism can be quite pervasive and devastating to a person's mental health and well-being. Although it is unclear whether an individual's maladaptive perfectionistic strivings lead to psychological distress in a direct and linear fashion, or, perhaps, if underlying pathology is exacerbated by or expressed via perfectionism, it seems evident that a strong link exists between perfectionism and psychopathology. Burns (1980, p. 34) associated perfectionism with "decreased productivity, as well as impaired health, poor self-control, troubled personal relationships, and low self-esteem." Pacht's (1984) review of studies linking perfectionism to psychological and medical pathologies found correlations with the following conditions: alcoholism, Munchausen syndrome, irritable bowel syndrome, ulcerative colitis, abdominal pain in children, depression in children and adults, anorexia, obsessive-compulsive personality disorders, Type A coronary-prone behavior, and writer's block. In a more recent literature summary offered by Preusser, Rice, and Ashby (1994, p. 88), perfectionism has been linked with: chemical use and abuse, chronic pain,

heart disease, eating disorders, and procrastination, in addition to emotional problems such as anxiety, feelings of failure, guilt, indecisiveness, shame, and low self-esteem. In addition to this already long list, Blatt (1995, p. 1007) conducted a research review that expanded Hamachek's (1978) conceptualization of "neurotic" perfectionism (i.e., pathological or maladaptive perfectionism) that is connected to the following conditions in response to failure experiences: eating disorders, depression, suicide, personality disorders, obsessive-compulsive disorders, anxiety, panic disorder, psychosomatic disorders, migraine headaches, sexual dysfunction, and Type A behavior.

Thus, perfectionism seems likely to have an extremely pernicious effect upon psychological stress, health, and coping behaviors. Further, given the nature of the condition, perfectionistic tendencies have posed considerable complications in the treatment of perfectionism itself (DiBartolo, Frost, Dixon, & Almodovar, 2001) and attendant disorders such as depression (Blatt, Quinlan, Pilkonis, & Shea, 1995; Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998). In particular, such psychotherapy clients are not only less likely to seek help, as this could be viewed as an admission of failure (Nadler, 1983), but may be particularly resistant to change once in therapy (Flett & Hewitt). Blatt (1995) suggested that this resistance is likely due to issues of intense investment to self-definition, self-control, and self-worth.

The majority of research conducted on perfectionism treatment has focused on concomitant depression, which is presumed to be a result of the failure to meet perfectionistic goals of achievement (Blatt, 1995; Hamachek, 1978). Burns (1980) suggested that the oversensitivity to mistakes, which are likened to signs of failure, leads perfectionistic tendencies to be labeled as a vulnerability factor for depression. Burns also

suggested that this route from perfectionism to depression is the result of negative impacts on self-esteem, which hinges on performance success. In fact, Preusser and colleagues (1994) suggested that depression may not necessarily be a "direct outcome" of perfectionism per se, but the end result of a perfectionism – self-esteem mediational relationship. Thus, self-esteem appears to serve as the mediational link between perfectionism and depression (Preusser et al., 1994; Rice, Ashby, & Slaney, 1998).

Aside from the two articles offered by the Rice and Ashby camp, little research has specifically investigated the mediational role of self-esteem in perfectionism and psychological adjustment. In particular, this contingency has not been extended beyond depression conditions, although a few researchers have suggested this. Hamachek (1978) predicted that "normal" perfectionists would witness better mental health outcomes than "neurotic" perfectionists, particularly due to the adverse effects of perfectionism on self-esteem. Burns (1980) asserted that, in addition to depression responses to perfectionistic striving, anxiety may also be a condition that is affected by perfectionism via low self-esteem: "Perfectionistic individuals...are likely to respond to the perception of failure or inadequacy with a precipitous loss in self-esteem that can trigger episodes of severe depression and anxiety" (p. 34).

The primary contention voiced in the present research is that the mediational path from perfectionism to distress via self-esteem is not relegated to depression alone, but, in fact, extends to anxiety and psychopathology in general. A recent study suggested that psychopathology, whether depression, anxiety, or some other form of psychological distress, is related to perfectionistic standard setting "only when meeting these standards is a necessary condition for a sense of self-worth" (DiBartolo, Frost, Chang, LaSota, &

Grills, 2004, p. 237). Thus, one aim of the current research is to test the supposition that the self-esteem (or self-worth) of perfectionists is contingent upon meeting high achievement standards. A second aim of this study is an attempt to establish the role of this "perfectionistic self-worth" (see DiBartolo et al., 2004) as a connection to psychopathology - including, but beyond, depression. Rice et al. (1998, p. 305) have proposed that "perfectionism sets the stage for self-esteem." Thus, this research further seeks to elucidate the mediational path of self-esteem in relation to perfectionism and psychopathology.

CHAPTER 2

LITERATURE REVIEW

Historical Conceptualizations and Measurement

Early psychoanalytic theory offered by Freud (as cited by Slade & Owens, 1998) considered perfectionistic striving to be an indicator of neuroticism, possibly the result of an inappropriate progression through the anal stage of psychosexual personality development (Frager & Fadiman, 1998). Alfred Adler (1956) grounded his views of neurotic striving for superiority, a chief tenet of Adlerian theory, on the basis of overcompensation for perceived inferiorities. In particular, this embodies his concept of "organ inferiority," in which an individual attempts to overcome his/her weakness in a particular area by improving this "defect" to the point of utmost superiority, reaching perfection. According to Adler, feelings of inferiority are standard within all humans and can serve a motivational purpose if well-managed by the individual, and, thus, can be utilized in constructive ways. One the other hand, when these inferiority feelings evolve into striving for personal superiority over other people, the individual crosses the line of what is in the realms of appropriate social interest. In persons who exhibit such "neurotic striving," numerous inferiority feelings are common and likely result in the perfectionist feeling overwhelmed rather than motivated or inspired to take on the challenges of a task.

In her Neo-Freudian psychoanalytic theories of pathological personality development, Karen Horney (1950) similarly described the individual suffering from perfectionism as striving to create, project, and maintain an image of themselves as perfect. Hollender (1965) departs from both Adler and Horney by lessening the narcissistic construal of perfectionism into a condition based primarily on the seeking of acceptance via performance striving. Instead of approaching tasks as opportunities to obtain self-gratification or meet the demands required by the situation, perfectionists are "exacting for the sake of being exacting" (Hollender, 1965, p. 95). As such, the individual experiences an inordinate amount of internalized, mostly intrapsychic, pressure as a result of the degree of importance that perfect performance takes on when confronted with most tasks. Accordingly, Hollender (1965) asserted that perfectionists typically have problems prioritizing and conceptualizing adequate proportional responses to the demands of tasks.

Because so much pressure is already internalized by the perfectionist, any outside pressure is often harshly tolerated. To this extent, Hollender (1965) suggested that perfectionists lose their autonomy in an attempt to be compliant with the needs others (particularly parental figures), which results in the stunting of emotional growth of the individual, as can be exemplified by the perfectionist's tendencies of over-controlling emotions and concealing anger (as these may be perceived as imperfections). Mood problems, such as depression, can be the end result of failure to perform to exact satisfaction, while shame can occur when the individual feels he/she does not measure up to their self-imposed ideals. Hollender (1965) characterized most of these reactions as short-lived, often resulting in a renewal of hope towards meeting future goals; yet he

recognized, however, that hopelessness and depression can result when perfectionism is severe and long-standing.

Returning to a psychodynamic framework consistent with the Adlerian concept of "neurotic striving," Hamachek (1978) attempted to clarify the dichotomy of what he called "neurotic" versus "normal" perfectionism. Hamachek considered that perfectionism, by itself, can be very motivating. Yet, when the individual's motivational impetus is a fear of failure, perfectionistic striving becomes problematic. Of course, there may be many cases in which this dichotomy resembles more of a continuum, in which perfectionists may vacillate between striving for a desirable end goal and fearfully avoiding potential failure. In Hamachek's view, "normal perfectionists" are able to take satisfaction in their efforts and, quite possibly, in the process of meeting goals; and, in contrast to "neurotic perfectionists," they are able to "feel free to be less precise as the situation permits" (p. 27). Despite the fact that their identity appears to hinge on meeting goals to buttress self-worth feelings, neurotic perfectionists tend to fail to celebrate successes. Acknowledging a job well done seems to elude these perfectionists, since absolute perfection is impossible to obtain and, in theory, one could always try harder or do better.

Disagreeing with the concept of a "normal" variant of perfectionistic striving, Pacht (1984) insisted that seeking perfection is an undesirable and debilitating goal. Pacht (1984) contended that "normal perfectionists" would be more accurately labeled as "skilled artists or masters of their craft" (p. 387). According to Pacht (1984), the end result, if possible, of obtaining perfection would rob the individual of his/her humanity: "To be perfect would require an individual to be an automaton without charm, without

character, without vitality, and almost without any redeeming qualities" (p. 386). Further, he believes that perfectionists permit themselves to be stuck in a "no-win scenario" (p. 387):

> Their goals are set so unrealistically high that they cannot possibly succeed. They are constantly frustrated by their need to achieve and their failure to do so. They see themselves as unlovable and lonely. For them, being perfect is the magic formula for success. Even when perfectionists do something successfully, they are seldom able to savor the fruits of their accomplishments. Yesterday's success has no meaning in the lexicon of the perfectionist.

Burns (1980) shared a similar view, in that the desire for perfection becomes, in effect, self-defeating, since, by its nature, the goal of perfection cannot be reached. His view highlights the torment that perfectionists place upon themselves by setting their standards at the zenith of possible outcomes and wagering their self-esteem in the all-or-nothing attainment of these impossible performance standards. According to Burns (1980), perfectionists become lost in their striving for a flawless product and may fail to note when a task could be considered complete and when a point of diminishing returns has been reached. In judging their own accomplishments and abilities, perfectionists are likely to feel impaired or inadequate in comparison to successful peers, who, in the eyes of the perfectionist, seem to confidently obtain goals with little required effort, producing few errors, and without much distress.

Measuring Perfectionism

In attempting to clarify and understand the experience of perfectionism, a number of researchers have devised subscales and more comprehensive full scales intended to

provide a quantitative measurement of perfectionism. Weissman and Beck (1978), in perhaps the earliest known measure tapping the construct, devised the Dysfunctional Attitudes Scale (DAS), a measurement of self-defeating attitudes associated with clinical depression and anxiety (Enns & Cox, 2002). This measure is reported to have nine factors (Beck, Brown, Steer, & Weissman, 1991), two of which are believed to relate to perfectionism: Success-Perfectionism and Disapproval-Dependence. Burns (1980) adapted his 10-item scale, the Burns Perfectionism Scale, from the DAS. This seminal scale was intended to measure the maladaptive components of perfectionism that are associated with mood problems, lowered life and career satisfaction, and decreased productivity. This short self-report instrument appears to emphasize personal standard setting and heightened concern over making mistakes (Frost et al., 1990). Each item is anchored by a "0" value at the "neutral agreement" point, and allows for "somewhat agreement" (+1) to "agree very much" (+2), in addition to scores in the opposite direction to capture "slight" (-1) and "strong" (-2) disagreement. A total score can range from -20 to +20, with higher positive scores representing more severe perfectionism. Burns suggested that roughly half of the population will fall in the +2 to +16 range, indicating a trend towards varying degrees of perfectionism in the general public.

Given the strong association with eating disorders and the striving for physical perfection, the Eating Disorders Inventory (EDI; Garner, Olmstead, & Polivy, 1983) contains a perfectionism subscale (EDI-P) that includes six statements that emphasize setting high personal standards and parental pressures/expectations (Frost et al., 1990). Over a decade later, a similar self-report instrument, the Neurotic Perfectionism

Questionnaire (NPQ; Mitzman, Slade, & Dewey, 1994) was devised to tap maladaptive perfectionism, with a particular emphasis on thoughts associated with eating disorders.

Until 1990, research on perfectionism was rather sparse, with measurement examining perfectionism as a unidimensional construct in relation to cognitive factors such as irrational beliefs (see Hewitt & Flett, 2002) or dysfunctional attitudes (Burns, 1980). Roughly a year apart, two identically named scales of perfectionism were published: the Multidimensional Perfectionism Scale by Frost et al. (FMPS; 1990) and the Multidimensional Perfectionism Scale by Hewitt and Flett (HMPS; 1991). In the literature, these scales are distinguished by adding the first letter of the lead author's last name to the instrument (e.g., FMPS vs. HMPS). As their names imply, each scale approaches the construct of perfectionism as a multidimensional condition with varying degrees positive and negative attributes depending on the individual. Both scales also emphasize interpersonal and personal expressions of the construct. Following the introduction of these scales, perfectionism related research expanded considerably throughout the 1990s and thus far into the 21st century.

Frost and colleagues (1990) emphasized the writing of other prominent perfectionism theorists (Burns, Hamachek, Hollender, and Pacht) in devising the factors of their MPS. Driven by theory, the authors of the FMPS emphasized the setting of excessively high standards and self-critical evaluation components of perfectionism While the majority of the original 47 items were created by the authors, specific items were drawn from previous perfectionism scales (Burns, 1980; Garner et al., 1983) in addition to a measure of obsessionality, the Maudsley Obsessive-Compulsive Index (MOCI; Rachman & Hodgson, 1980). After refinements in factors and items, the present FMPS contains 35

items accounted for by six factors: Personal Standards (PS), Concern over Mistakes (CM), Doubts about Actions (DA), Parental Expectation (PE), Parental Criticism (PC), and Organization (O). As theorized by its authors, the PS subscale is related to the setting of unrealistically high standards and excessively striving to reach them, while CM's items are intended to measure the individual's tendency towards overly critical self-analysis regarding making mistakes, with even slight errors equivalent to a perceived failure of the entire task. The DA subscale has been purported to measure the individual's feelings of uncertainty and doubt regarding the quality of his/her performance. The PE subscale is meant to tap the perceived expectations of the individual's parents with respect to demanding perfect performance of tasks, while the PC subscale represents the experience of criticism or punishment by parents when tasks were not completed to satisfaction. Thus, high scores on these two subscales of the FMPS seem to suggest a childhood environment in which parental approval was experienced as conditional upon performance outcomes. Finally, the O subscale, which is not calculated in the total score for the FMPS, contains items that pull for an overemphasis on orderliness, neatness, precision, and organization.

Following a correlational investigation by the FMPS authors (Frost et al., 1990), Concern over Mistakes (CM) and Personal Standards (PS) demonstrated the highest overlap with existing perfectionism measures, while CM and Doubts about Actions (DA) displayed the strongest correlations with measures of psychopathology and compulsivity. The authors concluded that CM seems to be most central to the experience of perfectionistic strivings as pathological, whereas high scores on PS and Organization (O) subscales were found to be related to positive factors of high striving. That is, PS is

believed to represent a good and healthy characteristic, in itself. But when persons also score high on the CM subscale, the striving to meet high personal performance standards may prove to be problematic. In an attempt to establish the psychometric properties of a Chinese version of the FMPS (Cheng, Chong, & Wong, 1999), high scores on the PS subscale witnessed a concomitant positive effect on self-esteem after DA and CM had been accounted for. Using the FMPS total score as an indicator of depression, Frost et al. found that persons with high endorsement of perfectionistic characteristics also tend to experience a greater frequency and variety of psychopathological symptomatology than persons endorsing little or no perfectionism. Consistent with an emphasis on self-critical evaluation on the part of those with high degrees of problematic perfectionism, persons with high FMPS scores, compared to those with low FMPS scores, tended to have high levels of Self-Critical Depression, as measured by the Depressive Experiences Questionnaire (Blatt, D'Afflitti, & Quinlan, 1976).

Emphasizing both individual and interpersonal concerns related to perfectionism, Hewitt and Flett's MPS (HMPS; 1991) is a 45-item self-report questionnaire that can be broken-down into three major dimensions believed to be specific, but related experiences of perfectionism: Self-Orientated Perfectionism (SOP), Other-Oriented Perfectionism (OOP), and Socially-Prescribed Perfectionism (SPP). SOP, which is similar to Frost et al's (1990) Personal Standards (PS) subscale, is believed to consist of setting high, exacting standards for oneself that are motivated by both desire for success and a fear of failure. Hewitt and Flett also conceptualize this subscale as tapping self-critical evaluations and the censuring of one's behavior to maintain perfectionistic appearances. The OOP dimension is a measure of high expectations and demanding unrealistic

standards of performance of significant others in the individual's life. According to its authors, high endorsement of this dimension of perfectionism often leads to interpersonal problems in relationships, such as difficulties with trust or anger. Finally, SPP endorsement is believed to indicate the perception that the individual's perfectionism is in response to the evaluative demands and pressures to be perfect placed upon them by significant others.

In a study comparing the two Multidimensional Perfectionism Scales, factor analyses suggested that both scales were closely related (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993). Although differing in the specific dimensions, there appeared to be a considerable overlap among scales. Frost et al. suggested two overarching factors which they termed "Maladaptive Evaluative Concerns" and "Positive Striving." In general terms, these two factors suggest a distinction between the negative and positive aspects of being perfectionistic. Consisting of the Personal Standards (PS) and Organization (O) subscales of the FMPS and the Self-Oriented (SOP) and Other-Oriented (OOP) Perfectionism scales of the HMPS, the Positive Striving factor reported taps the healthy, success-driven aspects of perfectionism. The authors suggested that people who score high on this factor (excluding scores on Maladaptive Evaluative Concerns) will likely be driven towards excellence as a likely result of highly demanding and organized skills, in addition to internal (PS, SOP) and external expectations (OOP) for success.

In contrast, Frost et al. (1993) suggest that the Maladaptive Evaluative Concerns factor represents the pathological aspects of perfectionism that do not contribute to success, but instead tends to be related to stress, mood disorders, and other negative aspects of perfectionism. This factor is comprised of the following scales: Concern over

Mistakes (CM), Parental Criticism (PC) and Expectations (PE), and Doubts about Actions (DA) of the FMPS, in addition to the Socially-Prescribed Perfectionism (SPP) scale from the HMPS. As the name given to this factor suggests, persons endorsing many of these items tend to have a strong need to maintain the image of themselves as without flaws, as if under constant evaluation. Excessive worry and energy may be expended to ensure vigilance to the prevention and/or correction of potential errors. With the exception of the parental scales (PC and PE) of the FMPS, which are retrospectively traced to one's childhood and parents, all of these scales appear to be subject to state changes as indicators of problematic perfectionism (Shafran & Mansell, 2001).

Both the Frost and colleagues' camp and the Hewitt and Flett camp have recently published additional perfectionism scales as either new measures or addendums to prior scales. As an attempt to better understand the underlying cognitions associated with perfectionism and a possible perfectionistic thinking style, Flett, Hewitt, Blankstein, and Gray (1998) developed the Perfectionistic Cognitions Inventory (PCI). This measure consists of a 25-item list of perfectionistic thoughts that the individual is required to consider and rate per week frequency. More recently, Hewitt, Flett, et al. (2001, unpublished manuscript) added a 27-item self-report Likert-type measure, the Perfectionistic Self-Presentation Scale, to the perfectionism literature (see Flett & Hewitt, 2002). This scale purportedly assesses the specific element of perfectionism in which an individual feels compelled to publicly promote, portray, and conceal the flaws of an unblemished image to others. The recent contribution of the Frost camp is the Contingent Self-Worth Scale (DiBartolo et al., 2004). This study investigated the relationship of the Personal Standards (PS) subscale of the FMPS and pathology. This scale consists of the

PS subscale and six new items pulling for endorsement of self-worth as tied to performance and successful outcomes. This instrument represents an attempt to better specify and measure the relationship between healthy/adaptive, aspiration-based perfectionism and the psychopathological aspects that occur when feelings of self-worth depend on reaching high standards.

The Nature of Perfectionism: Etiology and Course

Although clear causal factors of perfectionism remain a mystery, a number of theorists have attempted to decipher how it is that people "become" perfectionistic and whether distress precedes or follows perfectionistic attitudes and behaviors. The one seemingly agreed upon commonality among the major perfectionism theorists is that perfectionism is not in-born, but occurs in response to something in the environment, usually at an early age somewhere in the midst of childhood. Psychosexually, according to Hollender (1965), perfectionism is related to "difficulties at the oral stage: an expression of dependency longings" (p. 102). A similar psychodynamic theory offered by Timpe (1989) places the age at which perfectionism occurs later, in late pre-school following resolution of the oedipal complex. According to Timpe (1989), perfectionism represents the effect of an overdeveloped superego, an unhealthy imbalance of psychic energy over-emphasizing the conscience at the expense of the ego-ideal. Continuing with an Adlerian notion of striving for superiority, Timpe (1989) suggested that the child develops a negative image which translates into later issues of low self-esteem. By striving to obtain characteristics of the idealized self, the child attempts to counter the anxiety resultant of this intrapsychic conflict. Consistent with Adler's (1956) "inferiority

complex," the child is motivated to overcome struggles with inferiority feelings by improving the perceived weakness (organ), building it into a sources of strength such that the inferior defect can be eventually considered a superior feature of the person. Thus, Timpe's (1989) application of Adlerian theory suggested that striving for perfection represents an attempt to overcome perceived inadequacies by striving for superiority in these and other aspects of the individual.

Psychosocial explanations of perfectionism have garnered more recent attention, as external factors, such as parenting, and a variety of characteristics of the developing individual appear to interact. Timpe (1989) places the phase of "planting the seeds of perfectionism" at the elementary school years when children are given and expected to complete schoolwork and other tasks. Timpe (1989) suggested that when children reach pre-adolescent ages, where psychosocial development requires mastery of self-control, their healthy development includes a desire to please parents and society by performing tasks at a high degree of competence and quality. For a percentage of such children, they are unable to separate self-esteem from performance on the tasks expected of them. According to Timpe (1989), these children are at risk to develop perfectionistic striving and a hypersensitivity to imperfections, which together may grow into full-blown perfectionism and related disorders (e.g., eating disorders). So it seems that for some children, expectations regarding performance take on a quality of relating to the way the child perceives his/her worth. Where these perceptions originate is up to debate, although parental pressures have been indicated.

Adler (1956) theorized that perfectionism arises, in part, out of a need to please significant others. Harsh and demanding parenting styles have been suggested as key

factors leading to the development of perfectionism (Driscoll, 1982). Misslidine (1963) argued that perfectionists tend to have perfectionists for parents, who give their child the message that parental approval is dependent on meeting unrealistic standards. This line of research influenced the Frost et al. (1990) camp in the creation of their MPS, wherein two of the six subscales examine the individual's perceptions of past parental expectations and criticisms. Other theorists (Barrow & Moore, 1983; Hamachek, 1978; Hollender, 1965) suggest that inconsistent parental approval, in addition to conditional approval, leaves the child unsure of how to find acceptance and love from significant others except via his/her performance. As a result, the child may learn to "shoot for the sky" in terms of the standards of performance, in the hopes that certainly perfection would be "good enough" to meet the demands of others.

Two major theorists considered the influence of conditional approval on the part of the parents and parental inconsistencies among the most salient etiological conceptualizations of perfectionism. Hollender (1965) contended that perfectionism is more likely to occur in dispositionally sensitive and insecure children. He suggested that this predisposed insecurity motivates the child to gain reassurance of his/her acceptance. When such children have parents that are particularly demanding in an all-or-nothing way, the child may complete tasks to a reasonably adequate level but still receive feedback from the parents that the task performance could have been better. Consistent with Missildine (1963), Hollender (1965) suggested that the child gets the impression that if he/she only does better, eventual acceptance will follow. According to Hollender (1965), the child's ego-ideal takes on an internalized version of the perceived ideals of the parents, whereby the child strives to create a better and more consistent self-image to

obtain approval and feelings of worthiness. As an adult, the perfectionist struggles with "haunting self-doubts and exacting demands... [he] sees himself as judged by what he does, not for what he is" (p. 99). Thus, without a clear sense of self judged to be adequate, performance demands become equivalent to opportunities for testing self-worth in the perfectionist.

Hamachek (1978) theorized that neurotic perfectionism begins in one of two ways of emotional development: (1) an environment of non-approval or inconsistent approval, and (2) an environment of conditional positive approval. In the former, the individual feels a sense of ambiguity as to what can be considered "good enough." Since the person lacks feedback regarding external standards, they instead guess that if their standards are set high enough, performance should be enough to satisfy just about anyone (including themselves). Similar to Hollender's (1965) conceptualization, Hamachek's (1978) second pathway of conditional positive approval illustrates the mixed messages the child receives, whereby approval appears to be withheld pending successful completion of tasks. Here, the individual learns that praise of him/her as a person is defined by others based on performance.

Focusing on some of the more healthy aspects that are grouped under the term "perfectionism," Hamachek (1978) cited two antecedents of "normal" perfectionism. The first is through positive modeling. That is, the child identifies closely with significant others and notes, primarily through example, that there are better, more preferred ways to accomplish tasks. Hamachek (1978) suggested this individual grows to exhibit a preference for neatness and orderliness and for things to be proper and correct versus adequate or average. The main difference from neurotic perfectionists is that these

"normal" perfectionists are able to enjoy their accomplishments and derive satisfaction from a job well done. For such individuals, falling short of excellence in performance is not seen as failure, as the "me" in the scenario remains soundly intact. The second precursor to normal perfectionism is through negative modeling, where an individual reacts to and chooses to become the opposite of someone who displayed more flagrant imperfections, such as extreme disorganization and difficulty accomplishing tasks to an adequate degree. As a result, the individual becomes "more like himself and less like the negative model" (p. 31), which serves to enhance the individual's self-esteem while preserving the close relationship with the significant other, as the individual feels "successfully different."

Burns (1980) cited Harry Stack Sullivan as a key theorist who linked perfectionism to a coping strategy for dealing with insecurities as a result of unloving households with parents whose demands were uncertain. Such children learn to protect themselves from the vulnerability of feeling unloved by adopting a strategy that offers hope of approval and love, while defending against reproach for not meeting demands by striving for flawlessness. Whether due to inconsistent or conditional parental approval, an internalized need/desire to excel, or some other aspects or combinations of aspects, Burns (1980) suggested that the behavioral concept of intermittent reinforcement explains why many people continue to embrace self-defeating attitudes despite the stress of having to constantly strive for perfection and second-guess if the end result is good enough. Thus, although perfectionism is not truly attainable, perfectionists are highly motivated to keep trying. Perhaps this is linked to internalized parental expectations (or potential ambiguity

therein), which, on some occasions but not others, the child was able to attain and receive much desired praise - an indication of his/her worth.

The possibility that any one of these theories explains all cases of perfectionism is highly unlikely; however, an interaction of conditions may serve to establish perfectionism in those individuals who are already sensitive/insecure or perhaps more likely to internalize external messages. For example, certainly not all persons with perfectionism come from a background of inconsistent or conditional parental approval, just as not everyone who has harsh, demanding, and ambiguously approving parents becomes a perfectionist. A diathesis-stress model appears best able to explain etiological factors in the face of innumerable personality and environmental factors. Following this notion, some individuals may be more or less predisposed, via innate and early environment experiences, to respond more or less favorably to external conditions such as parental, cultural, social, and instinctual factors. Although perfectionism per se may not necessarily be genetically passed on from parent to child, some evidence suggests that genetics may influence an unspecified predisposition that leaves the child vulnerable to later perfectionism (Chang, 2000). To this extent, it may be likely that some people can readily trace their perfectionistic roots to feelings of inadequacy and striving, as most (if not all) people, for approval from those around us. Yet several factors may serve to promote and maintain perfectionism in the individual.

Perhaps the greatest force, outside of the parents and home life, that maintains perfectionism in Western culture is the societal emphasis on success and constant improvement of ideas and performance. This achievement-oriented society (Ferguson & Rodway, 1994) likely has a strong influence on general perceptions of success and

promotes the idea of superiority in work product as translating into financial and career success, which some may arguably deem as prerequisites for happiness and freedom from many of life's everyday stressors. That is, a common message prevalent among our current society is that hard work and effort will eventually pay off in dividends related to later peace-of-mind and life stability/security for oneself and loved ones.

Some perfectionistic individuals may not necessarily feel compelled to excel based on job success, but instead perfectionistic striving may find its impetus from a given individual's non-specific internal desire to complete most any task to the best of their abilities. Some persons may experience their perfectionism as representing more than the quality of their work, but a statement about the quality of person completing the task. For such persons, especially when they define their "selves" by what they do, there seems to be a sense that constant self-improvement is an unending process by which long-term contentment may be the goal, but short-term contentment is rarely found. To this extent, Timpe (1989, p. 32) suggested: "Perfectionism is more the process of becoming than a static state of being; that is, it is much more a means than an end."

Shafran and Mansell (2001) highlighted the process by which individuals who are perfectionistic may have initially found setting high standards as striving to meet them as a rewarding, satisfying option. These authors suggested that utilizing positive perfectionistic strategies (i.e., setting high standards and focusing on meticulous improvement on details), though emotionally and physically taxing on the individual, serve a purpose of meeting goals, which are likely received by praise from others. Once persons become fatigued by using this method, however, the stress can take its toll on the individual. Many persons may stop here and find such excess striving to be unrealistic

and hardly worth the negative consequences and, as a result, adjust their expectations. For perfectionists, however, attaining perfection and the striving itself have become goals. To this extent, Shafran and Mansell (2001) stated that as external circumstances change and the process of demanding excellence continues, perfectionistic individuals find it harder and harder to achieve standards than before. Thus, the bar continues to be raised following both the achievements and failures to reach goals. As a result, negative emotions and distress follow, as the individual grows caught up in the process, unable to change circumstances and unwilling to readjust expectations.

One final note of speculation regarding the nature of perfectionism in terms of onset and course is that, logically, one might assume that for persons to become locked in to this process of perfectionistic striving, the individual must first have at least some success with the process (as suggested by Shafran & Mansell, 2001) for it to continue. Although this point has not been researched or considered elsewhere, for a person to develop into a perfectionist, potentially, he/she must first imagine themselves to be somewhere in the ballpark of achieving excellence, if not absolute perfection. For those who tend to "own" this process, reinforcement must have occurred in some form. Perhaps this is intermittent, as Burns (1980) suggested. Yet, an event would appear curious should a person with a little taste of success would feasibly make attempts towards perfection. Granted, perceptions of what perfection is for particular tasks may be subjective, but difficulty exists when trying to imagine individuals who are consistently frustrated to adequately reach goals becoming perfectionistic unless reasonable approximations of these goals have, at least occasionally, been met.

Pathological and Nonpathological Perfectionism

As alluded to earlier in this work, difficulties arise regarding judgments about what is meant by "perfectionism" and whether or not this construct implies troublesome and dysfunctional striving for success, a preference for order and exactness that can serve a positive motivational purpose, or a combination of the above that contains both healthy and unhealthy aspects of varying degrees dependent upon situational influences. Some authors, such as Greenspon (2000) and Pacht (1984), believe that perfectionism always indicates distress and should not be used to describe positive attributes such as high achievement orientation and conscientiousness regarding work, traits that are prized by employers, society, and often the individual themselves. Greenspon suggested, as illustrated by the title of his article, that "healthy perfectionism is an oxymoron." He suggested the term "moderately perfectionistic" to refer to individuals characterized by traits that motivate them to excel and continually seek self-improvement, but who are able to focus on realistic standards and withstand mistakes without internalizing them.

Other researchers suggest a normal-excessive continuum that may expand gray areas not as obvious when perfectionism is dichotomously sliced into healthy and pathological portions. Adler (1956) believed striving for our best is a normal aspect of development that can become problematic when the individual's goal is to meet unrealistic demands of superiority over others. Rice, Ashby, and Preusser (1996) added that Adler placed a distinction on whether striving to meet standards of superiority is useful or useless. Accordingly, useless striving, presumably that which does not help the individual meet his/her goals, is considered a risk factor for low self-esteem, while useful perfectionistic striving, that which leads to goal fulfillment, is positively associated with healthy self-

esteem. Based on distinctions offered by Hamachek (1978) and Frost et al., (1993), Rice and colleagues (1998) concluded that regardless of performance, normal perfectionists will experience positive feelings about themselves as a result of high achievement strivings, whereas neurotic perfectionists are defined by their maladaptive evaluative concerns and, as such, are expected to continually and consistently experience negative feelings about themselves.

A recent literature review offered by Antony and Swinson (1998) suggested that the red flags that indicate when healthy striving has been breached in favor of pathological striving include the following: excessiveness of achievement standards, accuracy of beliefs about the need to achieve perfection, personal costs outweighing the benefits of imposing the standard, and inflexibility of the standard. These authors consider the clearest distinction of pathology to be whether or not the person is able to recover easily when high standards are not met. Of course, there can be a good deal of subjectivity involved in what one considers to be meant by "easily recovered." Still, there seems to be room for a continuum, which may likely vary upon situational and individual characteristics. Timpe (1989) considered that pathological perfectionism exists when the individual's approach towards meeting goals is rigid and inflexible: "When the perfectionism is a fixed, unchanging state, it is a ritualism with pathological and neurotic elements. In this perspective, perfectionism is a pathology" (p. 32).

A seemingly prominent crux of perfectionists relates to the individual's expectations about what he/she should and ought to be able to accomplish and to what degree of success. Thus, perfectionism appears to become problematic when expectations are heavily infused with one's attributed self-worth, which seems to hinge upon one's

abilities – particularly one's most recent successes or failures – for meaning. As noted in Frost and Marten (1990), Higgins' self-discrepancy theory (1987) can be readily applied to illustrate the inner conflicts faced by perfectionists. According to self-discrepancy theory, an individual's self-concept, which reflects the nearest approximation of the actual-self in reality, can be negatively affected when this actual self falls short of what the individual thinks as their personal ideal. For perfectionists and high-achievement-oriented non-perfectionists, their ideal-self (what the individual imagines to be the best, most satisfying version of themselves) and ought-self (consisting of personal attributes the individual believes they should possess) does not match the reality of the actual-self, and this discrepancy often leads to emotional distress when the conflict cannot be resolved. Given the rigidity of perfectionistic standards and the unrealistic goals perfectionists demand of themselves, this conflict seems unlikely to extinguish unless the perfectionist adjusts his/her expectations – as the constraints of reality are unlikely to give way.

Normal Perfectionism

"Normal" or "non-pathological" aspects of perfectionism, as indicated by the terminology, seem to comprise characteristics of setting high, exacting standards and maintaining orderliness in the process and details of a given task. In fact, many of these characteristics are those which our society prizes: competence, order, dutifulness, achievement striving, self-discipline, and careful deliberation (Hill, McIntire, & Bachrach, 1997). Whereas certain jobs and tasks would demand some degree of "healthy" perfectionism and exactness, particularly in life or death situations (e.g., surgery, air traffic control, and so forth), a similar approach in other areas may become

self-defeating for the individual and serve as a detriment towards the efficiency and quality of the work. Yet, when the job demands above average performance and minor slip-ups have a real life potential for catastrophe, perfectionistic traits such as meticulousness and conscientiousness are mandatory. In such cases, perfectionism can be considered adaptive (Hamachek, 1978). That is, perfectionistic striving can serve a useful, adaptive purpose.

When the goals of perfectionistic striving are reasonable and realistic, the end result can include self-satisfaction and appreciation, pride in a job well-done, and feelings of enhanced self-esteem (Hamachek, 1978). Individuals expressing adaptive perfectionism traits are able to estimate realistic performance boundaries in relation to his/her individual strengths and weaknesses. According to Hamachek (1978), the "normal perfectionist" is able to derive a sense of pleasure from their efforts, while the pressure of performance is seen as more of a challenge than a threat. For some perfectionists, as well as non-perfectionists, these traits can be considered to be quite healthy. In fact, some degree of healthy perfectionism may actually promote ego-resiliency in some individuals. That is, striving for personal success, when held to realistic boundaries, may help buffer from feelings of depression while building up self-esteem (Preusser et al., 1994).

Thus, high-achievement striving can be motivational and adaptive when clear, realistic standards are set and expectations are reasonable. However, situational and environmental changes can occur, unexpectedly, which may result in negative feelings of frustration, failure, and emotional upset (Shafran & Mansell, 2001). Although positive aspects of perfectionism may be rewarding at times, according to Shafran and Mansell (2001), constant striving and efforts to maintain flawlessness in performance may be met

with negative long-term effects on physical health, well-being, and relationships with others. Though positive and healthy when separate from dysfunctional aspects of perfectionism, perfectionistic traits such as striving to reach high standards and conscientiousness are highly correlated with neuroticism and the negative aspects of perfectionism (Hill et al., 1997). To this extent, perhaps the healthy, well-adjusted perfectionist who excels at goals with seemingly little stress and bolstered self-esteem may be another ideal to which many individuals strive, but few, if any, realistically obtain.

Pathological Perfectionism

Given the disparity of views on what comprises the terminology of pathological, dysfunctional, neurotic, problematic, and negative perfectionism, for the purposes of parsimony these terms, though distinct, will be used interchangeably to imply an individual whose life is negatively compromised by his/her perfectionistic traits. Hamachek's (1978) definition of the neurotic perfectionist seems to best apply here to encompass any individual struggling with their perfecitonism: a person with a tendency to strive for excessively high standards, who is motivated by fears of failure and a heightened concern about disappointing others. To briefly reiterate the common themes, these individuals feel that even best efforts are never sufficient; every job could and should be done better such that satisfaction from hard work rarely enters the picture. Hamachek (1978) suggested that the neurotic perfectionist will inevitably have a different outlook regarding work than a normal perfectionist, as the former is characterized by a "tense and deliberate" style of thinking about work to be done, while the latter is more likely to approach tasks with a "relaxed and careful" style. Further, Preusser et al. (1994)

added that persons with problematic perfectionism will be highly sensitive to social sanctions (real or exaggerated) for failure and more likely to experience low self-esteem than their more adaptive counterparts. Instead of facing tasks as challenges, many dysfunctional perfectionists are likely to avoid situations that might bring out their need to meet excessive standards (Shafran & Mansell, 2001), perhaps correctly recognizing the amount of effort and stress they must exert to keep from "failing" by not reaching perfection.

In line with psychodynamic and Adlerian theory, perfectionism may represent a coping strategy that has gone awry. Blatt (1995) suggested that deep-seated inferiority and vulnerability feelings are the driving forces of the perfectionist's constant self-defeating cycle of overextending goals and standards beyond reason. In one sense, attempting to better oneself on weak and vulnerable areas can serve a useful, self-promoting function. For some persons, however, a reasonable coping strategy of self-improvement looks more like relentless overcompensation to cover up for perceived shortcomings (Flett and Hewitt, 2002). In line with Flett and Hewitt, this striving seems to take on an obsessive quality whereby an individual struggles, even against his or her rational judgments or conventional wisdom, to overcome distress and inferiority feelings by attempting a constructive solution to the matter of self-worth. That is, via enlisting perfectionistic strategies such as excessive performance demands, an individual may try to counteract self-esteem troubles by focusing efforts on improving his/her situation in a concrete way and thereby offer indications of the individual's worth. After a point, diminished satisfaction from the efforts and reasonable successes experienced by the person may occur, superceded instead by the demands of the strategy itself.

Of note, one particular study by Ashby and Kottman (1996) examined the relationship between neurotic perfectionism and inferiority. Using the Revised Almost Perfect Scale (APS), a 32-item instrument created by Slaney, Ashby, and Trippi (1995) to tap both positive and negative aspects of perfectionism, individuals who scored in the highest third of the sample were compared to lower scoring counterparts on the Comparative Feeling of Inferiority Index (CFII; Strano & Dixon, 1990), a 60-item (30 items rated by the self and 30 by the individual's family) inventory based on the Adlerian concept of inferiority that examines physical and social characteristics and standards of the target individual. Neurotic perfectionists, as determined by their scores on the Discrepancy Subscale of the APRS, were found to be significantly higher than normal groups on the CFII's rating of inferiority, while also consistently higher on the APSR scales of emotional distress (Anxiety, Procrastination, and Intimacy).

A recent study by Chang (2000) examined the role of perfectionism and related stress on life satisfaction. With a sample of 67 men and women (20 young adults and 47 older adults), FMPS scores and reported life satisfaction were found to be fully mediated by stress level, while negative psychological outcomes (negative mood and worry) were only partially mediated by stress. Chang (2000) asserted that the perfectionism's role on positive psychological outcomes (such as life satisfaction) depends largely on the influence of perfectionism on stress. His model thus suggests that perfectionistic tendencies lead to stress, which then lead to poor psychological outcomes. This assertion is somewhat unique from most other research on the subject that tends to follow a diathesis-stress model, whereby perfectionism is believed to exacerbate (not introduce) the influence of stress on psychological outcomes.

A critical component of perfectionism that seems to lie at the crux of when it becomes pathological is the attitudinal and attributional styles of the individual. Whether a cause, effect, or an interactional combination, a dysfunctional perfectionistic self- belief system (Campbell & Di Paula, 2002) appears to be well in place for individuals with problematic perfectionism. According to Campbell and Di Paula (2002), the psychological and behavioral consequences of perfectionism hinge upon the pefectionistic self-beliefs that the individual chooses to follow. To prevent failure, a perfectionistic individual may take on the belief that striving for perfection is an important strategy. Although this may lead to greater conscientiousness and attentiveness to details that can help with task thoroughness, this belief can also lead to lower levels of self-esteem and problems redirecting goal-related behavior when facing bumps in the road. These authors suggested that a motivational distinction exists between perfectionists and non-perfectionists, wherein the perfectionist's motivation of avoiding failure (versus achieving success) sets off a chain of self-defeating attitudes that detrimentally affects feelings of self-esteem. That is, if one's motivation were success and not a fear of failure, then there would be little concern about rejection, less stress and pressure attached to completing tasks (i.e., less riding on each and every performance), more certainty regarding goals, higher efficiency, a more positive mood towards actively pursuing goals, and greater satisfaction with progress and end results, which may all lead to improved self-esteem related to an efficient process and successful task performance outcome.

Another aspect of attributional styles that tends to separate problematic perfectionists from others is the perception that despite their efforts, much of their situational contexts

are beyond control (Flett, Hewitt, Blankstein, & Pickering, 1998). Particularly exemplified with the Socially-Prescribed Perfectionism subscale of the HMPS, Flett et al. (1998) suggested that perfectionists often feel that they cannot take credit for successful outcomes, yet experience a great deal of self-blame for mistakes. Thus, despite feeling a lack of control over the final outcomes, Flett et al. (1998) asserted that perfectionists still grapple with the belief that they *should* be able to control external influences, even the expectations of others. This appears to highlight the conflict perfectionists experience regarding self-perceptions of their own efficacy and resourcefulness in lieu of reality constraints.

Because perfectionists pit their achievements against the highest and most unrealistic standards, the breadth and range of outcomes deemed as failures is also expanded (Tangney, 2002). According to Tangney (2002), perfectionists become wrapped up in the process of self-evaluation, whereupon they exert excessive energy. She asserted that, in addition to the setting of rigid and high standards, perfectionists are heavily oriented towards the process of evaluation, and further stated that "Although everyone self-evaluates with some regularity, perfectionists make it a full-time job" (p. 203). This investment of time and energy into evaluation may occur because of at least two common factors of perfectionism: (1) perfectionists tend to develop inflexible concrete notions of success and failure; and (2) they are inclined to demand excellence and superior performance across multiple areas, even where superior performance is not necessary.

When mistakes do occur, perfectionists tend to overestimate the seriousness of the infractions, ruminating on the errors and the belief that others may negatively evaluate them as a result (Frost et al., 1997). In a study by Frost et al. (1997), this idea of an out-

of-proportion judgment of the severity of mistakes was supported with a sample of college students scoring high versus low on the Concern over Mistakes (CM) subscale of the FMPS. In this case, both groups were judged by themselves and independent judges to have made the same number and severity of mistakes, yet the high CM group demonstrated a much more negative reaction to these mistakes. In a similar study conducted by Frost et al. (1995), undergraduates who scored high on CM reported lowered self-confidence. This sample of students leaning towards perfectionism reported beliefs that they "should have done better" and were concerned that others would be inclined to view them as less intelligent than their low CM peers.

In a seminal study of evaluative threat and perfectionism, Frost and Marten (1990) examined perfectionism in response to an evaluative writing task on a sample of college females. From the outset, those who scored higher on perfectionism reported the task as taking on more importance than their non-perfectionistic counterparts. The former also experienced greater levels of negative affect prior to and throughout the task, were more likely to feel that they should have done better, and their work was judged as lower in quality when compared to peers who reported less perfectionism. These authors also considered a possible concomitant or alternative relationship between perfectionism and performance anxiety consistent with the experience of negative affect before and during the evaluative task, an assertion similar to that of Burns (1980).

As perfectionists tend to be highly concerned over evaluation, they are particularly sensitive to feelings of shame and embarrassment (Tangney, 2002). To this extent, individuals with perfectionism may give little acknowledgment to contextual complexities of performance, but instead overgeneralize failures (Hewitt & Flett, 1991)

such that mistakes made on each task represent another link in the chain of failures made by the perfectionist. The experience of falling short on task demands becomes extremely personalized: "It is not just the specific job or performance that is a failure; it is the wretched perfectionist him- or herself that is a failure" (Tangney, 2002, p. 204). According to Tangney (2002), this focus on the global self, and not the context-specific behaviors, lies at the heart of the shaming experience perfectionists repeat when failing at tasks. Further, Tangney (2002) distinguished the experience of shame from guilt with perfectionists, as perfectionists tend not to focus on the guilt-laden behaviors, but the implications the behaviors have on the individual's personhood, highlighting the perfectionist's self-discrepancy whereby the actual self again fails to measure up to the ideal self. Moreover, in this matter guilt would tend to be self-directed for violating one's own inner standard (Hamachek, 1978).

This shame experience for perfectionists may be particularly noteworthy for persons scoring high on the HMPS's Socially-Prescribed Perfectionism scale and for those with high CM scores on the FMPS (Tangney, 2002). Since both of these groups tend to be preoccupied with evaluations and opinions made by others, shame-related behaviors such as hiding mistakes and monitoring disclosures may occur with regularity (Frost et al., 1995, 1997). Frost and colleagues (1997) suggested that this tendency of perfectionists towards concealing mistakes and matters they fear may make them appear less-than-perfect has its roots in the constant self-evaluative, self-presentational concerns integral in many perfectionists. To this extent, Hamachek (1978) stated that perfectionists engage in "face-saving behavior" whereby individuals strive to present themselves as capable and strong, while avoiding situations in which they might appear otherwise. When this

motivation to hide weaknesses and only show strengths becomes a first-line of defense for perfectionists, outcomes can include social isolation that may resemble extreme shyness. Thus, anytime others are around or able to evaluate performance, shame and embarrassment opportunities abound, leaving perfectionists feeling particularly vulnerable to the potentially devastating impact social evaluations can have on their self-worth.

Ellis (2002) suggested that perfectionists set themselves up for this vulnerability through unhealthy conditional self-acceptance that can be, at times, based on competition with others, and exacerbated by an irrational thought process he termed "musterbation." As a normal desire for having a strong self of self-efficacy is rational and adaptive, according to Ellis (2002), this desire becomes an absolute must that no longer resembles a logical preference. Whereas wishes can be disappointing and frustrating if they go unmet, needs and demands can lead to depression, anger, anxiety, and other forms of stress if they are not achieved. This whole process seems to be self-defeating for the perfectionist by constantly scrutinizing and striving to improve his/her self-efficacy – at the expense of the individual's very personhood – something they undoubted feel *should* have been positive in the first place.

Paradoxically, perfectionists often employ a self-defeating mechanism of self-depreciation to not only satisfy the self-fulfilling prophecy of not being good enough, but also to serve as an indication of the possibility that they might still have the potential for worthiness (Hamachek, 1978). In addition to ensuring appropriate punishment for being flawed and "beating others to the punch" of evaluating and passing judgment upon them, the individual may "feel like a person of at least potential worth since actual worth is

missing" (p. 32). This idea is akin to Rollo May's (1953, as cited by Hamachek) self-condemnation strategy whereby an individual counterintuitively asserts their own importance since they are worth damning. Also according to May's theory, the person can send a message to others of their worth, "look how good I am...that I have such high ideals that I am ashamed of myself for falling short of them" (Hamachek, 1978, p. 32).

Along with other populations prone to psychological distress, perfectionists appear to exemplify mastery of what Karen Horney (1950) termed the "tyranny of the shoulds." According to Burns (1980), perfectionists routinely employ "should" statements that, if milder and more realistic might otherwise serve as motivation, serve to torment them. In addition to this thought distortion, perfectionists tend to catastrophize even minor set-backs, unable to tolerate the stress of realistic imperfections. According to Burns (1980), perfectionistic individuals also overgeneralize specific instances to be indicators of overall patterns. This can be illustrated by the fragility of self-worth, which hangs in the balance based on performance outcomes, as well as the process of evaluation and vigilance regarding self and social evaluation and the implications thereof. Burns (1980) notes that perhaps the most common thought distortion found with perfectionists is all-or-nothing thinking. This term comprises the black-and-white, good-bad dichotomous thinking that plagues the individual's expectations and evaluations of performance outcomes. This is where gray areas are viewed as lesser or not good enough, and the perfectionist loses the proverbial "forest in [from] the trees."

Perfectionism's Psychopathological Relationships

As has been illustrated thus far as a pathology in and of itself, perfectionism appears to become most problematic and damaging when it either develops into or exacerbates DSM-IVTR diagnosable mental health conditions. Furthermore, it can also present as a detrimental factor in other medical, health, and stress concerns. Consistently, perfectionism has been examined in connection to psychopathology such as depression (Blatt et al., 1995; Hewitt & Flett, 1991), anxiety disorders such as social anxiety (Juster et al., 1996) and obsessive-compulsive disorder (Frost & Shows, 1993; Frost and Steketee, 1997), eating disorders (Bastiana, Rao, Weltzin, & Kaye, 1995), and somatic disorders (see Shafran & Mansell, 2001), to name a few.

According to Frost and Steketee, 1997, p. 292), "Perfectionism may be a characteristic that cuts across a wide variety of disorders and is not specific to any one or two." Perfectionism has also been associated with a multitude of other mental health and medical diagnostic labels that include alcoholism, Munchausen syndrome, irritable bowel syndrome, depression in children and adults, anorexia, obsessive-compulsive personality disorders, abdominal pain in children, writer's block, ulcerative colitis, and Type-A coronary-prone behavior (see Pacht, 1984). Frustration encountered by failure to achieve perfect and idealized goals may contribute to the link between perfectionism and several associated problems (see Preusser, et al., 1994): chemical use/abuse, chronic pain, coronary heart disease, eating disorders, and procrastination. Along with emotional disturbances, these general health concerns are likely stress-related byproducts of the struggle for perfectionism. In the following section, these links between perfectionism

and a host of the more prominent psychopathological conditions will be examined in more detail.

Depression and Perfectionism

Depression symptoms seem to be one of the most common outcomes for those struggling with perfectionism. In a study of 145 patients diagnosed with major depressive disorder, several perfectionism subscales (socially-prescribed [SPP], Concern over Mistakes [CM], and Doubts about Actions [DA]) had medium to large correlations with Beck Depression Inventory (BDI) scores, in addition to smaller, yet still significant correlations with the Hamilton Depression Scale. With this same group, FMPS subscales tapping the more "positive" and adaptive aspects of perfectionism (Personal Standards [PS] and Organization [O]) were found to evince scores in the range of either no or inverse relationships with depression. These authors concluded that CM and DA from the FMPS, along with SPP and SOP scales from the HMPS, appear to be likely candidates as vulnerability factors for depression.

According to several prominent researchers (such as Burns, 1980; Enns & Cox, 1999; Flett, Russo, & Hewitt, 1994), persons with perfectionism are particularly vulnerable to experiencing depression at some point. To this extent, many components common among perfectionists appear to open the door for stress and depressive symptoms. For example, constant self-criticism, common among perfectionists, tends to lower self-esteem over time, which then can lead to depression (Ferguson & Rodway, 1994). The cardinal perfectionistic belief that even minor mistakes are indicative of failure leaves many individuals with perfectionistic leanings to wager self-esteem on recent performance outcomes, which are typically short of absolute perfection and thus, evidence of failures.

Depression would then be a result of repeated insults to fragile self-esteem which hinged on the expectation that performance should dictate worth. In these examples, shaky self-esteem has been the most likely in-road to depression through perfectionism. This idea is consistent with this study's hypothesis, which is in part based on the assertion offered by Preusser et al. (1994) in which depression is not, per se, *the* direct outcome of perfectionism, but mediated by self-esteem.

One of the most popular theories that illustrate the link between perfectionism and depression is highlighted by the diathesis-stress notion of perfectionism, whereby perfectionists have underlying dimensions of perfectionism, which become activated upon encountering everyday stressors that highlight the imperfections of living (Hewitt & Flett, 2002). In a study of depression and adjustment with college students, Chang and Rand (2000) found that for individuals driven by demands to adhere to external pressures of excellence (socially-prescribed perfectionism), a dormant perfectionistic tendency was set into motion by the introduction of stress. This interaction of stress with socially-prescribed perfectionism appeared to predict scores on adjustment measures better than either perfectionism or stress alone.

During struggles with the discrepancy between one's ideal, desired self and the actual self, a key tendency for perfectionists is to constantly scan, compare, and evaluate themselves and their environment, which, according to Flett et al. (1998), often demands an excessive amount of self-directed attention. According to these authors, this combination of unreasonable striving along with constant negative self-evaluation overemphasizes what one lacks, may lead to a ruminative, depressive thinking style. In a study conducted by Flett and colleagues (1998), clinical and non-clinical clients with

perfectionistic tendencies were assessed for ruminative thinking style. Results indicated that increased frequency of perfectionistic thinking was found for persons who were aware of this ideal-actual-self discrepancy, and, for these people, excessive negative and ruminative thoughts existed beyond what was predicted by existing measures of automatic cognitions or trait levels of perfectionism.

Other common elements of perfectionism that seem to pave the way for depression symptoms include fearing of making mistakes and worry of disapproval from others if one does not demonstrate perfect performance and behavior (Shafran & Mansell, 2001). This likely leads to feelings of stress, helplessness, and hopelessness, and may spiral into depression. Flett and Hewitt (2002) surmised an untested idea that perfectionists may interpret the mere fact that they are experiencing depressive symptoms as further evidence of failure. This depression over feeling depressed can further sink the individual into a prolonged depression and limit one's capacity for a speedy recovery.

As poignantly noted via anecdotal examples of well-distinguished individuals with perfectionism in an article by Blatt (1995), perfectionism may become so extreme and desperate in some individuals that their struggle seems so intense that they choose their only recourse to be taking their own lives. As Blatt (1995) illustrated, many of these prominent individuals who completed suicide seemed to literally live and die by their performances, while their ultimate decisions to end their lives were met with considerable shock by many of those closest to them. These individuals were characterized as over-achievers yet appeared to be absent of any other obvious psychopathology. Hewitt and Flett (1993) suggested that suicide ideation may be mediated by recent failure experiences in some (self-oriented) perfectionists. Of particular note, the Socially-

Prescribed Perfectionism (SPP) measure from the HMPS seems to display at least tenuous links with suicidal feelings. To this extent, SPP was found related to hopelessness in college students, even at one-month follow-ups assessments (Chang & Rand, 2000). Additionally, Hewitt, Flett, and Turnbull-Donovan (1992) noted that in a study of inpatients and outpatients, SPP was associated with increased suicide risk potential, compounding this risk even beyond what was accounted for by measures of depression level and hopeless feelings. In another study of perfectionism in college students, Adkins and Parker (1996) suggested evidence that "passive perfectionists" (those scoring high on Concern over Mistakes and Doubts about Actions from the FMPS) were associated with suicidal preoccupation, while other-oriented perfectionists (from the HMPS) may be somewhat shielded against suicide attempts, as these individuals tend to shift blame to others for negative life events. Thus, perfectionism focused inward tends to be of greater concern regarding suicide risk, while perfectionism directed outward, although stressful for the other-oriented perfectionist and those around them, may serve as a protective factor. However, much more research in this area is needed.

Interestingly, in relation to depression, perfectionism appears to be not only a vulnerability factor but may have strong implications in the coping process (Flett et al., 1994). For persons scoring high on the HMPS's Socially-Prescribed Perfectionism scale, in particular, coping strategies tend to be poorly applied, as these individuals do not react well to stress and are prone to experience maladaptive cognitions, which can extend or worsen the initial distress. In contrast to perfectionism as an instrumental factor related to negative coping strategies, some types of perfectionism may actually serve as protective factors (Shafran & Mansell, 2001). For example, persons scoring high on the FMPS's

Organization subscale have shown a trend inversely related to feelings of depression (Flett, Hewitt, Blankstein, & Mosher, 1991; Lynd-Stevenson & Hearne, 1999), which may be due to an increased sense of control linked to the employment of organization as a coping strategy. That is, for persons who see their environments as amenable to their own control (through organizational routes, for example), negative emotional responses such as feelings of hopelessness and despair should be much less severe or impactful.

Anxiety and Its Disorders in Relation to Perfectionism

In addition to the proliferation of research which relates perfectionism to psychopathology in the form of depression, an extensive list of research on the effects of perfectionism on anxiety disorders has been expanding considerably over the past 15 years. Given that one prominent theory of perfectionism causally places anxiety in the role of a "fostering" influence on perfectionism (Saboonchi & Lundh, 1997), not surprisingly, scales purported to measure perfectionism reliably note high levels of endorsement among individuals diagnosed with various anxiety disorders. Thus, there seems to be some inherent connection between anxiety and perfectionism. Perhaps, in line with assertions made by Horney more than 50 years ago (1950), perfectionism is a learned coping strategy, begun in early childhood as a means for some children to counter a "basic anxiety" characterized by great degrees of insecurity and unspecified apprehension on the part of the child. Therefore, perfectionism may be causally linked, at its inception, to anxiety. Considering the pressures and stressed faced by many perfectionists, anxiety seems to be at the helm as a driving force.

Studies of perfectionism between anxious conditions. In the most exhaustive and encompassing study of perfectionism and anxiety disorders to date, Antony, Purdon,

Huta, and Swinson (1998) examined perfectionism in DSM-IV diagnosed individuals across categories of anxiety disorders (total $n = 175$ patients): panic disorder ($n = 44$), obsessive-compulsive disorder (OCD; $n = 45$), social phobia ($n = 70$), and specific phobias ($n = 15$), as well as 49 volunteers without clinical diagnoses. All subjects were given the two MPS instruments. Highlights of the study emphasized social phobia being significantly associated with Concern over Mistakes (CM), Doubts about Actions (DA), Parental Criticism (PC), and Socially-Prescribed Perfectionism (SPP) much more so than non-anxious controls. Participants from the OCD group were differentiated from the other anxiety groups by the highest loadings on DA, which, in addition to CM, were found to be significantly greater than with non-anxious individuals. Persons diagnosed with panic disorder were found to evince moderate elevations on CM and DA as well. The authors noted unexpectedly strong correlations of SPP in panic disorder, OCD, and social phobia client groups, and surmised that individuals from these three groups of anxiety disorders all tend to perceive others as having high expectations of them. All groups of individuals with anxiety disorder diagnoses, with the exception of the 15 persons with specific phobias (such as animals, heights, and so forth), were found to score significantly higher than non-anxious controls on measures of perfectionism. The study's researchers suggested this may be due to a need for exerting control to prevent unforeseen dangers from occurring; thus, underscoring the common perfectionistic belief that making mistakes can leave one vulnerable to losing control over situations and events.

Other researchers have conducted more focused, less all-encompassing studies of perfectionism among groups of individuals with anxiety disorder diagnoses and non-

anxious peers. Using the FMPS as a measure of perfectionism, Saboonchi, Lundh, and Öst (1999) looked at perfectionism in 52 persons diagnosed with social phobia, 55 individuals from a group of individuals diagnosed with agoraphobic panic disorder, and 113 control non-clinical people. The socially-phobic group was characterized by the highest correlations with perfectionism on Concern over Mistakes (CM) and Doubts about Actions (DA); however, when controlling for endorsement of public self-consciousness, the group with panic disorder was no longer significantly different from the socially-phobic group. Both clinical groups significantly outscored the control group on Parental Criticism (PC), while the group comprised of social phobic individuals significantly surpassed the control group on CM and DA. The authors suggested that persons with social phobia thus tend to be overly concerned with how they appear to others and not just doubting of their behavior. According to Saboonchi et al. (1999), socially phobic individuals have "higher degree(s) of perfectionism when performance or behavior is perceived as potentially accessible to, and observed or evaluated by others" (p. 807).

Specific fears. With regard to fears, Blankstein, Flett, Hewitt, and Eng (1993) looked at the HMPS in association with several common fears. Although the later study conducted by Antony and colleagues (1998) did not find significance with specific phobias on either MPS instrument, Blankstein et al. (1993) looked at a range of fears that were likely on the subclinical end of the fear spectrum and was able to find noteworthy correlations. The SPP (socially-prescribed) subscale was found to be associated with the following fears related to performance outcomes: fears of public speaking, dating, being criticized, and looking foolish. The SPP and SOP (self-oriented) subscales both

evidenced higher scores with persons reporting fears related to negative social evaluations, which included specific fears of failure, making mistakes, losing control, and feeling angry. In line with prior research suggesting that the OOP (other-oriented) subscale may serve as a protective factor to the individual's sense of self (see Shafran & Mansell, 2001) by shifting blame to others, this scale was not associated with any specific fears.

Using Swedish translations of Wolpe and Lang's Fear Survey Schedule – III and both MPS measures, Saboonchi and Lundh (1997) looked at the relationship between perfectionism and several fears among a non-clinical sample of adults. Their results demonstrated significant correlations of Concerns over Mistakes (CM), Doubts about Actions (DA), and Socially-Prescribed Perfectionism (SPP) with endorsement on measures of social anxiety, agoraphobic fears, fears of bodily injury, and fears of death and illness. Additionally, this study investigated "dispositional self-consciousness" (public or private) as a mediator between perfectionism and anxiety. Representing a tendency toward an outward focus on one's external and observable details (as opposed to inner thoughts, feelings, and attitudes associated with private self-consciousness), such as appearance and obvious behaviors, public self-consciousness was found to be associated with persons scoring high on CM, DA, and SPP, while persons considered to be privately self-consciousness did not score significantly high on any of the perfectionism measures or subscales. After controlling for relevant perfectionism dimensions (CM, DA, and SPP), however, this correlational relationship between public self-consciousness and anxiety disappeared, thus, questioning the actual role of public self-consciousness as a unique mediational factor between perfectionism and anxiety.

Social anxiety/social phobia. As previously distinguished amongst anxiety disorders for its strong connection with problematic perfectionistic traits, social anxiety/social phobia appears to have a lot in common with perfectionism. Given that excessive maladaptive evaluative concerns (Frost et al., 1993) are trademarks of pathological perfectionism and often at the root of extreme shyness or social phobia (Antony & Swinson, 2000), there seems to be considerable overlap between excessive anxiety experienced in social arenas and concerns over appearing flawless in public. To this extent, individuals with extreme shyness and social phobia are typically tormented with their expectations that embarrassment is likely and unbearable (see Antony & Swinson, 2000), in addition to several cognitive errors such as overgeneralization, catastrophizing, and mind-reading. Thus, the possibility is not surprising that "perfect" social behavior might be misapplied by socially phobic individuals as the routine expectation of themselves across social situations. Oftentimes, socially phobic individuals will acknowledge that they are unable to maintain perfect appearances in a given setting or settings and avoidance behavior occurs, as efforts to encounter the feared social stimuli wane (Juster et al. 1996). By this very nature of the condition, Zimbardo, Pilkonis, and Norwood (1975) considered shyness to be a form of "nonbehavior."

Among the perfectionism measures, the subscale that most obviously relates to social phobia is the Socially-Prescribed Perfectionism (SPP) scale of the HMPS. As this subscale was envisioned to tap the experience of social pressures in perfectionists, Antony et al. (1998) considered the construct of SPP to be a key role-player in the development and maintenance of social phobia. Flett, Hewitt, Endler, and Tassone (1994-1995) conducted research that supports this idea. In their study, exposure to a socially

threatening situation was found to evince high levels of worry and autonomic arousal that differentiated persons scoring high on SPP. In another study, Flett, Hewitt, and De Rosa (1996) noted that high levels of SPP were related to reports of greater loneliness, shyness, and fear of negative evaluation, in addition to lower levels of social self-esteem. Further, these researchers reported that their subjects responded to anticipated criticism from others by withdrawing or becoming isolated. These authors speculated that these maladaptive coping strategies were employed to maintain a "false image of emotional control," yet the individuals still viewed themselves as having deficient social skills.

Using a patient sample of 61 individuals diagnosed with social phobia, in comparison to 39 community volunteers who reported no anxiety disorders, perfectionism components of the FMPS were explored (Juster et al., 1996). In this study, socially phobic persons with positive endorsement of pathological perfectionism items (Doubts about Actions and Concerns over Mistakes) were consistently found to experience greater social anxiety, trait anxiety, and general psychopathology, when compared to the non-anxious control group. In particular, the group of individuals with social phobia scored significantly greater than the control group on Concern over Mistakes, Doubts about Actions, and Parental Criticism, while the volunteers scored higher on Organization. These authors thus suggested that socially phobic people expect to make devastating errors and have little faith in their abilities to participate satisfactorily in social interactions and situations where public performance is necessary.

Obsessive-Compulsive Disorder (OCD). In terms of descriptive pathology, there seems to be a strong commonality between OCD and perfectionism. Both conditions tend to require individuals to meet unrealistic demands that have an obsessional quality, while

anxiety or distress that seems to motivate each disorder is, to some extent, temporarily relieved by adhering to a specific behavioral manifestation (e.g., attaining a flawless work product with perfectionists or flawless ritual performance to counter obsessive thoughts in persons with OCD). By the nature of the disorder, persons with OCD are not given much latitude for imperfections, as these individuals find it incredibly difficult to ignore obsessive thoughts that often require delicate and meticulous completion of compulsive rituals in "exactly the right way" (Shafran & Mansell, 2001).

Questions remain as to the true nature of perfectionism in individuals with OCD. The Obsessive Compulsive Cognitions Working Group (1997) asserted that perfectionism may be a risk factor in the development of OCD. In fact, early writing on the subject of OCD by Janet (1903, as cited in Pittman, 1987) assigned perfectionism a central role in the early stages of OCD development. Accordingly to Janet, the first stage, or "psychasthenic state" (which was believed to be the underlying force behind all pathology) is associated with a frustration on the part of the individual for never performing actions in exact manners. The second stage of Janet's conception of OCD acknowledges perfectionism as a coping strategy, whereby the individual takes on a perfectionistic stance in perceptions and behaviors as a means to overcome feelings of uncertainty. According to Guidano and Liotti (1983, as cited in Frost & Shows, 1993), this need for certainty (a perfectionistic need), along with perfectionism, combine to burgeon into OCD. Thus, according to Frost and Shows, indecisiveness that characterizes OCD is a by-product of a perfectionistic thinking style.

Rhéaume, Freeston, Dugas, Letarte, and Ladouceur (1995) considered perfectionism to be "a necessary but insufficient trait for the development of OCD" (p. 793). Thus,

perfectionistic tendencies are the rule and not merely an exception with OCD. As pointed out by Ferguson and Rodway (1994), however, perfectionism and OCD are by no means synonymous; perfectionists may be compulsive and persons with OCD may be perfectionistic, but the two conditions are not the same. One clear distinction posed by Flett and Hewitt (2002) is that persons with OCD demand that some *thing* be perfect, rather than some person such as oneself or others as is the case for perfectionists.

In both OCD and obsessive-compulsive personality disorder (OCPD; to be discussed later concerning perfectionism and personality disorders), perfectionism seems to correspond with similarities in dysfunctional assumptions, which, according to Frost and Shows (1993), include beliefs in perfect solutions, excessive attempts to avoid mistakes, and equating making a mistake with failure. Such pathological thought patterns are believed to be captured by the CM and DA subscales of Frost's (1990) MPS. As mentioned early in connection with a broader range of anxiety disorders, research by Antony et al. (1998) witnessed these two dimensions of the FMPS to be elevated in persons with OCD, with DA differentiating OCD groups from other anxious groups on perfectionism items.

With student samples, both Concerns over Mistakes (CM) and Doubts about Actions (DA) have consistently been found to associate strongly with obsessive-compulsive symptoms (Frost et al., 1990; Frost, Steketee, Cohn, & Greiss, 1994; & Rhéaume et al., 1995). As pointed out by Shafran and Mansell (2001), the doubting of actions (DA) behaviors found in perfectionists may be more neatly tied to OCD phenomenology than claimed as unique to perfectionism. In fact, Frost et al. (1990) depended heavily on prior

OCD scale items in developing their measure of perfectionism, and the doubting of the quality of actions is considered to be a "hallmark" of OCD (Frost & Steketee, 1997).

As found with numerous correlations of perfectionism with other psychopathologies, a study by Frost and Shows (1993) noted that only the maladaptive evaluative concerns dimensions of the FMPS (Concern over Mistakes, Doubts about Actions, Parental Criticism, & Parental Evaluation) were associated with compulsive indecisiveness, as measured by the Indecisiveness Scale (Frost & Gross, 1993). In particular, these authors considered indecisiveness to be concomitant with DA and CM, as they stated: "Those who are overly concerned with mistakes and who doubt the quality of their actions are people who tend to be indecisive" (p. 691). Interestingly, in this study, persons endorsing items relating to the setting of high personal standards (PS) who did not also demonstrate high concern over making minor mistakes (CM) were found to be more decisive compared to those without endorsement of high personal standards.

In a clinical sample of 35 individuals diagnosed with OCD, 14 people diagnosed with panic disorder with agoraphobia (PDA), and 35 non-pathological individuals from the community serving as a control group, Frost and Steketee (1997) noted that OCD patients endorsed significantly more total perfectionism, Doubts about Actions (DA), and Concern over Mistakes (CM) on the FMPS, than individuals from the non-clinical control group. Scores from the DA dimension distinguished patient groups diagnosed with OCD from PDA. Of note, though, their findings suggested that perfectionism was not exclusive to OCD in their sample, but elevated endorsement was found in the PDA group as well. Frost and Steketee concluded that "it is possible that perfectionism is a necessary condition for the development of many forms of psychopathology, but does not

determine the exact nature of the disorder" (p. 294). Thus, as consistent with hypotheses contained in this current study, these researchers acknowledged that elements of perfectionism may not only span anxiety disorders but also play a role in the growth and expression of other forms of psychopathology.

Eating disorders. Given that the core struggle for individuals with eating disorders is the attainment of an unrealistic physical ideal, key aspects of perfectionism in this disorder seem evident (Goldner, Cockell, & Srikameswaran, 2002). From individuals striving to realize an overextended standard of beauty prized by Western society, to athletes struggling to achieve a desired competition weight for superior athletic performance, perfectionistic themes seem to be intricately wound in the ideals of individuals who inextricably strive for and obsess over physical self-improvement. Theorists such as Slade (1982) have proposed that perfectionism is considered to be a "necessary condition" for the development of anorexia nervosa. Similarly, Lilenfeld et al. (2000) asserted that perfectionism is a risk factor for anorexia and bulimia, and speculated that this risk may be at least partially genetic. In fact, the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983), now in its second revision, contains a 6-item Perfectionism subscale that emphasizes the setting of high personal standards and excessive parental expectations. Frost et al. (1990) adopted some of these EDI questions for their measure of perfectionism, the FMPS. Thus, there seems to be much in common with perfectionism and eating disorders, especially in terms of a shared thinking style. To this end, Fairburn (1997) contended that perfectionism and similar dichotomous thinking errors are believed to mediate the relationship between severe, rigid dieting and bingeing behaviors.

In studies of undergraduates with endorsement of eating disorder symptoms, Concern over Mistakes (CM) and Doubts about Actions (DA) scales of the FMPS (Minarik & Aherns, 1996) and Self-Oriented Perfectionism (SOP) and Socially-Prescribed Perfectionism (SPP) scales of the HMPS (Hewitt, Flett, & Ediger, 1995) were found to be associated with symptoms consistent with eating disorder diagnoses. In a study by Terry-Short, Owens, Slade, and Dewey (1995), individuals diagnosed with eating disorders scored significantly higher on negative aspects of perfectionism than depressed patients, athletes, and normal controls; however, these patients with eating disorders also displayed a tendency towards endorsing positive aspects of perfectionism (high striving to meet personal standards and organization) than the control and depressed groups, but scored similar to the athletes.

A large-scale study of perfectionism in 322 women with anorexia nervosa diagnoses was recently conducted by Halmi et al. (2000). Women were given the EDI-2 and the FMPS. Not surprisingly, anorexic women had significantly greater FMPS scores than healthy comparisons. Of the FMPS measure's subscales, anorexics were differentiated from the healthy control group on five of the six subscales (PC, PE, DA, PS, and DA), while only Organization (O) did not separate women with anorexia from the control group. Thus, the authors stated that this patient group of women was distinguished by excessive preoccupation and effort related to avoiding making mistakes.

Evidence suggests that perfectionism is a trait-like feature found in individuals diagnosed at one time or another with eating disorders, as high levels of endorsement of perfectionism have persisted even after recovery from anorexia nervosa (Srinivasagam et al., 1995). In a study examining perfectionism among women with anorexia before and

after recovery of normal weight, Bastiani et al. (1995) assessed 19 female patients with anorexia in comparison to 10 healthy volunteers. Of the 19 females diagnosed with anorexia, 11 were assessed when underweight (pre-recovery of normal weight) and the other eight women were assessed within four weeks after healthy body weight restoration had taken place. Underweight anorexics witnessed significantly higher FMPS scores than controls on all subscales except for Parental Evaluation (PE). In the group of weight-restored women with anorexia, all FMPS subscales were significantly higher than controls except for Parental Evaluation (PE), Personal Standards (PS), and Doubts about Actions (DA). Although they used relatively small groups for treatment comparison and examined each at different stages of treatment, these authors contended that their results lend support to the idea that perfectionism continues to impact individuals with anorexia even after weight restoration. Further, following examination of the FMPS scale breakdown, the authors also suggested that perfectionism seems to be experienced as self-imposed by anorexics, and not as a response to the expectations of others.

Although little research exists that has examined the relationship between perfectionism and bulimia, there may be some overlap in terms of perfectionistic expectations and thoughts as impetuses. Consistent with the role of self-esteem as hypothesized in the current study, self-esteem has been considered a moderator in the interaction between perfectionism and perceived weight status in the prediction of bulimic symptoms (Vohs, Bardone, Joiner, & Abramson, 1999). Thus, as suggested in the interactions of perfectionism with other types of psychopathology, perhaps self-esteem serves as a critical bridge connecting perfectionism and other eating disorders, such that

low self-esteem serves as a detriment and instigator for disordered eating, while high self-esteem functions as a protective factor.

Other Psychopathological Conditions

Personality disorders. Perhaps the most likely personality disorder classification to hold strong ties to perfectionism is obsessive-compulsive personality disorder (OCPD). Distinguished from a condition bearing a similar name and symptomology, OCPD differs from OCD in that persons diagnosed with the latter have more extreme and obviously detrimental "true" obsessions and compulsions (American Psychiatric Association [APA], 2000). Although strikingly similar to perfectionism in many of its symptomatic qualities, OCPD expands perfectionistic ideals and behaviors, while encompassing much of what is considered to be consistent with the original construct of perfectionism (Shafran & Mansell, 2001). In fact, OCPD includes "perfectionism" in its DSM-IV-TR (APA, 2000) nomenclature: "A pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency, beginning by early adulthood and present in a variety of contexts" (p. 729). Thus, perfectionism is evident as a key component of OCPD; however, OCPD tends to resemble similar, but distinct, conditions such as Type-A personality, wherein, according to the DSM-IV-TR, individuals are increasingly competitive and experience an extreme urgency of time.

The DSM-IV-TR also highlights interpersonal aspects of OCPD that may relate to Hewitt and Flett's other-oriented perfectionism, but not as clear with other subtypes. That is, persons with OCPD are frequently found to be miserly, stubborn, resistant to constructive criticism and authority, and morally inflexible, in addition to being "pack

rats" or hoarders – a condition commonly found in extremes with the hoarding subtype of OCD. Although these traits are sometimes found with perfectionists, they are not clear symptomology of the condition. Traits found in OCPD that appear to be more consistent with what is typically considered to be perfectionistic include: dutifulness and preoccupation with orderliness (both traits found in "positive perfectionism"), in addition to traits comprising problematic/dysfunctional perfectionism, such as employing of harsh performance standards that interfere with task completion, feelings of uncertainty and caution regarding what constitutes successful completion of tasks, and rigidity of standards (see APA, 2000). Thus, although the presence of perfectionistic tendencies may be an essential criterion for OCPD diagnosis, the reverse is not true for perfectionism. Unfortunately, scant research exists which might further clarify and/or distinguish perfectionism's relationship with OCPD.

Other classes of personality disorders may also hold commonalities with perfectionism and perfectionistic qualities. For example, one study (Hewitt, Flett, & Turnbull, 1994) noted that patients diagnosed with borderline personality disorder (BPD)– a condition marked by patterns of unstable self-identity, relationships, and mood (APA, 2000) – were found to display significantly higher SPP (socially-prescribed) scores on the HMPS than schizophrenic patients and a healthy control group. Perhaps BPD and perfectionism overlap in terms of rigidity and the experience of pressure to meet and maintain externally-derived expectations.

In an earlier study by Hewitt and Flett (1991) the SPP subscale of the HMPS was found to have elevations among individuals diagnosed with the following personality disorders: schizoid, avoidant, passive aggressive, schizotypal, and borderline. In this

study, positive elevations on the OOP (other-oriented) scale of the HMPS were found with histrionic, narcissistic, and antisocial personality patterns, while schizotypal patient profiles were inversely correlated. Of note, it may be the case that the groups cited above tend to have difficulties in relating to others, forming healthy relationships, and fitting-in with social norms and expectations, which may also be captured by the HMPS's OOP and SPP subscales. Perhaps underlying distress, which may be particularly related to self-esteem instability, and the inner-frustration potentially experienced by these groups might account for this relationship as well.

Somatic symptoms and physical health. Not only does perfectionism appear to wreak havoc on psychological health, but perfectionism and its attendant stress seems to spill over into physical health and well-being as well. Shafran and Mansell (2001) cited the following studies linking perfectionism to various physiological ailments: exhaustion in career mothers (Mitchelson & Burns, 1998), fatigue in night shift workers (Magnusson, Nias, & White, 1996), general somatic symptoms in college students (Martin et al, 1996), greater severity of head pain in children and adolescents with chronic headaches (Kowal & Pritchard, 1990), and burnout in competitive tennis players (Gould, Udry, Tuffey, & Loehr, 1996). Thus, as may be evident considering the wide range of physical conditions either exacerbated or witnessed inception via perfectionistic qualities, there appears to be a stress-related link to the experience of perfectionistic symptoms and the effects on an individual's physical health.

According to Shafran and Mansell (2001), there may be mediating factors at work that bridge perfectionism with somatic symptoms. For example, these authors cite a study of "workaholics" by Spence and Robbins (1992) in which such labeled individuals

demonstrated high degrees of perfectionism, little enjoyment of the work process, and an increased percentage of health complaints versus a non-workaholic group. This study lends evidence to the relationship of physical stress as an end result of perfectionists working excessively to meet high work standards. Similarly, traits akin to Type-A personality behavior (aggressive competitiveness and hostility) have been found to be highly correlated to the HMPS measure of perfectionism (Flett, Hewitt, Blankstein, & Dynin, 1994). At least in part, the failures of perfectionism (i.e., not reaching unrealistic standards) may lead to symptoms of psychosomatic depression (Martin, Flett, Hewitt, Krames, & Szanto, 1996), or physiological symptoms, such as aches, pains, nausea, headaches, and so forth, that appear to be causally linked to depression and stress rather than a physical condition.

Shafran and Mansell (2001) offered an alternate view of somatic symptoms experienced by perfectionists. According to this view, physical symptoms may function as self-handicapping factors that disallow the individual from meeting his or her unreasonable standards. These factors may occur in response to the experience of a large number of events that threaten the individual's sense of accomplishment. This view was based on a study of medical outpatients by Organista and Miranda (1991) in which persons with high perfectionism tended to report greater somatic symptoms when they had experienced a large number of events capable of stripping them of their sense of accomplishment. In comparison, low perfectionistic individuals did not experience somatic symptoms in relation to the frequency of such threatening events. Thus, a tacit self-handicapping strategy of physical distress due to greater self-accomplishment threats may be a side effect of a perfectionistic thinking style.

Academic perfectionism and procrastination. Particularly in institutions of higher education, "healthy" doses of perfectionism appear to be the rule rather than the exception. Thus, positive perfectionism traits, such as organization and setting high standards for oneself, seem to go hand-in-hand with success in academics. There appears to be a limit, however, on how effective perfectionism is as a strategy to elicit or enhance academic excellence.

In a study of perfectionism in college classrooms, Brown et al. (1999), assessed 90 undergraduate females at six different times across a semester: (1) when first in class, (2) one week before midterm, (3) the day of the midterm (immediately prior to the exam), (4) one week after the midterm (after receiving grades), (5) one week before the final exam, and (6) the day of the final (immediately prior to taking the exam). Assessment instruments included the FMPS, BDI, Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), and ratings of classroom academic behaviors and performance. The results indicated that perfectionistic behaviors appeared to be consistently applied throughout the semester, as earlier perfectionism ratings and midterm scores (relative to expectations) predicted higher scores on the final. Of the individual FMPS subscales, higher Personal Standard (PS) scores were correlated with higher GPA, in addition to the number of hours spent studying and the frequency of discussion with instructors regarding grades. Thus, these individuals appeared to be highly invested in getting good grades and likely employed features consistent with healthy perfectionism (high PS, alone) to get these good grades. The Concern over Mistakes (CM) subscale was not related to GPA, but was found to be positively associated with negative affect ratings and inversely related to positive affect (in the

classroom context), while associated with anxiety related to the course grade. Prior to the midterm exam, high CM scores were related to the number of hours spent studying, perceptions of the course as "very difficult," and greater anxiety related to the exam itself. Undergraduates with high PS and high CM scores one week prior to the exam tended to rate the course as more difficult and reported more anxiety related to the exam. When combined with high ratings related to negative beliefs about one's abilities, high CM scores were related to not only more hours spent studying for the final, but also greater anxiety and negative mood reports prior to the exam.

Thus, in this study it seems that while Personal Standards (PS) may be a beneficial trait for academic success (e.g., frequent studying, perception of the course as meaningful and important, and better grades across the semester), negative perfectionism traits may negate the positive effects of high standards and expectations for academic performance. The CM subscale seemed to best measure the maladaptive aspects of academic perfectionism. That is, even though associated with increased frequency of studying, persons scoring high on CM also reported perceptions of greater course difficulty, higher anxiety and negative mood prior to exams, and, perhaps most importantly, CM endorsement was not associated with better grades, which is likely in contrast to the expectations of these perfectionistic individuals.

When it comes to tasks such as schoolwork, chores, and other both important and unimportant tasks, procrastination seems to occur in everyone at least some of the time. Perfectionists, however, seem to delay the beginning of tasks with particular regularity and proclivity, as these individuals tend to make major productions out of starting tasks. To this extent, Horney (1950) described procrastination as an ineffective coping strategy

for perfectionists, as these individuals find the idea of starting tasks particularly tormenting, since, from the outset, these individuals insist on evaluating their end-goals against unattainable perfect work/task productions. As such, according to Horney (1950), perfectionists avoid this pernicious cycle of stressing over details required to meet their goals by simply avoiding starting and working on tasks. Frost and colleagues (1990) similarly considered procrastination to be a coping strategy for avoiding the stress of less than perfect performance. Thus, even though the stress created as a result of putting off tasks may apply a great deal of pressure on the perfectionist, the stress of getting started and staying on tasks proves to be especially difficult to overcome.

Flett, Blankstein, Hewitt, and Koledin (1992) asserted that procrastination behavior is most clearly driven by fear of not meeting excessively high standards. In their study, Flett et al. investigated perfectionism's association with academic and general procrastination. Of the HMPS subscales, Socially-Prescribed Perfectionism (SPP) displayed the strongest correlation with both types of procrastination, particularly with males, while Self-Oriented Perfectionism (SOP) and Other-Oriented Perfectionism (OOP) witnessed nonsignficant correlations. These authors conclude that "...procrastination stems, in part, from the anticipation of social disapproval from individuals with perfectionistic standards for others" (p. 85). Frost et al. (1990) noted significant positive correlations with procrastination and high parental expectations (PE) and criticism (PC).

In a clinical study of perfectionism, Ferguson and Rodway (1994) reported that six of nine perfectionistic clients evidenced at least some difficulty with procrastination. These clients reported a tendency to overwork themselves by placing too many tasks and obligations on their plates at one time. Relatedly, they tended to stretch themselves

beyond reasonable means by over-scheduling their time, which was believed to be linked to a fear of failure. Although this study had a small sample size, there may be cause for concern in that perfectionists are particularly prone to procrastinate on tasks, thereby creating even more pressures and distress for themselves by introducing time constraints into what they may perceive as already highly-charged and stressful performance situations.

Treatment Impediments

Although relatively little systematic research has been conducted on perfectionism's impact on treatment success, most research suggests that the need to behave and appear flawless spills over into therapy sessions. In particular, perfectionism has been implicated as a confounding factor associated with poor treatment response on the part of the client and difficulties establishing a good therapeutic working relationship (Flett & Hewitt, 2002). Also, perfectionism is considered to be one of a number of variables that predict nonadherence to medical regimes, while similarly undermining other forms of medical and mental health treatment (Scott, 2001, as cited in Flett & Hewitt, 2002). According to Flett and Hewitt (2002), perfectionists tend to cling to their perfectionistic standards, even with regard to therapy, due to a deeply ingrained and immutable perception that holding onto perfectionistic goals is likely to prove beneficial and rewarding. In fact, even the mere idea of going to therapy to receive help from other individuals may be perceived as an admission of failure (Nadler, 1983); thus, making perfectionists less likely to seek assistance with troubling mental health concerns.

Once in therapy, which typically is not solely for the treatment of perfectionism but in relation to psychological or relationship difficulties (which may be heavily influenced by

perfectionistic tendencies), perfectionists may still attempt to uphold an image of themselves as possessing high standards and striving to reach perfection. To this extent, some perfectionists present themselves somewhat disingenuously as the "ideal patient" (Hollender, 1965), and therefore avoiding honest and open self-disclosures beyond surface depth. According to Sorotzkin (1998), such individuals may try to appear as "perfect emotional specimens," with no anxiety, fears, conflicts, or other blemishes. When presented with challenging feedback in session, perfectionists tend to have difficulty acknowledging such constructive criticisms (Ferguson & Rodway, 1994), and likely grow frustrated that their imperfections are discernable to someone else. Further, perfectionists who tend to be highly self-critical may feel intensely vulnerable to matters of self-concept, self-control, and self-worth, that these issues are particularly touchy when they inevitably come up in therapy and, as such, this introduces another road block often labeled as resistance to therapy (Blatt, 1995).

Even perfectionistic standards and goals can variably characterize what one considers a "success" in treatment (Sorotzkin, 1998). According to Sorotzkin (1998), such difficulties in evaluation of treatment standards reflect the all-or-none thinking characteristic of perfectionists. Arguably similar to a trait-like personality characteristic, perfectionism appears to necessitate longer term treatment. According to Ellis (2002), long-term treatment is required for perfectionists due to their self-defeating beliefs, which prove especially resistant to brief treatments.

In one of the few research studies describing perfectionistic interference in treatment, Blatt (1995) found that high degrees of perfectionism disrupted effective therapeutic response during the treatment of depression in a brief treatment modality. Other findings

of Blatt's research group (Blatt et al. 1995, 1998) have suggested that high score endorsement of Perfectionism dimension of the Dysfunctional Attitudes Scale was related to poorer treatment outcome at both termination and 18-month follow-up. Further, these authors cite more of their recent research (Zuroff, Blatt, Krupnick, & Sotsky, 2001) that found pretreatment DAS-endorsed perfectionism to predict significantly lower improvement than non-perfectionist clients at posttreatment. This study also reported that perfectionists identified at the outset of their study were more vulnerable to developing depressive symptoms in response to stress during the 18-month follow-up period.

Very few research studies have examined the perfectionism in terms of treatment outcome. Of those, even fewer studies, examined and sought to quantify the specific treatment of perfectionism. In these select few research studies (see Blatt et al., 1995; and DiBartolo et al., 2001), mixed success has been found in the treatment of perfectionism. In DiBartolo et al.'s (2001) study of perfectionism in relation to speech performance, cognitive-behavior (CBT) interventions appeared to help lower anxiety levels and reduce cognitive errors such as fearing the worst and estimates of likely problematic outcomes occurring. The study by Blatt and colleagues (1995) found perfectionism to be poorly amenable to change in the treatment of depression, even across four treatment conditions aimed at reducing depression: CBT, interpersonal therapy, imipramine drug therapy, and placebo. Thus, although it can be agreed upon that perfectionistic tendencies are disruptive in the treatment of persons with a variety of psychological impairments, little consensus exists as to how to best remedy the problem of perfectionism.

When perfectionists come to therapy, they are more likely than non-perfectionists to remain in treatment (see DiBartolo et al., 2001). However, as noted in the aforementioned

studies by Blatt and colleagues (1995), staying in therapy longer does not imply desirable treatment responses. Given such lackluster success rates in targeting and ameliorating perfectionistic symptoms, DiBartolo et al. (2001) argued that for maladaptive aspects of perfectionism to decrease with any permanency, perfectionism needs to be targeted as the explicit focus of treatment. This might particularly apply when other disorders are decided to be the presenting clinical concerns, as the detrimental elements of perfectionism might have to be addressed either prior to or concurrently with the other clinical symptoms to best ensure a reasonably effective treatment outcome.

Self-Esteem as a Mediator

Whether reflecting an underlying concern amongst various psychopathological conditions, or a unique typology of some pathologies more than others, the constructs of impaired self-concept, self-esteem, or self-worth have been readily applied to problematic perfectionism. Literature dating back to Adler (1956) and Horney (1950) have considered the impact the one's feelings of self-worth in relation to perfectionism and expressed psychopathology. Early theory, such as that offered by Adler, asserted that perfectionistic tendencies were coping vehicles by which individuals dealt with and, at times, overcame core insecurities (inferiorities). Later research has suggested that healthy self-concepts and flexibility in meeting one's goals are associated with positive and adaptive aspects of perfectionistic striving that can be considered "buffers" to one's mental health (Rice et al., 1998), whereas poor self-concepts tend to be coupled with the more disabling and maladaptive perfectionistic traits (see Frost et al., 1993; and Hamachek, 1978). To this extent, Preusser et al. (1994) considered the quality of self-

esteem to be "a discriminating component between normal and neurotic perfectionism" (p. 88).

In considering the role and impact of self-esteem, a working definition is clearly necessary. Campell and Di Paula (2002) define self-esteem as the "global product of viewing the self as an attitude object" (p. 181). In more general terms, Overholser (1993, p. 640), based on a popular definition offered by Chrzanowski (1981), defined self-esteem as "the image people hold of themselves after conducting a broad appraisal of their personal assets and liabilities." In particular, according to Luck and Heiss (1972, as cited by Overholser, 1993), people often base their self-esteem on their perceived social competence across a variety of socially-related situations and roles. Thus, based on these conceptualizations, the operational definition offered by this present study is that self-esteem represents one's qualitative appraisal of oneself, including his/her abilities, skills, and overall personhood. Notably throughout this paper, self-worth, self-esteem, self-efficacy, and self-concept, are terms that are used interchangeably, although purists in this nomenclature may argue that nuances exist between these terms.

For perfectionists, self-worth is dependent on their recent performances (Moore & Barrow, 1986). Particularly detrimental for perfectionists is their tendency to equate self-worth with performances, such that positive feelings of self-worth are only judged to be merited by perfect performance (Hewitt, Flett, & Edinger, 1996). Thus according to Hewitt, Flett, and Edinger (1996), extreme perfectionists will likely view any performances that fall short of perfection as equivalent to complete failures and, as such, are highlighted as indications of the worthlessness of the individual. Horney (1950) suggested that inevitably, perfectionists will have low self-esteem since perfectionists

tend to overextend any feedback noting even the slightest increments short of perfection as evidence that a disparity does, indeed, exist between the individual's real self and the idealized self that must always exude perfection.

Conclusions drawn from these and most other prominent theories of perfectionism seem to suggest that the setting of excessively high and unremitting standards represent perhaps *the* key feature that sets perfectionists up for failure and a precipitous loss in self-esteem. However, as is evident in studies such as Frost et al. (1993), the setting of high standards can be a positive aspect of perfectionism capable of enhancing feelings of self-worth. According to Campbell and Di Paula (2002), the setting of high standards, per se, may have less to do with the negative aspects of perfectionism than the beliefs about one's abilities to meet those standards. To this extent, these authors asserted that problematic perfectionism seems to be fueled by low self-efficacy characterized by the individual's assessment that they are unlikely to ever attain their perfectionistic goals. If this were routinely found, as Campbell and Di Paula (2002) assert, then not only would this emphasize the circular nature of performance "failures" injuring and maintaining injury to the individual's sense of self, but this would also lend further evidence to the role of low self-worth as a precursory factor necessary for the development of problematic perfectionistic self-worth.

The primary contention of the current study is that perfectionistic self-worth is the crux of what makes perfectionistic tendencies so distressing, and often experiences a close relationship between perfectionism and diagnosable psychopathology such as anxiety or depression. A recent study by DiBartolo and colleagues (2004) sought to further clarify the relationship between self-worth and setting high personal standards. In

their study, additional items were added to the FMPS to tap what they called "contingent self-worth," or the belief that one's degree of self-worth/self-esteem is based on (contingent upon) how well they meet their personal goals. Similar to prior research by Frost et al. (1993), these researchers noted that high personal standards related to both adaptive and maladaptive levels of perfectionism. Expanding prior analysis, the results supported the hypothesis that setting high personal standards is related to psychopathology "only when meeting these standards is a necessary condition for a sense of self-worth" (p. 119). This evidence suggests that the problem of perfectionism is, in effect, intimately related to a problem of self-esteem.

A few more notable theorists have provided conceptualizations that seem to be consistent with this notion of perfectionistic self-worth as the factor most directly linked with psychopathology and distress. Burns (1980) illustrated how perfectionists base their self-concepts on the outcomes of individual performance tasks: "perfectionistic individuals...are likely to respond to the perception of failure or inadequacy with a precipitous loss in self-esteem that can trigger episodes of severe depression and anxiety" (p. 34). Sorotzkin (1985) highlighted the struggle perfectionists put themselves through by measuring their self-worth based on how well they reach often unachievable goals, such that overly moralistic self-criticism and depleted self-esteem result when even slight deviations from attaining these impossible goals occurs. Thus, there seems to be evidence in line with the assertion by Rice et al. (1998, p. 305) that "perfectionism sets the stage for self-esteem."

Link to Depression through Self-Esteem

Given that low self-esteem and depression share an obvious relationship, with self-esteem serving as both a precursor and maintenance factor for depressive symptoms (Brown & Beck, 2002), recent research has attempted to clarify how it is that perfectionism "sets the stage" for the effects of self-esteem. The theory receiving the most research attention is that self-esteem may serve as a mediating factor that connects perfectionism with depression (Preusser et al., 1994; Rice et al., 1998). That is, according to this theory, perfectionism alone will not lead to clinical depression without attendant low self-esteem. This concept was discussed in the previous section noting the recently introduced construct known as perfectionistic (contingent) self-worth (see DiBartolo et al., 2004).

Early perfectionism research by Hewitt and Dyck (1986) noted a mediational relationship of perfectionistic attitudes between stress experiences and depression. In their study, using the Burns (1980) Perfectionism Scale as a measure of perfectionism, Hewitt and Dyck (1986) found that individuals endorsing high degrees of perfectionism exhibited correspondingly high ratings of their current depression level and that perfectionism predicted depression severity beyond what was estimated based on the individual's prior depressive episodes. A relationship was also noted wherein individuals who were perfectionistic, compared to non-perfectionistic individuals, tended to display a stronger relationship between depression and stressful life events. Thus, these authors asserted that stressful life events, when combined with perfectionistic attitudes, would predictably lead to depressive symptoms. Of note, these authors found that this relationship only held with currently held perfectionistic attitudes, which, along with past

depressive episodes, best predicted later depression. Although this study placed perfectionism in the mediational role connecting life stress and depression, and did not address self-esteem, it clearly stipulated an interaction between perfectionistic beliefs and one's environment that can lead to the experience of depression.

Later work began teasing out self-esteem as a factor integral to problematic perfectionistic striving. For example, Flett, Hewitt, Blankstein, and O'Brien (1991) found low self-esteem, as measured by the Rosenberg Self-Esteem Scale (Rosenberg, 1965), to be moderately correlated with socially-prescribed perfectionism in students. Flett et al. (1991) also noted that negative aspects of perfectionism from the HMPS (SOP & SPP) were associated with low self-esteem and depression, while adaptive perfectionism (OOP) ratings demonstrated modest positive correlation with self-esteem (positive self-esteem) and was unrelated to depression.

The first study to propose a mediational connection between perfectionism and depression through self-esteem was conducted in 1994 by Preusser and colleagues. Using a series of multiple regression equations for analyses and the HMPS as their measure of perfectionism in a non-clinical sample, it was found that Socially-Prescribed Perfectionism (SPP) was linked to depression only when self-esteem was low in both men and women. In this study, Self-Oriented Perfectionism (SOP), in women only, witnessed a similar link to depression via low self-esteem. A later study by this research group (Rice et al., 1998) returned to this mediational path of perfectionism to depression through self-esteem, this time using the FMPS as a measure of perfectionism. Again, maladaptive evaluation concerns (see Frost et al., 1993) most clearly related to both depressive symptoms and low self-esteem; however, self-esteem was not as clearly

indicated as a mediator. According to these authors, self-esteem was better identified as a "buffer" against maladaptive evaluative concerns rather than *the* mediator of this relationship. It was further hypothesized that perhaps maladaptive perfectionists "only become depressed when they also experience chronic feelings of inadequacy and low self-worth" (p. 312). This previous statement sounds surprisingly like evidence for the mediational relationship, if found with regularity, and if other potential confounds (see next paragraph) were perhaps better understood.

Of particular curiosity in this study, some individuals endorsed high self-esteem but maladaptive perfectionism. As articulated by Rice et al. (1998), these findings seem counterintuitive to Hamachek's (1978) assertions about neurotic perfectionism. To this end, the authors suggested that conceptual and/or measurement refinement may be necessary. Such results, however, are likely in part accounted for the mediational relationship falling short of significance. Positive striving dimensions (Frost et al., 1993) were not correlated with depression; however, significant correlations with these dimensions were found with measures of positive affect such as energy, enthusiasm, and degree of activity. This led the authors to hypothesize that positive self-esteem might likely help shield individuals against depression. The mediational relationship could possibly have been obscured in the latter study due to the influence of confounds. This might include the effects of moderators, such as type of perfectionism, on the mediational path. There is even the possibility, particularly in the unexpected finding that some persons who endorsed depression symptoms also indicated high self-esteem, that in a presumably non-clinically depressed sample, endorsement of depression was, at times,

unrelated to endorsed perfectionism (i.e., depression in response to something other than the demands of perfectionism).

Although less than a handful of studies have examined the mediational relationship of self-esteem as a link between perfectionism and depression, with definitive conclusions still under debate, it seems that one's current level of self-esteem weighs heavily in terms of whether or not perfectionistic attitudes and beliefs will lead to depression. That is, lowered self-esteem, along with maladaptive aspects of perfectionism, can turn into depression. Healthier self-esteem, on the other hand, seems to relate most to positive perfectionism components and may serve a protective function against depression. Intuitively, these associations appear to go hand-in-hand. Explanations as to how or why this occurs are even less forthcoming. One exception was offered by Shafran and Mansell (2001), who asserted that low self-efficacy, a construct very similar to (and to some degree subsumes) self-esteem/self-worth, relates to how perfectionism leads to depression. According to these authors, low self-worth and a perceived lack of control over outcomes are the trademarks of low self-efficacy. They argued that positive and adaptive aspects of perfectionism do not tend to lead to depression due to a perceived sense of control linked with dimensions such as organization. The authors noted a similar theory offered by Lynd-Stevenson and Hearne (1999) which stated that individuals who feel they are able to control their environment through strategies such as organization will likely be less hopeless and less apt to experience negative affective symptoms. Thus, Shafran and Mansell (2001) offered an explanation of how high degrees of perfectionism lead to negative events, such as depression. They asserted that this is due to an interaction

of the perfectionism with perception of little internal control, or self-efficacy, to stave off negative events.

Perfectionistic Self-Worth in Relation to Anxiety and General Psychological Distress

Previous research on perfectionism and the role of self-esteem leaves off with linkages specific to depression. And, to this extent, only two studies (Preusser et al., 1994; Rice et al., 1998) have offered in-depth analyses of the possible mediational pathways that include perfectionistic attitudes and self-esteem. In these studies, evidence remains inconclusive as to the unique function of self-esteem as a mediator across perfectionism dimensions, but, in line with several other research studies, self-esteem seems to play a significant role in the expression of perfectionism with respect to psychopathology. Since depression and low self-esteem tend to be found concomitantly within individuals, the construct and expression of self-esteem in relation to perfectionism (or perfectionistic self-worth) is heavily emphasized in the current study. Undoubtedly, one may plausibly assert that when one feels depressed, their sense of self diminishes, while, similarly, individuals with low self-esteem (either temporarily or more chronically) are at risk to develop depressive symptoms, if not the actual clinical disorder of depression. What the present study seeks to better understand is not only how this relationship occurs with persons endorsing perfectionism, but also what dimensions of perfectionism are most affected and to what degree. Similar assertions have been made by Rice and Ashby's research teams and this study hopes to further elicit such evidence.

The author of this study has made the assertion that depression sequelae do not have the market cornered with regards to self-esteem/self-worth feelings. That is, there may be something about depression and self-esteem that make these constructs highly coexistent

in individuals, but not mutually exclusive to each other. Although attempting to sort out the relationship of self-esteem beyond depression seems difficult, given that depressive symptomology has repeatedly wrought difficulties in diagnostic specificity due to symptom overlap and common elements of distress across psychological conditions (Clark & Watson, 1991), the case may be that, even beyond depressive symptomology, self-esteem feelings influence the gamut of psychological disorders. As problematic perfectionism does not uniformly burgeon into depression, although depressive symptoms can be present, other categories of psychological stress are affected to varying degrees by perfectionistic thoughts, beliefs, and attitudes.

Hamachek (1978) foreshadowed this line of research in his assertion that better mental health outcomes could be predicted for normal perfectionists versus neurotic perfectionists, due to the adverse effects of neurotic perfectionism on the individual's self-esteem. Blatt (1995) built upon Hamachek's (1978) notion and theorized that psychopathology previously thought to arise from perfectionism alone, may, in fact, be linked to perfectionism indirectly via low self-esteem. Evidence for such an indirect route with depression was considered by Rice et al. (1998) who suggested that perfectionism may affect depression by "fortifying or diminishing self-esteem" (p. 305). Such assertions may place self-esteem specific to perfectionism, or perfectionistic self-worth, in a possible mediational role between perfectionism and a range of mental health outcomes, which includes but is not limited to depression, anxiety, and other forms of psychological distress.

Thus, a number of suggestions appear in perfectionism literature that illustrate one's self-worth as a determining factor of whether or not individuals will witness their

perfectionistic tendencies develop into pathologies. For example, Vohs et al. (1999) asserted that self-esteem in a sample of eating disordered women moderated perfectionistic beliefs and perceived weight status in predicting bulimic symptoms. Burns (1980) contended that following perceptions of failure, the resultant decrease in feelings of self-esteem in perfectionists may trigger anxiety as well as depression. Noting the high rate of endorsement of perfectionism among anxious disorders, this area is of particular interest with regard to perfectionistic self-worth. Thus, the present study seeks to clarify the role and impact of self-esteem, as a potential mediator or interactive factor, in relation to perfectionism and experiences of depression, anxiety, and other forms of psychological distress.

Summary

Although a relative boom in increased research attention has been witnessed concerning the construct of perfectionism over the past decade and a half, more precise details as to its specific role in relation to psychological distress are still needed. Following an extensive review of available research literature on the subject, perfectionism has been, to varying degrees, associated with a plethora of psychological disorders and maladaptive traits. Notably, the following conditions have been found to have imprints of perfectionism: depression, eating disorders, anxiety disorders (OCD, social phobia, fears, panic, and GAD), academic and professional stress, and various physical health difficulties. Although the etiology of perfectionism is still open to debate, clearly in individuals who experience and succumb to the demands of their perfectionistic standards and expectations, their mental health outcomes are negatively affected. In the

scant available research discussing perfectionism in treatment settings, perfectionistic attitudes and tendencies have been reliably found to interfere with and complicate therapy (Blatt, 1995; DiBartolo et al., 2001), particularly when not the focus of treatment. Thus, it seems imperative that research should set out to better understand the mechanisms by which perfectionism affects one's attitudes and core beliefs, and, further, how this process relates to one's sense of mental health and well-being.

Previous sections of this paper considered and argued the likelihood that perfectionism does the most damage when paired with feelings of low self-worth. Also, healthy levels of self-worth appear to serve as protective factors that help the individual deflect daily and life stressors. When healthy self-esteem is found in perfectionists, these individuals appear better able to harness the adaptive and motivational aspects of perfectionism that most resemble an orientation towards success. As noted by researchers such as Hamachek (1978), when individuals' sense of personhood is not on the line with each performance opportunity, a success-orientation can motivate individuals to excel and, somewhat cyclically, serves as self-esteem enhancement when the individual is flexible enough with his/her standards to realistically appraise, recognize, and take satisfaction in a job well done.

Empirical research has attempted to flesh out and investigate the relationship between perfectionism, self-worth, and resultant depression (Preusser et al., 1994; Rice et al., 1998). With depression, self-esteem appeared to serve as a mediational bridge from perfectionism in the first study by Preusser and colleagues (1994). The second iteration of this study by Rice and colleagues (1998) was unable to replicate the exact mediational relationship of self-esteem with perfectionism and depression, although relevant

associations appeared to lean towards a close approximation of this pathway. To this extent, possible confounding variables may account for this discrepancy. Also, each study operationalized perfectionism using different instruments (Hewitt & Flett's MPS in the former and the Frost MPS in the latter, which was also combined with items from another perfectionism scale – the Almost Perfect Scale). Although self-esteem has been implicated as a mediating factor with other mental health outcomes besides depression, such as anxiety or areas of psychopathology, no research has been conducted on this matter.

Thus, the current study sought to clarify the nature of perfectionism and investigate the role that self-esteem plays when perfectionistic individuals experience distress. Consistent with the recently applied concept of perfectionistic self-worth (DiBartolo et al., 2004), self-esteem was expected to be *the* key determinant of how psychopathological stress affects perfectionists.

Hypotheses

1. Self-esteem, as measured by the Rosenberg Self-Esteem Scale (RSE), was expected to be a mediator of the relationship between perfectionism and depression. (See Figure 1 for a depiction of the proposed mediational relationship.)
2. Self-esteem (RSE) was also predicted to demonstrate evidence as a mediator connecting perfectionistic attitudes with state and trait anxiety, as measured by the STAI, and general psychological distress, as measured by the Global Severity Index of the BSI.

3. A measure of maladaptive perfectionism using the FMPS subscales, or "maladaptive evaluative concerns" (DA, CM, PE, & PC), was hypothesized to be a more accurate predictor in the mediational pathways than the total FMPS score. The "positive striving" factor (PS & O) was expected to be uncorrelated with measures of psychopathology (BDI-II, STAI, & BSI), and weakly-moderately correlated with self-esteem (negatively with RSE). In the mediational model using Positive Striving as a measure of "adaptive perfectionism," self-esteem is expected to mediate the relationship between adaptive perfectionism and psychopathology (depression, state and trait anxiety, and general psychological distress) such that a stronger inverse relationship with self-esteem (indicating higher feelings of self-worth) will predict lower psychopathology ratings.

CHAPTER 3

METHODOLOGY AND RESEARCH DESIGN

Participants

Initially, 191 undergraduate students (65 male and 126 female) voluntarily completed the various surveys. All participants were enrolled in introductory psychology courses and recruited via an advertisement placed on the Experimentrix subject pool coordination website. Students who decided to participate in this study were offered a choice of various times and days available, and then scheduled to meet in a classroom setting and complete the measures. The primary incentive for participation was credit toward fulfillment of a departmental research requirement incumbent upon all introductory psychology students. In exchange for approximately one-hour of their time, students received one credit hour's worth of research credit, assigned via the Experimentrix system and forwarded to their instructor regarding fulfillment of the course requirement.

The number of participants desired was approximated via availability and power estimates to reach criteria for moderate effect size among variables. A compromise power analysis was conducted using the G-Power (Faul & Erdfelder, 1992) computational program. With two predictors (perfectionism and self-esteem) and running more than one regression equation, it is recommended that the alpha level for significance be set at .01 to control for type I error. To achieve a medium effect size (.15) for regression used in

structural equation modeling, at least 143 subjects were necessary. Since self-esteem and perfectionism will be evaluated with more than one perfectionism indicator (i.e., maladaptive evaluative concerns, total perfectionism, and positive strivings), having additional subjects will afford better predictions and estimations.

Of the initial 191 subjects, two (one male and one female) failed to complete large portions of the questionnaires such that missing data procedures would not have expressed their unique ratings. As such, data from these two subjects were removed, leaving a total of 189 participants with satisfactory completion of the questionnaires. Of the 189 participants surveyed, individual means were added to missing data when two or fewer items were missed from the scale, while the means for all cases were used if three or more items were left blank on a particular scale. Individual means were calculated for a total of 52 items: one on the Frost Multidimensional Perfectionism Scale; two on the Rosenberg Self-Esteem Scale; 23 on the Brief Symptom Inventory; one on the Beck Depression Inventory – II; and 25 on the State-Trait Anxiety Inventory. Group means were used in six total cases: three individuals did not complete five items of the Satisfaction with Life Scale; one person did not complete eight of the 53 items of the Brief Symptom Inventory; one participant did not complete four of the 21 Beck Depression Inventory- II items; and one person failed to complete the entire state portion of the State-Trait Anxiety Inventory.

Measures

Demographic and Background Assessment

The demographic form consisted of the participant's age, sex, racial/ethnic background, standing in college (freshman, sophomore, and etc.), and current grade-point average (GPA). The final page of the questionnaire packet contained one self-report item, "Do you consider yourself to be a perfectionist?" and two follow-up questions based on an affirmative response to this initial item that ask the participant to estimate to what degree perfectionism has interfered with meeting their goals or helped them achieve goals (rated from 0 – 4 on both, with 0 = "Not at all" and 4 = "Almost always").

Beck Depression Inventory-II

Participants gave ratings on the Beck Depression Inventory, Second Edition (BDI-II; Beck, Steer, & Brown, 1996), the recent revision of the original BDI (Beck, 1978), an instrument with adequate test-retest reliability and demonstrative sensitivity to change, and, as such, has been used within therapies (psychological and pharmacological) as an index of patient improvement and treatment efficacy (Dozois, Dobson, & Ahnberg, 1998). In this instrument, participants rate themselves on a 4-point Likert-type scale (0-3, with higher ratings indicating greater endorsement of the particular item) for 21 items related to depressive symptomatology. The content of the items are based on observations of the symptoms and basic beliefs of depressed individuals. As such, the BDI-II has been routinely used as a standardized tool to assess the presence and severity of depression, in psychiatrically diagnosed patients and in normal populations of both adolescents and adults (Beck, Steer, & Garbin, 1988; Dozois et al., 1998). In view of the BDI's purported reliability and widespread acceptance as a tool for the measurement of depression, and in

lieu of the BDI-II's reportedly improved content validity (Dozois et al., 1998), the BDI-II is acknowledged as the measurement of choice for depression in this present research study.

Brief Symptom Inventory

The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was included to measure a broad but general range of psychopathology and distress. This instrument is a shortened version of the Symptom Checklist 90 (SCL-90; Derogatis, 1977). As noted by Derogatis and Melisaratos (1983), the BSI has good psychometric properties for use in research settings, including a good two-week test-retest reliability (.90) and expected correspondence with other measurements of psychopathology, such as the MMPI. This scale consists of 53 items, which can be divided into nine primary symptom dimensions and three global indices of distress (general distress, frequency of symptoms, and intensity of symptoms). Although specific indices of psychologically disordered conditions may allow for corroborative measures of anxiety and depression, in this study, the measure of general distress, the Global Severity Index (GSI), was used as a global measure of psychopathology and examined in relation to perfectionism of the MPS and self-esteem/self-worth measures. The GSI, a composite of all nine clinical symptom subscales, has been found to be a useful and reliable measure of general distress and general psychopathology in clinical and research applications (Derogatis, 1993).

Multidimensional Perfectionism Scale

The Multidimensional Perfectionism Scale (MPS; Frost, Marten, Lahart, & Rosenblate, 1990) consists of 35 items that were generated from preexisting perfectionism measures, as well as theory and experience of the researchers. Each item is

rated on a 1-5 Likert-type scale (1=strongly agree; 5=strongly disagree). Examples of MPS items include, "If I do not set the highest standards for myself, I am likely to end up a second-rate person," and "People will probably think less of me if I make a mistake." Six subscales comprise this measure: Concern over Mistakes (overly critical evaluative tendencies, striving for goals by fear of failure, and negative reactions to mistakes where mistakes are equivalent to failure), Personal Standards (setting unrealistic and excessively high standards of performance), Parental Expectations (high standards are perceived as imposed by parents, where approval was believed contingent upon performance), Parental Criticism (concerns the belief that the individual is unable to meet the high standards set by parents who criticized and punished them for less than perfect accomplishments, performance, and behavior), Doubting of Actions (doubts about the quality of performance, where the individual senses that his or her tasks are not adequately completed), and Organization (overemphasis on order, precision, and organization). All but the last subscale, Organization, are calculated in the total perfectionism score, as the Organization subscale is believed to tap more adaptive aspects of perfectionism, while the other five scales are believed to load onto maladaptive perfectionism (Frost et al., 1990; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993). However, Frost et al. (1990, 1993) suggested that the Personal Standards subscale also can load onto adaptive perfectionism traits for some individuals, but can also show up diagnostically with maladaptive perfectionism traits. In following suggestions made by Frost and colleagues (1993), maladaptive aspects of perfectionism were also measured using the four FMPS subscales (CM, DA, PC, & PE) other than Organization and Personal Standards, which were examined separately as "Positive Striving" (or the

"adaptive") components of perfectionism. The reliability and validity of this measure have been evaluated (Frost & Marten, 1990; Frost et al., 1990) and are believed to strong, with internal consistencies ranging from .78 to .92. Frost et al. (1990) have demonstrated that the MPS is correlated with other measures of perfectionism, while also relating to measures of psychopathology and well-being in expected directions (Rice et al., 1998). In particular, Frost and Marten (1990) stated that the MPS has been correlated with psychopathology symptoms on the Brief Symptom Inventory (Derogatis & Melisaratos, 1983).

Rosenberg Self-Esteem Scale

Likely the most popular and studied measure of self-esteem or self-worth used in behavioral science research (The Morris Rosenberg Foundation, 2003), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), was originally designed as a Guttman scale to tap the self-esteem of high school students. The most common usage to date of the RSE has been as a Likert-type scale functioning as a brief assessment measure of both clinical and non-clinical adults (Corcoran & Fisher, 1987). This 10-item scale is typically rated on a 4-point scale from "strongly agree" (1) to "strongly disagree" (4). An example of one of the items is, "On the whole, I am satisfied with myself." According to the Morris Rosenberg Foundation, the RSE serves as a good unidimensional measure of self-esteem, but can also be divided into two-factor subscales tapping self-confidence and self-deprecation. The RSE has served as a benchmark of self-esteem assessment and correlates highly with other self-esteem measures, such as the Coopersmith Self-Esteem Inventory (Corcoran & Fisher, 1987). In a detailed review, Corcoran and Fisher (1987) noted that the RSE has demonstrated strong correlations in predicted directions with

measures of psychopathology, noting depression and anxiety, in particular, while also evidencing good convergent and divergent construct validity with measures by which the RSE should theoretically relate or not relate, respectively. The RSE is generally found to have high reliability, as noted with test-retest correlations between .82 and .88, while Cronbach's alpha tends to fall in the .77 to .88 range (Blascovich & Tomaka, 1993; Rosenberg, 1986). Internal consistency has been strong, with reliability coefficients ranging between .86 and .93 (Goldsmith, 1986).

Satisfaction with Life Scale

As a general indicator of one's contentment or satisfaction in relation to their life, as a whole, the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) was used. This brief 5-item scale consists of items such as, "In most ways my life is close to ideal," which are rated on a 7-point Likert-type scale that requests agreement ratings that range from 1 ("strongly disagree") to 7 ("strongly agree") with a midpoint of 4 ("neither agree nor disagree"). Higher scores are indicative of greater feelings of life satisfaction. As a very brief measure, the SWLS is believed to have very straightforward face validity and test-retest reliability was reported by its authors to be .82. In this study, the SWLS will be examined as an additional outcome variable related to perfectionism and self-esteem.

State-Trait Anxiety Inventory

The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) was designed to assess both the emotional state of anxiety and individual differences in anxiety proneness (Murphy, Impara, & Plake, 1999). The original STAI (Form X) was developed between 1964 and 1970 before it was official published in 1970

by Spielberger, Gorsuch, and Lushene. The original STAI demonstrated strong psychometric properties and was heavily used in both clinical and non-clinical research and treatment arenas (see Spielberger et al., 1983). Revisions were made to make the test more specific to anxiety symptoms, as depressive symptoms were being witnessed, more balanced between anxiety-present versus anxiety-absent items, and to improve upon cross-cultural applicability. These revisions culminated in the STAI Form Y (Spielberger et al., 1983), the current and widely adopted iteration of the STAI. Forty items are rated on a 1 (not at all) to a 4 (very much so) Likert-type self-report scale. A total score is calculated, as well as two subscale index scores: State and Trait. Each subscale is balanced with 20 items, half of each pull for either the presence or absence of symptoms. State anxiety (S-Anxiety) is viewed as how the individual feels "right now, in the moment," while trait anxiety (T-Anxiety) is believed to note how people generally feel, as an enduring personality characteristic (trait) of that individual. Spielberger et al. (1983) offered a review of the psychometric properties of both forms (X and Y) of the STAI. Test-retest reliability among college students for T-Anxiety ranges between .73 and .86, with a median reliability coefficient of .77. For the S-Anxiety subscale, the test-retest range was much wider at .16 to .62, and a median stability coefficient of .33; however, this low result is believed to correspond with the transitory nature of state anxiety, and argued to demonstrate utility as a state-sensitive measure of anxiety that accounts for the effects of situational stress. Median alpha coefficients for S-Anxiety and T-Anxiety are .92 and .90, respectively, in the normative sample. Spielberger and colleagues (1983) noted several studies indicating adequate convergent and divergent validity in predicted directions, which had both been improved in Form Y of the STAI, in populations that

have included working adults, college students, high school students, and military recruits, and using several personality, vocational, achievement, and psychopathological measurement indicators.

Procedures

Research participants were instructed to meet at a classroom on campus where they were briefed on the research procedures and tasks demanded of them. Informed consent was explained and copies of the consent form, detailing voluntary participation, risks, and rights, were given to each participant to read over and keep for reference. Next, the questionnaire packets were handed out to the participants, with the instruction that, "By completing the attached questionnaires, you are acknowledging your understanding of this study and are agreeing to participate in the research." The participants were instructed to not write their names anywhere. Each packet consisted of the aforementioned scales presented in a randomized order, with the exception of the demographics form (completed first) and the three additional questions regarding the participant's explicit categorization of themselves as a perfectionist (presented last in the packet). The packets took between 20 minutes and one hour to complete, with most participants finishing within 40 minutes. Participants were made aware that they could discontinue the study at anytime and still receive one credit hour's worth of research credit in fulfillment of the department's research requirement.

CHAPTER 4

RESULTS

Descriptive Analyses

Demographic Statistics

On all demographic variables, means, standard deviations, and frequency distributions were obtained. After data from one male and one female (both Caucasian and aged 23 and 20, respectively) were discarded due to excessive missing responses, the sample consisted of 189 undergraduates (64 male and 125 female) aged 18 to 51 years (M=20 years of age; SD=4.20), with 95% of participants under the age of 25 years. Ethnicity was reported as follows: European-American (n=103; 54.5%), Asian/Pacific Islander (n=38; 20.1%), Hispanic (n=26; 13.8%), African-American (n=12; 6.3%), Multiracial (n=9; 4.8%), and Native-American/Alaskan Native (n=1; 0.5%). Regarding college status, 59.8% (n=113) of participants were in their freshman year, 24.9% (n=47) were sophomores, 12.2% (n=23) were juniors, and 3.2% (n=6) were seniors. Of the 189 participants, 153 reported their grade-point averages (GPAs). The range of GPAs was 1.7 to 4.0 (on a 4.0 scale) with a mean of 3.2 and standard deviation of 0.5.

Order Effects

The four versions of randomly ordered questionnaire packets were equivalent in distribution (Forms A, C, and D: n=47; Form B: n=48). Using univariate ANOVA, the ordering of the forms did not have a significant effect on any of the key variables (perfectionism, self-esteem, or measures of psychopathology).

Gender Effects

Using a MANOVA for the independent variable of gender in relation to all key dependent variables, females endorsed significantly more psychopathology and lower self-esteem than males. Perfectionism and satisfaction with life measures did not evince significant gender differences. On the Rosenberg Self-Esteem Scale (RSE), women noted lower overall self-esteem than men, $F(1,187)=4.890$, $p<.05$. On the Global Severity Index (GSI), compared to males, females endorsed significantly more general psychopathology and distress, $F(1, 187)=6.868$, $p<.01$. Depressive symptoms, as measured by the Beck Depression Inventory-II (BDI-II), were more severe in women than men, $F(1, 187)=5.550$, $p<.05$. State and trait anxiety were also endorsed as significantly more symptomatic by women than men, STAI-State $F(1, 187)=11.867$, $p<.001$, and STAI-Trait $F(1, 187)=8.465$, $p<.01$. Given these unanticipated findings, later regression paths were examined separately by gender and compared to paths for both genders.

Ethnicity Effects

Using a MANOVA with ethnicity as the fixed factor in relation to totals for the perfectionism, self-esteem, and various psychopathology measures, there were no significant effects for ethnicity.

Class Standing Effects

Using a one-way ANOVA with class status as the fixed factor compared to the totals for all the key dependent variables of interest, class status was not significant with any of the dependent measures.

Self-Identified Perfectionists

Of the 189 participants who completed the questionnaires, 73 (38.6%) participants indicated that they considered themselves to be a perfectionist. Of those who self-identified as perfectionists via this item, 12 (16.4%) noted that perfectionism has interfered "a lot" or "almost always" with meeting their goals, while 25 (34.2%) reported perfectionism to be "somewhat" interfering, and 36 (49.3%) reported "only a little" or no interference related to their perfectionistic tendencies. Thus, approximately half of self-indicated perfectionists felt their perfectionism to be a noteworthy problem that negatively impacts their goals. In contrast, many more individuals seemed to feel that perfectionism has helped them meet their goals. Of these 73 self-reported perfectionists, 51 (69.9%) noted that being perfectionistic has helped "a lot" or "almost always" in meeting goals, while 19 (26%) found perfection to be "somewhat" helpful. Only three individuals (4.1%) noted that their perfectionism was "not at all" or "only a little" helpful in meeting their goals.

Correlational Analyses

Correlations among Perfectionism, Self-Esteem, and Psychopathology Measures

Pearson product-moment correlations were conducted among perfectionism subscale totals (FMPS Total, FMPS Maladaptive Perfectionism, and FMPS Positive Striving

measure of adaptive perfectionism) (see Table 1), between perfectionism subscales and the RSE measure of self-esteem (see Table 2), between perfectionism subscales and measures of psychopathology (BDI-II, STAI-State, STAI-Trait, GSI, and SWLS) (see Table 3), and among psychopathology measures (see Table 4).

The correlation between the FMPS total perfectionism score and maladaptive perfectionism was extremely high (r=.97, p<.001), as these two totals differ only on the inclusion of the seven Personal Standards items in the total score. The FMPS total was moderately correlated (r=.43, p<.01) with the Positive Striving total, which consisted of Personal Standards and Organization subscales. Finally, the Maladaptive Perfectionism Subscale was also significantly correlated (r=.24, p<.01) with Positive Striving, although this was the least in magnitude of the three correlations among the perfectionism subscale groupings.

Before considering analysis of the regression paths proposed as the major hypotheses of this study, the key variables of interest in the mediational pathway must be significantly correlated with one another (Baron & Kenny, 1986). Pearson product-moment correlations were conducted between perfectionism and self-esteem measures (see Table 2), and then between perfectionism and dependent variables representing measures of psychopathology (see Table 3). Perfectionism measures and the self-esteem measure were significantly correlated in predicted directions. The Total FMPS score was significantly correlated with the RSE (r=.51, p<.01), while the maladaptive perfectionism grouping (Maladaptive Perfectionism) from the FMPS was also significantly correlated with the RSE (r=.61, p<.01) in a positive direction. Positive Striving, the more adaptive

measure of perfectionism from the FMPS, was negatively correlated with the RSE (r=-.16, p<.05), as was consistent with a priori hypotheses.

In comparing perfectionism measures with the dependent measures of psychopathology used in this study, Total and Maladaptive Perfectionism groupings of the FMPS were positively correlated with measures of psychopathology and negatively with life satisfaction (SWLS), while Positive Striving was not significantly correlated with any measure of psychopathology. Total Perfectionism was significantly correlated with each of the following: BDI-II (r=.54, p<.01), STAI-State (r=.46, p<.01), STAI-Trait (r=.52, p<.01), GSI (r=.50, p<.01), and SWLS (r=-.36, p<.01). The Maladaptive Perfectionism subscale grouping of the FMPS was similarly correlated, though slightly higher, with the dependent variables: BDI-II (r=.58, p<.01), STAI-State (r=.51, p<.01), STAI-Trait (r=.58, p<.01), GSI (r=.51, p<.01), and SWLS (r=-.40, p<.01). As expected, the adaptive perfectionism (Positive Strivings) measure was not correlated with any of the outcome measures: BDI-II (r=.03, *p ns*), STAI-State (r=.05, *p ns*), STAI-Trait (r=.01, *p ns*), GSI (r=.08, *p ns*), and SWLS (r=.06, *p ns*). Thus, all key variables later analyzed in the mediational relationships were found to be correlated in the predicted directions.

Finally, correlational properties among the dependent measures of psychopathology were also examined using Pearson product-moment correlations (see Table 4). All of the dependent measures were found to be significantly correlated with one another in expected directions. The BDI-II was significantly correlated in a positive direction with STAI-State (r=.68, p<.01), STAI-Trait (r=.78, p<.01), and the GSI (r=.80, p<.01), while negatively correlated with the SWLS (r=-.55, p<.01). The state version of the State-Trait Anxiety Inventory (STAI) was significantly correlated in positive directions with the

STAI-Trait (r=.79, p<.01) and the GSI (r=.70, p<.01), in addition to the aforementioned BDI-II, and negatively correlated with the SWLS (r=-.43, p<.01). Additionally, trait anxiety of the STAI was significantly correlated with the GSI in a positive direction (r=.74, p<.01), while negatively correlated with the SWLS (r=-.61, p<.01). Finally, overall distress, as measured by the GSI, was negatively correlated (r=-.41, p<.01) with perceived satisfaction with life, as measured by the SWLS. All of these measures significantly correlated with one another. Thus, a great deal of measurement overlap appeared among the psychopathology scales used in this study.

Regression Analyses

Hypothesis One: Self-Esteem as a Mediator between Maladaptive Perfectionism and Depression

In the first hypothesis, a mediational relationship was predicted between perfectionism and depression, considering self-esteem to be a significant mediator. As a mediator, self-esteem was expected to represent the mechanism by which perfectionism is more strongly associated with depression. As such, self-esteem essentially accounts for the strength of this relationship. According to Baron and Kenny (1986), variations in the predictor (independent variable; in this case, perfectionism) should significantly affect the mediator (self-esteem), and variations in the mediator (self-esteem) are expected to affect the dependent variable (depression in this case). Further, if the mediator were removed, the path between the independent variable (perfectionism) and the dependent variable (depression) would lose significance.

Thus, in line with recommendations by Baron and Kenny (1986) a series of regression analyses were conducted to examine the paths between variables in the mediating chain. In hypothesis one, three regression equations were calculated: (1) self-esteem scores were regressed on perfectionism scores (see Table 5), (2) depression scores were regressed on perfectionism scores, and (3) depression scores were regressed on both the perfectionism and self-esteem scores (see Table 6). From this point, regression coefficients and standard errors were obtained and compared for each path (see Figure 2). For this model to be accurately described as "mediational" in line with a priori predictions offered all three regression pathways must be significant and the strength of relationship between depression and perfectionism must be less in the third regression equation than in the second equation.

Maladaptive Perfectionism and self-esteem (RSE) noted a significant beta coefficient (β=.61, p<.001) representing their shared pathway. The coefficient for the pathway between self-esteem and depression (BDI-II) was also significant (β=.69, p<.001). Of particular interest in the mediational model, the original pathway between Maladaptive Perfectionism and BDI-II depression scores was significant (β=.58, p<.001) and of a greater magnitude when compared with this same pathway after accounting for self-esteem (β=.26, p<.001). Thus, these results indicate a possible mediational role for self-esteem in relation to perfectionism and depression. Ideally, a mediator would cause the coefficient in the second pathway to drop below statistical significance; however, this was not the case in these findings. Baron and Kenny (1986) addressed this concern and suggested using a test for the significance of a mediator, known as the Sobel test. To examine if this mediational model was significant, a Sobel test was conducted using the

Aroian test equation (Preacher & Leonardelli, 2003). This Sobel test calculates a z-score that represents the degree to which the mediated effect differs from zero in the estimated population. The Sobel value for self-esteem as a mediator for maladaptive perfectionism and depression was significant (z=6.44, p<.001), indicating self-esteem to be a significant mediator in the pathway from maladaptive perfectionism to depression.

Because gender effects were found, with females reporting greater levels of depression and lower self-esteem than males, the mediational model of self-esteem in relation to perfectionism and depression was examined for each gender (see Figure 3). For men (N=64), the pathway between Maladaptive Perfectionism and self-esteem (RSE) was significant (β=.52, p<.001), as was the pathway from self-esteem to BDI-II depression scores (β=.58, p<.001). After accounting for the effects of self-esteem via regression, Maladaptive Perfectionism was no longer a significant predictor of depression (β=.10, p *ns*). When self-esteem was included, however, Maladaptive Perfectionism was a significant predictor (β=.37, p<.01) of BDI-II depression scores. For men self-esteem fit the traditional role of a mediator in this model, such that the once significant path from perfectionism to depression was no longer statistically significant. The Sobel test for the mediational significance of RSE self-esteem in the model comprised of men was significant (z=3.17, p<.01).

For women (N=125), compared to men, all betas were larger in magnitude in the mediational model. The pathway from Maladaptive Perfectionism to self-esteem (RSE) was significant (β=.64, p<.001), as was the pathway between self-esteem and depression (β=.72, p<.001). The original pathway from Maladaptive Perfectionism to BDI-II depression scores was significant (β=.64, p<.001) and much greater in magnitude than

after accounting for the effects of self-esteem (β=.31, p<.001), although this later pathway remained statistically significant. The Sobel test of mediational significance for self-esteem in the model for females was also significant (z=5.47, p<.001). Thus, the mediational role of self-esteem (RSE) as a key link by which maladaptive perfectionism is related to depression held significance for both women and men in this study.

Hypothesis Two (A): Self-Esteem as a Mediator between Maladaptive Perfectionism and Anxiety (State and Trait)

In the second hypothesis, self-esteem was predicted to mediate the relationship between maladaptive perfectionism and anxiety. Anxiety was first examined for the current degree of anxiety experienced, or "state" anxiety. Following the same statistical analyses described in the previous section with BDI-II depression scores as the dependent variable, the "state" portion of the State-Trait Anxiety Inventory was examined by regressing state anxiety on maladaptive perfectionism and then regressing State Anxiety on self-esteem (RSE) and maladaptive perfectionism (see Table 7). As noted when depression was used as the dependent variable, the pathway between maladaptive perfectionism and self-esteem was significant (β=.61, p<.001). As noted in Figure 4, the pathway from self-esteem to state anxiety was significant (β=.58, p<.001), while the pathway from maladaptive perfectionism to state anxiety was also significant (β=.51, p<.001). After accounting for the effects of self-esteem, however, the pathway from maladaptive perfectionism to state anxiety lost magnitude (β=.24, p<.01), although this pathway remained statistically significant. The Sobel test revealed self-esteem to be, again, a statistically significant mediator (z=5.17, p<.001) in the relationship between maladaptive perfectionism and state anxiety.

A comparison between gender groups revealed that statistical significance of this mediational model remained, although lesser in magnitude for men versus women. As previously noted, the pathway from maladaptive perfectionism to self-esteem in men was significant (β=.52, p<.001), as was the pathway between self-esteem and state anxiety (β=.56, p<.001). The original pathway in men between maladaptive perfectionism and state anxiety was also significant (β=.56, p<.001), but lost a large degree of magnitude (β=.36, p<.01) after accounting for the effects of self-esteem. A Sobel test revealed significance (z=2.67, p<.01) for self-esteem as a mediator between maladaptive perfectionism and state anxiety in men. In women, self-esteem looked more like a prototypical mediator in that a prior significant pathway (β=.48, p<.001) between maladaptive perfectionism and state anxiety dropped to just below a conservative estimate of significance (β=.19, p=.05/*ns*). Pathways between maladaptive perfectionism and self-esteem (β=.64, p<.001) and between self-esteem and state anxiety (β=.57, p<.001) were both significant in women. A Sobel test for mediational significance revealed statistical significance (z=4.21, p<.01) of self-esteem as a mediator between maladaptive perfectionism and state anxiety in women.

Using the "trait" portion of the State-Trait Anxiety Inventory as a measure of anxiety as a personality, or "trait" dimension, a series of regression analyses were conducted as before to examine the role of self-esteem (RSE) as a mediator between maladaptive perfectionism and trait anxiety. After regressing self-esteem on maladaptive perfectionism, trait anxiety was regressed on maladaptive perfectionism both with and without self-esteem (see Table 8). In the overall, combined gender model, all three initial pathways were significant (see Figure 5): maladaptive perfectionism to self-esteem

(β=.61, p<.001), self-esteem to trait anxiety (β=.75, p<.001), and maladaptive perfectionism to trait anxiety (β=.58, p<.001). After accounting for the effects of self-esteem, the pathway from maladaptive perfectionism to trait anxiety decreased in degree of significance (β=.19, p<.01), though still retaining statistical significance. A Sobel test for mediational significance noted statistical significance (z=7.40, p<.001) for self-esteem as a mediator between maladaptive perfectionism and trait anxiety.

Path models for the role of self-esteem as a mediator between maladaptive perfectionism and trait anxiety were analyzed by gender groups. In the grouping of male participants, all three initial pathways were found to be statistically significant: maladaptive perfectionism to self-esteem (β=.52, p<.001), self-esteem to trait anxiety (β=.72, p<.001), and maladaptive perfectionism to trait anxiety (β=.52, p<.001). After accounting for the effects of self-esteem, the pathway from maladaptive perfectionism to trait anxiety was no longer statistically significant (β=.20, *p ns*). A Sobel test of this model revealed statistical significance (z=3.74, p<.01) for self-esteem in the relationship between maladaptive perfectionism and trait anxiety in men. In female participants, all three of the initial pathways were also statistically significant: maladaptive perfectionism to self-esteem (β=.64, p<.001), self-esteem to trait anxiety (β=.75, p<.001), and maladaptive perfectionism to trait anxiety (β=.59, p<.001). After accounting for the effects of self-esteem in this model, the pathway between maladaptive perfectionism and trait anxiety remained significant (β=.19, p<.05), but much less in degree. A Sobel test of self-esteem as a mediator for women between maladaptive perfectionism to trait anxiety was statistically significant (z=6.18, p<.001), thus offering further evidence of self-

esteem's mediational role between maladaptive perfectionism and both state and trait anxiety in both male and female participant groups.

Hypothesis Two (B): Self-Esteem as a Mediator between Maladaptive Perfectionism and General Psychological Distress

In addition to self-esteem's hypothesized implication as a mediator between maladaptive perfectionism and depression, as well as between maladaptive perfectionism and anxiety, self-esteem (RSE) was expected to mediate the relationship between maladaptive perfectionism and general psychopatholgy (general distress). The dependent variable representing general psychological distress in the mediational model was the Global Severity Index (GSI) of the Brief Symptom Inventory. General distress (GSI) was regressed on maladaptive perfectionism alone and with self-esteem (see Table 9). In the overall model (see Figure 6), maladaptive perfectionism evinced a significant pathway to self-esteem (β=.61, p<.001). The pathway from self-esteem to general distress was also significant (β=.56, p<.001), as was the initial pathway from maladaptive perfectionism to general distress (β=.51, p<.001). The latter pathway from maladaptive perfectionism to general distress decreased in significance (β=.28, p<.001), though still significant, after accounting for self-esteem. A Sobel test of this mediational model revealed statistical significance (z=4.61, p<.001) for the role of self-esteem as a significant mediator between maladaptive perfectionism and general distress.

To address potential differences for men and women in this mediational model, separate models were analyzed for each gender. In the group of male participants, all three pathways were significant: maladaptive perfectionism to self-esteem (β=.52, p<.001), self-esteem to general distress (β=.37, p<.01), and maladaptive perfectionism to

general distress (β=.29, p<.05). After accounting for self-esteem, the pathway from maladaptive perfectionism to general distress was no longer statistically significant. A Sobel test conducted to test the significance of self-esteem as a mediator for men in the model noted a z-score within the range of statistical significance (z=2.00, p<.05), thus indicating self-esteem as a significant mediator between maladaptive perfectionism and general distress. In women, the mediational role of self-esteem was significant to a larger degree, as the change in the pathway from maladaptive perfectionism to general distress after accounting for self-esteem was significant to a lesser degree (β=.31, p<.01) than when self-esteem was included in the calculation of that pathway (β=.57, p<.001). The pathway between maladaptive perfectionism and self-esteem was significant (β=.64, p<.001), as was the pathway from self-esteem to general distress (β=.61, p<.001). A Sobel test of the model consisting of female participants was statistically significant (z=3.99, p<.001), thus noting self-esteem as a significant mediator in the relationship between maladaptive perfectionism and general distress experienced in women.

Hypothesis Three (A): "Maladaptive Perfectionism" as a More Accurate Predictor of Psychopathology than Total Perfectionism

In line with a priori hypotheses, the Maladaptive Perfectionism grouping from the FMPS (DA, CM, PE, & PC subscales) was expected to be a more accurate predictor of psychopathology (depression, anxiety, and general distress) in the mediational model than Total FMPS scores, as consistent with prior research (Frost et al., 1993). The only difference between Maladaptive and Total Perfectionism on the FMPS is the Personal Standards Subscale, which was added to the Organization Subscale to comprise the Positive Striving measure of "adaptive" perfectionism. Consistent with earlier regression

analyses, self-esteem scores were regressed on FMPS Total Perfectionism scores (see Table 10), depression scores were regressed on Total Perfectionism scores, and depression scores were regressed on both Total Perfectionism and self-esteem scores (see Table 11).

The mediational model for self-esteem, when using the FMPS Total as a predictor of depression (see Figure 7), was very similar to the model with Maladaptive Perfectionism as the predictor of depression scores. All three initial pathways were significant: total (FMPS) perfectionism to self-esteem (β=.51, p<.001), self-esteem to depression (β=.69, p<.001), and total perfectionism to depression (β=.54, p<.001). After accounting for the effects of self-esteem, the pathway between total perfectionism and depression decreased in magnitude but was still statistically significant (β=.26, p<.001). A Sobel test for mediational significance noted that self-esteem appeared to be a significant mediator (z=6.10, p<.001) between Total Perfectionism (on the FMPS) and depression.

The FMPS Total score was examined as the indicator of perfectionism in models testing self-esteem's mediation between perfectionism and state anxiety (STAI-State), trait anxiety (STAI-Trait), and general distress (GSI). Using identical regression analyses, in all cases of psychopathology, FMPS Total results were nearly identical to Maladaptive Perfectionism as a perfectionism indicator. With state anxiety, after accounting for the effects of self-esteem, the pathway from total (FMPS) perfectionism to state anxiety decreased significantly (initial pathway, β=.46, p<.001; pathway after accounting for self-esteem, β=.22, p<.01). A Sobel test revealed self-esteem's mediation of total perfectionism and state anxiety to be significant (z=5.26, p<.001). Similarly, with trait anxiety, the pathway from total (FMPS) perfectionism to trait anxiety decreased in

statistical significance (from β=.52, p<.001, to β=.18, p<.01) after accounting for the effects of self-esteem. A Sobel test supported this decrease in significance between total perfectionism and trait anxiety as self-esteem evinced statistical significance (z=6.62, p<.001) as a mediator in this model. Finally, according to another Sobel test, self-esteem was also a significant mediator (z=4.61, p<.001) between total (FMPS) perfectionism and general distress (GSI). In this model, regression analyses revealed that the pathway from total perfectionism to general distress decreased significantly (from β=.51, p<.001, to β=.28, p<.001) after accounting for the effects of self-esteem.

Hypothesis Three (B): The "Positive Striving" Component of "Adaptive Perfectionism" and the Mediational Models

The Positive Strivings, or adaptive, component of the FMPS (Personal Standards and Organization Subscales) was expected to be uncorrelated with measures of psychopathology and modestly correlated with self-esteem (see Correlational Analyses section). In the mediational model examining Positive Striving as a predictor of depression, self-esteem was expected to mediate the relationship in an inverse fashion (higher self-esteem indicated by lower RSE ratings). That is, when Positive Striving predicts self-esteem, depression was not expected to hold a significant pathway from the more adaptive aspects of perfectionism. However, after accounting for the effects of self-esteem, in which the shared inverse relationship with Positive Striving is accounted for, the pathway from adaptive perfectionism to depression is expected to gain statistical significance. Hence, self-esteem scores were regressed on Positive Striving scores (see Table 12), depression scores were regressed on Positive Striving scores, and depression scores were regressed on both Positive Striving and self-esteem scores (see Table 13).

The mediational model for self-esteem, when using Positive Striving (adaptive perfectionism) as a predictor of depression (see Figure 8), noted an inverse role for self-esteem, as predicted. However, self-esteem would not technically be called a "mediator" of this relationship, because one of the requirements for mediation is that the initial pathway between adaptive perfectionism and depression needs to be significant (Baron & Kenny, 1986). This initial pathway was nonsignificant. However, self-esteem appeared to fit the role of a suppressor variable, rather than a mediator in this relationship. A suppressor variable masks variance between the other predictor variable and the dependent variable (Howell, 2001). According to Tabachnick and Fidell (2001), cooperative suppression is suspected when a negative correlation exists between both predictors and more variance in the dependent variable is accounted for when both predictors are entered in the regression equation than when each variable is entered in the equation alone. Further, Tabachnick and Fidell (2001) recommend comparing simple correlations between each predictor and dependent variable against beta weights for the predictors. If the beta weights are greater than the simple correlations between the predictor and dependent variable, then a suppressor variable is detected. This was the case with self-esteem in the adaptive perfectionism – depression relationship. The pathway from adaptive perfectionism to self-esteem was inversely correlated (β=-.16, p<.01), while the pathway from self-esteem to depression was positively correlated (β=.69, p<.001). The initial pathway from adaptive perfectionism to depression was not significant. After accounting for the effects of self-esteem on this pathway from adaptive perfectionism to depression, the regression path coefficient was significant (β=.14, p<.01). At the present time, suppression can only be inferred from the pattern of results

as, at the present time, no significance test exists to test for the degree of statistical significance of possible suppression effects (Smith, Ager, & Williams, 1992).

In addition to depression prediction, the Positive Strivings grouping of the FMPS was examined as an indicator of adaptive perfectionism in the prediction of state anxiety (STAI-State), trait anxiety (STAI-Trait), and general distress (GSI), as hypothesized to be dependent upon self-esteem's mediational role in these models. Using regression analyses identical to those performed in the previous sections, self-esteem similarly served not as a mediator, but a suppressor variable between adaptive perfectionism and measures of psychopathology. With state anxiety, after accounting for the effects of self-esteem, the pathway from adaptive perfectionism to state anxiety became significant (initial pathway non-significant, β=.05; after accounting for self-esteem, β=.15, p<.05). With trait anxiety, the pathway from adaptive perfectionism to trait anxiety similarly became significant after accounting for the effects of self-esteem (β=.01, p *ns*, and β=.13, p<.05, respectively). Finally, self-esteem also noted a similar role as a suppressor of adaptive perfectionism's prediction of general distress, as noted by a significant change (β=.17, p<.01) from a non-significant pathway (β=.08) after accounting for the effects of self-esteem.

CHAPTER 5

DISCUSSION

Despite a recent trend in the research literature to distinguish what traits and features comprise perfectionism, relatively few studies have sought to examine how perfectionism is with adverse physical and mental health outcomes. This study attempted to address this void in the research, as low self-esteem was anticipated to represent a major vehicle by which perfectionism possibly leads to various forms of psychological distress. Given such strong links between perfectionism and various psychopathological diagnostic categories such as depression and anxiety disorders, the alleviation of perfectionism-fueled distress will likely benefit from better clarification of possible pathways by which perfectionism exerts its influence. Based on an expansion of prior research and theory (Adler, 1956; DiBartolo et al., 2004; Burns, 1980; Frost et al., 1993; Hamachek, 1978; Horney, 1950; Preusser et al., 1994; Rice et al., 1998), self-esteem was considered to be the factor essential to disentangle high achievement oriented individuals, or "normal" perfectionists (Hamachek, 1978), from maladaptive perfectionists.

Although these two groups of high-striving individuals often employ similar strategies towards meeting task demands, the group considered to represent "adaptive" perfectionists (Frost et al., 1993) would likely be driven to success for the sake of succeeding, rather than motivated by a fear of failure (Hamachek, 1978). Further, these

individuals might also demonstrate more resilience in the face of road blocks or less-than-perfect results than maladaptive perfectionists. Thus, the common underlying assumption within this study is that persons who fit the more pathological view of perfectionism have a tendency to measure their worth in terms of performance (Burns, 1980), with their feelings of self-worth seemingly impacted by the end results of recent performance outcomes. Unfortunately, maladaptive perfectionists tend to downplay successes as mere approximations of the desired perfect outcome (Hamachek, 1978), and, as a result, the enhancement of self-esteem does not typically occur. Rather, the perfectionist's overall sense of personhood appears to be mired by a self-defeating cycle of striving for an excellence that is not humanly possible.

This study examined if one's feelings of self-esteem, when driven by perfectionistic striving, would be a mediating factor between perfectionism and psychopathology. Prior research investigating perfectionism and depression suggested that this might be the case (Preusser et al., 1994; Rice et al., 1998), while some researchers have extended this idea and suggested that self-esteem can be expected to be the key mediating factor by which perfectionism leads to most forms of psychological distress (DiBartolo et al., 2004; Hamachek, 1978; Preusser et al., 1994). However, the exact mediational role of self-esteem in the relationship between perfectionism and depression has not been thoroughly resolved. Further, the mediational role of self-esteem in relation to perfectionism and psychological distress besides depression had not been psychometrically tested until this current study.

Self-Esteem as a Mediator of Maladaptive Perfectionism and Depression

The present study sought to add clarity to the role of self-esteem as a mediator of the perfectionism – depression relationship. Following a series of regression analyses as recommended by Baron and Kenny (1986), which included a subsequent Sobel test for mediational significance, maladaptive perfectionism was found to best predict depression when self-esteem was low. After accounting for the effects of self-esteem on the overall relationship, the pathway from maladaptive perfectionism to depression decreased in significance and self-esteem was noted to significantly mediate this pathway. As noted by Baron and Kenny (1986), a more ideal and complete mediator would have resulted in a nonsignificant pathway after it was accounted for by the mediator. However, given that self-esteem is just one, albeit a highly influential, mediator, the fact that significance in the pathway dropped considerably was strong evidence in favor of mediation. As recommended by Baron and Kenny (1986), in cases in which significance drops but the pathway coefficient stays above statistical significance, the Sobel test was performed. Sobel results indicated that self-esteem was a significant mediator in the maladaptive perfectionism – depression association. Thus, despite using a different measure of perfectionism, these results support the earlier mediational study of self-esteem by Preusser and colleagues (1994).

With regard to the later study by Rice and colleagues (1998), this current study simplified the measure of maladaptive perfectionism by using a more traditional and commonly operationalized (Frost et al., 1993) grouping of subscales from the Frost Multidimensional Perfectionism Scale. Also, persons with high self-esteem did not tend to produce high maladaptive perfectionism scores, as was the case with the Rice and

colleagues (1998) study, although a majority of self-identified perfectionists tended to report perfectionism as a more positive attribute and not a cause of suffering. Perhaps this latter result might be due to a combination of issues: firstly, that the average age of the sample was 20 years, and secondly, that perfectionism might possibly be viewed in a young group of individuals (and also as misapplied in the general public) as a positive vehicle by which one might ensure personal success. That is, perhaps some of these individuals were not truly perfectionistic in the clinic sense, but rather would prefer to consider themselves as high achievers who agree with the ideal of striving for perfection.

Of note, women reported significantly higher degrees of psychopathology on all measures (BDI, BSI, and STAI) and lower self-esteem than men in this study. Although a thorough explanation of this result is beyond the scope of the current study, the higher prevalence rate for the endorsement of mood and anxiety related concerns by females versus males corresponds with trends noted in epidemiological and clinical studies (American Psychiatric Association, 2000). In particular, Zuckerman (1999) noted that women tend to score higher on measures of neuroticism, trait anxiety, and negative affectivity, with potential explanations likely due to both biological and socialization differences. Kessler (2000) also added that likely plausible explanations for the gender effect in mood disorders include differences in sex hormones, subtle socialization effects over the lifespan, and gender-role-related stress that may relate to higher vulnerability for women over men. Further, Eisler and Skidmore (1987) noted that "masculinity" traits seem to serve as protective factors against anxiety and depression, while these effects are likely related to gender-related stress in societies that prize "masculine" traits as indicators of strength versus often stereotyped "feminine weaknesses" (Shear, Feske, and

Greeno, 2000). Although Preusser's (1994) research group noted a gender difference in their investigation of self-esteem's mediation between self-oriented perfectionism and depression, this effect was not anticipated in the current study. As a result, regression models were compared with both genders combined and each gender separately.

In men, a more classic mediational relationship was observed in that the pathway between maladaptive perfectionism and depression was no longer significant after accounting for the effects of self-esteem (refer to Figure 3). Combined with a significant z-score on the Sobel test, self-esteem was indicated to be a significant mediator of the perfectionism – depression relationship. For women, compared to men, all beta coefficients were greater in magnitude (Figure 3), and while the mediational trend was also significant for self-esteem, the pathway from maladaptive perfectionism to depression remained statistically significant (though much less in degree) after accounting for self-esteem. A subsequent Sobel test indicated self-esteem as a significant mediator in the perfectionism-depression association for women. Perhaps because the strength of the model's initial pathways were larger for women from the outset, a relative decrease in significance had farther to drop to become "nonsignificant" as compared to men. Of course, there might also be a gender-related interaction such that women, compared to men, may experience self-esteem in a slightly different fashion. For example, lowered self-esteem may be less tied to negative psychological outcomes in women than men. To this extent, as hypothesized by Spangler and Burns (1999), men might experience a cleaner link to depression from self-esteem or men who are more likely to report low self-esteem might also be more likely to report depression symptoms.

However, this latter explanation was not obvious from the correlational analyses between self-esteem and measures of psychopathology for men.

Self-Esteem as a Mediator of Perfectionism and Anxiety and General Distress

As the initial hypothesis was supported such that self-esteem appears to be a significant mediator in the perfectionism – depression relationship, the second hypothesis was then explored. In two of the seminal studies investigating perfectionism and psychopathological outcomes, Hamachek (1978) and Burns (1980) suggested that perfectionism's effects on self-esteem might be the key factor in the development of depression, anxiety, or other forms of negative mental health conditions. The current study sought to examine if these suppositions might hold true when subjected to statistical analyses. Based also on a recent contention by DiBartolo and colleagues (2004), which noted that the setting of high perfectionistic standards would lead to psychopathology when one's sense of self-worth is contingent upon meeting these standards, the second and most unique prediction of the current study was that low self-esteem would evidence a significant mediational role in the association between maladaptive perfectionism and various forms of psychopathology. In this study, aside from depression, measures of psychopathology included state and trait anxiety (from the State-Trait Anxiety Inventory), as well as a measure of general psychological distress (the Global Severity Index from the Brief Symptom Inventory) that has been implicated as a representative measure of overall psychopathology and stress.

As with this study's initial investigation of perfectionism and depression, regression analyses were performed to analyze relevant paths in each model, and subsequent Sobel

tests were conducted to test for mediational significance. In all three of the dependent variable outcome measures (STAI-State, STAI-Trait, and GSI), self-esteem was statistically significant as a mediator of the pathways between maladaptive perfectionism and psychopathology. Gender effects varied in terms of magnitude of difference in statistical significance between state and trait anxiety, although self-esteem consistently was found to be a statistically significant mediator.

Utilizing the State version of the State-Trait Anxiety Inventory (STAI-State) as a measure of state anxiety, combined gender and separate gender groups each evinced a significant change from the original pathway between maladaptive perfectionism and state anxiety after accounting for the effects of self-esteem. In contrast to depression, as well as trait anxiety, women noted a slightly lesser coefficient associated with the pathway from maladaptive perfectionism and state anxiety. In comparison to men in this sample, women had a nonsignificant pathway from maladaptive perfectionism to state anxiety after accounting for self-esteem, while men showed a statistically significant decrease that remained within statistical significance in the adjusted path. In this case, the men started with a slightly higher path coefficient, but the resultant decrease was still not near the overall decline for women. In effect, the women evidenced a more prototypical mediator in self-esteem in relation to the maladaptive perfectionism – state anxiety association. Thus women with perfectionism might have a greater tendency to experience state anxiety more directly tied to feelings of self-worth. As such, without a consistent feeling of low self-esteem to anchor perfectionism to state anxiety, this form of anxiety is expected to be relatively temporary in relation to perfectionism. As noted by Shear and colleagues (2000), perhaps anxiety is more consistent with a somewhat stereotyped

feminine gender role such that, compared to men, women are better able to tolerate a higher degree of anxiety before their self-worth is negatively impacted. For men, self-esteem might be a key mediator between perfectionism and state anxiety, yet other influential factors, and possibly a combination of other mediators, might account for additional variance beyond that of self-esteem.

As noted earlier, women endorse greater trait, but not state, anxiety compared to men (Zuckerman, 1999). This supports the findings with perfectionism and the state measure of anxiety, as well as the maladaptive – trait anxiety relationship with self-esteem in this study. In contrast to when state anxiety served as the outcome variable in the mediational model, men now held self-esteem as a prototypical mediator between perfectionism and trait anxiety. In the overall model, self-esteem was noted to be a significant mediator of the maladaptive perfectionism – trait anxiety relationship. In men, the initial pathway coefficient between maladaptive perfectionism and trait anxiety was slightly less for women and, after accounting for the effects of self-esteem, this pathway for the male group decreased below statistical significance. For women, a similar substantial drop in magnitude of significance occurred, although this remained statistically significant. Notably, the final path coefficient for women was actually slightly lower for women, even though the initial path coefficient was higher for women. Perhaps this difference related to surpassing probability levels of significance might be a feature of sample size, as nearly twice as many females as males participated in this study. Nonetheless, the major hypothesis was supported in both genders when examined alone and combined, as the pathway between maladaptive perfectionism and anxiety (state and trait) was significantly mediated by self-esteem.

As indicated by Derogatis (1993), the Global Severity Index (GSI), a composite of all of the clinical subscales from the Brief Symptom Inventory, has been judged to be a reliable measure of general distress and general psychopathology in both clinical and research settings. As such, this was chosen to represent the construct of general distress/psychopathology in the present study. Because the GSI represents an amalgam of diagnostic categories and symptoms, definitive statements regarding the limits of the perfectionism – self-esteem – psychopathology mediational model are limited. However, despite its lack of specificity, the GSI was anticipated to provide a generic, global form of psychological distress which may have provided preliminary evidence from which to spur further research.

After subjecting the mediational model to a series of regression equations as noted earlier, the pathway from maladaptive perfectionism to general distress decreased in significance. In the combined gender overall model and the female-only model, the pathway between maladaptive perfectionism and general distress remained statistically significant after accounting for the effects of self-esteem. In the male only model, the initial pathway coefficient decreased below the level of statistical significance after accounting for self-esteem. Thus, as with prior models predicting both depression and trait anxiety, the male group displayed a more prototypical mediational role of self-esteem. In all models, subsequent Sobel tests suggested self-esteem to be a significant mediator in the perfectionism – general distress association. Again, disparities between male and female groups might be due to sample size, as well as the degree of endorsed psychopathological symptoms. Overall, self-esteem appeared to be a significant mediator in the relationship between maladaptive perfectionism and general distress. Thus, these

results lend support to the hypothesis that maladaptive perfectionism influences various forms of psychopathology and distress for individuals via low self-esteem.

"Maladaptive" and "Adaptive" Perfectionism in the Mediational Model

The Frost Multidimensional Perfectionism Scale (FMPS) has noted associations among particular subscales with maladaptive, more pathological aspects of perfectionism, as well as the more "adaptive" or healthy aspects of striving for high standards. Debate in the research has focused on the Personal Standards Subscale of the FMPS as tapping mostly positive aspects of perfectionistic striving, but sometimes negative as well. Within a few years of its inception, the FMPS was studied extensively by Frost and colleagues (1993) and noted that two factors appeared to separate the overall scale: maladaptive evaluative concerns (consisting of Concern over Mistakes, Doubts about Actions, Parental Criticism, and Parental Evaluation) and positive striving (Personal Standards and Organization). More recent investigation of the Personal Standards dimension indicates that one of its seven items ("If I do not set the highest standards for myself, I am likely to end up a second rate person") appeared to load significantly onto a factor associated with distress (DiBartolo et al., 2004). The remaining six items were believed to be better indicator of "Pure Personal Standards," a dimension that comprises one of three dimensions of the newly published Contingent Self-Worth Scale (DiBartolo et al., 2004). Other recent studies (Kawamura & Frost, 2004; Kawamura, Hunt, Frost, & DiBartolo, 2001) have utilized the Personal Standards dimension, in its entirety, as a sole measure of adaptive perfectionism.

Some authors have argued in the literature that "adaptive" or "healthy" perfectionism are misnomer terms (Burns, 1980; Greenspon, 2000; Pacht, 1984). However, other writers have noted that perfectionistic tendencies of striving to meet high standards to be similarly related to both adaptive and maladaptive perfectionism, but perhaps separated by the demands that the individual's striving places on his or her feelings of self-worth (DiBartolo et al., 2004; Frost et al., 1993; Hamachek, 1978). Thus, an additional goal of this study was to explore maladaptive and adaptive aspects of perfectionism in relation to self-esteem in the prediction of various forms of psychopathology.

Initially, Maladaptive Perfectionism was hypothesized to be a more accurate predictor in the mediational pathways than the overall total for the FMPS. In effect, this hypothesis was supported, but the evidence was not overwhelming. Although Maladaptive Perfectionism may have been a more pure measure of the pathological aspects of perfectionism that the FMPS Total score, the matter of degree was very slight, such that either version of perfectionism seemed comparable in all mediational models (depression, anxiety, and general distress). Thus, Maladaptive Perfectionism witnessed somewhat higher degrees of significance than the FMPS Total as a measure of negative, problematic perfectionism. Although similar to the FMPS Total score, Maladaptive Perfectionism is likely a better candidate for specific identification and measurement of pathological perfectionistic tendencies.

The "Positive Strivings" grouping (Personal Standards and Organization) of the FMPS served as the measure of "adaptive" perfectionism. As predicted, adaptive perfectionism was not significantly correlated with measures of psychopathology and modestly inversely correlated with self-esteem. This adaptive measure of perfectionism

was placed into mediational models and investigated as a predictor (or lack thereof) of depression, anxiety, and general distress. The pathway from adaptive perfectionism to self-esteem revealed a significant inverse beta coefficient. In the prediction of depression, state anxiety, trait anxiety, and general distress, adaptive perfectionism held an initially nonsignificant pathway. After accounting for the effects of self-esteem, in each model the previously nonsignificant pathway became statistically significant. As the initial pathway was nonsignificant, self-esteem cannot be considered a mediator of this pathway (Baron & Kenny, 1986). However, low self-esteem seems to fit the role of a cooperative, or reciprocal, suppressor of the effects of adaptive perfectionism in the prediction of depression, anxiety, and general distress.

These results suggest that, without healthy levels of self-esteem, as noted by the significant inverse coefficient with adaptive perfectionism, persons with high striving tendencies remain subject to the effects of depression, anxiety, and other forms of distress. In line with suggestions by Rice and colleagues (1998), self-esteem may, in fact, serve as a "buffer" against developing psychological distress. Although structural equation modeling by Rice and colleagues (1998) did not find self-esteem to be a significant mediator of depression in their sample, different combinations of adaptive and maladaptive measurement clusters were used which may not be as conceptually clear and simplified as the current measures employed. Thus, the third and final hypothesis of this study was not supported, as self-esteem did not mediate adaptive perfectionism and psychopathology, but instead suppressed the effects of this otherwise nonpathological aspect of perfectionism.

Limitations and Suggestions for Future Research

Perhaps the most striking potential limitation of this study is related to a high degree of overlap among items. Thus, the strong statistical significance noted throughout the regression analyses might be best tempered by this possible multicollinearity. As noted in Tables 2-4, many of the scales used to represent clinical outcome measures were moderately correlated with measures of perfectionism, self-esteem, and one another. Typically, multicollinearity is considered to be a strong possibility when measures correlate at .90 or above (Tabachnick & Fidell, 2001). While several of the measures in this study correlated in the .5 and .6 range, none correlated to the extent whereby the data drawn from the measures are no longer considered to be uniquely meaningful. To this extent, moderate correlations among measures are not necessarily problematic or even undesirable, as the psychological constructs under examination are also believed to be correlated with one another. As noted in the mediational study by Rice and colleagues (1998), maladaptive perfectionism dimensions are not readily separable from the mental health problems they are expected to predict. Perhaps measurement error may have been tapered by using more sophisticated structural equation modeling; however, the analyses employed in this study were chosen for the benefits of simplicity, availability, and in fitting with traditional recommendations by Baron and Kenny (1986). To this extent, the degree of significance noted throughout this study, though possibly inflated, is believed to be more reflective of the hypothesized trend than the net effect of commonality among items on the measures.

Another important related limitation of this study was related to the use of the Global Severity Index (GSI) from the Brief Symptom Inventory as a measure of "general

distress." Although this measure was chosen based on strong prior research support and intended to be merely a preliminary measure of psychological distress, clinical specificity beyond "general distress" is limited. For this matter, state and trait anxiety (from the State-Trait Anxiety Inventory) are not necessarily specific to classifications of anxiety disorders, but reflect overall composites of anxiety. However, as intended, this leaves the door open for further research study on the perfectionism – self-esteem impact on other specific classifications of mental disorders.

Self-esteem was used as the key mediator in this study. In fact, initial hypotheses anticipated that self-esteem would not only provide one kind of bridge from perfectionism to psychopathology, but that self-esteem would be a consistent and significant bridge of major relevance to adverse outcomes as the result of perfectionistic striving. However, as with many constructs, there is often more than one significant mediator, as well as potential moderators, involved in key relationships among variables. In this study, based on prior research and theory, only self-esteem was investigated as a key mediator. Other research suggests other potential mediators between perfectionism and depression, including low frustration tolerance among perfectionists (Hamachek, 1978), dispositional public self-consciousness (Saboonchi & Lundh, 1996), and tendencies towards self-concealment of personal information (Kawamura & Frost, 2004). Of course, other perfectionism-related mediators might also exert influence on psychopathological outcomes. Furthermore, as noted by Rice and colleagues (1998), the settings and contexts (e.g., college versus non-academic populations, achievement versus interpersonal situations) by which perfectionists experience adaptive versus maladaptive perfectionistic striving might also vary. For instance, current high- versus low-stress

experiences could act as a moderator of the perfectionism – psychological distress relationship, while relatedly impacting one's self-esteem.

Other limitations of general survey research apply to this study. With regard to measurement bias, only self-report responses were utilized in this study. This method was chosen for convenience and availability, as well as time-efficiency. Perhaps other forms of gathering responses from individuals, such as requesting others' (e.g., friend, parent, or coworker) reports on the individual, interviews, and so forth, may have added a more well-rounded measurement of the individual's experience not subject to the constraints of self-presentation effects or accurate and honest reporting on measures. To this extent, some individuals might not have been fully invested in the questionnaires or might not have fully understood statements or questions contained within the measures as intended by the authors of these measures. No safeguards were in place to limit such errors. Furthermore, only the Frost measure of perfectionism was used in this study. The Frost MPS (Frost et al., 1990) was chosen based on familiarity and frequency of use in numerous clinical studies, while also judged to be a psychometrically sound instrument appropriately suited to the present research. For simplicity, only the FMPS was used, although the inclusion of other measures of perfectionism such as the Hewitt and Flett Multidimensional Perfectionism Scale (Hewitt & Flett, 1991) or the Almost Perfect Scale (Slaney & Johnson, 1992) might add a wider breadth of measurement related to perfectionism. Perhaps future research might follow a similar line of inquiry utilizing various perfectionism measures.

Perhaps a bigger issue, also common to typical survey research, was related to the sample itself. Again, undergraduate men and women were chosen as a sample based on

convenience and availability. As the majority of these participants were under 25 years of age, results from this study might not necessarily generalize to individuals representing various age groups. Also, perhaps only a minority of the individuals who indicated perfectionistic tendencies might actually be clinically described as perfectionists. Because perfectionism is not technically a diagnostic category, perfectionism might be especially difficult to disentangle from other similar characteristics and symptom presentations. Perhaps a sample of individuals from various age ranges who specifically noted perfectionism to be a distressing aspect of their personality would have been a more effective grouping of participants for inclusion in a similar study. Given the age of the participants in the present study, many individuals might not have acknowledged that perfectionism can be a powerfully distressing trait. Perhaps such individuals who noted themselves to be perfectionists viewed perfectionism as an ideal to which one is always likely to be rewarded, as this impression of perfectionism appears to be commonly perceived in the lay public.

In the present study, approximately 55% of the population was of European-American decent, while nearly twice as many women participated compared to men. Perhaps a more diverse sample might lend more useful information regarding how perfectionistic tendencies are experienced by people across cultural, ethnic, nationality, gender, sexual orientation, religious, and other key demographic characteristics.

Overall Conclusions

This study addressed a pertinent issue in the research literature on the nature of perfectionism. Most specifically, as hypothesized, the results suggested that

perfectionism seems to affect psychological distress, such as depression or anxiety, at least partially via low self-esteem. To this extent, self-esteem was found to mediate maladaptive perfectionism's connections to depression, anxiety, and possibly other forms of psychological distress. Additionally, feelings of self-esteem suppressed the relationship between healthy or "adaptive" aspects of perfectionism and depression, anxiety, and general distress, such that high achievement striving only seems to lead to negative mental health outcomes when one's self-worth is negatively impacted. Possible conclusions drawn from these results might suggest that self-esteem serves as a protective factor for individuals with high degrees of striving to meet unrealistic goals and maintain regimented order in various areas of their lives. When self-esteem is damaged, individuals with high striving tendencies might not be able to buttress their struggles in meeting goals against the protective inner resource found in a stable sense of self-worth. Although the directionality remains unclear as to how maladaptive perfectionism, low self-esteem, and psychological distress temporally and causally relate, clearly self-esteem appears to be a critical factor, if not the most crucial factor, in the relationship between perfectionism and depression, anxiety, and potentially other various forms of psychological distress.

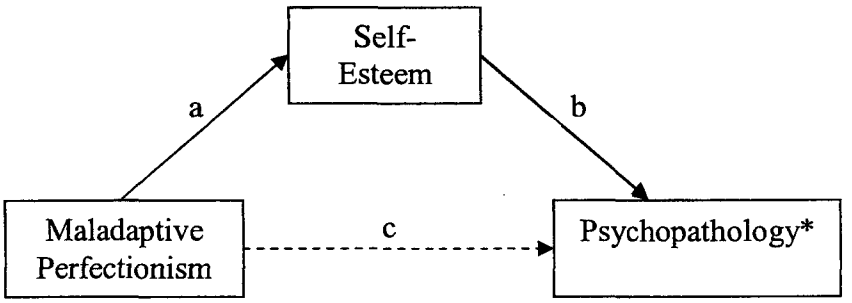
Despite potential limitations, the overall findings from this study strongly supported self-esteem as an important mediational factor through which perfectionism is related to various forms of psychopathology and psychological distress. As prior research was mixed on the exact role of self-esteem in relation to the perfectionism – depression connection, the results from this current study offered strong evidence to substantiate self-esteem as a mediator of this relationship, as well as the mediational bridge between

perfectionism and anxiety. Further, the results indicated that self-esteem acts as a primary mediator between perfectionism and other forms of psychological distress. Further research might better clarify perfectionism's role in more specific diagnostic categories, as this initial research suggests that perfectionism appears to most directly exert its influence on one's mental well-being through self-esteem. Possible treatment applications might involve targeting perfectionistic tendencies in relation to one's self-worth as the critical determinant of perfectionism-driven psychopathology.

FIGURES

Figure 1.

Proposed Mediational Model of Self-Esteem Between Perfectionism and Psychopathology.

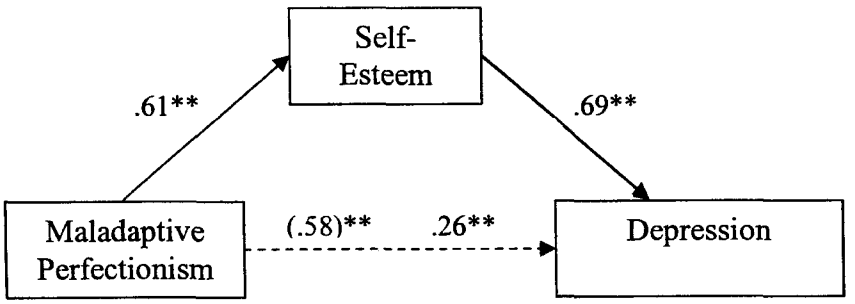


Note: Psychopathology* refers to the dependent variables of depression (BDI-II), anxiety (STAI-State, STAI-Trait), and general distress (GSI), which will each be evaluated individually as psychopathological outcome measures.

Pathways listed between: (a) maladaptive perfectionism and self-esteem, (b) self-esteem and psychopathology, and (c) maladaptive perfectionism and psychopathology. The latter pathway is dashed as is indicative of the tenuousness of this pathway without the influence of self-esteem.

Figure 2.

Beta Coefficients for the Mediational Model of Self-Esteem between Perfectionism and Depression.

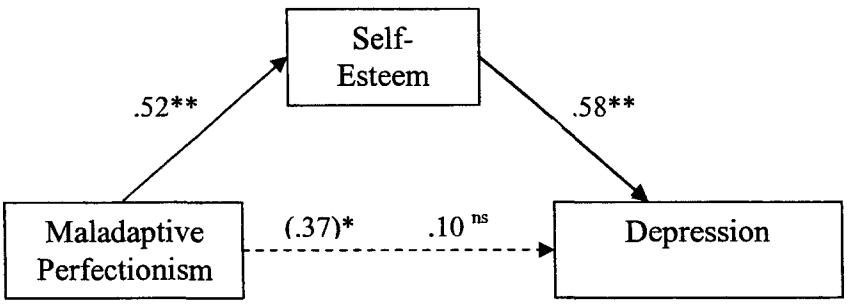


Note: ** $p < .001$. Pathway in parentheses is original beta coefficient between maladaptive perfectionism and depression (BDI-II), while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

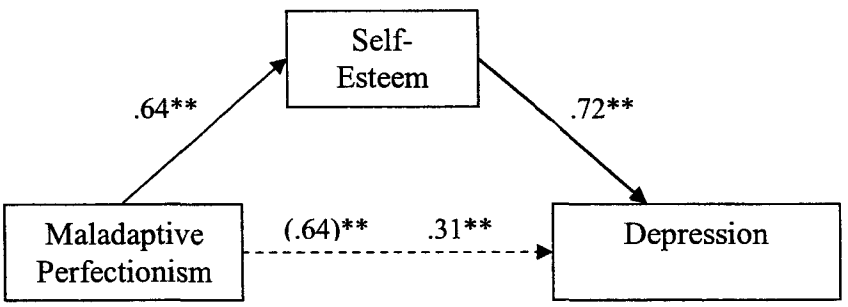
Figure 3.

Beta Coefficients for the Mediational Model of Self-Esteem between Perfectionism and Depression for Men versus Women.

Men (N=64)



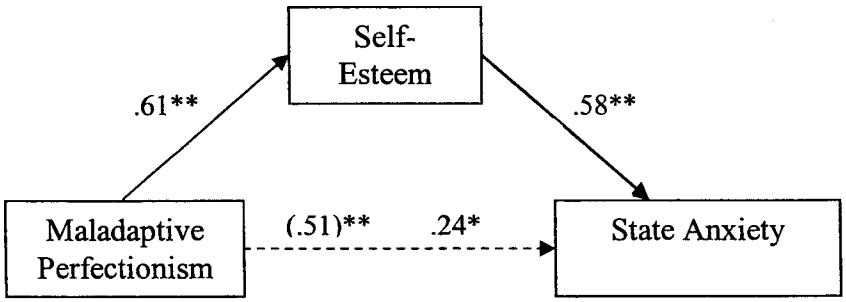
Women (N=125)



Note: ** $p < .001$; * $p < .01$; n.s. = non-significant. Pathway in parentheses is original beta coefficient between maladaptive perfectionism and depression (BDI-II), while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

Figure 4.

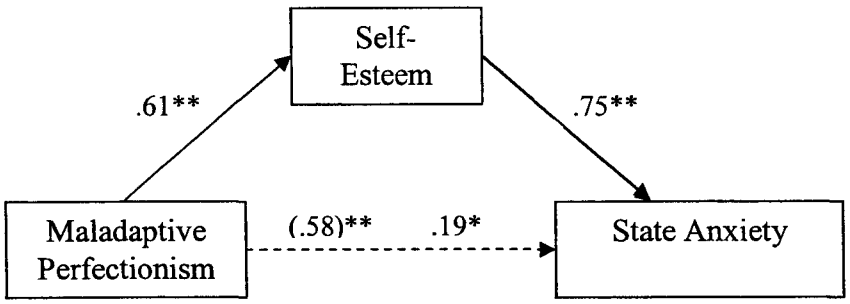
Beta Coefficients for the Mediational Model of Self-Esteem between Perfectionism and State Anxiety.



Note: ** $p < .001$; * $p < .01$. Pathway in parentheses is original beta coefficient between maladaptive perfectionism and state anxiety, while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

Figure 5.

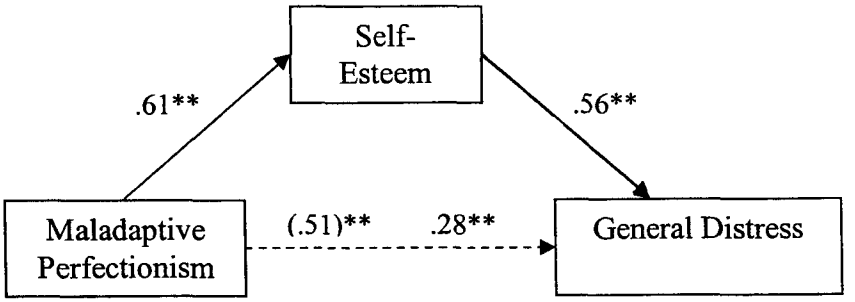
Beta Coefficients for the Mediational Model of Self-Esteem between Perfectionism and Trait Anxiety.



Note: ** $p < .001$; * $p < .01$. Pathway in parentheses is original beta coefficient between maladaptive perfectionism and trait anxiety, while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

Figure 6.

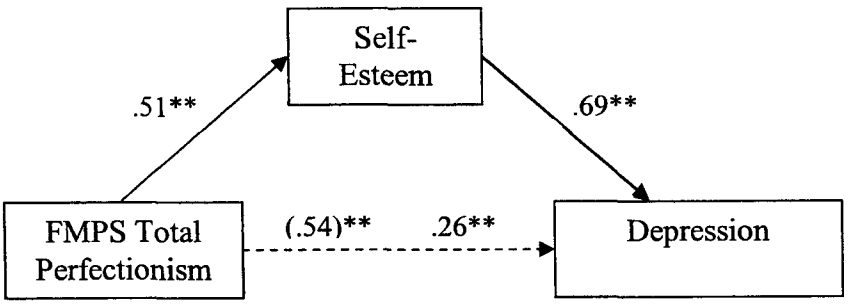
Beta Coefficients for the Mediational Model of Self-Esteem between Perfectionism and General Psychological Distress.



Note: ** $p < .001$. Pathway in parentheses is original beta coefficient between maladaptive perfectionism and general psychological distress, while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

Figure 7.

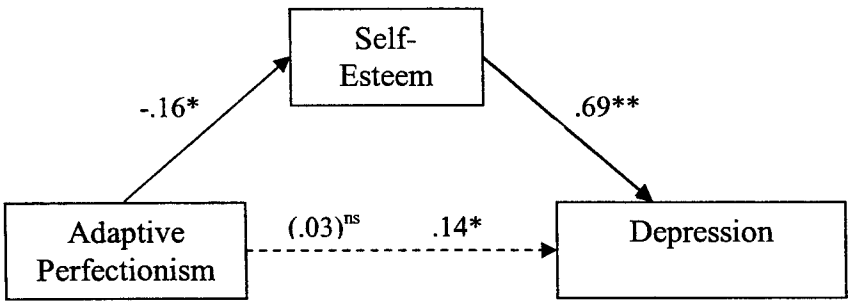
Beta Coefficients for the Mediational Model of Self-Esteem between FMPS Total Perfectionism and Depression.



Note: ** $p < .001$. Pathway in parentheses is original beta coefficient between Total FMPS perfectionism scores and depression (BDI-II), while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

Figure 8.

Beta Coefficients for the Mediation/Suppression Model of Self-Esteem between Adaptive Perfectionism and Depression.



Note: ** $p < .001$; *$p < .01$. Pathway in parentheses is original beta coefficient between adaptive perfectionism (Positive Striving) scores and depression (BDI-II), while the adjacent beta represents the pathway after accounting for the effects of self-esteem (RSE).

TABLES

Table 1.

Correlations between Perfectionism Subscales.

(N=189)

Measure	Total FMPS	Mal Perf	Pos Strv
Total FMPS		.97**	.43**
Mal Perf			.23**

**-Correlation is significant at the 0.01 level (2-tailed)

Note: "Total FMPS" is the total summation for all Frost Multidimensional Perfectionism items; "Mal Perf" is the maladaptive perfectionism grouping from the FMPS that includes Concern over Mistakes, Doubts about Actions, Parental Criticism, and Parental Evaluation subscales; "Pos Strv" is the positive striving dimension of the FMPS consisting of the Organization and Personal Standards subscales.

Table 2.

Correlations between Perfectionism and Self-Esteem.

(N=189)

Measure	Total FMPS	Mal Perf	Pos Strv
RSE	.51**	.61**	-.16*

**-Correlation is significant at the 0.01 level (2-tailed)

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

Note: RSE is the Rosenberg Self-Esteem Scale; "Total FMPS" is the total summation for all Frost Multidimensional Perfectionism items; "Mal Perf" is the maladaptive perfectionism grouping from the FMPS; "Pos Strv" is the positive striving dimension of the FMPS.

Table 3.

Correlations between Perfectionism Scales and Psychopathology Measures.

(N=189)

Measure	Total FMPS	Mal Perf	Pos Strv
BDI-II	.54**	.58**	.03
STAI-State	.46**	.51**	.05
STAI-Trait	.52**	.58**	.01
GSI	.50**	.51**	.08
SWLS	-.36**	-.40**	.06

**-Correlation is significant at the 0.01 level (2-tailed)

Note: Total FMPS = the total summation for all Frost Multidimensional Perfectionism items; Mal Perf = the maladaptive perfectionism grouping from the FMPS; Pos Strv = the positive striving dimension of the FMPS; BDI-II = Beck Depression Inventory-II; STAI-State = State version of the State-Trait Anxiety Inventory; STAI-Trait = Trait version of the State-Trait Anxiety Inventory; GSI = Global Severity Index of the Brief Symptom Inventory; SWLS = Satisfaction with Life Scale.

Table 4.

Correlations among Measures of Psychopathology.

(N=189)

Measure	BDI-II	STAI-S	STAI-T	GSI	SWLS
BDI-II	-	.68**	.78**	.80**	-.55**
STAI-S		-	.79**	.70**	-.43**
STAI-T			-	.74**	-.61**
GSI				-	-.41**

**-Correlation is significant at the 0.01 level (2-tailed)

Note: BDI-II = Beck Depression Inventory-II; STAI-S = State version of the State-Trait Anxiety Inventory; STAI-T = Trait version of the State-Trait Anxiety Inventory; GSI = Global Severity Index of the Brief Symptom Inventory; SWLS = Satisfaction with Life Scale.

Table 5.

Summary of Regression Analyses for Maladaptive Perfectionism and Self-Esteem.

(N=189)

Variable	B	SEB	ß	t	p
Mal Perf	.21	.02	.61	10.58	.000

Note: $R = .61$. The dependent variable is the Rosenberg Self-Esteem Scale (RSE). Mal Perf is the Maladaptive Perfectionism grouping of the FMPS.

Table 6.

Summary of Regression Analyses for Self-Esteem Mediation between Maladaptive Perfectionism and Depression.

(N=189)

Variable	B	SEB	ß	t	p
Mal Perf	.16	.04	.26	4.02	.000
RSE	.96	.12	.53	8.21	.000

Note: Overall $R = .72$ ($R = .58$ for BDI-II & Mal Perf). The dependent variable is the Beck Depression Inventory-II (BDI-II).

Sobel Test: $z = 6.44$ ($p < .001$)

Table 7.

Summary of Regression Analyses for Self-Esteem Mediation between Maladaptive Perfectionism and State Anxiety.

(N=189)

Variable	B	SEB	ß	t	p
Mal Perf	.18	.06	.24	3.28	.000
RSE	.96	.16	.44	5.95	.000

Note: Overall $R = .61$ ($R = .51$ for STAI-State & Mal Perf). The dependent variable is the State portion of the State-Trait Anxiety Inventory.

Sobel Test: $z = 5.17$ ($p < .001$)

Table 8.

Summary of Regression Analyses for Self-Esteem Mediation between Maladaptive Perfectionism and Trait Anxiety.

(N=189)

Variable	B	SEB	ß	t	p
Mal Perf	.14	.04	.19	3.20	.002
RSE	1.33	.13	.63	10.47	.000

Note: Overall $R = .76$ ($R = .58$ for STAI-Trait & Mal Perf). The dependent variable is the State portion of the State-Trait Anxiety Inventory.

Sobel Test: $z = 7.40$ ($p < .001$)

Table 9.

Summary of Regression Analyses for Self-Esteem Mediation between Maladaptive Perfectionism and General Psychological Distress.

(N=189)

Variable	B	SEB	ß	t	p
Mal Perf	.01	.00	.28	3.73	.000
RSE	.05	.01	.39	5.23	.000

Note: Overall $R = .60$ ($R = .51$ for GSI & Mal Perf). The dependent variable is the State portion of the State-Trait Anxiety Inventory.

Sobel Test: $z = 4.61$ ($p < .001$)

Table 10.

Summary of Regression Analyses for FMPS Total Perfectionism and Self-Esteem.

(N=189)

Variable	B	SEB	ß	t	p
FMPS Total	.15	.02	.51	8.13	.000

Note: $R = .51$. The dependent variable is the Rosenberg Self-Esteem Scale (RSE). FMPS Total is the total score of the Frost Multidimensional Perfectionism Scale.

Table 11.

Summary of Regression Analyses for Self-Esteem Mediation between FMPS Total Perfectionism and Depression.

(N=189)

Variable	B	SEB	ß	t	p
FMPS Total	.14	.03	.26	4.36	.000
RSE	1.00	.11	.56	9.44	.000

Note: Overall $R = .72$ ($R = .54$ for BDI-II & FMPS Total). The dependent variable is the Beck Depression Inventory-II (BDI-II).

Sobel Test: $z = 6.10$ ($p < .001$)

Table 12.

Summary of Regression Analyses for Adaptive Perfectionism and Self-Esteem.

(N=189)

Variable	B	SEB	ß	t	p
Adapt Perf	-.10	.05	-.16	-2.24	.03

Note: $R = .16$. The dependent variable is the Rosenberg Self-Esteem Scale (RSE). Adapt Perf is the Positive Striving grouping (PS & O) of the FMPS.

Table 13.

Summary of Regression Analyses for Self-Esteem Suppression between Adaptive Perfectionism and Depression.

(N=189)

Variable	B	SEB	ß	t	p
Adapt Perf	.17	.06	.14	2.73	.007
RSE	1.28	.10	.71	13.46	.000

Note: Overall $R = .703$ ($R = .030$ for BDI-II & Adapt Perf). The dependent variable is the Beck Depression Inventory-II (BDI-II).

Sobel Test: $z = -2.20$ ($p < .05$)

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