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**DIFFERENCES BETWEEN PERFECTIONISM GROUPS IN PSYCHOSOCIAL AND
EMOTIONAL ADJUSTMENT AMONG PEOPLE WITH DISABILITIES**

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by

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ABSTRACT

This study investigated differences among three perfectionism groups in various psychosocial and emotional adjustment indicators among people with disabilities. Previous research empirically supported the classification of the three perfectionism groups (maladaptive perfectionists, adaptive perfectionists, and nonperfectionists) in college student populations. It was predicted that among people with disabilities, results would parallel previous research in that the maladaptive perfectionists would perform significantly worse than the adaptive perfectionists in various assessments of adjustment, with the nonperfectionists scoring midway between these two groups.

Participants included 197 individuals with disabilities who completed the Almost Perfect Scale-Revised, the Adaptation to Disability Scale-Revised, the Center for Epidemiological Studies-Depression Scale, the Rosenberg Self-Esteem Inventory, the Positive Affect and Negative Affect Schedule, and the Satisfaction with Life Scale. Two MANCOVAs were conducted controlling for time since onset of disability, gender, and perfectionist group x gender interaction. The first MANCOVA was performed using perfectionist grouping as the between-subjects factor and the perfectionism subscales as the dependent variables. Results indicated that perfectionist grouping had a significant main effect on the dependent variables. Univariate ANOVAs revealed statistically significant group differences on each perfectionism subscale. The second MANCOVA used perfectionist grouping as the between-subjects factor and the adjustment indicators as the dependent variables. Perfectionist grouping had a significant main effect on the dependent variables. Univariate ANOVAs indicated statistically significant group differences on the adjustment variables. Overall, the maladaptive perfectionists scored significantly higher on negative adjustment (depression and negative affect) and significantly lower on positive adjustment (disability adjustment, self-esteem, positive affect, life satisfaction) than the adaptive

perfectionists. The former group also scored significantly lower on one positive adjustment measure (disability adjustment) and significantly higher on negative adjustment (depression and negative affect) than nonperfectionists. Importantly, both the maladaptive perfectionists and the nonperfectionists scored above the clinical cutoff for depression. A chi-square test was performed to determine if there were significant differences in the distribution of perfectionist groups between participants categorized as having “static” disabilities and participants categorized as having “unstable” disabilities. Distribution did not differ by disability status.

TABLE OF CONTENTS

LIST OF TABLES	vii
ACKNOWLEDGEMENTS	viii
Chapter 1 INTRODUCTION.....	1
Research questions	11
Chapter 2 LITERATURE REVIEW	12
Perfectionism	12
Psychosocial adjustment to disability	25
Summary	41
Chapter 3 METHODOLOGY	42
Participants	42
Measures	43
Demographic questionnaire	43
Perfectionism-The Almost Perfect Scale-Revised	43
Adjustment to disability-The Adaptation to Disability-Revised.....	46
Depression-The Center for Epidemiological Studies-Depression Scale.....	48
Self-esteem-The Rosenberg Self-Esteem Inventory.....	49
Positive affect and negative affect-The Positive Affect and Negative Affect Schedule.....	49
Life satisfaction-The Satisfaction with Life Scale.....	51
Procedures	51
Perfectionist classification.....	52
Research questions, hypotheses, and analyses.....	53
Chapter 4 RESULTS.....	57
Preliminary analyses.....	57
Primary analyses.....	62
Chapter 5 DISCUSSION	76
The relationship between perfectionism and adjustment.....	76
Limitations of the study.....	79
Suggestions for future research.....	80
Implications for counseling.....	82
Summary.....	83
References	85

Appendix A DEMOGRAPHIC QUESTIONNAIRE AND SCALES 100

Appendix B WEBSITES, ELECTRONIC BULLETIN BOARDS, AND LISTSERVS.... ..111

Appendix C RECRUITMENT MATERIALS AND INFORMED CONSENT.....112

LIST OF TABLES

Table 4.1 : Sample Characteristics.....	68
Table 4.2 : Subscale Descriptive Statistics.	70
Table 4.3 : Intercorrelations Between Study Variables.....	71
Table 4.4a : Perfectionism Subscale MANCOVA Results Using Time as a Covariate, Gender as a Main Effect, Perfectionist Group as a Main Effect, and Perfectionist Group x Gender as an Interaction Effect	72
Table 4.4b : Means and Standard Deviations by Perfectionist Groups along with <i>F</i> tests and Effect Sizes for each Perfectionism Subscale.....	73
Table 4.5a : Adjustment Scale MANCOVA Results Using Time as a Covariate, Gender as a Main Effect, Perfectionist Group as a Main Effect, and Perfectionist Group x Gender as an Interaction Effect	74
Table 4.5b : Means and Standard Deviations by Perfectionist Groups along with <i>F</i> tests and Effect Sizes for each Adjustment Variable.....	75

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Chapter 1

Introduction

The construct known as perfectionism has engendered much interest among psychologists in the past two decades, mostly due to its presumed association with psychopathology and its associated clinical implications (Axtell & Newlon, 1993; Blatt, 1995; Broday, 1988; Burns, 1980; Hewitt & Flett, 1991a; Hewitt, Flett, & Ediger, 1996; Pacht, 1984; Pirot, 1986; Sorotzkin, 1985). In his article “The Destructiveness of Perfectionism” Blatt (1995) discussed how studying perfectionism may have treatment implications for depression. Pirot (1986) noted that “[p]erfectionists irrationally respond to the perception of failure or inadequacy with a considerable loss of self-esteem which sets the occasion for anxiety and depression” (p. 51). Pacht (1984) described perfection as nonexistent, and observed that “...it is the striving for that nonexistent perfection that keeps people in turmoil and is associated with a significant number of psychological problems” (p. 386). Given the seemingly pernicious influence perfectionism has on individuals’ mental health and self-esteem, it appears more research on perfectionism and its clinical implications is warranted.

Initially, a unidimensional scale, the Burns Perfectionism Scale (BPS; Burns, 1980) was developed to measure this construct. More recently developed instruments reflect the multidimensional nature of perfectionism but also the differences in how researchers define and conceptualize the construct of perfectionism. The Multidimensional Perfectionism Scale (FMPS) developed by Frost, Marten, Lahart, and Rosenblate (1990) contains six subscales measuring factors they considered to be characteristic of perfectionists: Personal Standards, Organization, Concern Over Mistakes, Doubts About Actions, Parental Expectations, and Parental Criticism. Hewitt and Flett (1991b) also named their instrument the Multidimensional Perfectionism Scale (HFMP) although the dimensions they intended to measure were different. The HFMP focuses

on intrapersonal and interpersonal dimensions of perfectionism: Self-Oriented Perfectionism, Other-Oriented Perfectionism, and Socially Prescribed Perfectionism. The first dimension refers to perfectionistic demands from and toward the self. The second dimension measures perfectionism derived from the self but directed toward other people. The third dimension measures perfectionistic demands perceived to come from others but directed toward the self (Hewitt & Flett, 1991b).

Despite the multidimensional nature of these more recent instruments, Slaney and Ashby (1996) noted that most of the dimensions measured by these scales were pathological. The Almost Perfect Scale (APS; Slaney & Johnson, 1992) and the subsequent revised version, The Almost Perfect Scale-Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1996) were developed to address the potentially positive, or adaptive, elements of perfectionism, as well as the negative elements. This instrument consists of three subscales: High Standards, Order, and Discrepancy. The High Standards subscale assesses the level of one's personal expectations for one's performance or behavior (e.g., the degree to which a person sees having high standards of performance or doing one's best in general as important to him/her). The Order subscale measures a person's need for orderliness, organization, or neatness (e.g., the degree to which a person views being organized and neat as important). The Discrepancy subscale assesses the degree to which an individual perceives a difference between his or her own standards and his or her performance (e.g., the extent to which one feels that one's performance is meeting one's expectations). Of particular interest in the APS-R is the Discrepancy subscale, which specifically measures the negative aspects of perfectionism (Slaney et al., 1996).

An emerging body of research utilizing Frost et al.'s MPS, Hewitt and Flett's MPS, and Slaney et al.'s APS-R appears to confirm early speculations that perfectionism consists of both positive and negative aspects (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Rice, Ashby, & Slaney, 1998; Slaney, Ashby, & Trippi, 1995; Suddarth & Slaney, 2001). Positive or adaptive

perfectionism seems to be associated with positive affect and higher self-esteem, while negative or maladaptive perfectionism seems to be associated with negative affect including depression, somatic and vegetative activity, and state and trait anxiety (Frost et al., 1993; Frost & DiBartolo, 2002; Rice & Slaney, 2002). Subsequent studies have found similar results regarding the relationships between adaptive and maladaptive perfectionism and various adjustment indicators (Grzegorek, Slaney, Franze, & Rice, 2004; Rice & Dellwo, 2002; Rice & Mirzadeh, 2000). It seems that the distinction between adaptive and maladaptive perfectionism may be useful in identifying individuals who may be troubled and in need of treatment. Furthermore, this distinction may also help identify the adaptive elements of perfectionism that may either buffer individuals from depression or increase individuals' resilience in coping with psychological distress.

The relationships that adaptive and maladaptive perfectionism have with various psychological indicators seem to be replicated in studies conducted on populations other than the predominantly White samples in the U.S. (Chang, Watkins, & Banks, 2004; Mobley, Slaney, & Rice, 2005; Wang, Slaney, & Rice, 2007; Wang, Yuen, & Slaney, 2009). Chang et al. (2004) found that adaptive perfectionism related positively to positive affect and life satisfaction in White women while it was associated with less suicide ideation in Black women. They found maladaptive perfectionism to be negatively related to life satisfaction for White women only. Differences between perfectionism groups (maladaptive and adaptive perfectionists) in adjustment began to emerge.

Several studies using the APS-R also found empirical support for classifying individuals into maladaptive perfectionists, adaptive perfectionists, and nonperfectionists (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002; Wang et al., 2009). Specifically, after using a cluster analysis to empirically identify three distinct groups, these studies found that the maladaptive perfectionists scored high on all three APS-R subscales (High Standards, Order, and

Discrepancy) whereas the adaptive perfectionists scored high on the High Standards and the Order subscales but low on the Discrepancy subscale. The nonperfectionists scored low on all three subscales, and their High Standards and Order scores were generally lower than those of the other groups but their Discrepancy scores were consistently midway between those of the maladaptive and the adaptive perfectionists. In the Mobley et al. (2005) study on African American college students, adaptive perfectionists were found to score significantly higher on self-esteem and lower on anxiety and depression than both maladaptive perfectionists and nonperfectionists. No significant differences were found between the maladaptive perfectionists and the nonperfectionists on self-esteem, anxiety, and depression. This finding is contrary to those conducted on U.S. majority samples where differences were found between the maladaptive perfectionists and nonperfectionists on various adjustment indicators (Grzegorek et al., 2004; Rice & Slaney, 2002). Wang et al. (2009) also found no significant differences between maladaptive perfectionists and nonperfectionists on several adjustment indices in a sample of Hong Kong high school students. Nevertheless, in their study adaptive perfectionists scored significantly higher on life satisfaction and significantly lower on depression than both maladaptive perfectionists and nonperfectionists.

In another study conducted by Wang et al. (2007) on Taiwanese college students, a cluster analysis yielded a fourth group in addition to the three groups typically found in U.S. samples. Participants in this group exhibited significantly lower High Standards scores than those of maladaptive perfectionists but significantly higher scores than those of nonperfectionists. In addition, they evidenced significantly lower Discrepancy scores than those of maladaptive perfectionists but significantly higher scores than adaptive perfectionists and nonperfectionists. Adaptive perfectionists evidenced significantly higher self-esteem scores and significantly lower state anxiety scores than the three other groups. Furthermore, they scored significantly lower on depression and trait anxiety than the maladaptive perfectionists and the fourth group that emerged

in the cluster analysis (the low High Standards/higher Discrepancy group) though they did not score significantly different from nonperfectionists on these measures. Maladaptive perfectionists' scores on depression and trait anxiety were found to be significantly higher than the other three groups (Wang et al., 2007). In this sample of Taiwanese college students, being an adaptive perfectionist appeared to have clear advantages in psychological and emotional adjustment over being a maladaptive perfectionist.

The emerging research examining perfectionism among different populations seems encouraging. One population that has yet to be examined includes people with disabilities. Following the onset of a chronic illness or disability, significant changes in an individual's cognitive appraisals, emotional experiences, and behavioral responses may occur (Livneh & Parker, 2005). A potentially negative or stressful experience such as the onset of a chronic illness or disability may possibly heighten the sense of perceived failure some perfectionists may have. It seems possible that people who have acquired a disability may experience or perceive a difference between what they were able to do prior to the acquisition of the disability and what they are able to do after the acquisition of a disability. This discrepancy may be distressing and could possibly interfere with individuals' psychosocial and/or emotional adjustment. The discrepancy they may experience seems similar to the concept of Discrepancy, the defining feature representing the negative element of perfectionism in the APS-R. Examining perfectionism among people with disabilities thus seems relevant. It also introduces an individual differences factor to the adjustment process in the rehabilitation literature.

In the face of a stressful event such as the onset of a chronic illness or disability, who is more likely to adjust well? Early theorists as well as more recent researchers in the field of rehabilitation and disability studies focused on societal attitudes toward people with disabilities, shifts in personal value changes necessary for positive adjustment, stages of adjustment that people with disabilities go through, as well as cognitive factors influencing psychosocial

adjustment to a disability (Dembo, Leviton, & Wright, 1956; Elliott, Witty, Herrick, & Hoffman, 1991; Kerr, 1977; Livneh & Wilson, 2003; Revenson & Felton, 1989; Rybarczyk, Nyenhuis, Nicholas, Cash, & Kaiser, 1995; Vash, 1978; Wright, 1960). For instance, Wright (1960) described limitations placed on individuals with disabilities resulting from derogatory attitudes and stereotyping from other people. She suggested that people's negative attitudes contributed to problematic behaviors or adjustment issues among people with disabilities such as concealing a disability and pretending it does not exist. Dembo et al. (1956) discussed the experience that people with disabilities have involving being judged or devalued by others due to society's standards of what is normal. Individuals with disabilities may internalize these societal standards. Dembo et al. (1956) delineated ways to facilitate shifts in values in people with disabilities such as focusing on values society may not deem important such as valuing other aspects of themselves other than the physical, and viewing the disability as limited to the areas of the body affected. Dembo et al. (1956), however, did not mention who among individuals with disabilities may be more likely to engage in these value shifts. Others such as Kerr (1977), Vash (1978), and Kendall and Buys (1998) subscribed to stage models in describing the disability adjustment process with the assumption that everyone goes through the same stages in their adjustment process. Parker, Schaller, and Hansmann (2003) noted that upon examining the literature and empirical research on stage theories, however, several researchers have questioned the validity of stage theories (Trieschmann, 1980, 1988; Wortman & Silver, 1991).

Other researchers examined cognitive factors and disability-related concerns in relation to disability adjustment such as coping strategies (Livneh & Wilson, 2003; Revenson & Felton, 1989), motivation and self-efficacy (Elliott et al., 1991), goal instability (Elliott, Uswatte, Lewis, & Palmatier, 2000), body image issues and perceived stigma (Rybarczyk et al., 1995), and perceived control (Dunn, 1996). Overall, the results of these studies indicated that cognitive factors were related to the psychosocial and emotional adjustment of individuals with disabilities.

For instance, Livneh and Wilson (2003) found that problem-focused coping contributed significantly to disability adjustment while disengagement contributed significantly in a negative direction to disability adjustment. In another study, coping efforts contributed significantly to positive affect (Revenson & Felton, 1989).

Elliott et al. (1991) investigated the roles agency and pathways had in adjustment. Agency refers to people's determination to achieve goals while pathways refers to people's sense of whether they can successfully achieve these goals. Participants' elapsed time since injury was assessed and this was used in a multiple regression analysis. Although only pathways was significant in predicting depression and psychosocial impairment, results also indicated that higher agency scores were associated with lower psychosocial impairment when the amount of time elapsed since injury was small. When the amount of time elapsed since injury was large, higher pathways scores were related to lower impairment scores (Elliott et al., 1991).

In a series of studies, Elliott et al. (2000) demonstrated the significance of goal instability in individuals' psychological and emotional adjustment. Goal instability referred to a "weak sense of goals and values" (Elliott et al., 2000, p. 252). In Study 1, multiple regression analyses revealed that higher scores on goal instability was associated with higher depression scores among people with spinal cord injuries after controlling for severity of disability. Further, higher scores on goal instability was associated with lower acceptance of disability scores above and beyond the variance contributed by depression (Elliott et al., 2000).

The results of Study 2 replicated those of Study 1 with a different group of people with physical disabilities at an inpatient rehabilitation program. Specifically, high levels of goal instability significantly predicted depression while disability severity did not. Study 3 involved returning participants from Study 2. Elliott et al. (2000) found that higher scores on goal instability was significantly related to lower scores on life satisfaction after controlling for mobility and occupational impairments.

Similar findings were reported by Elliott et al. (2000) in Study 4 in a community sample of people with spinal cord injuries and other severe disabilities. Using regression analyses, higher scores on goal instability significantly predicted lower scores on life satisfaction after controlling for perceived stigma and mobility impairment, both of which also individually contributed significantly to the variance in life satisfaction (Elliott et al., 2000). It seems that goal instability might reflect an individual's motivational state and self-efficacy in achieving goals.

The results of the aforementioned studies on people with disabilities indicated that the presence of motivational factors and the ability to utilize effective coping strategies were associated with positive adjustment. Conversely, the lack of motivational factors and the utilization of ineffective coping strategies were related to negative adjustment (Elliott et al., 2000; Elliott et al., 1991; Livneh & Wilson, 2003; Revenson & Felton, 1989). In addition, there was some indication that individuals' perceptions of their own body image as well as stigma projected from others was associated with their psychosocial and emotional adjustment (Rybarczyk et al., 1995). Rybarczyk et al. (1995) found that body image contributed significantly to the variance in depression, quality of life, and another measure of psychological adjustment (rated by participants' prosthetists). Perceived stigma was a significant predictor of depression but not the two other adjustment measures.

In another study investigating the relationship between cognitive factors and psychological adjustment, Dunn (1996) found that individuals who were less optimistic and did not find positive meaning in their experience scored higher on depression. Moreover, participants who were able to remain optimistic and scored higher on perceived control over disability tended to have higher levels of self-esteem (Dunn, 1996). Clearly there are a myriad of factors that appear to be associated with an individual's psychosocial adjustment to a disability. What appears to be central in these studies, however, is that individual differences in cognitive factors and motivation may influence this adjustment process.

Elliott et al. (2000) asserted that individual differences factors consistently predict an individual's emotional response after the onset of a disability. Indeed, there have been studies cited by Elliott and Frank (1996) indicating that people who have social, psychological, and alcohol problems pre-injury tend to have difficulties adjusting to their disabilities post-injury (Judd, Stone, Webber, Brown, & Burrows, 1989; Tate, 1993). Elliott and Frank (1996) suggest that people who are generally well adjusted and have good personal resources pre-injury may be better adjusted post-injury. Although this hypothesis has not been examined directly, they contend that studies investigating the relationships between cognitive appraisals or coping skills and adjustment indirectly demonstrate support that people who are generally well adjusted and have good coping skills pre-injury also may tend to adjust well post-injury (Elliott & Frank, 1996).

A review of the available empirical literature seems to indicate that cognitive factors such as coping skills, cognitive appraisals, perceived control, self-efficacy, and motivation are influential to an individual's psychosocial and emotional adjustment to a disability. These factors, however, may also be related to characteristics of an individual. In a recent longitudinal study conducted by Wei, Heppner, Russell, and Young (2006), maladaptive perfectionism at Time 1 significantly predicted ineffective coping at Time 2. Ineffective coping at Time 1 also significantly predicted maladaptive perfectionism at Time 2. In addition, maladaptive perfectionism at Time 2 and ineffective coping at Time 2 were found to significantly predict each other (Wei et al., 2006).

It seems conceivable that an individual's adjustment to the onset of a chronic illness or disability may be related to aspects of personal characteristics and qualities such as perfectionism. As discussed earlier, individuals with disabilities may perceive a discrepancy between their standards of performance pre-injury or pre-disability and what they can currently accomplish. This discrepancy seems similar to the concept of Discrepancy, a defining feature of maladaptive

perfectionism in the APS-R. It is possible that Discrepancy, or the distinction between adaptive and maladaptive perfectionism, may be important in an individual's adjustment to a disability. Given the relationship that adaptive perfectionism has with positive adjustment indicators (self-esteem, positive affect) and maladaptive perfectionism has with psychological distress (anxiety, depression, self-criticism, negative affect), it seems likely that individual differences on these two aspects of perfectionism might be related to a person's emotional or psychological adjustment to a disability.

The current study enhanced and widened existing research on perfectionism as well as disability adjustment in several ways. First, the examination of adaptive and maladaptive perfectionism among people with disabilities in settings other than college campuses added to the burgeoning literature on perfectionism among various populations. Second, differences between perfectionism groups in various adjustment indices were investigated in this population. Specifically, this study examined differences between perfectionism groups in disability adjustment, depression, self-esteem, positive affect, negative affect, and life satisfaction. To date, no study has examined differences between perfectionism groups in all these aforementioned adjustment indicators among people with disabilities. The measures of positive affect, negative affect, depression, self-esteem, and life satisfaction are chosen as adjustment indicators because they have been used in previous perfectionism research on people without disabilities. Using them in this study could provide information on how perfectionism groups differ in the same adjustment indices among people with disabilities. In addition, another measure will be used to assess disability adjustment in this study because it specifically measures how people experience their disabilities, whereas the aforementioned adjustment indicators assess levels of adjustment not specifically related to disabilities.

Based on previous research connecting aspects of perfectionism to various adjustment indices among college students, it seems plausible that this distinction between aspects of

perfectionism would be related to an individual's psychosocial or emotional adjustment to a disability. Furthermore, people with disabilities, particularly people who may be maladaptive perfectionists, may perceive a difference between the standards they set for themselves and what they are able to accomplish. This perception may be distressing to them and thus be related to their psychosocial and emotional adjustment. In addition, previous disability research indicated that differences in cognitive appraisals, coping skills, and motivational levels were related to individuals' psychosocial and emotional adjustment to a disability. It makes intuitive sense that individual differences in levels of perfectionism may be related to such an adjustment as well. Unlike most previous disability research using various indices of depression to measure psychological or emotional adjustment, this study will use instruments that measure positive adjustment as well as maladjustment. Dunn (2000) noted that positive and negative affect are viewed as unrelated (Diener & Emmons, 1984; Watson & Tellegen, 1985) in social and clinical psychology, suggesting that it is counterintuitive to examine only the negative dimension of a person's disability experience without looking at the positive dimension as well.

The research questions that will be addressed in this study are the following:

Research Question 1: Do perfectionism groups differ in disability adjustment?

Research Question 2: Do perfectionism groups differ in depression?

Research Question 3: Do perfectionism groups differ in self-esteem?

Research Question 4: Do perfectionism groups differ in positive affect?

Research Question 5: Do perfectionism groups differ in negative affect?

Research Question 6: Do perfectionism groups differ in life satisfaction?

Chapter 2

Literature Review

In this chapter, the construct known as perfectionism will be discussed and the literature on the relationship between perfectionism and various indices of psychological and emotional adjustment will be reviewed. Then, the literature as well as the recent research on psychosocial adjustment among individuals with disabilities will be examined.

Perfectionism

Although the construct of perfectionism has received increased attention in the past two decades, researchers in the field have not agreed on a definition of perfectionism (Flett & Hewitt, 2002). It appears that the definition of perfectionism differs depending on how a researcher examines the construct. Flett and Hewitt (2002) define perfectionism as "...the striving for flawlessness..." (p. 5) whereas others define perfectionism based on the distinction between having high standards and attaining those standards (Slaney, Rice, Mobley, Trippi, & Ashby, 2001). *Webster's II New College Dictionary* (1995) defines perfectionism as including both behavioral and emotional elements: "a predilection for setting extremely high standards and being displeased with anything less" (p. 816). While this latter definition is in general use, it also seems to carry a negative connotation.

Given the definition of perfectionism generally used, it is not surprising that the attention perfectionism has received in recent psychological research is mostly due to the portrayal of perfectionism as a negative trait in the early theoretical and anecdotal writings (Blatt, 1995; Burns, 1980; Pacht, 1984; Pirot, 1986; Sorotzkin, 1985). Moreover, subsequent research has found perfectionism to be related to various psychopathologies (Alden, Bieling, & Wallace, 1994; Axtell & Newlon, 1993; Cash & Szymanski, 1995; Hewitt & Flett, 1991a; Hewitt, Flett, & Ediger, 1996; Minarik & Ahrens, 1996). Slaney and Ashby (1996) noted that the negative

perception of perfectionism suggested by early writings affected the dimensions that were used to empirically measure perfectionism. Indeed, The Burns Perfectionism Scale (1980) clearly measured perfectionism based on a negative conceptualization, as the items contained within it were derived from Weissman and Beck's (1978) Dysfunctional Attitudes Scale (as cited in Enns & Cox, 2002). Slaney and Ashby (1996) indicated that with the exception of the Personal Standards and Organization subscales in The Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990), the other dimensions measured by this instrument assess negative psychological concerns. While Hewitt and Flett's Multidimensional Perfectionism Scale (HFMP; Hewitt & Flett, 1991b) distinguished between personal and interpersonal or social components of perfectionism, its theoretical basis was also pathological (Slaney & Ashby, 1996). Although these instruments reflect the differences in the way researchers conceptualize perfectionism, characteristics of these instruments and the assumptions guiding the development of these measures may influence the results of empirical findings.

Hamachek (1978) was among the first to conceptualize two types of perfectionism: positive or "normal," and negative or "neurotic." "Normal" perfectionism involves the setting of high but realistic standards. Hamachek (1978) describes "normal" perfectionists as people who tend to feel satisfied with their achievements and accomplishments. "Neurotic" perfectionists, on the contrary, tend to strive for unrealistically high standards and are driven by fears of failure rather than a desire for improvement (Hamachek, 1978). Consistent with this conceptualization of perfectionism, Slaney and Johnson (1992) developed the Almost Perfect Scale (APS), which attempted to assess dimensions central to perfectionism and included potentially positive aspects of this construct. Upon examining the studies using the APS, the FMPS, and the HFMP, Slaney et al. (2001) concluded that although the data consistently indicated two higher order factors representing positive and negative dimensions of the perfectionism construct, the positive or adaptive factor was associated with subscales measuring high standards and order while the

themes dominating the negative or maladaptive factor were less clear. Slaney et al. (2001), Slaney, Rice, and Ashby (2002), and Rice and Slaney (2002) further suggested that the extant perfectionism scales assessing the negative, or maladaptive, factor seemed to represent presumed causes, characteristics associated with or related to perfectionism, or results of being perfectionistic, and not a definition of the maladaptive components of perfectionism.

Two qualitative studies on perfectionism seemed to clarify the nature of the maladaptive aspect of perfectionism (Slaney & Ashby, 1996; Slaney, Chadha, Mobley, & Kennedy, 2000). The researchers found that participants in both studies seemed to experience ambivalence about their perfectionism. In particular, whereas some participants rated their perfectionism positively, most participants described their perfectionism as distressing. In addition, their distress appeared to be associated with a perceived discrepancy between their high standards for themselves and their actual performance. Having excessively high standards makes it difficult to meet them, and Rice and Slaney (2002) asserted that it is this discrepancy and not the high standards themselves that causes distress. Because the concept of discrepancy seemed promising as central to the maladaptive aspect of perfectionism, Slaney et al. (1996) and Slaney et al. (2001) developed a revised version of the APS scale, the Almost Perfect Scale-Revised (APS-R). The APS-R includes three subscales: High Standards, Order, and Discrepancy. The High Standards and the Order subscales reflect the potentially positive, or adaptive, aspects of perfectionism while the Discrepancy subscale represents the potentially negative, or maladaptive, aspect of perfectionism. The High Standards and the Order subscales measure the degree to which people identify with having high standards about themselves and their performance and having a sense of neatness or orderliness. Discrepancy was defined specifically as "...the perceived discrepancy or difference between the standards one has for oneself and one's actual performance" (Slaney et al., 2001, p.133). Thus, with the inclusion of the Discrepancy subscale, the APS-R seems to be potentially

useful as an instrument that specifically distinguishes between adaptive and maladaptive aspects of perfectionism.

Since the development of the FMPS, the HFMPs, and the APS-R, emerging research comparing them and factor analyzing their respective subscales has consistently found two distinct higher order factors of perfectionism (Frost et al., 1993; Rice, Ashby, & Slaney, 1998; Slaney, Ashby, & Trippi, 1995; Suddarth & Slaney, 2001). One factor seemed to represent negative aspects of perfectionism while the other appeared to characterize potentially positive aspects of perfectionism. The positive dimensions of perfectionism were associated with indicators of positive adjustment while the negative dimension of perfectionism was associated with maladjustment.

In the Frost et al. (1993) study, a factor analysis of the FMPS and the HFMPs revealed two factors: Positive Striving and Maladaptive Evaluative Concerns. The Maladaptive Evaluative Concerns factor was found to be significantly correlated with depression and another measure of negative affect but not with a measure of positive affect. On the other hand, the Positive Striving factor was significantly correlated with positive affect but not with depression or negative affect. In another study, Rice et al. (1998) found that maladaptive perfectionism was significantly and negatively associated with self-esteem and positively associated with depression. In a study conducted by Suddarth and Slaney (2001), multiple regression analyses were performed using the positive and negative factors of perfectionism as predictor variables and three measures of psychological functioning: the Internal-External Locus of Control Scale (Rotter, 1966), the Global Severity Index from the Brief Symptom Inventory (Derogatis & Spencer, 1982), and the Trait subscale of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). The researchers found that the factor representing the maladaptive or negative aspect of perfectionism was positively associated with external locus of control as well as the Global Severity Index and the Trait Anxiety subscale. Perhaps not surprisingly, the factor

representing the adaptive or positive aspect of perfectionism was associated with internal locus of control (Suddarth & Slaney, 2001).

Several recent studies have explored whether grouping individuals into types of perfectionists based on their perfectionism scale scores would lead to the results consistent with Hamachek's (1978) conceptualization of two types of perfectionists, "normal" versus "neurotic" (Ashby & Kottman, 1996; Grzegorek et al., 2004; LoCicero & Ashby, 2000; Rice & Dellwo, 2002; Rice & Mirzadeh, 2000; Rice & Slaney, 2002). These studies provided empirical support as well as potential clinical implications for classifying people as adaptive and maladaptive perfectionists. These studies examined the relationship between individual's grouping and various adjustment indicators. For example, Ashby and Kottman (1996) used the 67th percentile on the High Standards subscale of the APS-R as the cut-off point for determining whether an individual was a perfectionist. Among the perfectionists, those who scored above the median on the Discrepancy subscale of the APS-R were defined as neurotic or maladaptive perfectionists while those scoring below the median were identified as normal or adaptive perfectionists. The relationship between the groupings and scores on the Comparative Feeling of Inferiority Index (Strano & Dixon, 1990) as well as the Relationship, Anxiety, and Procrastination subscales of the original APS were explored. Ashby and Kottman (1996) found that participants identified as neurotic or maladaptive perfectionists scored significantly higher than the normal or adaptive perfectionists on all the indicators examined. These results suggest that adaptive perfectionists were better adjusted psychologically and emotionally than maladaptive perfectionists.

Similar results regarding differences between perfectionism groups in adjustment issues were found in a study conducted by Rice and Mirzadeh (2000) on college students. Using the FMPS as the measure of perfectionism, the researchers performed a cluster analysis to empirically identify maladaptive perfectionists, adaptive perfectionists, and nonperfectionists. Other studies have also used cluster analyses to empirically classify people into these three

groups of perfectionists/ nonperfectionists (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002; Wang et al., 2009). In the studies that used the APS-R, it was found that the maladaptive perfectionists scored high on all three subscales (High Standards, Order, and Discrepancy) whereas the adaptive perfectionists scored high on High Standards and Order, but low on Discrepancy. The nonperfectionists, on the other hand scored low on all three subscales. The nonperfectionists generally scored lower than the other two groups on High Standards and Order, but their Discrepancy scores were always midway between those of the maladaptive and the adaptive perfectionists. In the Rice and Mirzadeh (2000) study which used the FMPS the nonperfectionists were identified by their low scores on all of the subscales (Personal Standards, Organization, Concern Over Mistakes, Doubts About Actions, Parental Expectations, and Parental Criticism). The adaptive and maladaptive perfectionists were identified by their significantly higher scores on the Personal Standards subscale of the FMPS than the nonperfectionists; however, the adaptive and maladaptive perfectionists differed significantly on scores in the Concern Over Mistakes, Parental Expectations, Parental Criticism, and Doubts About Actions subscales. Specifically, individuals labeled as maladaptive perfectionists scored significantly higher on the latter dimensions. The results of t-tests indicated that adaptive perfectionists scored higher than maladaptive perfectionists on a measure of academic integration, while maladaptive perfectionists scored in the clinically significant range on a measure of depression (Rice & Mirzadeh, 2000). The specific relationship that adaptive perfectionists have with positive adjustment and maladaptive perfectionists have with maladjustment suggests the potential clinical significance of identifying maladaptive perfectionists who may be in need of counseling or treatment.

Further support for the clinical utility of classifying adaptive and maladaptive perfectionists was provided by two studies conducted by Rice and Slaney (2002). Both studies examined the differences in various indices of psychological adjustment as well as academic

achievement among clusters of perfectionists and nonperfectionists in college students. The participants for both studies included undergraduate students from two different universities. Students' scores on the APS-R were used in a cluster analysis to empirically identify adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. In both studies, the clusters labeled as adaptive and maladaptive perfectionists did not differ significantly in their scores on the High Standards and Order subscales of the APS-R, though they did in their scores on the Discrepancy subscale. Maladaptive perfectionists had significantly higher Discrepancy scores than adaptive perfectionists. Consistent with prior research findings on perfectionism (adaptive versus maladaptive) and adjustment, the results of Study 1 indicated that adaptive perfectionists scored significantly higher on measures of positive adjustment (self-esteem and a measure of positive affect) than maladaptive perfectionists. In addition, maladaptive perfectionists scored significantly higher than adaptive perfectionists on measures of maladjustment (depressed affect, somatic and vegetative activity, state anxiety, and trait anxiety). There were no significant differences between clusters on GPA (Rice & Slaney, 2002).

Study 2 revealed similar results using different instruments to measure positive affect, negative affect, and anxiety. The participants classified as adaptive perfectionists scored significantly higher than those classified as maladaptive perfectionists on measures of self-esteem and positive affect. Those classified as maladaptive perfectionists, on the other hand, scored significantly higher than adaptive perfectionists on negative affect and a measure of anxiety. Unlike Study 1, significant differences in GPA were found, with adaptive perfectionists having higher GPAs than maladaptive perfectionists. Rice and Slaney (2002) suggested that GPA might not be a sensitive or reliable indicator of students' academic performance.

A study conducted by Grzegorek et al. (2004) provided additional empirical support for classifying adaptive and maladaptive perfectionists using the APS-R. The researchers investigated the relationships between the APS-R cluster groupings and various academic and

psychological indicators among college students. Similar to Rice and Slaney's (2002) studies, cluster analysis was used to empirically classify perfectionists based on their APS-R scores. Consistent with earlier research findings on the relations between positive and negative perfectionism and various adjustment indices, Grzegorek and her colleagues (2004) found that adaptive perfectionists scored significantly lower on a measure of self-criticism than maladaptive perfectionists, while scoring significantly higher than the latter group on measures of self-esteem and GPA satisfaction. Interestingly, the mean GPA scores between adaptive and maladaptive perfectionists did not differ in this study. Of particular significance in this study was the striking similarities found in the mean scores for each subscale of the APS-R when compared with those from the Rice and Slaney (2002) studies. Specifically, mean scores for High Standards, Order, and Discrepancy across the three clusters of perfectionists/nonperfectionists in the Grzegorek et al. (2004) and the Rice and Slaney (2002) studies were within one or two points of each other. Moreover, the distribution of participants in each cluster (adaptive perfectionists, maladaptive perfectionists, nonperfectionists) was comparable to that of the Rice and Slaney (2002) studies.

Rice and Dellwo (2002) also examined the implications of perfectionism on college students' academic and emotional adjustment. In addition, they investigated goal instability, an indicator of an individual's self-development, among college students. Cluster analysis yielded a three-cluster solution, consistent with expectations based on prior research, and clusters were labeled as adaptive perfectionists, maladaptive perfectionists, and nonperfectionists based on their FMPS scores. Results revealed significant differences between clusters on measures of goal instability as well as academic, social, and emotional adjustment. As expected, adaptive perfectionists scored significantly higher on self-esteem, academic and social integration, and lower on depression than maladaptive perfectionists. In addition, the former group evidenced better self-development than the latter group based on their scores on a goal-instability scale. No significant differences were found between groups on GPA. It should be noted that maladaptive

perfectionists scored in the clinically significant range on a measure of depression. These results suggest the clinical importance of distinguishing between adaptive and maladaptive perfectionists, as the latter group scored significantly lower than the former group on positive adjustment (self-esteem, academic and social integration) while scoring significantly higher on a measure of maladjustment (depression) than the former group (Rice & Dellwo, 2002).

Recent research on groups other than the predominately White college students replicated the associations that adaptive perfectionism and maladaptive perfectionism have with various adjustment indices (Chang et al., 2004; Mobley et al., 2005; Wang et al., 2007; Wang et al., 2009). In the Chang et al. (2004) study, aggregated scores from the Personal Standards and Organization subscales from the FMPS were used to form the Adaptive Perfectionism subscale while those from the Concern Over Mistakes, Parental Expectations, Parental Criticism, and Doubts About Actions subscales from the FMPS were used to create the Maladaptive Perfectionism subscale. Chang et al. (2004) found that adaptive perfectionism was related positively to scores on measures of positive affect and life satisfaction in White women while it was associated negatively with scores on a measure of suicide ideation in Black women. Furthermore, maladaptive perfectionism was associated negatively with scores on life satisfaction for White women only. Despite these differences, similarities were also found in both groups. Specifically, in both groups maladaptive perfectionism was related positively to scores on measures of perceived stress, negative affect, and suicidal ideation, and negatively to scores on a measure of positive affect. Also, adaptive perfectionism was found to be unrelated to scores on measures of perceived stress and negative affect in both groups (Chang et al., 2004).

In another study on perfectionism, Mobley et al. (2005) examined the use of the APS-R with African American college students. Consistent with previous studies (Grzegorek et al., 2004; Rice & Slaney, 2002), they found adaptive perfectionism was associated with positive academic and emotional adjustment indices and maladaptive perfectionism was associated with negative

indices. Specifically, adaptive perfectionists had significantly higher scores on self-esteem than both maladaptive perfectionists and nonperfectionists. They also scored significantly lower on measures of anxiety and depression than the latter two groups. Maladaptive perfectionists and nonperfectionists did not differ significantly in their self-esteem, anxiety, and depression scores. Univariate analyses of variance (ANOVAS) did not reveal significant differences between clusters on self-reported GPA (Mobley et al., 2005), similar to the result found in Rice and Slaney (2002). Interestingly, in the Mobley et al. (2005) study, there were no significant differences between clusters on GPA satisfaction. This is contrary to what was previously found in a similar study done on a predominantly White college student sample (Grzegorek et al., 2004) where adaptive perfectionists exhibited significantly higher satisfaction with GPA than both the maladaptive perfectionists and the nonperfectionists.

Citing the need to move beyond examining different populations within the U.S. to those outside of the U.S. (Leong & Blustein, 2000) in order to understand and improve the mental health services of immigrant populations within the U.S. (Leong & Ponterotto, 2003), Wang et al. (2009) examined perfectionism among high school students in Hong Kong. The relationship between perfectionism and depression, loneliness, life satisfaction, and academic achievement was explored. A factor analysis on a Chinese translation (by Yuen) of the APS-R yielded a three-factor solution consistent with what was found in U.S. samples. A cluster analysis yielded a three-cluster solution consistent with the results of previous U.S. studies using the APS-R. Based on scores on the High Standards, Order, and Discrepancy subscales, participants were labeled as adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. As expected, adaptive perfectionists evidenced significantly higher scores on life satisfaction and significantly lower scores on depression than the other two groups. On a measure of loneliness, male adaptive perfectionists had significantly lower scores than the other two groups. No significant differences were found between the three groups on loneliness for female participants. There were no

significant group differences in the participants' scores on three academic subject areas (Wang et al., 2009).

Contrary to the results of previous studies using the APS-R on predominantly White samples, no significant differences were detected between maladaptive perfectionists and nonperfectionists on measures of depression, loneliness, and life satisfaction. This result is similar to that found by Mobley et al. (2005) in an African American college student sample where there were no significant differences between maladaptive perfectionists and nonperfectionists on several emotional adjustment indices. Overall, these results seem to suggest that there are similarities and differences between majority samples in the U.S. and other populations both within and outside of the U.S. on the three groups' relationships with various indices of academic and emotional adjustment.

Wang et al. (2007) investigated differences between perfectionism groups in psychological well-being and achievement motivation among Taiwanese college students. Different from previous studies conducted in the U.S. as well as in Hong Kong using the APS-R, a cluster analysis yielded four groups in this Taiwanese sample. Three groups were found to be similar to those classified as adaptive perfectionists, maladaptive perfectionists, and nonperfectionists in the U.S. and Hong Kong college student samples; however, a fourth group emerged in this Taiwanese college student sample. Individuals identified in this group had High Standards scores that were significantly lower than those of maladaptive perfectionists but significantly higher than those of nonperfectionists. This fourth cluster, labeled as the low-High Standards/higher Discrepancy group, also demonstrated Discrepancy scores significantly higher than those of adaptive perfectionists and nonperfectionists but significantly lower than those of maladaptive perfectionists. Interestingly, a large number of the participants (approximately one-third) were grouped in this fourth cluster (Wang et al., 2007).

Using univariate analyses of variance (ANOVAs), significant differences between clusters were found for all the academic and emotional indices examined. Specifically, adaptive perfectionists had significantly higher self-esteem scores and significantly lower state anxiety scores than the three other groups. In addition, their scores on depression and trait anxiety were found to be significantly lower than those of maladaptive perfectionists and the low-High Standards/higher Discrepancy group but not significantly different than those of nonperfectionists. Maladaptive perfectionists scored significantly higher on depression and trait anxiety than the other three groups. Excluding the low-High Standards/higher Discrepancy group, these results were similar to those found in Study 1 conducted by Rice and Slaney (2002). Both adaptive and maladaptive perfectionists in the Wang et al. (2007) Taiwanese sample also demonstrated significantly higher scores on a measure called Individual-Oriented Achievement Motivation (IOAM; Yu & Yang, 1987) than the other two groups. On the Social-Oriented Achievement Motivation (SOAM; Yu & Yang, 1987) instrument, both the two perfectionist groups and the low-High Standards/higher Discrepancy group scored significantly higher than nonperfectionists (Wang et al., 2007).

Wang et al. (2007) provided explanations for the existence of the low High Standards/higher Discrepancy group not present in U.S. samples or the Hong Kong sample utilizing the APS-R. They noted that participants in this group may be more socially driven than individually driven in their achievement motivation, and thus their Discrepancy scores may reflect their sense of not meeting others' expectations. The researchers also described this need to meet social expectations as consistent with the Chinese collectivistic culture (Wang et al., 2007).

The existence of this fourth group, however, may also be the result of an evolving culture specific to Taiwan. It seems possible that there may be more households with both parents working than in the past, and neither parent is available to mirror high standards throughout a child's development. High standards, therefore, may not be internalized in this group. It is

possible that children in these households may still be aware of the high standards regarded by society but these standards may be less influential than the high standards typically internalized through interactions with parental figures or guardians. This may explain this fourth group's lower High Standards scores and higher Discrepancy scores compared with those of the maladaptive perfectionists. Regardless of these speculations, the results of this study suggested similarities and differences compared with similar studies conducted in the U.S. and Hong Kong in the ways adaptive and maladaptive perfectionism relates to various psychological indicators.

The emergence of literature on perfectionism in different populations seems encouraging. One group that has yet to be examined in greater detail is people with disabilities. Examining perfectionism in this population is of interest for several reasons. First, acquiring a disability is often considered and experienced as a life-threatening event and a source of stress. Following the onset of a chronic illness or disability, people may undergo significant changes in cognitive appraisals, emotional experiences, and behavioral responses (Livneh & Parker, 2005). It is possible that negative or stressful experiences such as the onset of a chronic illness or disability may heighten some perfectionists' awareness of perceived failures that may exacerbate the already difficult adjustment process. Second, it seems possible that individual differences on aspects of perfectionism may predict one's adjustment to a devastating illness or disability.

Perfectionism has also been shown to be related to various psychopathologies (Alden et al., 1994; Cash & Szymanski, 1995; Hewitt & Flett, 1991a; Hewitt et al., 1996; Minarik & Ahrens, 1996), however, emerging research in perfectionism suggests that there may be two types of perfectionism, adaptive and maladaptive (Frost et al., 1993; Rice et al., 1998; Slaney et al., 1995). Of particular interest is the Discrepancy Scale from the APS-R, which specifically measures the maladaptive aspect of perfectionism. It seems possible that individuals who have acquired a disability may perceive a difference between what they were able to do after acquiring a disability and what they were able to do prior to acquiring a disability. Such a perception of the

difference in their performance seems reminiscent of the concept of discrepancy as defined by Slaney et al. (1996, 2001) in their development of the APS-R. The concept of discrepancy may be a relevant factor in determining how well one adjusts to a disability. Studying perfectionism with individuals with disabilities may also provide insights into effective clinical interventions with this population.

Psychosocial Adjustment to Disability

Despite the fact that research examining the process of disability adjustment and effective clinical work with disability populations has been a focus in the rehabilitation field for decades (Elliott, 1994; Wright & Kirby, 1999), only one definition was located in the literature that seemed to adequately capture a person's experience in successfully adjusting to a disability: "...an affective internalization (i.e., emotional acceptance) of the functional implications of an impairment into one's self-concept coupled with behavioral adaptation and social reintegration into the newly perceived life situation" (Livneh & Antonak, 1990, p.14). In part, this difficulty in finding a definition may be due to the fact that researchers in this area disagree as to what constitutes successful adjustment or adaptation. For instance, rehabilitation scholars disagree whether the adjustment process is universal or specific to individuals (Livneh & Wilson, 2003).

Some view the process as occurring in stages or phases (Kendall & Buys, 1998; Kerr, 1977; Vash, 1978). Others disagree about whether individuals with disabilities need to experience specific reactions during their adjustment (Livneh & Wilson, 2003; Parker et al., 2003). Still others suggest that factors such as disability-related variables and personal attributes may be prominent influences in an individual's disability adjustment (Livneh & Antonak, 1997; Livneh & Wilson, 2003; Rodin, Craven, & Littlefield, 1991; Wright, 1983). Further, there is a lack of consistency in the type of measures used to assess disability adjustment (Livneh & Wilson, 2003). Livneh and Wilson (2003) delineated several types of measurements used to assess a person's psychosocial adaptation to chronic illnesses and disabilities: (a) rating scales specific to an illness

or disability, (b) global ratings of general life functioning, (c) measures of psychological distress and measures of positive functioning, (d) indices of general medical condition or health, and (e) indices of functioning in specific life domains such as social or vocational. Complicating the research in the area of disability adjustment is the use of scales that vary in psychometric soundness (Livneh & Wilson, 2003). Moreover, some also question whether existing research effectively translates theories into clinical interventions (Parker et al., 2003).

Bishop (2005) noted that in the pursuit of a meaningful understanding of the process of disability adjustment, the field of rehabilitation and disability studies has often utilized theories from other fields of study. Indeed, Wright (1960) was one of the first in the field of rehabilitation to describe both environmental/social and psychological factors that influence an individual's adjustment to disability. She applied concepts from other disciplines within psychology such as social psychology to disability issues. Wright (1960) noted that the stigma resulting from being stereotyped by individuals without disabilities and their negative attitudes towards individuals with disabilities may hinder the adjustment process of individuals with disabilities.

Wright (1960) suggested that, due to people's striving for acceptance by the group around them, strong feelings of shame and inferiority resulting from a disability damage the self-esteem of people striving for acceptance and therefore preclude their self-acceptance. Further, due to the limitations imposed by others' derogatory attitudes and individuals' own devaluative feelings about themselves, they develop behaviors that further impede their psychosocial adjustment to disability. An example of such a behavior is "as if" behavior (Wright, 1960). The person who utilizes this behavior attempts to conceal his/her disability and acts as if it does not exist. Wright (1960) suggested that "as if" behaviors stem from fear of rejection by others as well as the internalization of society's devaluative attitudes about disabilities. She notes that acceptance of a disability requires the realization that the disability is not a painful fact that must remain hidden (Wright, 1960).

Wright further argued that "as if" behaviors are developed and utilized by individuals with disabilities because they view "normal" standards as the ideal. "Idolizing normal standards," a term Wright used, however, can deepen feelings of shame and inferiority when those standards are not attainable by the individual with a disability. To overcome both social and psychological barriers and facilitate the adjustment process, Wright suggested that a value shift needs to occur where what is considered "normal" and important by the society and the general population is deemed less important than other values by the individual with a disability. Further, she argued that adjustment to disability is enhanced when people focus on coping with problems rather than ignoring them or pretending that none exist. This adjustment process is impeded when people with disabilities focus on the negative aspects of their existing conditions (Wright, 1960).

Dembo, Leviton, and Wright (1956) viewed adjustment to disability as similar to adjustment to a loss or misfortune. They delineated three major changes in one's value system that are crucial to adjustment to disability. First, people with disabilities need to enlarge their scope of values. This entails an emotional realization that there are other values that may be important that the mainstream society may not necessarily endorse. Second, people with disabilities should "subordinate the physique," or consider valuing the whole or beautiful body as a relatively minor value compared with other values. Third, the person with a disability should "contain disability effects," or not view the physical disability as spreading or affecting other areas of the person (such as one's social or mental abilities). Last, people with disabilities need to transform their values from comparative to asset ones. This means that they should not strive to compare with others but instead focus on the strengths or assets that they have. For these value changes to take place, Wright (1960) suggested that it may be necessary for people with disabilities to initially strive toward the "normal" ideal standards before giving them up. The motivation to achieve the ideal of "normal" performance may help the person attempt to surpass the physical limitations imposed by his/her disability. In addition, Wright (1960) suggested that

this motivation to act like people without disabilities may help people with disabilities to realistically assess their physical limitations as well as discover other activities that may be more accessible to them.

The perspectives held by Dembo, Leviton, and Wright (1956) and Wright (1960) raise several questions. They do not explain how one goes about shifting one's values, especially when those values are deeply entrenched. In addition, who is more likely to make these value shifts? Are individuals with particular personality characteristics in conjunction with certain environmental factors more likely to make these value shifts? Does everyone who has psychologically adjusted successfully go through these value-shift processes? What about individual differences in disability adjustment?

Safilios-Rothschild (1970) elaborated on Wright's (1960) idea regarding the influence of the physique on the psychosocial adjustment of individuals with disabilities. She uses the term body image, which she defined as encompassing both mental and emotional components associated with a person's physical appearance and abilities. She believed that one's body image was very much associated with one's self-concept and self-esteem. She stated that one's body image

...includes a conception of appearance to others, a conception of physical stamina, capacities, and endurance, a conception of degree of attractiveness and therefore differential emotions attached to preferred or admired bodily assets or characteristics, and a conception of what constitutes a state of physical 'normality' or 'well-being.' (p. 95)

Inherent in the concept of "subordinating the physique" proposed by Dembo, Leviton, and Wright (1956) is the assumption that people with disabilities value their body image and everything associated with it prior to acquiring the disability. Safilios-Rothschild (1970) suggested that whether a person accepts changes to his/her body image and incorporates these into his/her self-concept after a physical injury depends on whether one's body image plays a prominent role in a

person's self-concept prior to his/her injury. This idea of the role pre-injury characteristics play in post-injury adjustment suggests that individual differences in body image issues might influence a person's psychological and emotional adjustment to changes in one's physique after the acquisition of a disability.

Nonetheless, Safilios-Rothschild (1970) stated that because physical attractiveness is highly valued in the American culture, it is generally difficult for people to change their body image and the values associated with it, and thus to accept physical disabilities as a part of living. She suggested that acceptance of disability required incorporating the physical changes resulting from the disability into one's body image as well as one's self-concept. She also believed that such acceptance led to successful psychological adjustment and societal reintegration for the individual.

Other researchers in the field of rehabilitation and disability studies endorse the use of stage models to understand the disability adjustment process (Kendall & Buys; 1998; Kerr, 1977; Livneh & Antonak, 1997; Vash, 1978). Stage models are frameworks in which there is a sequence of stages and progression over time from one stage to another that is usually linear in nature. Resolution of earlier stages is usually necessary for progression to the later stages. Kerr's (1977) model of adjusting to permanent disability includes five stages: shock, expectancy of recovery, mourning, defense, and adjustment. The stages are described as occurring along a continuum and not representing discrete categories. In addition, they are described as frequently occurring but not inevitable phases. During the shock stage, not much anxiety is present because the person has not really come to the realization that he/she has acquired a disability. When he/she finally realizes that he/she has acquired a disability, there is an expectancy of recovery and a preoccupation with improving one's disabling condition. One's disability is seen as temporary and expected to disappear. Thus there is no motivation for living with the disability. Mourning occurs when one comprehends that one's disability will not vanish. During this stage, acute

distress and thoughts of suicide may occur. Progression to the defense stage is characterized by coping efforts. During this stage, the individual is also interested in learning to be as “normal” as possible and to overcome or circumvent barriers. This is considered to be a healthy defense. Some individuals employ defense mechanisms during this stage to deny that barriers exist. This is considered unhealthy, or neurotic. Kerr (1977) believed that individuals who reach the adjustment stage feel that they are adequate persons, no longer consider their disabilities as barriers, and have found ways to satisfy their needs.

One problem with Kerr's (1977) stage model is that it does not explain individual differences. Does everyone go through these stages? Can people regress to earlier stages or skip stages? Also, it is questionable whether defense mechanisms such as denial are necessarily "bad." Defense mechanisms may expose individuals with a disability to failures that may facilitate a realistic assessment of their abilities. For some individuals denial may be a necessary step toward successful adjustment to their disabilities.

Vash (1978) presented a model that condenses the five-stage model of Kerr (1977) into three different levels of acknowledgement. Level I: Recognition of the Facts is characterized by an understanding of the nature and the extent of one's disability, the probability of the permanence of the disability, and the realization of social stigmatization. The disability is seen by the individual as a tragedy and carries with it a negative valence. In Level II: Acceptance of the Implications, the person shows acceptance of his/her condition and its implications. This reality is integrated into a chosen lifestyle and disability is seen as an inconvenience that can be overcome and has neutral valence. At Level III: Embracing the Experience, the individual understands that without the disability he/she would have been a different person. He/she does not desire to be different and embraces having the disability as an experience. The disability now has a positive valence and is seen as an opportunity like all other life experiences (Vash, 1981).

In addition to the aforementioned three levels of adjustment, Vash (1981) suggested that some individuals are able to reach a level of existence where they experience transcendence of the disability. Transcending one's disability is defined by Vash (1981) as rising above or beyond the limits imposed by one's disability, societal/cultural expectations related to the disability, or emotional reactions to either/both. Disability is no longer seen by the individual as a tragic event that happened to him/her, but rather a growth inducing experience that helped to define one's self-concept. In order for the individual to transcend his/her disability, the three levels of adjustment designated by Vash (1981) need to be acknowledged. When an individual with a disability acknowledges all three levels of adjustment, the reality of one's disability is neither struggled against nor denied and fades into the background of one's consciousness until something or someone brings it to one's awareness (Vash, 1981).

There are several problems with Vash's (1978) model. What factors facilitate movement from one stage to another? There have been no research findings indicating that everyone, or even most people, goes through these stages because no instrument has been developed to specifically measure the three levels of disability adjustment as theorized by Vash (1978). It is not known if some individuals stay longer in one stage than others and, if so, what contributes to these individual differences.

Kendall and Buys (1998) presented a recurrent model of adjustment to disability, arguing that stage models do not accurately address the recurrent nature of the psychosocial adjustment process (Yoshida, 1993). Moreover, they suggested that these models are descriptive and do not offer explanations for individual differences in adjusting to disabilities. Kendall and Buys noted that factors that may facilitate or hinder the progression through the stages are not suggested by stage models. In addition, stage models do not capture the subjective experience of individuals who acquire disabilities (Yoshida, 1993).

According to the model developed by Kendall and Buys (1998), psychosocial adjustment to disability is viewed as a cyclical process that may repeat itself as new environments are encountered. This recurrent model utilizes Beck's cognitive theory and the notion of schemas (Beck, 1967). When one is faced with changing life circumstances such as loss or disability, one's existing schema about the self, others, and the world is likely to be challenged. Initially individuals are unable to interpret their experiences by utilizing their existing cognitive schema, leading to denial, damage to self-esteem and/or self-concept, or depression. New schemas are developed as the individual integrates materials from the environment and adopts a more realistic perspective (Kendall & Buys, 1998).

Kendall and Buys (1998) indicated that during adjustment, modification of schemas is guided by three major themes: the search for meaning in the disability and in post-disability life; the need for a sense of mastery over the environment, the disability, and the future; and the effort to protect and enhance the self and one's post-disability identity. They further suggested that the experience of adjustment is marked by a pendulum motion that moves gradually from one extreme to another across each of these themes. This pendulum motion reflects the confusion that prevails while people find their balance between extremes. An example that is given is when people fluctuate between self-rejection and self-acceptance (Barnard, 1990).

Kendall and Buys' (1998) model provides some explanations for individual differences in the adjustment process and addresses other problems typically associated with stage models, but it is unclear what would constitute successful adjustment to a disability. Can it be assumed that persons with a disability have successfully adjusted once they have found their balance between extremes in their schemas across the three major themes described above? In fact, Parker et al. (2003) observed that some researchers found little evidence for the validity of stage theories of adjustment to disability upon examining the research literature in the area (Trieschmann, 1988; Wortman & Silver, 1991).

Livneh and Antonak (1997) developed a comprehensive model that they believed determines the nature, degree, temporal sequencing, and pace of one's psychosocial adjustment to a disability. Their model focused on the interactions between four classes of variables: disability-related variables, socio-demographic variables, personality attributes, and physical and environmental variables. Empirical studies examining some of these variables in relation to psychological adjustment will be discussed next.

Rybarczyk, Nyenhuis, Nicholas, Cash, and Kaiser (1995) investigated whether body image and perceived stigma would predict psychological adjustment in individuals with leg amputation. Though body image in general has been extensively studied, Rybarczyk et al. (1995) noted that only anecdotal reports suggested a possible relationship between negative body image and decreased psychological adjustment to a leg amputation. Results of multiple regression analyses indicated that body image contributed significantly to the variance in depression scores as well as quality of life and a measure of psychological adjustment (as rated by participants' prosthetists). Perceived stigma was found to be a significant predictor of depression, but not of the two other measures of psychological adjustment (i.e., quality of life and a prosthetist's rating). The researchers noted that although the constructs of perceived social stigma and body image seem conceptually different, they might represent two forms of stigma, one that is directed toward the self and the other perceived to stem from society or others. Interestingly, in this study, participants' body image scores were significantly related to their scores on multiple adjustment measures (i.e., depression, quality of life, a prosthetist's rating) while their scores on perceived social stigma were significantly associated with their scores on only one adjustment index (depression). It seems that stigma directed toward the self (as represented by body image issues) might have a stronger influence on adjustment than perceived stigma projected from others (as represented by perceived social stigma; Rybarczyk et al., 1995).

Other researchers focused on cognitive factors such as coping strategies and problem-solving appraisal (Livneh & Wilson, 2003; Revenson & Felton, 1989). Revenson and Felton (1989) conducted a longitudinal study to examine how changes in the severity of disability and coping strategies might predict psychological adjustment over a six-month period in people with rheumatoid arthritis. They found that changes in the severity of disability were significantly related to acceptance of illness and negative affect. Specifically, increases in the severity of disability were related to lower acceptance of illness scores and higher negative affect scores. While changes in the severity of disability were unrelated to coping efforts, coping efforts were found to contribute significantly to positive affect. These results led the investigators to conclude that coping behavior may not buffer one against stress related to increase in the severity of a disability, but that it may possibly influence an individual's adjustment by changing how a person feels.

Similar findings regarding the relationship between coping strategies (problem-focused, emotion focused) and psychological adjustment were reported by Livneh and Wilson (2003). The participants included university students with disabilities (e.g., physical, psychiatric, sensory/communicative, learning). Coping was measured by combining items from the abbreviated form of the COPE Inventory (Carver, Scheier, & Weintraub, 1989) and items from the Coping Strategies Inventory (CSI; Tobin, Holroyd, Reynolds, & Wigal, 1989). Results of multiple regression analyses indicated that problem-focused coping contributed significantly to both disability adjustment and life satisfaction. Alternatively, disengagement contributed significantly (in a negative direction) to disability adjustment but not to life satisfaction. Emotion-focused coping was found to contribute significant variance in life satisfaction but not in adjustment. Contrary to Revenson and Felton's (1989) study, however, Livneh and Wilson (2003) did not find that disability-related variables (visibility of the disability and functional limitations) contributed significantly to the variance in either adjustment or life satisfaction. Although the

earlier study conducted by Revenson and Felton exhibited several statistical problems, it is also possible that the type or severity of disability may not be an important predictor of an individual's adjustment as some have theorized (Elliott, 1994; Livneh, 2001; Livneh & Antonak, 1997).

Indeed, Elliott and Frank (1996) cited studies (Judd, Stone, Webber, Brown, & Burrows, 1989; Tate, 1993) indicating that individuals exhibiting social, psychological, and alcohol problems prior to sustaining spinal cord injuries tend to have difficulties adjusting to their disabilities and experience depression. Elliott and Frank (1996) further surmised that people who are generally well adjusted and have good personal resources prior to an injury would also be better adjusted after sustaining an injury. They also contended that although this hypothesis has not been directly examined, studies involving cognitive appraisals indirectly demonstrate support. An investigation conducted by Elliott, Witty, Herrick, and Hoffman (1991) on individuals with spinal cord injuries is one such study.

Elliott et al. (1991) examined the relationship between one's sense of agency and pathways to depression and psychosocial impairment. Agency is defined as an individual's determination to achieve personal goals, while pathways refers to a person's sense of whether or not one can achieve these goals successfully (Snyder, 1989). Participants' elapsed time since injury was assessed and this was used in the statistical analyses. Results indicated that only pathways was predictive of both depression (Beta = -.44, $p < .01$) and psychosocial impairment (Beta = -.46, $p < .01$). Beta weights for scores on agency did not reach significance. Results also suggested that when the amount of time elapsed since the onset of the injury was small, higher agency scores were associated with lower psychosocial impairment. Alternatively, when the amount of time elapsed since the onset of the injury was large, higher pathways scores were related to lower impairment scores (Elliott et al., 1991). It appears that an individual's motivational state and self-efficacy regarding one's ability to achieve goals may be important in adjusting to the onset of a disability.

Still others investigated a similar construct to the one Elliott et al. (1991) examined. Elliott, Uswatte, Lewis, and Palmatier (2000) introduced the concept of goal instability as potentially important in the adjustment of individuals with physical disabilities. Goal instability refers to a “weak sense of goals and values” (Elliott et al., 2000, p. 252) as measured by the Goal Instability Scale (GIS; Robbins & Patton, 1985). In a series of studies, Elliott and his colleagues (2000) demonstrated the significance goal instability has on individuals’ psychological and emotional adjustment. Study 1 included 109 participants (79 men, 30 women) with spinal cord injuries at a university medical center. Elliott et al. (2000) found that goal instability significantly predicted depression scores in individuals with spinal cord injuries after controlling for severity of disability/injury. In addition, goal instability contributed significantly to the prediction of acceptance of disability above and beyond the variance contributed by depression (Elliott et al., 2000).

Study 2 included 97 participants (45 men, 52 women) at an inpatient rehabilitation program. The results indicated that disability severity once again did not significantly predict depression in a sample of individuals with ongoing health and physical problems, however, higher levels of goal instability did. Sixty-one individuals (45 men, 16 women) who returned for an annual evaluation one year after their discharge from an inpatient rehabilitation program participated in Study 3. Elliott et al. (2000) found that goal instability significantly predicted life satisfaction after controlling for mobility and occupational impairments. In particular, participants who reported greater goal instability upon admission to the rehabilitation program tended to report lower life satisfaction a year later.

Similar findings were reported in Study 4 in a community sample of 56 individuals (41 men, 15 women) with spinal cord injuries and other severe disabilities. Specifically, goal instability significantly predicted life satisfaction after controlling for perceived stigma and mobility impairment, both of which also individually contributed significantly to the variance in

life satisfaction. Although goal instability appears to be an important factor in individuals' adjustment to disabilities, Elliott et al. (2000) questioned whether the instrument they used to assess it, the Goal Instability Scale (GIS; Robbins & Patton, 1985), actually measured an enduring personality trait or a coping style. Robbins and Patton (1985) reported internal consistency of the GIS to be .80 and a two-week test-retest reliability of .75. Robbins, Payne, and Chartrand (1990) reported that a confirmatory factor analysis of the GIS provided support for a one-factor structure. It seems that goal instability might be a construct related to one's motivational state and self-efficacy in achieving goals.

Dunn (1996) examined the relationships between finding positive meaning in a disability experience, being an optimist, perceiving control over disability, and two indices of psychological well-being (depression and self-esteem) among a sample of individuals who had had a limb amputated. Dunn (1996) defined perceived control as "... the belief that one can influence potentially positive or negative outcomes, as well as a general motivation to obtain the former while avoiding the latter" (Brehm, as cited by Dunn, 1996, p. 288). Dunn suggested the possibility that perceptions of control over disability might predict positive adjustment, citing literature indicating the association between a sense of personal control and psychological well-being (Thompson, 1993). The predictor variables in this study were age, time since amputation, positive meaning, dispositional optimism, and perceived control over disability. Dunn (1996) included age and time since amputation in the statistical analyses due to conflicting data regarding these variables' relationships with psychological well-being in previous studies. Results indicated that 77% of the participants responded affirmatively to the question assessing positive meaning, which Dunn (1996) said was consistent with previous research suggesting that people often search for something positive during times of adversity.

Multiple regressions were conducted to determine which independent variables would predict the two indices of psychological well-being. Results indicated that individuals who scored

higher on depression also tended to be the ones who did not find positive meaning in their disability experience and were less optimistic. These individuals also tended to be younger and scored lower on perceived control over disability. In addition, participants who were more optimistic and those who had higher scores on perceived control over disability tended to have higher levels of self-esteem. Perhaps surprisingly, time since amputation was not significant in the prediction of either depression or self-esteem. Dunn (1996) noted that the latter result was inconsistent with previous research. Although the author suggested that this inconsistent result may be due to other confounding variables such as value change over time, it is also plausible that time since amputation may not be of any consequence to individuals who tend to remain positive or whose sense of self remains relatively stable when confronted with adversity. Dunn (1996) attributed the other unexpected finding (age contributed significantly to the variance in depression) to the possibility that younger people might be more concerned about body image issues and find activity restriction to be more distressing than older people.

Many scholars in rehabilitation and disability studies make reference to the importance of individual characteristics as a factor in the adjustment process of disability (Bishop, 2005; Elliott & Frank, 1996; Elliott & Richards, 1999; Elliott et al., 2000; Vash & Crewe, 2004). Elliott and his colleagues (2000) contend that individual differences factors consistently predict one's emotional response following the onset of a disability. They cited empirical studies (Elliott & Richards, 1999; Elliott et al., 1991) that focus on factors related to self-efficacy, motivation, and other cognitive factors.

Some of the factors influencing disability adjustment examined in the extant research, such as the type of coping mechanisms utilized by an individual, may actually be influenced or even determined by one's perfectionism (adaptive vs. maladaptive), as evidenced by the results of a recent longitudinal study (Wei, Heppner, Russell, & Young, 2006). Using structural equation modeling and data collected at two time points two months apart, Wei et al. (2006) tested whether

maladaptive perfectionism (as measured by the Discrepancy subscale of the APS-R) was related to ineffective coping or vice versa. Controlling for depression at Time 1, analyses revealed that maladaptive perfectionism at Time 1 significantly predicted ineffective coping at Time 2. Conversely, ineffective coping at Time 1 also significantly predicted maladaptive perfectionism at Time 2. In addition, both maladaptive perfectionism and ineffective coping at Time 2 significantly predicted depression at Time 2. Further analysis indicated that maladaptive perfectionism at Time 2 and ineffective coping at Time 2 significantly predicted each other. Perhaps after an individual develops maladaptive perfectionism and begins to utilize ineffective coping strategies, ineffective coping and maladaptive perfectionism assume a cyclical path and influence one another (Wei et al., 2006).

Based on these results, it seems conceivable that adjustment to disability could also be directly influenced by characteristics of an individual such as perfectionism. Moreover, it seems likely that the advent of a chronic illness or disability would heighten some individuals' sense of failure due to physical and/or psychological impairments that could potentially affect many aspects of their lives. The sense of discrepancy (as defined by Slaney et al., 2001) might be particularly salient under distressing conditions, particularly for individuals who might be maladaptive perfectionists. In light of recent empirical evidence that suggests the relationships adaptive and maladaptive perfectionism have with various adjustment indices, it seems that the distinction between adaptive and maladaptive perfectionism may be relevant to disability adjustment issues as well. Specifically, though adaptive and maladaptive perfectionism have been examined mostly among college students, it has been consistently found that adaptive perfectionism is associated with positive adjustment indicators (i.e., various measures of positive affect, self-esteem, academic integration, satisfaction with GPA, social integration, better self-development, lower self-criticism, internal locus of control). On the other hand, maladaptive perfectionism has been found to be related to various negative adjustment indices (i.e., depressed

affect, state anxiety, trait anxiety, somatic and vegetative activity, lower self-esteem, external locus of control).

This study investigated differences in perfectionism groups in various measures of psychological, emotional, and disability adjustment previously used either in perfectionism research, disability adjustment research, or both. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to assess positive affect and negative affect. The Center for Epidemiological Studies- Depression Scale (CES-D; Radloff, 1977) was used to measure levels of depression. The Rosenberg Self-Esteem Inventory (SEI; Rosenberg, 1965) was utilized to measure self-esteem. In addition, life satisfaction was assessed using the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). These instruments were chosen to measure psychosocial and emotional adjustment due to their prior usage in perfectionism and/or rehabilitation studies as well as their strong validity and reliability data. The Adaptation to Disability Scale- Revised (ADS-R; Groomes & Linkowski, 2007) was chosen to measure disability adjustment due to its moderate to strong reliability data and its theoretical construction based on Dembo et al.'s (1956) concept of the four value changes (transformation from comparative to asset values, containment of disability, enlargement of scope of values, and subordination of physique) leading to positive adjustment or acceptance of disability. No other measure of disability adjustment has attempted to assess the four value changes theorized by these early pioneers in rehabilitation and disability studies. Furthermore, unlike the other adjustment indicators used in this study, the ADS-R items do not measure symptoms and are more existential in nature. Because of this, the ADS-R assesses more extensively the thoughts or experiences that people with disabilities may have and thus complements the other adjustment measures.

Summary

There is currently a gap in both perfectionism and rehabilitation research. Perfectionism has not been examined among people with disabilities, and rehabilitation research has not included the construct of perfectionism. Research in perfectionism suggests that there may be two types of perfectionists, adaptive and maladaptive (Ashby & Kottman, 1996; Grzegorek et al., 2004; Rice & Slaney, 2002). Maladaptive perfectionists deserve attention due to their tendency to score lower on positive adjustment indices and higher on negative adjustment indices than adaptive perfectionists (Ashby & Kottman, 1996; Grzegorek et al., 2004; Rice & Slaney, 2002). The maladaptive perfectionists are distinguished from the adaptive perfectionists by their significantly higher Discrepancy scores on the APS-R (Slaney et al., 2001). Research in rehabilitation and disability studies indicates that individual differences in motivational and cognitive factors are related to adjustment issues among people with disabilities (Dunn, 1996; Elliott et al., 2000; Elliott et al., 1991; Livneh & Wilson, 2003). It makes intuitive sense that maladaptive perfectionists may be more likely to experience a heightened sense of failure given the onset of a chronic illness or disability and thus experience a more difficult time adjusting or adapting to the circumstance of their disabilities. The current study aimed to investigate differences in adjustment indicators between groups that vary on perfectionism.

Chapter 3

Methodology

In this chapter, the participants as well as the method of recruiting them will be described. In addition, the instruments used for this study will be discussed. Lastly, the procedure for conducting this study as well as the analyses conducted will be delineated. The purpose of this study was to examine differences between perfectionist/nonperfectionist groups on disability adjustment, depression, self-esteem, positive affect, negative affect, and life satisfaction.

Participants

One hundred and ninety-seven participants were recruited through online disability support group forums, electronic bulletin boards, and listservs. The SPSS procedure was used to calculate power. This involves planning for the number of participants for each group, estimating means and standard deviations for each dependent variable, and estimating correlations between the variables (D'Amico, Neilands, & Zambarano, 2001). Means and standard deviations were taken from studies conducted by Grzegorek et al. (2004), Martin (2006), and Rice and Slaney (2002). Correlations between each of the variables were not available, so power was estimated using a conservative estimate of .10. Even when this small effect size was used, power for detecting group differences was adequate, ranging from .84 to .94 (D'Amico et al., 2001).

The online recruitment method was chosen for several reasons. First, Internet-based surveys provide researchers quick access to thousands of people who share commonalities (characteristics, concerns) from various geographic locations (Backmann & Elfrink, 1996; Garton, Haythornthwaite, & Wellman, 1999; Wright, 2005). In addition, this method allows researchers to reach potential participants who may otherwise be difficult to contact, especially groups that may experience stigmatization such as people with disabilities (Garton et al., 1999; Wright, 2005). Lastly, Internet-based surveys eliminate the costs and time associated with data-

entry and mailing fees (Wright, 2005). The criteria for participation in this study were that individuals needed to: (a) have acquired a condition considered to be a chronic disease or disability, and (b) be over 18 years of age. According to the Centers for Disease Control and Prevention (CDC; 2003), chronic diseases are long-term illnesses that are rarely resolved or cured. Palmer and Spaeder (2004) further indicate that chronic illnesses last at least 12 months. Chronic illnesses are the leading cause of disability (Stanton & Revenson, 2007). The Americans with Disabilities Act (ADA) of 1990 defines a person with a disability as someone who “has a physical or mental impairment that substantially limits one or major life activities, has a record of such an impairment, or is regarded as having such an impairment” (Title I of the Americans with Disabilities Act of 1990). The ADA further specifies that its definition of an individual with a disability does not include people with nonchronic or temporary conditions such as sprains, infections, broken limbs, or the flu (ADA, 1990).

Measures

Demographic questionnaire. A demographic questionnaire was presented online to participants asking them to indicate their age, sex, race/ethnicity, relationship status, educational level, employment status, the type of chronic illness or disability, and the time since the onset of the chronic illness or disability (See Appendix A). Participants were allowed to respond as they wished to an open-ended question about the time since the onset of the chronic illness or disability, but these responses were later coded in terms of the number of years since the onset. Participants who had acquired the chronic illness or disability for less than one year were coded as one year. Age was used as time since onset for people who reported having only congenital disabilities.

Perfectionism. Perfectionism was measured by The Almost Perfect Scale-Revised (APS-R; Slaney et al., 1996), which consists of 23 Likert scale items and contains three subscales: High Standards (7 items), Order (4 items), and Discrepancy (12 items; See Appendix A). Responses

range from 1 = *strongly disagree* to 7 = *strongly agree*. Sample items are as follows: “I have a strong need to strive for excellence” (High Standards), “I think things should be put away in their place” (Order), and “My best just never seems to be good enough for me” (Discrepancy). High Standards refer to individuals’ level of personal expectations for their performance and behavior. Order refers to the degree to which individuals view being neat and organized as important to them. Discrepancy indicates the degree to which people perceive a difference between their personal standards and their performance. Subscale scores are used to determine a person’s level of standards, sense of orderliness, and level of discrepancy. The High Standards subscale consists of items 1, 5, 8, 12, 14, 18, and 22. The Order subscale is comprised of items 2, 4, 7, and 10. The Discrepancy subscale contains items 3, 6, 9, 11, 13, 15, 16, 17, 19, 20, 21, 23. Items are summed for each subscale; the higher the score, the higher the person’s level of high standards, orderliness, and discrepancy. Possible total scores for the High Standards, Order, and Discrepancy subscales range from 7 to 49, 4 to 28, and 12 to 84, respectively (Slaney et al., 2001).

Exploratory and confirmatory factor analyses have provided support for the three-factor structure of the APS-R (Rice et al., 1998; Slaney et al., 2001). In addition, Suddarth and Slaney (2001) conducted a principle-components factor analysis that supported the three-factor structure, accounting for 68% of the total variance. Factor intercorrelations were found to be small to moderate, providing further support for the three distinct dimensions of perfectionism. The correlation between High Standards and Order was .42, the correlation between High Standards and Discrepancy was -.12, and the correlation between Order and Discrepancy was -.03 (Slaney et al., 2001). Cronbach’s coefficient alphas were .85 for High Standards, .86 for Order, and .92 for Discrepancy (Slaney et al., 2001). Grzegorek et al. (2004) found the internal consistency coefficients to be .82 for High Standards, .85 for Order, and .92 for Discrepancy. They also found

the test-retest correlations to be adequate over a period of three weeks: .72 for High Standards, .80 for Order, and .83 for Discrepancy.

Several studies have found the High Standards and the Order subscales to be indicative of positive aspects of perfectionism, while the Discrepancy subscale represents the negative aspects of perfectionism (Rice, et al., 1998; Rice & Slaney, 2002; Slaney et al., 2001; Suddarth & Slaney, 2001). The subscales of the APS-R were found to correlate positively with other measures of perfectionism as well as with related constructs in expected directions (Grzegorek et al., 2004; Rice et al., 1998; Slaney et al., 2001; Suddarth & Slaney, 2001). For example, Slaney and his colleagues (2001) found that the High Standards subscale was significantly associated with the Self-Oriented Perfectionism subscale (.55) from the Hewitt and Flett Multidimensional Perfectionism Scale (HFMPMS; 1991b). It was also significantly correlated with the Personal Standards subscale (.64) from the Frost et al. (1990) Multidimensional Perfectionism Scale (FMPS). In addition, the Order subscale of the APS-R was significantly correlated with the Organization subscale (.88) of the FMPS. The Discrepancy subscale correlated significantly with the Concern Over Mistakes subscale (.55) of the FMPS, and the Doubts About Actions subscale (.62) of the FMPS (Slaney et al., 2001). Grzegorek and her colleagues found the Discrepancy subscale of the APS-R to be significantly associated with the Self-Criticism subscale (.59) of the Depressive Experiences Questionnaire (Blatt, D'Afflitti, & Quinlan, 1976). Overall there appears to be adequate support for the reliability and concurrent validity of the APS-R subscales.

Support for the cross-cultural validity of the APS-R has also been demonstrated for a sample of African American college students (Mobley et al., 2005). A confirmatory factor analysis provided support for a three-factor structure. Cronbach's coefficient alphas were .75 for High Standards, .81 for Order, and .88 for Discrepancy in this sample. Adequate support for the factor structure of the Chinese version of the APS-R was provided in another study with a sample of high school students in Hong Kong. A principle-axis factor analysis yielded a three-factor

solution, consistent with studies conducted in the U.S. Alpha coefficients were .84, .73, and .86 for High Standards, Order, and Discrepancy, respectively (Wang et al., 2009). Support for the validity of the Chinese version of the APS-R was also provided in another study conducted on college students in Taiwan (Wang et al., 2007). Cronbach's alpha coefficients for this Taiwanese sample were .82 for High Standards, .68 for Order, and .88 for Discrepancy (Wang et al., 2007). In summary, there appears to be adequate support for the cross-cultural validity of the APS-R for African American college students as well as for college students in Hong Kong and Taiwan.

Rice and Ashby (2007) developed an empirical method to efficiently classify people as maladaptive perfectionists, adaptive perfectionists, or nonperfectionists. Nonperfectionists have a High Standards score of less than 42. People with a High Standards score equal to or higher than 42 are classified as perfectionists. Among these individuals, those with a Discrepancy score equal to or higher than 42 are classified as maladaptive perfectionists while those who score less than 42 on this subscale are considered to be adaptive perfectionists (Rice & Ashby, 2007). In the present study the Rice and Ashby method was used to classify participants into the three groups based on scale scores, as described below.

Adjustment to disability. Adjustment to disability was assessed using the Adaptation to Disability Scale-Revised (ADS-R; Groomes & Linkowski, 2007). The current study used the ADS-R to examine the relationship between disability adjustment and perfectionism. The ADS-R (See Appendix A) was adapted and derived from the Acceptance of Disability Scale (AD; Linkowski, 1971). The original 50-item AD Scale was constructed based on Dembo, Leviton, and Wright's (1956) and Wright's (1983) concept of acceptance of loss and the value changes leading to positive adjustment or acceptance of disability. Groomes and Linkowski (2007) sought to revise the AD Scale (Linkowski, 1971) in response to sociopolitical trends and legislative changes as well as criticism about the psychometrics and unidimensionality of the AD Scale. Specifically, some items were revised to reflect current trends in acceptable language concerning

disability issues. Other items were reworded to reflect broader disability issues and not specifically rehabilitation services. In addition, Groomes and Linkowski (2007) wanted to address the concern that items on the AD Scale did not reflect the value change process defined by Wright (1983).

The ADS-R contains 32 items representing four subscales or areas of value change (transformation from comparative to asset values, containment of disability, enlargement of scope of values, and subordination of physique). Each item is responded to using a 4-point Likert-type scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*. All items are reverse scored except for item numbers 3, 6, 12, 16, 18, 21, 25, 28, and 32. A total ADS-R score is derived by summing the scores of all 32 items. Possible total scores range from 32 to 128. Higher scores indicate higher levels of adjustment to disability (Groomes & Linkowski).

Using the original 50 items of the Acceptance of Disability Scale (AD; Linkowski, 1971), Groomes and Linkowski (2007) conducted a principal components analysis with oblique rotation that yielded a four-component solution accounting for 42.1% of the variance. The four components were named Transformation, Enlargement, Containment, and Subordination based on items that loaded highest in that factor. In the initial validation study conducted on the original AD Scale (Linkowski, 1971), the AD Scale correlated significantly (.81) with the Attitudes Toward Disabled Persons Scale (ATDP; Yunker, Block, & Campbell, 1960).

Groomes and Linkowski (2007) ran a reliability scale analysis and found that the scale maintained high to moderate internal consistency when the items were reduced from 50 to 32. Cronbach's alpha coefficient was found to be .93 for the 32-item ADS-R, the same as for the original 50-item AD Scale. Using the revised 32-item scale, the alpha coefficients for each of the four factors were .88 for Transformation, .82 for Enlargement, .88 for Containment, and .71 for Subordination (Groomes & Linkowski, 2007). Information on the correlation between the AD Scale and the ADS-R was not located. Neither were validity data, however, Groomes and

Linkowski (2007) indicated that research examining the construct validity of the ADS-R was in progress.

Depression. Depression was measured using the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). The CES-D (See Appendix A), which consists of 20 items, contains 4 subscales: Depressed Affect (5 items), Positive Affect (4 items), Somatic and Vegetative Activity (7 items), and Interpersonal (4 items). It is rated on a scale ranging from 0 = *rarely or none of the time* to 3 = *most or all of the time*. Severity of depressive symptoms is calculated by summing scores of all the items. Items that indicate positive psychological functioning (questions 4, 8, 12, and 16) are reverse scored. Possible total scores range from 12 to 48. The higher the total score, the higher a person's level of depression (Radloff, 1977). The current study used the overall CES-D score to assess depression in relation to perfectionism. The direction for completing the CES-D in this study was modified slightly so that instead of "...indicate how often you have felt this way during the past week..." it was changed to "...indicate how often you have felt this way during the past year..." so as to assess an overall sense of depressed mood during a greater span of time.

Internal consistency data for the CES-D was reported in the original validation study (Radloff, 1977). Alpha coefficients were .85 for the general population and .90 for a patient sample. With one exception, test-retest reliability was found to be in the moderate range (between .45 and .70) for different time intervals (between 2 weeks and 12 months). Test-retest stability was generally higher for shorter intervals (Radloff, 1977). Subsequent studies have also reported alpha coefficients to be in the high .80s to low .90s range (Santor & Coyne, 1997; Sheehan, Fifield, Reisine, & Tennen, 1995).

Support for convergent and discriminant validity was also provided (Radloff, 1977). The CES-D correlated positively (.60) with the Negative Affect subscale of the Affect-Balance Scale (Bradburn, 1969) as well as with an interviewer rating of depression (.49). It correlated negatively

(-.21) with the Positive Affect subscale of Bradburn's (1969) Affect-Balance Scale. Radloff (1977) conducted a principal components factor analysis that yielded a 4-factor solution. These four factors accounted for 48% of the total variance (Radloff, 1977). This four-factor model was validated and supported in a more recent study (Sheehan, Fifield, Reisine, & Tennen, 1995).

Self-Esteem. Self-esteem was assessed by the Rosenberg Self-Esteem Inventory (SEI; Rosenberg, 1965). The SEI (See Appendix A) is composed of 10 items assessing an individual's general sense of self-worth. The current study used the SEI to examine how self-esteem is related to perfectionism among people with disabilities. Participants respond to the items using a 4-point Likert scale that ranges from 1 = *strongly agree* to 4 = *strongly disagree*. Possible total scores range from 0-30. Higher scores indicate higher levels of self-esteem (Rosenberg, 1965). Cronbach's alpha coefficients have been reported to range from .86 to .93 (Goldsmith, 1986). Test-retest reliability over a two-week period was found to be .85 (Crandall, 1973). SEI has been reported to correlate with other measures in expected directions (Goldsmith, 1986; Rosenberg, 1965, 1979).

Positive affect and negative affect. Affect was measured by the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Watson et al. described positive affect as reflecting "the extent to which a person feels enthusiastic, active, and alert" (p. 1063) and negative affect as "a general dimension of subjective distress and unpleasurable engagement subsuming a variety of aversive mood states" (p. 1063). The current study used the PANAS to examine how positive affect and negative affect are related to perfectionism among people with disabilities (See Appendix A).

The PANAS is composed of 20 mood descriptors and consists of two subscales, Positive Affect (PA; 10 items) and Negative Affect (NA; 10 items). Items are rated on a 5-point scale that ranges from 1 = *very slightly or not at all* to 5 = *extremely*. The PA and NA subscales are typically used and scored separately. Possible total scores for each subscale range from 10 to 50.

The higher the score, the higher a person's level of positive or negative affect. Respondents are asked to indicate the extent to which they have experienced the mood descriptor during a specified time frame, which can vary according to the user of the instrument (Watson et al., 1998). In this study, respondents were asked to rate the extent to which they had experienced each of the mood descriptors "during the past few weeks."

Watson et al. (1988) found Cronbach's coefficient alpha to range from .86 to .90 for PA and from .84 to .87 for NA. Test-retest reliability over an eight-week interval ranged from .47 to .68 for PA and from .39 to .71 for NA. This number varies depending on whether the participants were instructed to rate mood descriptors "right now," "today," "during the past few days," "during the past week," "during the past few weeks," "during the past year," or "in general, that is, on the average." Correlations between PA and NA were found to be low and ranged from -.12 to -.23, indicating two distinct factors. Further support for construct validity was provided by Watson and colleagues (1988), who conducted a principal factor analysis. Two main factors emerged and accounted for approximately 66% of the common variance. The items or mood descriptors that loaded on the factor representing Positive Affect included enthusiastic, interested, determined, excited, inspired, alert, active, strong, proud, and attentive. The items that loaded on Negative Affect included scared, afraid, upset, distressed, jittery, nervous, ashamed, guilty, irritable, and hostile (Watson et al., 1988).

The subscales of the PANAS correlated with other related measures in expected directions. For example, Watson et al. (1988) found the NA subscale to correlate positively (.74 when participants were asked to rate their mood during the past few weeks) with the Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). NA's correlation with the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was .58 when participants were asked to rate their mood during the past few weeks. Its correlation with the State Anxiety subscale from the State-Trait Anxiety Inventory

(STAI; Spielberger, Gorsuch, & Lushene, 1970) was .51 when participants were asked to rate their mood during the past few weeks. Conversely, the PA subscale of the PANAS was found to correlate negatively with the same three instruments. Specifically, PA's correlation with the HSCL was -.19 for participants' rating of their mood during the past few weeks. Similarly, its correlation with the BDI and the STAI was -.36 and -.35, respectively, for the same temporal instruction (Watson et al., 1988).

Life Satisfaction. Life satisfaction was measured by the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), which consists of 5 items (See Appendix A). The SWLS was used in the current study as an adjustment measure to examine its relationship to perfectionism among people with disabilities. Participants responded to the items using a Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Possible total scores range from 5 to 35. Higher scores indicate higher levels of life satisfaction (Diener et al., 1985).

Coefficient alphas for the SWLS range from .84 to .87 (Diener et al., 1985; Pavot, Diener, Colvin, & Sandvik, 1991). Test-retest reliability was found to be .82 over a period of two months (Diener et al., 1985). Pavot and Diener (1993) reported support for both the concurrent and discriminant validity of the SWLS. The SWLS correlated positively with other measures of subjective well-being, specifically .68 with the Andrews/Withey Scale (Andrews & Withey, 1976) and .58 with the Fordyce Global Scale (Fordyce, 1977). It correlated negatively (-.72) with the Beck Depression Inventory (Beck et al., 1961). Diener and colleagues (1985) conducted a factor analysis on the SWLF that yielded one factor accounting for 66% of the total variance. Later studies have yielded the same result, supporting the single factor structure of the SWLS (Pavot et al., 1991; Shevlin, Brunsten, & Miles, 1998).

Procedures

An e-mail invitational letter (See Appendix C) requesting research participation was posted on disability websites and distributed through online disability support group forums and

listservs (See Appendix B) after receiving permission from the administrators to post surveys on their electronic bulletin boards or discussion forums/listservs. In this initial e-mail potential participants were briefly informed about the purpose of this study, the criteria for participation, and the approximate amount of time needed to fill out the surveys. At the end of this e-mail they were directed to Psychdata.com to access the survey. The online survey contained a welcome statement (See Appendix C), an informed consent document (See Appendix C), a demographic questionnaire (See Appendix A), the self-report measures (APS-R, ADS-R, CES-D, SEI, PANAS, SWLS) (See Appendix A), a raffle drawing page (See Appendix C), and a debriefing statement (See Appendix C).

In the invitational letter, potential participants were asked to participate in a study examining the relationship between individual differences and perceptions of disability-related experiences. Participants were also informed that if they chose to participate, for every completed survey I received, I would donate \$1.00 to the Make-A-Wish Foundation. A total of \$210 was donated upon closing of this survey research. Participants also had the option to enter a raffle to win a \$25 gift certificate from Amazon.com. They were asked to enter an e-mail address if they chose to enter the raffle so that whoever won could be contacted. They were informed that their e-mail address would not be linked to their responses on the questionnaires. When the survey closed, the winner of the lottery was notified and an e-gift card was sent. Lastly, a debriefing statement explaining in more detail what the study examined was presented to participants.

Perfectionist Classification

Classification of individuals into adaptive perfectionists, maladaptive perfectionists, and nonperfectionists was determined based on their APS-R scores. Rice and Ashby (2007) developed an efficient method to classify individuals into these three groups. They conducted a cluster analysis that formed the basis for a subsequent descriptive discriminant function analysis. Using the classification coefficients derived from the initial descriptive discriminant analysis, a

predictive discriminant function analysis was performed. Tentative cutoff scores were derived based on the results of the predictive discriminant analysis. Possible cutoff scores were examined in terms of their sensitivity (true positive) and specificity (false positive and true negative). The final cutoff criteria for classification was determined by using the scores that demonstrated a better balance of true positive, false positive, and true negative rates (see Rice and Ashby [2007] for more information on these analyses).

Based on the results of these analyses, individuals with a score on the High Standards subscale equal to or higher than 42 were classified as perfectionists. Participants with a High Standards score lower than 42 were classified as nonperfectionists. Among participants who were determined to be perfectionists, those with a score on the Discrepancy subscale equal to or higher than 42 were classified as maladaptive perfectionists while those scoring less than 42 on this subscale were considered to be adaptive perfectionists. These cutoff scores were used to efficiently classify perfectionists and nonperfectionists in this study.

Research Questions, Hypotheses, and Analyses

Research Question 1: Do perfectionism groups differ in disability adjustment?

Hypothesis 1: It was hypothesized that, when both time since onset of the disability and gender were controlled, both the maladaptive perfectionists and the nonperfectionists would score significantly lower than the adaptive perfectionists on disability adjustment as measured by the ADS-R (Groomes & Linkowski, 2007). No hypothesis was made about how maladaptive perfectionists and nonperfectionists would fare in relation to disability adjustment relative to one another.

Research Question 2: Do perfectionism groups differ in depression?

Hypothesis 2: It was expected that when time since onset of the disability and gender were controlled, the maladaptive perfectionists would score significantly higher on depression (CES-D; Radloff, 1977) than the adaptive perfectionists. No hypothesis was made about the

depression scores of nonperfectionists compared with those of maladaptive and adaptive perfectionists.

Research Question 3: Do perfectionism groups differ in self-esteem?

Hypothesis 3: Both the maladaptive perfectionists and the nonperfectionists were expected to score significantly lower on self-esteem as measured by the Rosenberg Self-Esteem Inventory (SEI; Rosenberg, 1965) than the adaptive perfectionists, after controlling for time since onset of the disability and gender. No hypothesis was made about how the maladaptive perfectionists would score on self-esteem compared with the nonperfectionists.

Research Question 4: Do perfectionism groups differ in positive affect?

Hypothesis 4: It was expected that after controlling for time since onset of the disability and gender, both the maladaptive perfectionists and the nonperfectionists would exhibit significantly lower levels of positive affect as measured by the Positive Affect subscale of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) than the adaptive perfectionists. No differences were expected between the former two groups on this indicator, thus no hypothesis about these two groups were made.

Research Question 5: Do perfectionism groups differ in negative affect?

Hypothesis 5: It was expected that, after controlling for time since onset of the disability and gender, the maladaptive perfectionists would demonstrate significantly higher scores on negative affect as measured by the Negative Affect subscale of the PANAS (Watson et al., 1988) than the adaptive perfectionists. No difference was expected between the two perfectionist groups and the nonperfectionists on this measure, thus no hypothesis about this comparison was advanced.

Research Question 6: Do perfectionism groups differ in life satisfaction?

Hypothesis 6: It was expected that, after controlling for time since onset of the disability and gender, both the maladaptive perfectionists and the nonperfectionists would show

significantly lower levels of life satisfaction as measured by the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) than the adaptive perfectionists. No difference between the former groups was expected on this measure, thus no formal hypothesis about the maladaptive perfectionists and the nonperfectionists was presented.

As part of preliminary analyses, a multivariate analysis of covariance (MANCOVA) using time since onset of disability as a covariate was conducted to check that there were significant differences in the APS-R scores among the maladaptive perfectionists, the adaptive perfectionists, and the nonperfectionists. Gender was entered in the model as a main effect and the interaction between gender and perfectionism group was also examined. Gender was treated this way instead of as a covariate because it is a nominal variable, and covariates work better using continuous variables or interval/ratio data. This MANCOVA was conducted because an efficient method (Rice & Ashby, 2007) was used to classify participants into these three groups using cut-off scores on the High Standards and Discrepancy subscales, and it was important to provide evidence for the validity of the classification of participants into perfectionism groups. If the classification is to be considered valid, then significant differences between the groups on the perfectionism scale scores are expected. Specifically, the maladaptive perfectionists and the adaptive perfectionists would share similar scores on the High Standards subscale of the APS-R, which would be significantly higher than the scores of the nonperfectionists. In addition, the maladaptive perfectionists would be expected to score significantly higher on the Discrepancy subscale than the adaptive perfectionists.

In order to examine the aforementioned research questions and hypotheses, a second MANCOVA using time since onset of disability as a covariate was conducted. Again, the main effect for gender and the interaction between gender and perfectionism group were entered into the model rather than being treated as a covariate for the same reason stated above. In this analysis, the three perfectionist/nonperfectionist groups were used as the between-subjects factor

to determine whether there were significant differences among the three groups in their scores on the adjustment indicators (disability adjustment, depression, self-esteem, positive affect, negative affect, life satisfaction).

Chapter 4

Results

Data were downloaded from the www.psychdata.com website. A total of 234 people began the survey, but 35 of them did not complete it. These 35 cases were deleted. Among those who responded to the remaining 199 surveys, 2 people omitted more than half the questions for at least one of the scales used. Thus these 2 were deleted from further analysis, leaving a total usable sample of 197 participants (84% of total number of participants who started the survey).

Variables were examined for distribution of normality and outliers prior to the analyses. Distribution of normality fit the normal distribution assumption for MANCOVAs. Skewness values and Box and Whisker Plots were used to identify potential outliers. No univariate or multivariate outliers were found, and therefore there was no need to transform any of the variables prior to the analyses or drop any multivariate outlier cases.

Preliminary Analyses

Participants ranged in age from 19 to 90 years ($M = 47.23$, $SD = 11.63$). The median for the time since onset of the disability variable was 12.00 years. Other characteristics of the sample are depicted in Tables 4.1, including the frequency and percent scores of participants' sex, relationship status, race/ethnicity, educational level, current employment status, and time since the onset of the chronic illness or disability. Table 4.2 reflects the mean, standard deviation, and range of each of the subscales used. It should be noted that the standard deviation for the Discrepancy subscale APS-R appeared to be high at 19.44. The SD for Discrepancy in previous studies had been as high as 12.09 (Rice & Slaney, 2002). Thus, there appears to be greater variability in Discrepancy scores in the present sample than in samples from previous research.

There was clearly an imbalance in the gender distribution of this sample (53 male and 143 female). Because a higher prevalence of depression among women than men is well

documented (Nolen-Hoeksema, 1987, 2001; Piccinelli & Wilkinson, 2000) and depression is one of the dependent variables used in this study, it was important to examine whether gender had any relationship to the dependent variables. Gender was used as a main effect and an interaction effect with perfectionist grouping. It was not used as a covariate because it is a nominal variable, and interval/ratio variables work better as covariates. Time since onset of the chronic illness or disability was used as a covariate in the MANCOVAs due to conflicting results in previous research regarding the influence of time on adjustment issues (Buckelew, Baumstark, Frank, & Hewett, 1990; Duggan & Dijkers, 2001; Dunn, 1996). Time was measured in years, with people who had acquired their illness or disability less than a year before labeled as one year. Age was used as time for people with congenital disabilities.

Due to the varying responses of participants' reported disabilities, disabilities were sorted into two types: static or unstable. This categorization seemed appropriate because rehabilitation professionals have indicated that the stability or the type of course of a disability may be related to adjustment issues among people with disabilities (Cole & Cole, 1993; Duncan, 2009; Patterson, DeLaGarza, & Schaller, 2005; Smart, 2001). Duncan (2009) uses the term "static" in reference to disabilities that do not tend to change overtime such as mental retardation, blindness, and quadriplegia, and "ever changing" to refer to chronic illnesses or disabilities with symptoms that may be less predictable overtime. For the purpose of simplicity the term "unstable" will be used to categorize chronic illnesses or disabilities with symptoms that may fluctuate overtime. Table 4.2 displays the intercorrelations between all of the variables, including the internal consistency for each variable highlighted in bold. Cronbach's coefficient alphas ranged from .84 to .94, indicating that all of the variables demonstrated adequate internal consistency.

Consistent with previous research (Grzegorek et al., 2004; Slaney et al., 2001), scores from the High Standards subscale were significantly and moderately correlated with scores from the Order subscale ($r = .47, p < .01$). As expected, scores from the High Standards subscale were

not significantly related to scores from the Discrepancy subscale, and scores from the Order subscale and the Discrepancy subscale were not related.

It was noteworthy that High Standards and Order were not related to any of the dependent variables or adjustment measures, but Discrepancy was significantly correlated with all of the adjustment measures. Discrepancy was also significantly albeit modestly correlated with time since the onset of the chronic illness or disability ($r = .17, p < .05$). Discrepancy was significantly and negatively correlated with Adaptation to Disability (i.e., disability adjustment; $r = -.61, p < .01$). As expected based on previous research (Grzegorek et al., 2004; Mobley et al., 2005), Discrepancy was significantly and negatively correlated with self-esteem ($r = -.71, p < .01$). Discrepancy was also significantly and negatively correlated with positive affect, and satisfaction with life ($r = -.51, -.54$, respectively, $p < .01$). As expected based on previous research (Mobley et al., 2005), Discrepancy was significantly and positively correlated with depression ($r = .72, p < .01$). Discrepancy was also significantly and positively correlated with negative affect ($r = .68, p < .01$).

All of the dependent variables or adjustment measures were significantly correlated at $p < .01$. Adaptation to Disability was positively correlated with Self-Esteem, Positive Affect, and Satisfaction with Life ($r = .75, .67$, and $.69$, respectively), but negatively correlated with Depression and Negative Affect ($r = -.78$ and $-.64$, respectively). Positive Affect was positively correlated with Satisfaction with Life and Self-Esteem ($r = .65$ and $.67$, respectively), but negatively correlated with Depression and Negative Affect ($r = -.65$ and $-.51$, respectively). Negative Affect was positively correlated with Depression ($r = .79$) but negatively correlated with Satisfaction with Life and Self-Esteem ($r = -.56$ and $-.67$). Self-Esteem was negatively correlated with Depression ($r = -.75$), but positively correlated with Satisfaction with Life ($r = .71$). Satisfaction with Life was negatively correlated with Depression at $r = -.66$. Time since onset was not significantly correlated with any of the adjustment measures.

The efficient method (Rice & Ashby, 2007) placed 50 participants in the maladaptive perfectionist group (26%), 54 participants in the adaptive perfectionist group (28%), and 88 participants in the nonperfectionist group (46%). A two-way multivariate analysis of covariance (MANCOVA) was conducted to assess the validity of the classifications. The perfectionist/nonperfectionist groups were used as the between-subjects factor to determine if there were significant differences among the three groups (maladaptive perfectionists, adaptive perfectionists, and nonperfectionists) in their scores on the APS-R subscales. Time since onset of the disability was used as a covariate to control for the variance due to time. Gender was used in the MANCOVA as a main effect and an interaction effect (gender x perfectionism group). Results for this MANCOVA are displayed in Table 4.4a. Gender did not contribute significantly to the relationship between group membership and scores on the APS-R ($p = .519$). Time since onset also did not contribute significantly to this relationship ($p = .055$) and the gender x perfectionism group interaction was non-significant ($p = .114$). The multivariate effect was statistically significant only for differences due to perfectionist/ nonperfectionist grouping, Wilks's $\Lambda = .265$, $F(3,183) = 57.425$, $p < .001$, partial $\eta^2 = .485$. Univariate ANOVAs indicated statistically significant group differences on each subscale. Effect sizes (η^2) for the statistically significant mean differences ranged from .07 to .56. These results along with the Bonferroni adjustment for comparisons are presented in Table 4.4b.

As can be seen in Table 4.4b, the maladaptive perfectionists and the adaptive perfectionists shared similar High Standards and Order scores but differed in their Discrepancy scores, with the former group scoring significantly higher on Discrepancy. The nonperfectionists scored significantly lower than both the maladaptive and the adaptive perfectionists on High Standards. The two perfectionist groups did not differ significantly in their scores on the Order subscale. These results were consistent with previous perfectionism research (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002). The nonperfectionists' Order scores were

significantly lower than the adaptive perfectionists but did not differ from those of the maladaptive perfectionists. This result is inconsistent with previous research (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002), in which the nonperfectionists scored significantly lower than both the maladaptive and the adaptive perfectionists on the Order subscale. The nonperfectionists' Discrepancy scores were significantly higher than those of the adaptive perfectionists but significantly lower than those of the maladaptive perfectionists. This result is consistent with previous perfectionism research (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002).

All three groups scored above the midpoint for the High Standards and Order subscales (with the midpoint being 28 for High Standards and 16 for Order). For the Discrepancy subscale, both the adaptive perfectionists and the nonperfectionists scored below the midpoint of 48 whereas the maladaptive perfectionists scored above the midpoint (See Table 4.2 for the range of scores for each subscale and Table 4.4a for the mean scores of each of the three perfectionism groups). The nonperfectionists scored midway between the two perfectionist groups. These results are consistent with previous research (Grzegorek et al., 2004; Rice & Slaney, 2002)

The means and standards deviations of the High Standards, Order, and Discrepancy subscales for the three perfectionist groups appeared strikingly similar to those for the same three groups in previous research conducted on predominately White college samples in the U.S (Grzegorek et al., 2004; Rice & Slaney, 2002). Specifically, these scores were within 1 or 2 points of one another when compared with these previous studies. The only exception is the *SD* of the nonperfectionist group for the Discrepancy subscale. The *SD* of 17.36 is approximately 5 points higher than the highest *SD* of the same subscale for the nonperfectionist group in previous studies. The highest *SD* for the nonperfectionist group for the Discrepancy subscale was 12.09 in previous research (Rice & Slaney, 2002) in which classification of perfectionist grouping was determined empirically using a cluster analysis. Upon closer examination of the data, it was found

that the nonperfectionists' Discrepancy scores ranged from 12 to 77 with normal distribution and no major or minor outliers. Compared with the ranges of the Discrepancy scores for the maladaptive and adaptive perfectionists (42-84 and 12-41, respectively), the Discrepancy score range for the nonperfectionists appeared to have a wide spread. Skewness and kurtosis values were, however, within normal range, and the median score of 40.36 was close to the mean score of 42.57. All of this suggest that the nonperfectionists who have disabilities are one group of people with a very wide spread in their Discrepancy scores.

Primary Analyses

A MANCOVA was conducted using time since onset of the disability as a covariate, and the three perfectionist/ nonperfectionist groups as the between-subjects factor to determine whether there were significant differences among the three groups in their scores on various adjustment indicators (Adaptation to Disability, Depression, Self-Esteem, Positive Affect, Negative Affect, Satisfaction with Life). Gender was used in the MANCOVA as a main effect and an interaction effect (gender x perfectionism group interaction). The results of this MANCOVA are reflected in Table 4.5a. Time since onset was not a significant covariate ($p = .973$). Gender did not produce a significant main effect ($p = .100$). The interaction between gender and perfectionist grouping was not significant ($p = .316$), however, perfectionist grouping had a significant main effect on the dependent variables, Wilks's $\Lambda = .692$, $F(6,366) = 6.05$, $p < .001$, partial $\eta^2 = .168$. Univariate ANOVAs revealed statistically significant group differences on each dependent variable. Effect sizes (η^2) for the statistically significant mean differences ranged from .12 to .24. These results along with the Bonferroni post hoc comparisons are presented in Table 4.5b.

Hypothesis 1: It was hypothesized that after controlling for both time since onset of the disability and gender, both the maladaptive perfectionists and the nonperfectionists would score

significantly lower than the adaptive perfectionists on disability adjustment as measured by the ADS-R (Groomes & Linkowski, 2007). No hypothesis was made about how maladaptive perfectionists and nonperfectionists would fare in relation to disability adjustment relative to one another.

Consistent with expectations, the maladaptive perfectionists scored significantly lower than the adaptive perfectionists on disability adjustment (Adaptation to Disability). Although no hypothesis was made regarding how the maladaptive perfectionists would score compared with the nonperfectionists, the nonperfectionists scored significantly higher than the maladaptive perfectionists but significantly lower than the adaptive perfectionists on this measure.

Hypothesis 2: It was expected that the maladaptive perfectionists would score significantly higher on depression (CES-D; Radloff, 1977) than the adaptive perfectionists after controlling for time since onset of the disability and gender. No hypothesis was made about the depression scores of nonperfectionists compared with those of maladaptive and adaptive perfectionists.

Hypothesis 2 was confirmed by the results of this study; the maladaptive perfectionists scored significantly higher on depression than adaptive perfectionists. Although no hypothesis was made about how these two groups of perfectionists would compare with nonperfectionists on this measure due to mixed results in prior research (Mobley et al., 2005; Rice & Dellwo, 2002; Rice & Slaney, 2002), nonperfectionists scored significantly lower than maladaptive perfectionists but significantly higher than adaptive perfectionists. It should be noted that both the maladaptive perfectionists and the nonperfectionists scored above 16, which is the cutoff score that some researchers suggested identifies people with significant depression using the CES-D (Breslau, 1985; Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977, as cited by Rice & Dellwo, 2002).

Hypothesis 3: Both the maladaptive perfectionists and the nonperfectionists were expected to score significantly lower on self-esteem as measured by the Rosenberg Self-Esteem Inventory (SEI; Rosenberg, 1965) than the adaptive perfectionists, after controlling for time since onset of the disability and gender. No hypothesis was made about how the maladaptive perfectionists would score on self-esteem compared with the nonperfectionists.

Both the maladaptive perfectionists and the nonperfectionists scored significantly lower than the adaptive perfectionists on the measure of self-esteem, as expected. No hypothesis was made regarding how maladaptive perfectionists would score compared with nonperfectionists on self-esteem due to mixed results in previous studies (Rice & Dellwo, 2002; Rice & Slaney, 2002). The maladaptive perfectionists did not score significantly different from the nonperfectionists on this measure.

Hypothesis 4: It was expected that, after controlling for time since onset of the disability and gender, both the maladaptive perfectionists and the nonperfectionists would exhibit significantly lower levels of positive affect as measured by the Positive Affect subscale of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) than the adaptive perfectionists. No difference was expected between the former two groups on this indicator, thus no hypothesis about these two groups were made.

The results of this study supported this hypothesis; both the maladaptive perfectionists and the nonperfectionists demonstrated significantly lower scores on the positive affect subscale of the PANAS than the adaptive perfectionists while the former two groups did not differ on this indicator.

Hypothesis 5: It was expected that after controlling for time since onset of the disability and gender, the maladaptive perfectionists would demonstrate significantly higher scores on negative

affect as measured by the Negative Affect subscale of the PANAS (Watson et al., 1988) than the adaptive perfectionists. No difference was expected between the two perfectionist groups and the nonperfectionists on this measure, thus no specific hypothesis about this comparison was advanced.

The maladaptive perfectionists did indeed score significantly higher than the adaptive perfectionists on negative affect, however, they also scored significantly higher than the nonperfectionists whose scores were significantly higher than the adaptive perfectionists.

Hypothesis 6: It was expected that after controlling for time since onset of the disability and gender, both the maladaptive perfectionists and the nonperfectionists would show significantly lower levels of life satisfaction as measured by the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) than the adaptive perfectionists. No difference between the former groups was expected on this measure, thus no formal hypothesis about the maladaptive perfectionist and the nonperfectionists was presented.

The results of this study supported Hypothesis 6 (see Table 4.5b).

For the Adaptation to Disability Scale-Revised, all three groups scored above the midpoint (80) of the scale. There is no previous research in perfectionism with which to compare this result because to date this scale has not been used in perfectionism research; however, in a study on people with progressive disabilities the mean score for this scale was 100.93 (Chen, 2006). In the present study the adaptive perfectionists scored above this mean while the maladaptive perfectionists and the nonperfectionists scored below this mean.

For the CES-D Scale (depression), only the maladaptive perfectionists scored above the midpoint (30) of the scale whereas both the adaptive perfectionists and the nonperfectionists scored below this midpoint. Previous perfectionism research using the CES-D on college students

found that all three groups scored below the midpoint of this scale, although how the three groups scored compared to one another in previous research was similar to the results in the present study (Rice & Dellwo, 2002). In addition, in the present study both the maladaptive perfectionists and the nonperfectionists scored above the clinical cutoff of 16 for the CES-D. This result is inconsistent with previous research using the CES-D. This earlier research had found that the maladaptive perfectionists scored above the clinical cutoff, the adaptive perfectionists scored at the clinical cutoff (16.26), and the nonperfectionists scored below the clinical cutoff (Rice & Dellwo, 2002).

For the Rosenberg Self-Esteem Inventory, all three groups scored above the midpoint (15) of the scale. This result is consistent with previous research using the same scale (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Dellwo, 2002; Rice & Slaney, 2002).

For the Positive Affect subscale of the PANAS, both the adaptive perfectionists and the nonperfectionists scored above the midpoint (30) of the scale, with the nonperfectionists scoring only slightly above at 30.44. This result is consistent with previous research using the same subscale (Rice & Slaney, 2002). The maladaptive perfectionists in the present study scored below this midpoint at 28.26. This result, however, is inconsistent with previous research where the maladaptive perfectionists scored slightly above the midpoint of this subscale at 31.15 (Rice & Slaney, 2002). For the Negative Affect subscale of the PANAS, all three groups scored below the midpoint (30) of the scale. This result is consistent with previous research (Rice & Slaney, 2002).

For the Satisfaction with Life Scale, only the adaptive perfectionists scored above the midpoint (20) of the scale whereas both the maladaptive perfectionists and the nonperfectionists scored below this midpoint. There has been no perfectionism research conducted in the U.S. comparing the three groups using this scale, however, one perfectionism study conducted in the U.S. which did not compare the three groups found the mean of a sample of college students to be 22.95 for the Satisfaction with Life Scale (Rice & Ashby, 2007). The adaptive perfectionists in

the present study scored similarly to the college students in previous research whereas the maladaptive perfectionists and the nonperfectionists scored below the average for the college students on this scale.

A chi-square test was performed to determine if there were significant differences in the distribution of perfectionist/nonperfectionist groups between the participants categorized as having “static” disabilities and the participants categorized as having “unstable” disabilities. Distribution did not differ by disability status, $X^2(2, N = 194) = .802, p = .670$.

Table 4.1

Sample Characteristics (n = 197)

Variable	<i>n</i>	%
Sex		
Male	53	26.9
Female	143	72.6
No response	1	0.5
Relationship Status		
Single/never married	46	23.4
Married	103	52.3
Separated	4	2.0
Single/divorced	32	16.2
Partnered	10	5.1
No response	2	1.0
Race/Ethnicity		
African American/Black	6	3.0
Asian American/Pacific Islander	2	1.0
European American/White	169	85.8
Hispanic American/Latino/a	4	2.0
Native American	2	1.0
Bi-racial/Multi-racial	5	2.5
Other	8	4.1
No response	1	0.5
Education		
Some high school or less	3	1.5
High school graduate/GED	22	11.2
Some technical/college education or training	45	22.8
Technical/community college graduate	32	16.2
Four-year college graduate	32	16.2
Some graduate school training/education	17	8.6
Master's degree	28	14.2
Doctorate	12	6.1
Other	5	2.5
No response	1	0.5

Table 4.1 (continued)

Sample Characteristics (n = 197)

Variable	<i>n</i>	%
Current Employment Status		
Employed full-time	50	25.4
Employed part-time	25	12.7
Unemployed	122	61.9
Disability Status		
Static	75	38.1
Unstable	121	61.4
No response	1	0.5

Table 4.2

Subscale Descriptive Statistics (n = 197)

Subscale	<i>M</i>	<i>SD</i>	Range
Perfectionism			
High Standards	40.56	6.72	7-49
Order	21.26	5.21	4-28
Discrepancy	43.71	19.44	12-84
Adaptation to Disability	96.04	17.11	32-128
Depression	22.89	13.65	12-48
Self-Esteem	20.19	6.69	0-30
Positive Affect	31.65	9.66	10-50
Negative Affect	22.08	8.25	10-50
Satisfaction with Life	18.82	8.21	5-35

Table 4.3

Intercorrelations Between Study Variables

Variables	1	2	3	4	5	6	7	8	9	10
1. High Standards	.84									
2. Order	.47**	.84								
3. Discrepancy	.12	.01	.96							
4. Adaptation to Disability	.02	-.12	-.61**	.94						
5. Depression	-.03	.04	.72**	-.78**	.94					
6. Self-Esteem	.04	.04	-.71**	.75**	-.75**	.91				
7. Positive Affect	.11	-.01	-.51**	.67**	-.65**	.67**	.93			
8. Negative Affect	.12	.03	.68**	-.64**	.79**	-.67**	-.51**	.89		
9. Satisfaction with Life	.02	-.10	-.54**	.69**	-.66**	.71**	.65**	-.56**	.89	
10. Time	-.003	.08	.17*	-.05	.03	-.05	-.07	.03	-.05	

Note. * $p < .05$, ** $p < .01$, two-tailed. Cronbach's coefficient alphas are displayed in bold.

Table 4.4a

Perfectionism Subscale MANCOVA Results Using Time as a Covariate, Gender as a Main Effect, Perfectionist Group as a Main Effect, and Perfectionist Group x Gender as an Interaction Effect

Variables	Wilks' Λ	F	η^2
Time	.959	2.576	.041
Gender	.988	.757	.012
Perfectionist Group	.265	57.425***	.485
Perfectionist Group x Gender	.946	1.725	.027

*** Significant at $p < .001$, $df = 6, 366$

Table 4.4b

Means and Standard Deviations by Perfectionist Groups along with F tests and Effect Sizes for each Perfectionism Subscale

Subscale	Maladaptive Perfectionists <i>n</i> = 50		Adaptive Perfectionists <i>n</i> = 54		Nonperfectionists <i>n</i> = 88		<i>F</i>	partial η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
High Standards	45.86 ^a	2.39	45.20 ^a	2.45	34.98 ^b	5.28	119.73	.56
Order	22.54 ^{a,b}	4.42	23.39 ^a	3.77	19.44 ^b	5.44	7.23	.07
Discrepancy	63.23 ^a	12.34	27.03 ^b	7.52	42.57 ^c	17.36	53.98	.37

Note. All univariate *F* tests were significant at $p < .001$. *F* tests were based on $df = 2, 185$. Values with differing superscripts indicate significant within-row mean score differences between perfectionist groups, using Bonferroni pairwise comparisons adjustment significant at $p < .05$.

Table 4.5a

Adjustment Scale MANCOVA Results Using Time as a Covariate, Gender as a Main Effect, Perfectionist Group as a Main Effect, and Perfectionist Group x Gender as an Interaction Effect

Variable	Wilks' Λ	F	η^2
Time	.993	.212	.007
Gender	.943	1.805	.057
Perfectionist Group	.692	6.052***	.168
Perfectionist Group x Gender	.927	1.152	.037

*** Significant at $p < .001$, $df = 6, 366$

Table 4.5b

Means and Standard Deviations by Perfectionist Groups along with F tests and Effect Sizes for each Adjustment Variable

Variable	Maladaptive Perfectionists <i>n</i> = 50		Adaptive Perfectionists <i>n</i> = 54		Nonperfectionists <i>n</i> = 88		<i>F</i>	partial η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Adaptation to								
Disability	87.56 ^a	17.00	106.38 ^b	11.35	95.44 ^c	16.08	19.71	.18
Depression	31.89 ^a	11.94	13.19 ^b	9.37	23.01 ^c	12.51	28.85	.24
Self-Esteem	16.56 ^a	6.17	24.74 ^b	4.68	19.70 ^a	6.39	21.60	.19
Positive Affect	28.26 ^a	8.43	37.33 ^b	9.46	30.44 ^a	8.63	13.56	.13
Negative Affect	27.97 ^a	7.82	17.73 ^b	5.75	21.14 ^c	7.61	20.37	.18
Satisfaction with								
Life	15.84 ^a	7.88	22.78 ^b	7.71	18.20 ^a	7.60	12.87	.12

Note. All univariate *F* tests were significant at $p < .001$. *F* tests were based on $df = 2, 185$. Values with differing superscripts indicate significant within-row mean score differences between perfectionist groups, using Bonferroni pairwise comparisons adjustment significant at $p < .05$.

Chapter 5

Discussion

This chapter will discuss the results of the data analyses as they relate to the hypotheses posed in this study. Results will be discussed in relation to previous research. In addition, limitations of the study, directions for future research, and implications for counseling will be delineated.

The Relationship Between Perfectionism and Adjustment

Previous research indicated that maladaptive perfectionism is related to negative adjustment whereas adaptive perfectionism is related to positive adjustment (Ashby & Kottman, 1996; Grzegorek et al., 2004; Rice & Slaney, 2002). The results of this study replicated previous findings. In particular, the maladaptive perfectionists scored significantly higher on negative adjustment indices (depression and negative affect) and significantly lower on positive adjustment indices (disability adjustment, satisfaction with life, self-esteem, positive affect) than the adaptive perfectionists. The two perfectionist groups share similar levels of High Standards. The main difference between the maladaptive perfectionists and the adaptive perfectionists lies in their Discrepancy scores on the APS-R. The maladaptive perfectionists' negative perception that their performance or behavior does not match their standards apparently creates significant distress for them; the lack of such a negative perception along with having high personal standards seem to buffer the adaptive perfectionist from maladjustment. This is consistent with previous research suggesting that cognitive processes such as optimism and positive attitude toward one's ability to achieve goals are associated with positive adjustment (Dunn, 1996; Elliott et al., 1991).

Furthermore, the maladaptive perfectionists scored significantly lower on one of the positive adjustment indicators (disability adjustment) and also scored significantly higher on

negative adjustment measures (depression and negative affect) than the nonperfectionists. It appears that the maladaptive perfectionists fare worse in some ways than the nonperfectionists, which is also consistent with previous research (Rice & Slaney, 2002). The maladaptive perfectionists' higher Discrepancy scores (than those of the nonperfectionists) may have contributed to this difference in some but not all adjustment measures. The nonperfectionists statistically scored similarly to the maladaptive perfectionists on self-esteem, positive affect, and satisfaction with life. The nonperfectionists scored significantly lower on all positive adjustment indicators (disability adjustment, self-esteem, positive affect, and satisfaction with life) and also scored significantly higher on negative adjustment indicators (depression and negative affect) than the adaptive perfectionists. Overall, the nonperfectionists were less well-adjusted than the adaptive perfectionists. Differences in both groups' APS-R scores suggest that having high standards and sense of orderliness along with a general lack of negative perception about not meeting one's standard of performance may be buffering the adaptive perfectionists from distress.

The one surprising result was that although the present study indicated that the maladaptive perfectionists scored significantly higher than the adaptive perfectionists (as expected), they also scored significantly higher than the nonperfectionists on negative affect. This latter result was unexpected because Rice and Slaney (2002) found that the nonperfectionists did not score significantly different from either the maladaptive or the adaptive perfectionists on negative affect. It is unclear what might have contributed to the discrepancy between the present findings and those of the previous study, although it is possible that this difference may be attributed to the different populations being examined, that is, nonperfectionists with disabilities participated in the present study versus nonperfectionistic college students participated in the study by Rice and Slaney (2002). It has been suggested that the prevalence of depression may be higher among people with disabilities (Krause, Bombardier, & Carter, 2008; Radnitz, Bockian, & Moran, 2000). In this study, although the nonperfectionists scored significantly lower than the

maladaptive perfectionists on depression, both groups scored above the cutoff point suggested by some to indicate presence of depression. Therefore, it is possible that negative affect, a known correlate of depression (Watson et al., 1988), may be more prevalent among people with disabilities compared to the general population.

Interestingly, the similarity in the nonperfectionists and the maladaptive perfectionists' depression scores (though significantly different statistically but possibly similar in terms of practical significance because both scored above clinical cutoffs for depression) was paralleled in a previous study on perfectionism in African American college students. In that study, Mobley et al. (2005) found that the nonperfectionists and the maladaptive perfectionists did not significantly differ statistically in their scores for a measure of depression and a measure of anxiety. It may be possible that the maladaptive perfectionists and the nonperfectionists in underrepresented groups may be less buffered from psychological distress than the adaptive perfectionists in such groups.

It was noteworthy that gender did not produce a main effect or an interaction effect. (gender x perfectionism group interaction) in the MANCOVA examining differences between perfectionist/nonperfectionist groupings on the adjustment indices. This is somewhat surprising given that gender differences in depression are well documented (Nolen-Hoeksema, 2001) and therefore could possibly temper the relationship between perfectionist/nonperfectionist grouping and other affective adjustment measures as well. Nevertheless, such a gender difference was not found in the present study. Time since onset as a covariate also did not contribute significantly to the differences between perfectionist/nonperfectionist groups in adjustment, however, the p value approached conventional levels of alpha significance ($p = .055$). Huck (2008) suggests that many researchers consider such a p value to be a "near miss", implying that the variable in question may need to be examined more closely in future research. It is unknown, however, whether the fact that the age of people with congenital disabilities was used for the value of time since onset contributed to the p value approaching conventional levels of significance. It may be informative

for future research to examine closely the variable of time since onset. This caveat notwithstanding, these results suggest that perfectionist/nonperfectionist grouping may be useful in differentiating between individuals who are maladjusted and those who are well-adjusted.

Although disability type was not used as a covariate in the analyses, post hoc analyses examined differences in the distributions of perfectionist/nonperfectionist groupings. Disabilities that are considered to be “static” are more likely to be stable over time, and disabilities that are “unstable” tend to have unpredictable symptoms or course (Duncan, 2009; Patterson et al., 2005; Smart, 2001). Results suggested that people with “static” disabilities were no more or less likely than people with “unstable” disabilities to be identified as maladaptive perfectionists, adaptive perfectionists, or nonperfectionists. The fact that no differences were found between “static” disabilities and “unstable” disabilities seems significant because it suggests that the type of disability may not be related to the type of perfectionist or nonperfectionist a person is. This may not be so surprising if one considers perfectionism to be an individual differences factor that may be present in any given population.

Limitations of the Study

There are several limitations to this study. Causal inferences cannot be made regarding the results of this study; the results reflect correlational relationships between variables. In addition, this study utilized only self-report measures, and thus it is subject to mono-method bias. Moreover, as in any study, the results are limited in terms of generalizability due to characteristics specific to the sample collected. For example, the sample in this study was not racially diverse, with approximately 86% of the participants identifying as White or European American. Men were also underrepresented, making up only 27% of the sample. Also, it appears that the Satisfaction With Life Scale may not be culturally sensitive for use with people with disabilities; compared with a sample of college students from a previous study, the majority of the present sample including the maladaptive perfectionists and the nonperfectionists scored below

the average on this scale whereas the adaptive perfectionists in the present sample scored at the average (for college students). In addition, the mean scores of the maladaptive perfectionists and the nonperfectionists on this scale were below the midpoint of the range of possible scores for this scale. Such findings might suggest that most people with disabilities may not be satisfied with their lives due to their circumstances; however, the Satisfaction with Life Scale uses only 5 questions to assess general satisfaction. It may be more informative or relevant to assess people with disabilities' satisfaction with a wider range of different aspects of life such as social, vocational, or recreational realms. It may be that the items used to assess life satisfaction are not appropriate for people with disabilities because many of the items focus on not having a desire to change any aspect of one's life. It may be that such questions fail to reflect other aspects of life satisfaction that may be more relevant for people with disabilities.

In addition, this study contains high participation rates by people with multiple sclerosis and people with spinal cord injuries. This may be due to the fact that the disability organizations and listservs I contacted primarily served people with multiple sclerosis and people with spinal cord injuries. The American Community Survey and the U.S. Census Bureau do not categorize people according to specific disabilities but instead use a system that allows survey participants to identify with more than one disability. Thus, it is unclear how representative the sample used in this study is compared with the U.S. population of people with disabilities. Therefore the results in this study may or may not be generalizable to all people with disabilities. Further, it should be noted that perfectionism may not reflect people's full range of talents and abilities beyond what is measured. It is important to remember that people may not all be performance-driven individuals and may have potential gifts overlooked or unexamined by the present study.

Suggestions for Future Research

It may be helpful for future perfectionism research involving people with disabilities to include an objective measure of work or academic performance. An objective measure (or even a

subjective one) may help assess whether or not the discrepancies that the maladaptive perfectionists experience reflect real discrepancies, possibly due to realistic limitations related to their disabilities, or a subjective, perceived discrepancy between their standards and their performance. Furthermore, because this is a quantitative study, it is unclear how people with disabilities, especially the maladaptive perfectionists, experience their sense of discrepancy. Future research might utilize an interview format to examine how the maladaptive perfectionists experience discrepancy and whether or not they view it as related to their disabilities. In addition, although the distribution of the perfectionist/nonperfectionist groups did not differ by disability status in the two groups compared (people with “static” disabilities and people with “unstable”), it may be interesting to examine whether this result would be replicated if other disability-related factors were used to categorize disabilities such as type of onset, visibility of the disability, and the presence of pain (Patterson et al., 2005).

Although time since onset did not contribute significantly to the differences between perfectionist/nonperfectionist groups in adjustment, it may be important to re-examine this variable in future research. Furthermore, because the standard deviation of the Discrepancy subscale for the nonperfectionist group was relatively high compared with previous research, it is possible that the nonperfectionist group may be more heterogeneous than expected based on previous research. Although a closer examination of the data indicated that the nonperfectionists appear to be one group (the range of the *SD* for their Discrepancy scores exhibited normal distribution with no major or minor outliers, skewness and kurtosis values for their Discrepancy scores were within normal range, and the median and mean for their Discrepancy scores were close), due to the wide spread in their Discrepancy scores this group warrants closer examination in future research.

It may be important for future research to look at dimensions of perfectionism rather than categories or groups of perfectionists/nonperfectionists. Based on the intercorrelations between

all of the variables (See Table 4.3), it was clear that the Discrepancy subscale or dimension was significantly related to all of the dependent variables examined but the High Standards and the Order dimensions were not. Thus, it appears that Discrepancy may be the dimension of perfectionism that is the driving force behind the differences in the dependent variables.

Implications for Counseling

The results of this study have potential clinical implications. Counselors who work with clients with disabilities who may be maladaptive perfectionists may want to assess their clients' level of discrepancy. They may wish to investigate the source of this discrepancy and work on improving their clients' perception of their clients' own performance. It is clear based on the results of this study as well as previous perfectionism studies (Grzegorek et al., 2004; Mobley et al., 2005; Rice & Slaney, 2002) that having high standards is not in and of itself problematic, but that it is the discrepancy that a person experiences that is associated with psychological or emotional difficulties. It may not be helpful to discourage aspirations even if they seem unrealistic to the counselor because these aspirations may not be problematic to an individual's sense of well-being. Counselors may want to focus on increasing their clients' satisfaction with what they are currently able to accomplish.

In addition, counselors may want to assess depression when working with clients with disabilities even if their clients are nonperfectionists, given that there may be a high incidence rate of depression among people with disabilities and the fact that the nonperfectionists in this study as a whole appeared to be depressed. The nonperfectionists' Discrepancy scores, although significantly lower than those of the maladaptive perfectionists, were significantly higher than those of the adaptive perfectionists. This may reflect the nonperfectionists' real and/or distorted view of their performance as not meeting their personal standards, a negative perception that may contribute to their depressed mood. With both maladaptive perfectionists and nonperfectionists, counselors may want to focus on cognitive strategies such as reframing and de-catastrophizing to

counteract their clients' potentially negative and /or distorted perceptions of themselves and their performance. Further, it may be important for counselors to explore factors other than their sense of discrepancy that may relate to their adjustment issues. Helping clients with disabilities to improve their social support system and interpersonal relationships, for instance, may also buffer the effects of negative self -views and reduce ruminations often associated with depression. Although having high standards appears to buffer the adaptive perfectionists from maladjustment, not everyone has the gifts to meet high standards. What may be potentially buffering for the adaptive perfectionists may not be buffering for the nonperfectionists. It may be more important particularly when working with nonperfectionists to focus on emphasizing their strengths and other abilities. In addition, because there was no significant difference between the maladaptive and adaptive perfectionists' Order subscale scores, future research is needed to address whether changing clients' sense of orderliness will relate to differences in their adjustment scores.

Summary

Consistent with previous research in perfectionism (Ashby & Kottman, 1996; Grzegorek et al., 2004; Rice & Slaney, 2002), the data presented suggest that being a maladaptive perfectionist is associated with psychological distress while being an adaptive perfectionist is associated with positive adjustment. In particular, maladaptive perfectionists scored significantly higher on negative adjustment indices (depression and negative affect) and significantly lower on positive adjustment indices (disability adjustment, self-esteem, positive affect, satisfaction with life) than the adaptive perfectionists. The relationship between being a nonperfectionist and adjustment is less clear in previous research due to mixed results (Mobley et al., 2005; Rice & Dellwo, 2002; Rice & Slaney, 2002). The nonperfectionists in this study scored significantly lower on positive adjustment indicators (disability adjustment, self-esteem, positive affect, satisfaction with life) and significantly higher on negative adjustment indicators (depression and negative affect) than the adaptive perfectionists.

Compared with the maladaptive perfectionists, the nonperfectionists scored significantly higher on disability adjustment and lower on negative adjustment indicators (depression and negative affect) whereas their scores on self-esteem, positive affect, and satisfaction with life did not differ. Time since onset of disability as a covariate was not significant in the relationship between perfectionism and adjustment. Gender as a main effect and an interaction effect (gender x perfectionism group) were not significant terms in the model. The distribution of perfectionist/nonperfectionist grouping did not differ by disability status. Perfectionist/nonperfectionist grouping appears to be a significant factor in the adjustment of people with disabilities. The APS-R appears to have clinical utility in identifying people with disabilities who may be in need of counseling with various adjustment issues. Individuals identified as maladaptive perfectionists may be more likely to have adjustment issues (disability adjustment, depression, negative affect) than people identified as adaptive perfectionists or nonperfectionists.

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Appendix A

DEMOGRAPHIC QUESTIONNAIRE AND SCALES

Demographic Questionnaire

Please indicate:

1. Your age in years: _____
2. Your sex: _____
3. Your relationship status:
 - single/never married
 - married
 - separated
 - single/divorced
 - partnered
4. Your ethnic/racial background:
 - African American/Black
 - Asian American/Pacific Islander
 - European American/White
 - Hispanic American/Latino/a
 - Native American
 - Bi-racial/Multi-racial
 - Other (please specify) _____
5. Your educational level:
 - some high school or less
 - high school graduate/GED
 - some technical/college education or training
 - technical/community college graduate
 - four-year college graduate
 - some graduate school training/education

master's degree

doctorate

Other (please specify) _____

6. Your current employment status:

employed

part-time employment

full-time employment

unemployed

7. The type of chronic illness or acquired disability you have (please be as specific as possible): _____

8. Time since the onset of your chronic illness or disability (please be as specific as possible): _____

The Almost Perfect Scale-Revised (APS-R)

(Slaney, Mobley, Trippi, Ashby, & Johnson, 1996)

Directions:

The following items are designed to measure attitudes people have toward themselves, their performance, and toward others. There are no right or wrong answers. Use your first impression and do not spend too much time on individual items in responding.

Respond to each of the items using the scale below to describe your degree of agreement with each item. Please indicate your response to each question using the scale below and click on the button corresponding to your answer.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neutral
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

	1	2	3	4	5	6	7
I have high standards for my performance at work or at school.							
I am an orderly person.							
I often feel frustrated because I can't meet my goals.							
Neatness is important to me.							
If you don't expect much out of yourself, you will never succeed.							
My best just never seems to be good enough for me.							
I think things should be put away in their place.							
I have high expectations for myself.							
I rarely live up to my high standards.							
I like to always be organized and disciplined.							
Doing my best never seems to be enough.							

I set very high standards for myself.							
I am never satisfied with my accomplishments.							
I expect the best from myself.							
I often worry about not measuring up to my own expectations.							
My performance rarely measures up to my standards.							
I am not satisfied even when I know I have done my best.							
I try to do my best at everything I do.							
I am seldom able to meet my own high standards of performance.							
I am hardly ever satisfied with my performance.							
I hardly ever feel that what I've done is good enough.							
I have a strong need to strive for excellence.							
I often feel disappointment after completing a task because I know I could have done better.							

The Adaptation to Disability Scale- Revised

(Groomes & Linkowski, 2007)

Directions:

Please read each statement below and using the 1-4 scale below, indicate to what extent you agree or disagree with the statement. Please click on the button corresponding to your answer for each statement.

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

	1	2	3	4
With my disability, all areas of my life are affected in some major way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having my disability, I am unable to do things like people without disabilities do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disability or not, I am going to make good in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because of my disability, I have little to offer other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Good physical appearance and physical ability are the most important things in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A person with a disability is restricted in certain ways, but there is still much s/he is able to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No matter how hard I try or what I accomplish, I could never be as good as the person who does not have my disability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It makes me feel very bad to see all the things that people without disabilities can do that I cannot.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The most important thing in this world is to be physically capable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because of my disability, other people's lives have more meaning than my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because of my disability, I feel miserable most of the time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Though I have a disability, my life is full.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The kind of person I am and my accomplishments in life are less important than those of persons without disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A physical disability affects a person's mental ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Since my disability interferes with just about everything I try to do, it is foremost in my mind practically all of the time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are many things a person with my disability is able to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My disability in itself affects me more than any other characteristic about me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are many more important things in life than physical ability and appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Almost every area of life is closed to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My disability prevents me from doing just about everything I really want to do and from becoming the kind of person I want to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like an adequate person regardless of the limitation of my disability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My disability affects those aspects of life that I care most about.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A disability such as mine is the worst possible thing that can happen to a person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You need a good and whole body to have a good mind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are times that I completely forget that I have a disability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I didn't have my disability, I think I would be a much better person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I think of my disability, it makes me so sad and upset that I am unable to do anything else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with disabilities are able to do well in many ways.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel satisfied with my abilities and my disability does not bother me too much.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In just about everything, my disability is annoying to me so that I can't enjoy anything.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical wholeness and appearance make a person who s/he is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know what I can't do because of my disability, and I feel that I can live a full life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Center for Epidemiological Studies- Depression Scale

(Radloff, 1977)

Directions:

Below is a list of ways you might have felt or behaved during the past year. Please indicate how often you have felt this way during the past year using the 0-3 scale below. Please click on the button corresponding to your answer for each item.

0 = rarely or none of the time

1 = some or a little of the time

2 = occasionally or a moderate amount of the time

3 = most or all of the time

During the past year:

	0	1	2	3
I was bothered by things that usually don't bother me.	0	0	0	0
I did not feel like eating; my appetite was poor.	0	0	0	0
I felt that I could not shake off the blues even with help from my family or friends.	0	0	0	0
I felt that I was just as good as other people.	0	0	0	0
I had trouble keeping my mind on what I was doing.	0	0	0	0
I felt depressed.	0	0	0	0
I felt that everything I did was an effort.	0	0	0	0
I felt hopeful about the future.	0	0	0	0
I thought my life had been a failure.	0	0	0	0
I felt fearful.	0	0	0	0
My sleep was restless.	0	0	0	0
I was happy.	0	0	0	0
I talked less than usual.	0	0	0	0
I felt lonely.	0	0	0	0
People were unfriendly.	0	0	0	0
I enjoyed life.	0	0	0	0
I had crying spells.	0	0	0	0
I felt sad.	0	0	0	0
I felt that people dislike me.	0	0	0	0
I could not get "going."	0	0	0	0

The Positive and Negative Affect Schedule (PANAS)

(From “Development and validation of brief measures of positive and negative affect: The PANAS scales,” by D. Watson, L. A. Clark, and A. Tellegen, 1988, *Journal of Personality and Social Psychology*, 54, 1063- 1070. Copyright 1988 by the American Psychological Association. Reproduced with permission.)

Directions:

The following is a list of words that describe different feelings and emotions. Please read each item and then click on the button corresponding to your answer using the 1-5 scale below. Please indicate to what extent you have felt this way during the past few weeks using the following scale:

- 1 = very slightly or not at all
- 2 = a little
- 3 = moderately
- 4 = quite a bit
- 5 = extremely

	1	2	3	4	5
interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Rosenberg Self-Esteem Inventory (SEI)

(Rosenberg, 1965)

Directions:

Below is a list of statements dealing with your general feelings about yourself. Using the 0-3 scale below, please click on the button corresponding to your answer for each statement.

0 = Strongly Disagree

1 = Disagree

2 = Agree

3 = Strongly Agree

	0	1	2	3
I feel that I'm a person of worth, at least on an equal plane with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I have a number of good qualities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All in all, I am inclined to feel that I am a failure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to do things as well as most other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I do not have much to be proud of.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a positive attitude toward myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On the whole, I am satisfied with myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I could have more respect for myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I certainly feel useless at times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I think I am no good at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX B:

WEBSITES, ELECTRONIC BULLETIN BOARDS, AND LISTSERVS

Disabilities Network of New York City (<http://groups.yahoo.com/group/dnnyc>)
Disabilities-R-US (www.disabilities-r-us Support Group for People with Physical Disabilities)
Discussion Group for People with Quadriplegia or Tetraplegia Quad-list@eskimo.com
Fibro-L Online Support Group for People with Fibromyalgia (<http://fmscommunity.org>)
Lupus Foundation of America (www.lupus.org Pennsylvania Chapter listserv)
National Multiple Sclerosis Society (www.nationalmssociety.org)
National Spinal Cord Injury Association (www.spinalcord.org)
Paralyzed Veterans of America (www.pva.org Pennsylvania Chapter listserv)
Spinal Cord Injury Information Network (www.spinalcord.uab.edu/show.asp?durki=19679)
Spinal Cord Injury Information Pages (www.sci-info-pages.com)

APPENDIX C:
RECRUITMENT MATERIALS AND INFORMED CONSENT

E-mail Invitational Letter

Dear Prospective Participant,

You are cordially invited to participate in a research study examining attitudes and feelings regarding yourself and disability-related experiences. This research study is being conducted by me as part of my dissertation at The Pennsylvania State University. Your participation in this research study will help counseling professionals and researchers understand various experiences of people with disabilities. You may also benefit from learning more about yourself and your experiences in the process of responding to survey questions in this research study. Please consider participating if you:

1) are 18 years or older

AND

2) have acquired a condition that is considered to be a chronic illness or disability.

For clarification purposes here are the definitions of chronic illnesses and disabilities:

Chronic illnesses are “prolonged, do not resolve spontaneously, and are rarely cured completely” (CDC, 2003). A person with a disability is an individual who “has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment” (ADA, 1990). The ADA further specifies that this definition does not include people with nonchronic or temporary conditions such as sprains, infections, broken limbs, or the flu.

If you meet the two criteria listed above, you are eligible to participate in this research study. The survey you will be asked to complete contains 6 questionnaires that will take approximately 20-25 minutes to complete. Your participation is voluntary and you may discontinue it at any time. No identifying information is requested. The information collected and the results of this research study will be used for research purposes only.

For every survey that is completed, I will donate \$1.00 to the Make-A-Wish Foundation up to a total of \$300. In addition, you may enter a raffle drawing to win a \$25 gift certificate from Amazon.com.

If you wish to participate in this research study, please click on the following link: <http://www.psychdata.com/s.asp?SID=124268>, which will automatically take you to the website containing the survey. At the end of the survey, you will be asked to enter your e-mail address if you choose to enter the raffle. Your e-mail address will not be linked to your responses on the questionnaires.

Thank you for considering participating in this research study!

Sincerely,

Jenny C. Chang, M.S.

Doctoral Candidate

Department of Counselor Education, Counseling Psychology, and Rehabilitation Services
The Pennsylvania State University

Welcome Statement to Survey

Welcome to my research study conducted as part of my dissertation at The Pennsylvania State University surveying the experiences of people with disabilities. To participate in this research study, you must be 18 years or older, and have a condition considered to be a chronic illness or disability as described in the invitational letter that directed you to this webpage. The next page contains an informed consent form that gives you more information about this research study. If you wish to continue, please click on the "Continue to Next Page" button below. Thank you!

Implied Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: The Experience of People with Disabilities

Principal Investigator: Jenny C. Chang, Graduate Student
327 Cedar Building
University Park, PA 16802
(814)867-2737; jcc226@psu.edu

Advisor: Dr. Robert B. Slaney
327 Cedar Building
University Park, PA 16802
(814)863-4594; rslaney@psu.edu

- 1. Purpose of the Study:** The purpose of this research study is to assess the perceptions, attitudes, and feelings that people with disabilities have about themselves.
- 2. Procedures to be followed:** You must be 18 years of age or older to participate in this research. You will be asked to respond to 6 questionnaires containing a total of 110 questions asking about how you view yourself (i.e., attitudes and feelings about yourself both in general and specifically related to your disability) as well as your attitude toward your life. You can choose not to answer certain questions if you do not wish to.
- 3. Duration:** It will take about 20-25 minutes to complete the survey.
- 4. Statement of Confidentiality:** Your participation in this research is confidential. The survey does not ask for any information that would identify who the responses belong to. Your responses are encrypted as soon as you submit them and are stored in the PsychData Server. Interception of encrypted data is highly unlikely, but if it should occur, the data could only be decoded by PsychData, which is operated by highly trained professionals in research and secure electronic data storage. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.

You may benefit from participating by learning more about yourself through answering the survey questions. This research may provide information about the experiences of people with disabilities.

Your participation in this research is voluntary and you can stop at any time by closing your browser. Completion and submission of the survey implies your consent to participate in this research.

In appreciation for your participation in this study, the primary investigator will donate \$1.00 to the Make-A-Wish Foundation for every completed survey for up to a total of \$300. In addition, you may enter a raffle drawing to win a \$25 gift certificate from Amazon.com.

If you have any questions or concerns about this study, please contact Jenny C. Chang at (814)867-2737 or jcc226@psu.edu, or my advisor, Dr. Robert B. Slaney at (814)863-4594 or rslaney@psu.edu

If you agree to take part in this research study and the information outlined above, please print off this form to keep for your records, and then click on the “Continue to Next Page” button below.

Raffle Drawing

If you wish to be entered into a raffle drawing for a \$25 gift certificate from Amazon.com, please enter your e-mail address below so that you can be contacted if you win. Please note that this server technology ensures that your e-mail address will not be linked to your responses to the survey questions. Please click on the "Continue to Next Page" button below when you are done.

Debriefing Statement

Thank you for your participation in this research study. The survey you completed will help to understand how perfectionism, a personality factor, may be related to various adjustment experiences of people with disabilities.

If you have questions, comments, or concerns about this study, or if you would like to find out about the results of this study, please contact the primary researcher, Jenny C. Chang, at (814)867-2737 or jcc226@psu.edu, or her advisor, Dr. Robert B. Slaney, at (814)863-4594 or rslaney@psu.edu

Once again, thank you very much for your participation!

VITA

Jenny C. Chang
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State College, PA 16801
(814)867-2737
jcc226@psu.edu

Education

The Pennsylvania State University, University Park, PA
Ph.D. Candidate in Counseling Psychology, May 2009

The University at Albany/SUNY, Albany, NY
M.S. in Rehabilitation Counseling, December 1997

Cornell University, Ithaca, NY
B.A. in Psychology, May 1996

Employment

The Pennsylvania State University, University Park, PA
Counseling and Psychological Services, Staff Therapist, Present

Virginia Commonwealth University, Richmond, VA
University Counseling Services, Pre-doctoral Intern, 2003-2004

The PsychCentre, State College, PA
Assessment/Testing Assistant, 2002-2003

The Pennsylvania State University, University Park, PA
Counseling and Psychological Services, Graduate Assistant, 2002-2003

Schenectady Association for Retarded Citizens (ARC)
Satellite office at The Center for the Disabled, Albany, NY
Vocational Rehabilitation Counselor/Evaluator, 1998-1999

Professional Affiliations and Honors

R. Mae Shultz Scholarship- College of Education, Penn State University, 1999

Rehabilitation Services Administration (RSA) Traineeship, 1999-2002

Student Affiliate Member of the American Psychological Association and Division 17

Student Member of the American Counseling Association and the American Rehabilitation Counseling Association