BRIEF, ONLINE INTERVENTIONS FOR PERFECTIONISTS

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Much of what is known about the treatment of perfectionists has been derived from secondary analyses of the NIMH Treatment of Depression Collaborative Research Program or extrapolated from research on depression, eating disorders, or anxiety disorders. Results of secondary analyses or extrapolated findings generally indicate that perfectionists have not responded well to standard psychological interventions. Based on the research on the effects of therapeutic feedback and expressive writing, two brief, online interventions, provision of feedback and provision of feedback followed by an opportunity to express in writing reactions to the feedback, were tested in the current study on a sample of maladaptive perfectionistic college students. A randomized, pretest-posttest-follow-up control group design was used. In addition to main effects, this study investigated mediational and moderational models to further explore factors that were conducive to therapeutic gains for perfectionists. The results of the study suggest that although perfectionism feedback may be appropriate to use with some maladaptive perfectionists (e.g., those less motivated to change, non-defensive, or with relatively lower standards), it may not be beneficial to others. The results are discussed in light of treatment implications, especially with regard to the manner in which perfectionists respond to therapeutic interventions.
Perfectionism has emerged as a topic of considerable interest in the counseling and personality literature in the past two decades. The results of a very brief search I have done on PsycINFO using the term “perfectionism” point to the remarkable increased attention the subject has received. Thus, between 1980 and 1990, 126 articles containing the term “perfectionism” were published, whereas 492 studies were published between 1991 and 2000 and 453 since 2001. The amplified consideration of perfectionism in the psychological literature led to a better understanding of the construct, and also to numerous, and sometimes contradictory, ways of conceptualizing it.

Flett and Hewitt (2002) reviewed the definitions used in the field of perfectionism research. They listed 21 terms and their definitions that occurred in the literature in relation with the perfectionism concept. Thus, “neurotic perfectionism” refers to “strivings for excessively high standards due to fears of failure and concerns about disappointing others” (p. 14), “concern over mistakes” is “a tendency to have a negative reaction to mistakes, anticipate disapproval, and interpret mistakes as equivalent to failure” (p. 14), whereas “normal perfectionism” is defined as “striving for reasonable and realistic standards that leads to self-satisfaction and enhanced self-esteem” (p. 14). Despite differences in the definition and conceptualization of perfectionism, there has been increasing agreement that perfectionism is a multidimensional construct (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991; Slaney, Rice, Mobley, Trippi, & Ashby, 2001), can be operationalized and understood as dimensional or categorical (Rice & Mirzadeh, 2000; Rice, Ashby, & Slaney, 1998), and involves relatively adaptive aspects as well as clearly maladaptive aspects (Chang, 2000; Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Rice et al., 1998).
Factor analyses of several measures of perfectionism have found consistently multi-factor solutions organized around adaptive and maladaptive aspects of perfectionism (Bieling, Israeli, & Antony, 2004; Frost, et.al., 1993; Suddarth & Slaney, 2001). Maladaptive perfectionism is characterized by unrealistic and rigid high standards for performance combined with overly critical and harsh self-evaluations. Maladaptive perfectionists define their self-worth in terms of achieving their extremely high standards and, at the same time, seem to have an inability to be satisfied with successful performance. Because of an intense fear of failure and a desire to reach impossible standards, completing a task becomes hard and unpleasant; for this reason, procrastination is common among maladaptive perfectionists (Flett, Blankstein, Hewitt, & Koledin, 1992). In other words, maladaptive perfectionists simultaneously view themselves as being responsible for reaching their goals and achieving their standards, yet do not expect that their efforts are likely to bring about the outcomes they want.

Adaptive perfectionism includes very high personal standards, a need for order and organization, and an unwillingness to procrastinate. Unlike maladaptive perfectionists, adaptive perfectionists seem able to be satisfied with and enjoy their successes and achievements. In general, perceived failures to meet high standards and goals are tolerated and do not lead to major internal or interpersonal problems. Maladaptive perfectionism has been associated with numerous psychological difficulties (Blatt, 1995; Flett & Hewitt, 2002) including different types of mood and performance concerns. For example, Brown, Heimberg, Frost, Makris, Juster, and Leung (1999) found perfectionism to be related to educational outcomes such as concern over course difficulty, increased anxiety, and increased negative mood. Indeed, research supports that, when compared with adaptive or non-perfectionists, maladaptive perfectionists evidence lower self-esteem, lack self-confidence, have insecure relationships, and perceive they are not doing
well academically (Ashby, Rice, & Martin, 2006; Brown, et al., 1999; Grzgorek, Slaney, Franze, & Rice, 2004; Parker, 1997; Rice & Dellwo, 2002; Rice, Lopez, & Vergara, 2005). Adaptive perfectionists report lower stress and anxiety than maladaptive perfectionists, better academic and social adjustment to college, more secure relationships and better overall emotional and psychological well-being (Ashby & Rice, 2002; Rice & Dellwo, 2002). Maladaptive perfectionists are more likely than non-perfectionists to suffer from depression (Blatt, 1995; Hewitt & Dick, 1986), eating disorders (Bastiani, Rao, Weltzin, & Kaye, 1995), anxiety (Kawamura, Hunt, Frost, & DiBartolo, 2001), obsessive-compulsive disorder (Frost & Steketee, 1997), and somatic symptoms (Martin, Flett, Hewitt, Krames, & Szanto, 1996).

Despite the well-established relation between maladaptive perfectionism and psychological distress, very few studies investigated therapeutic interventions for treating perfectionism and maladjustment coupled with perfectionism. With the exception of a very limited number of studies (DiBartolo, Frost, Dixon, & Almovodar, 2001; Ferguson & Rodway, 1994) that directly examined treatment interventions for perfectionists, much of what is known about the treatment of perfectionists has been derived from secondary analyses of the National Institute of Mental Health Treatment of Depression Collaborative Research Program, or other studies directed at treating different issues such as eating disorder or obsessive-compulsive disorder (Blatt, 1995; Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998; Zuroff, Blatt, Sotsky, et al., 2000). Based on these studies, it has been concluded that perfectionism impairs the therapeutic alliance, interferes with the successful treatment outcomes, that perfectionists, as well as their therapists, are rather dissatisfied with treatment gains, and, overall, perfectionists do not benefit as well as other clients from standard psychological interventions. For these reasons, Blatt (1995) suggested that for perfectionistic clients long-term and intensive psychoanalytic therapy (rather than brief
treatments) would be required in order to produce the desired therapeutic change. A different perspective is taken in this study, that perfectionists might benefit from brief and novel targeted interventions such as provision of online feedback and provision of feedback combined with writing about the reactions the feedback elicits.

Feedback has received attention in the counseling and more general psychological assessment literature. In the context of increased pressure for efficiency and efficacy within the mental health care field, it has been argued that providing feedback to clients within the framework of therapy or personality assessment constitutes a brief, yet cost-effective intervention (Newman & Greenway, 1997; Quirk, Strosahl, Kreilkamp, & Erdberg, 1995). In a review of research on the outcomes of feedback as a therapeutic intervention in the contexts of individual therapy, couple and family therapy, group therapy, and personality testing, Claiborn, Goodyear, and Horner (2004) found that, in general, feedback is an effective intervention, leading to positive outcomes such as behavior change and symptomatic improvement.

In addition, the usage of the Internet within the psychological domain has started being embraced by psychologists (Gosling, Vazire, Srivastava, & John, 2004). An increased number of psychologists are using the Internet not only for research purposes but also to provide counseling and therapy to the public. For example, behavioral health care practitioners are using a wide variety of Internet technologies, including E-mail (Borowitz & Wyatt, 1998), chat rooms (Sampson, Kolodinsky, & Greeno, 1997), and interactive video (Huston & Burton, 1997; Stamm, 1998), to deliver counseling and therapy. There are obvious advantages of using computer-assisted therapy as opposed to traditional face-to-face therapy such as the reduced cost, increased availability to large numbers of people, and potential anonymity for individuals who would
otherwise feel too embarrassed to seek out therapy. Initial studies using this approach show promising results (Klein & Richards, 2001).

The present study aims to address the paucity of systematic research on the treatment of perfectionism by investigating a potentially brief and cost effective treatment intervention: provision of online feedback based on a measure of perfectionism. More specifically, using a randomized, pretest-posttest-follow-up control group design, the study examines whether feedback alone has different therapeutic effects from providing feedback and allowing participants to express reactions to the feedback. Additionally, the presumed mechanisms that lead to improvement following feedback will be explored. Although there is increasing evidence that perfectionism is a multidimensional construct, with adaptive and maladaptive aspects, given its deleterious consequences, maladaptive perfectionism will be the focus in this study.

This paper will be structured in the following way: First the concept of perfectionism will be examined along with its assessment because there are different ways in which the construct has been conceptualized and several different scales of perfectionism are currently used throughout the literature. Next, empirical studies linking perfectionism and distress will be reviewed, followed by an investigation of the literature on the treatment of perfectionism. The literature on feedback provision, including online feedback, and its therapeutic effects will be considered and ethical concerns pertaining to the utilization of the internet to provide psychological services will be examined as well. Finally, the subsequent sections will focus on the description of the present study, planned methodology to test the hypotheses of this research, results, and discussion.
CHAPTER 2
LITERATURE REVIEW

The Concept of Perfectionism and Its Assessment

Perfectionism and its costs have been described for many years. For example, Freud’s concept of the superego includes two aspects: an introjected social conscience and an ego-ideal that is an idealized image consisting of approved and rewarded behaviors (Freud, 1933). The ego-ideal contains an ideal of personal excellence toward which a person strives and thus provides a concept of who one thinks s/he should be. Later, Karen Horney (1950) revised Freud’s concept of ego-ideal. She distinguished between the real self and the idealized self. The real self represents what we are, the inner core of personality including the potential for growth and self-realization. The idealized self represents what we think we should be and is used as a model to assist us in developing our potential and achieving self-actualization. In the average individual, the idealized self and the real self largely coincide because the idealized self is based on a realistic assessment of one’s abilities and potentials. However, in some individuals (called neurotics by Horney) the real self and the idealized self are discrepant or separated. These individuals believe that there are certain ideals they should be living up to. “To be this idealized self is all that matters. You should be able to endure everything, to understand everything, to like everybody, to be always productive…” (Horney, 1950, pp. 64-65). Horney (1950) referred to this pursuit of perfection as a neurotic "striving for glory" or "the tyranny of the shoulds". She considered that the striving to achieve an ideal of perfection is impossible and, in fact, deters one from being what s/he could become.

The conceptualizations of perfectionism over the years have varied, ranging from unidimensional characteristics that focus on its maladaptive aspects, to multidimensional standpoints that focus on different facets of a broad perfectionism construct. As a result of such
an array of viewpoints, definitions of perfectionism have changed, though often writers described perfectionism as negative, neurotic, and problematic. Hollender (1978) was among the first to provide a definition of perfectionism as demanding of oneself or others a higher quality of performance than is required by the situation. Burns (1980) described perfectionistic individuals as setting unrealistically high standards, rigidly adhering to them, and defining their self-worth in terms of achieving these standards. Pacht (1984) referred to “the insidious nature of perfectionism” (p. 387) and Blatt (1995) referred to the “destructiveness of perfectionism” (p. 1003).

Some authors (Frost et al., 1993; Slaney, Ashby, & Trippy, 1995) noted that, like psychology in general, perfectionism research tends to focus on negative aspects while ignoring the positive aspects of the construct. Thus, it has been suggested that perfectionism can also be “normal” or “adaptive” (Slaney et al., 1995) and attempts have been made to identify positive aspects of perfectionism. Individuals with normal or adaptive perfectionism set high standards, but unlike persons with negative perfectionism, are satisfied when the standards have been achieved. As mentioned earlier, in the more recent literature there is an emphasis on perfectionism as multidimensional rather than unidimensional, that is it has both personal and interpersonal aspects. Various perfectionism measures bring into play these aspects along with both adaptive features and features associated with maladjustment.

For example, Frost et al. (1990) identified six dimensions of perfectionism and developed a Multidimensional Perfectionism Scale (MPS). The Multidimensional Perfectionism Scale taps the dimensions of high personal standards, concerns about meeting parental expectations, doubts about one's actions, preference for organization and order, excessive concern about making mistakes, and parental criticism. According to Frost et al. (1990), perfectionists are often
excessively self-critical as well. Hewitt and Flett (1991) contributed to the existing conceptualizations of perfectionism by adding interpersonal aspects that are important to personal adjustment. They described three dimensions of perfectionism and operationalized them as subscales in their Multidimensional Perfectionism Scale (MPS): self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. Self-oriented perfectionists tend to set high, unrealistic personal standards with which they evaluate themselves. They are critical of themselves and maintain unrealistic self-expectations in the face of failure. This scale reflects strivings to attain perfection in one’s own endeavors as well as strivings to avoid failure. Other-oriented perfectionists require others to be perfect in many areas of functioning. This scale reflects lack of trust and feelings of hostility toward others. Socially prescribed perfectionists believe that other people hold high, unrealistic expectations of them and exert pressure on them to be perfect. They believe that the standards imposed are excessive and uncontrollable and thus, socially prescribed perfectionists believe that they are unable to meet the perceived perfectionistic demands and expectations imposed by others.

Johnson and Slaney (1996) developed the Almost Perfect Scale. Analyses from a large sample of participants yielded a 4-factor structure of the measure, and these factors were named Standards and Order, Anxiety, Relationship, and Procrastination. To better understand what perfectionism entails from the perspective of perfectionists themselves, two studies used the APS in interview format. Slaney and Ashby (1996) interviewed a sample of 37 self-described perfectionists at an U.S. university and Slaney, Chadha, Mobley, and Kennedy (2000) interviewed five students and faculty members at the University of Delhi, India who regarded themselves as perfectionists. When participants in both samples defined perfectionism and features associated with it, they emphasized having high personal standards for performance and
many also referred to a sense of orderliness or neatness. They viewed their high standards and order as important contributors to their success. Although most participants indicated that their perfectionism is often accompanied by distress, they also reported that they would not give up their perfectionism if given the chance. These results seemed to provide support for the assertion that perfectionism has not only negative aspects, but also positive features. It has been concluded that high standards and order exemplify positive aspects. Based on the observation that some perfectionists reported a perceived inability to meet their own high standards, it was proposed that the discrepancy between high standards and perceived performance constitutes a negative aspect of perfectionism. Thus, the revised version of the APS (APS-R), developed by Slaney, Mobley, Rice, Trippi, and Johnson (1996), included a Discrepancy subscale specifically designed to tap negative or maladaptive aspects of perfectionism along with the revised High Standards and Order designed to tap adaptive characteristics of perfectionism.

Indeed, a significant body of evidence has supported the validity of a two-factor model of perfectionism. Factor analyses of several measures of perfectionism have found robust multi-factor solutions organized around adaptive and maladaptive aspects of perfectionism (Bieling et al., 2004; Frost et al., 1993; Suddarth & Slaney, 2001). For instance, factor analytic studies of the Multidimensional Perfectionism Scales developed by Hewitt and Flett (MPS; 1991) and Frost and his colleagues (FMPS; Frost et al., 1990) have yielded two higher order factors that correspond to these two dimensions of perfectionism. Frost et al. (1993) factor analyzed the two MPS scales and identified two primary factors, which they referred to as maladaptive evaluative concerns and positive achievement striving. The maladaptive evaluative concerns factor reflected concerns over making mistakes, doubts about the quality of one's actions, and concerns about other people's evaluation or criticism. They found that this was the dimension that was
significantly related to depression and negative affect. Dunkley, Zuroff, and Blankstein (2003) conceptualized the adaptive and maladaptive dimensions of perfectionism as personal standards perfectionism and self-critical perfectionism, respectively. Personal standards perfectionism involves setting high standards and goals for oneself, whereas self-critical perfectionism involves harsh self-scrutiny and self-criticism and an inability to derive satisfaction from success. Slaney et al. (1995) included the APS (Slaney & Johnson, 1992) in their analyses, and like Frost et al. (1993) found support for a higher order two-factor structure. Rice, Ashby, and Slaney (1998) performed a confirmatory factor analysis of the FMPS and the APS (Slaney & Johnson, 1992) and, consistent with previous results, found support for two factors, which they labeled Maladaptive Perfectionism and Adaptive Perfectionism. Maladaptive Perfectionism was composed of measures tapping concern over mistakes, doubts about actions, difficulty in relationships, and anxiety and is similar to evaluative concerns perfectionism. Adaptive Perfectionism was most highly indicated by standards and order, organization, and personal standards and resembles personal standards perfectionism.

Independent of how the two factors are labeled, maladaptive aspects of perfectionism seem to typically include self-evaluations that are excessively critical and emphasize personal shortcomings in living up to often unrealistically high standards for performance. Similar to the maladaptive aspects, adaptive perfectionistic aspects emphasize high personal standards and desires to excel in performance to meet such standards, yet these desires and standards are experienced as motivational and encouraging. Perceived failures to meet such standards are tolerated and do not lead to intra- and interpersonal distress. Rice, Bair, Castro, Cohen, and Hood (2003), in a combined qualitative and quantitative study, found a particularly discouraging worldview of maladaptive perfectionists. Maladaptive perfectionists simultaneously view
themselves as being responsible for reaching their goals and achieving their standards, yet do not expect that their efforts are likely to bring about the outcomes they want. Consistent with Slaney and Ashby (1996) and Slaney et al. (2000) findings, the discrepancy between high standards and perceived performance emerged as an appropriate criterion that distinguishes adaptive from maladaptive perfectionism.

A few studies have investigated differences between adaptive and maladaptive perfectionism using an Adlerian approach (Ashby & Kottman, 1996; Kottman & Ashby, 1999). The findings suggest that an important distinction between adaptive and maladaptive perfectionism may come from the way in which individuals use their perfectionism. Thus, in their strivings for high standards, adaptive perfectionists may experience less distress related to perfectionism, and consequently they may be appropriately pursuing superiority, which according to Adler is a sign of mental health (Adler, 1956). In contrast, maladaptive perfectionists may actually pursue high standards in order to avoid feelings of inferiority, the result being higher levels of psychological anguish. Although what is adaptive about adaptive perfectionism is not always clear (Rice et al., 1998), an impressive literature reveals rather unambiguously that maladaptive perfectionism is clearly maladaptive and associated with numerous psychological difficulties (Blatt, 1995; Flett & Hewitt, 2002). The next section is devoted to the examination of the relationship between perfectionism and psychological concerns.

**Perfectionism and Distress**

A great number of studies investigated the direct and indirect association between the two facets of perfectionism (adaptive and maladaptive) and psychological ailments. Brown et al. (1999) found perfectionism to be related to pedagogical outcomes such as concern over course difficulty, increased anxiety, and increased negative mood. Perfectionistic students tend to
procrastinate and express increased negative affect related to evaluated tasks (Flett et al., 1992). When compared with adaptive or non-perfectionists, maladaptive perfectionists evidence lower self-esteem, lack self-confidence, and perceive they are not doing well academically (Brown et al., 1999; Parker, 1997; Rice & Lapsley, 2001). Adaptive perfectionists report lower stress and anxiety than maladaptive perfectionists, better academic and social adjustment to college, more secure relationships and better overall emotional and psychological well-being (Ashby & Rice, 2002; Rice & Dellwo, 2002; Rice, Leever, Christopher, & Porter, 2006).

As well, maladaptive perfectionism has been linked to problematic coping and emotional reactivity, that is maladaptive perfectionists tend to respond with emotional lability and hypersensitivity to environmental stimuli (Dunkley et al., 2003). Hewitt, Flett, and Endler (1995) found that perfectionism (operationalized as self-oriented perfectionism) was associated with increased levels of emotion-oriented coping. Blankstein and Dunkley (2002) established that maladaptive perfectionists have poor strategies for coping with perceived distressing events, and that such a mediating mechanism accounted for the relationship between perfectionism and distress. In other research, emotion-focused or avoidant coping (e.g., denial and disengagement) have been associated with maladaptive aspects of perfectionism, whereas less avoidant and more problem-focused coping styles have been related to adaptive perfectionism (Dunkley, Blankstein, Halsall, Williams, & Winkworth, 2000; Flett, Hewitt, Blankstein, Solnik, & Van Brunschot, 1996). Rice and Lapsley (2001) reported that dysfunctional coping (e.g., denial, inappropriate avoidance, and substance abuse) predicted emotional adjustment for maladaptive perfectionists. However, dysfunctional coping did not predict emotional adjustment for adaptive perfectionists. In a study exploring the mediating role of emotional regulation in the relationship between perfectionism and psychological distress, Aldea and Rice (2006) reported that maladaptive
perfectionism was positively associated with both emotional regulation (operationalized with measures of emotional reactivity and psychological splitting) and distress whereas adaptive perfectionism was found to have inverse and significant associations with emotional regulation and psychological distress. They also found support for full mediation effects of emotional regulation. Another indicator of self-regulation, self-esteem, has been significantly and negatively related to maladaptive perfectionism (Rice & Slaney, 2002). In addition, other studies (Preusser, Rice, & Ashby, 1994) found that self-esteem mediated the relation between socially prescribed perfectionism (maladaptive perfectionism) and depression in women and men.

It becomes clear that maladaptive perfectionists seem to be driven by a strong necessity to avoid failure which, combined with their inability to acknowledge success, leads to perceiving themselves as worthless and inadequate. Therefore, they tend to be more emotionally reactive to stressors that imply possible failure, loss of control, and criticism from others. In the event of perceived failure, they tend to engage in a form of self-reflection that is defeatist and further affects their self-worth. Thus, perfectionism may cause feelings of inferiority and vulnerable self-esteem leading to increased anxiety, feelings of failure, and general psychological discomfort. A relatively minor failure or even a perceived failure becomes magnified, resulting in negative affect and further increase in reactivity to stimuli and events in their lives. Thus, faulty coping and emotion regulation strategies (and most likely other factors) prevent maladaptive perfectionists from moving beyond the distress associated with perceived stressful situations and exacerbate rather than ameliorate their symptoms. Consequently, maladaptive perfectionists are more likely than non-perfectionists to suffer from a variety of psychological problems including, but not limited to, depression (Blatt, 1995; Hewitt & Dick, 1986), suicidal ideation (Hewitt, Flett, & Turnbull-Donovan, 1992), eating disorders (Bastiani et al., 1995),
anxiety (Johnson & Slaney, 1996, Kawamura et al., 2001), obsessive-compulsive disorder (Frost & Steketee, 1997), and somatic symptoms (Martin et al., 1996).

For example, with regard to eating disorders, several studies have examined perfectionism and eating disorders and have identified perfectionism as a specific risk factor for the development of eating disorders in large-scale community studies as well as in college student samples (Fairburn, Cooper, Doll, & Welch, 1998; Franco-Paredes, Mancilla-Dýaz, Vazquez-Arevalo, Lopez-Aguilar, & Alvarez-Rayon, 2005; Joiner, Heatherton, Rudd, & Schmidt, 1997). Elevated perfectionism has been found in small samples of underweight patients and in weight-restored patients with anorexia nervosa and high levels of perfectionism were found to persist after long-term recovery from anorexia nervosa, suggesting that perfectionism is not a function of low weight (Bastiani et al., 1995; Srinivasagam, Kaye, & Plotnicov, 1995).

In addition, perfectionism has been shown to be associated with anxiety disorders (Antony, Purdon, Huta, & Swinson, 1998; Ashby & Brunner, 2005; Flett, Hewitt, & Dick, 1989; Tomohiro, 2005), with the association being most fully investigated in obsessive–compulsive disorder (OCD). Individuals with OCD have been described as tormented by an inner drive for certainty and perfection and thus perfectionism has been suggested to be a risk factor for the development of obsessive-compulsive disorder (Rhéaume, Freeston, Dugas, Letarte, & Ladouceur, 1995). In both clinical and non-clinical samples individuals with OCD symptoms scored higher than normal controls on the MPS (Frost et al., 1990) subscales Concern over mistakes and Doubts about actions (Antony et al. 1998; Frost & Steketee, 1997; Tomohiro, 2005). The research on perfectionism and depression is quite abundant. Perfectionism is one of the personality factors that seems to be relatively consistent in predicting depression (Hewitt & Flett, 1991; Hewitt, Flett, Ediger, Norton, & Flynn, 1998). Early research on perfectionism
focused on the direct association between perfectionism and depression. However, a more complicated set of relationships between perfectionism and depression has emerged lately: depression seems to result not so much from the direct effects of perfectionism but from the effects that different dimensions of perfectionism have on other factors such self-esteem, emotional reactivity, or stress. For instance, path model analyses have revealed that, although adaptive perfectionism was not directly or indirectly (through self-esteem) associated with depression, maladaptive perfectionism was negatively associated with self-esteem and positively associated with depression, with self-esteem buffering the effects of maladaptive perfectionism on depression (Rice et al., 1998). In a qualitative interview study, Rice et al. (2003) found that a general impression of perfectionists is that they are under considerable stress. It appears that, through self-imposed pressure, maladaptive perfectionists play an active role in creating and generating stress for themselves. Indeed, a growing body of research indicates that stress is a risk factor for depression and therefore vulnerability associated with perfectionism, when activated by stress, results in depression (Hewitt and Dyck, 1986; Hewitt & Flett, 1993; Hewitt et al., 1995; O’Connor, & O’Connor, 2003; Rice & Lapsley, 2001).

Not all dimensions of perfectionism, however, are equally important as factors in depression. Self-oriented perfectionism and socially prescribed perfectionism were found to interact with stress (conceptualized for example as achievement stress or negative life events) to predict concurrent levels of depressive symptoms, but only self-oriented perfectionism was associated with significant increase in depression over time (Flett & Hewitt, 1995; Hewitt & Flett, 1993; Hewitt, Flett, & Ediger, 1996). These results indicate that high standards, in and of themselves, are not automatically associated with depression, but stress (generated by a life event or by perceived failure to meet those standards) is necessary for these individuals to experience
depression. Other studies indicated that maladaptive dimensions of perfectionism represent enduring psychological vulnerabilities (trait stability) that are significant predictors of later depression (Cox & Enns, 2003; Rice & Aldea, 2006).

A variety of reasons were provided to explain why perfectionists seem to be prone to experiencing distress. It has been emphasized that maladaptive perfectionists impose unrealistically high standards on themselves, are unlikely to achieve them, and engage in excessively critical self-evaluations (Alden, Ryder, & Mellings, 2002; Blatt, 1995; Blatt, Quinlan, Pilkonis, & Shea, 1995). This continual dissatisfaction with themselves most likely leads to psychological distress often expressed in a variety of psychological problems (including stress, hopelessness, helplessness, depression, and anxiety).

**Treatment of Perfectionism**

Despite the evident association between perfectionism and psychological concerns, research on therapeutic interventions for treating perfectionism and maladjustment coupled with perfectionism is very scarce. On the same lines, very little is known about what types of therapeutic interventions are effective in decreasing maladaptive aspects of perfectionism while increasing or enhancing adaptive aspects. To my knowledge, few empirical studies directly examined treatment interventions for perfectionists. Ferguson and Rodway (1994) took a cognitive-behavioral approach to treating perfectionism. They utilized an ABA design and perfectionism was measured with Burns Perfectionism Scale (Burns, 1980). The treatment focused on issues associated with perfectionism such as self-criticism, difficulty dealing with feedback, procrastination, and unrealistic goal setting. The authors reported that the cognitive-behavioral treatment was successful for eight of the nine participants; however, these participants showed variable degrees of reduction in perfectionism. DiBartolo et al. (2001) investigated the utility of a brief cognitive restructuring intervention in affecting perfectionists’ typical negative
responses to evaluative threat. Participants in their study were 60 female undergraduates who had to deliver a speech before a small audience. Participants high and low in perfectionistic concern over mistakes (CM) were randomly assigned to receive either a cognitive restructuring or distraction intervention prior to the speech task. Participants high in CM reported significantly more negative cognitive and affective responses to the evaluative task than low CM participants. Cognitive restructuring was successful in that all participants (high and low CM) reported lower estimates of the most feared predictions for the impending speech, reduced anxiety, and increased ability to cope with the most feared predicted outcome. Thus, although based on a small and homogeneous sample, the results of this study provide some preliminary support for the effectiveness of cognitive restructuring in the treatment of perfectionism.

In addition to cognitive therapy, it has been suggested that emotion-focused therapy may be effective in helping perfectionists dealing with their emotional distress. Greenberg and Bolger (2001) presented a case study of a woman, who, among other issues (i.e. abusive and alcoholic parents, loss of a child) presented with perfectionistic tendencies (e.g. need for control, high standards). The authors employed an emotion-focused approach with this client, following a three-step treatment process. The first step was to facilitate emotional awareness that “provides access to the information and the tendency toward action implicit in the emotion, and promotes assimilation of experience into a person’s ongoing self-narrative” (p. 210). The second step addressed emotional arousal and its regulation, the goal being for the client to learn to soothe and comfort him/herself. The final step was to replace maladaptive emotions with more adaptive ones. Following this process, highly self-critical maladaptive perfectionist who is prone to experiencing disappointment or anger with him/herself may gradually learn self-acceptance, compassion, or even self-forgiveness. The case study and the approach presented by Greenberg
and Bolger (2001) provide a promising foundation for the use of emotion-focused therapy in treating perfectionistic clients, however experimental research is warranted to further investigate the effectiveness of this form of treatment.

With the exceptions noted above, in the great majority of studies, perfectionism was not the explicit focus of the therapeutic intervention, but it was examined in the context of specific therapeutic approaches geared toward treating certain psychological issues such as depression, eating disorders, or obsessive-compulsive disorder. For example, a series of such studies conducted by Blatt and his colleagues (Blatt et al., 1995, 1998; Zuroff et al., 2000) revealed that perfectionism plays an important role in the treatment of depression. Blatt and his colleagues analyzed the data from the National Institute of Mental Health Treatment of Depression Collaborative Research Program, which compared four treatments for depression (cognitive-behavioral therapy, interpersonal psychotherapy, pharmacotherapy, and a pill-placebo plus clinical management). These studies showed that, across all intervention conditions, perfectionism interfered with the successful treatment of depression. More specifically, patients' pretreatment levels of perfectionism affected therapeutic outcome at termination and satisfaction with the treatment process independent of the treatment modality. In other words, patients high in perfectionism had reduced treatment gains and were overall less satisfied with the treatment received. Moreover, this effect was observed not only during treatment and at termination, but also at 18 months follow-up.

A merit of these studies is that they did not rely only on patients’ self-reports. Ratings of therapeutic progress were also made by therapists and clinical evaluators. Based on these findings, it was concluded that highly perfectionistic clients not only feel subjectively dissatisfied with what they achieved in treatment, but also are perceived as less improved by
objective evaluators at termination and at follow-up. Therefore, the results cannot simply be attributed to perfectionistic patients perceiving that they failed to meet the high standards they themselves set. One explanation for the negative impact of perfectionism was that perfectionism affected therapeutic outcome by disrupting the therapeutic relationships. Zuroff et al. (2000) found support for this hypothesis. More specifically, their results revealed that the effect of pretreatment perfectionism on treatment outcome at termination was mediated by the patients’, but not the therapists’, contributions to the therapeutic alliance. For a better understanding of when the disruptions in alliance takes place, the therapeutic process was assessed every 4 weeks during the 16-week treatment process. It was found that highly perfectionistic individuals, but not those low in perfectionism, discontinued their active participation in the development of the therapeutic alliance particularly in the latter half of the therapeutic process (weeks 8-16) thus providing support for the notion that perfectionism interferes with forming a strong therapeutic alliance that in turns leads to poor therapeutic outcomes (Blatt et al., 1998; Zuroff et al., 2000). In addition, it has been found that perfectionists have difficulty with social relations in general, not only with their therapist, and that it is the impaired social support that is conducive to poor treatment outcome (Sharar, Blatt, Zuroff, Krupnik, & Sotsky, 2001). In conclusion, highly perfectionistic individuals appear to have interpersonal difficulties in and outside the therapy session that damage the therapeutic alliance and eventually negatively affect their ability to fully benefit from therapy (Blatt & Zurrof, 2002).

Taking a psychoanalytic perspective, Blatt (1995; Blatt & Zuroff, 2002) suggested that the interaction of perfectionism with the quality of the therapeutic relationship is consistent with the theoretical formulations of the introjective configuration of psychopathology. “Introjective psychopathology involves preoccupation with issues of self-definition at the expense of
development of capacities for interpersonal relatedness” (Blatt & Zuroff, 2002, p. 394). Blatt (1995) speculated that these individuals are less concerned about the quality of their interpersonal relations and achieving feelings of trust, warmth, and affection. Their main focus is on establishing, protecting, and maintaining a viable self-concept and, to achieve this goal, they engage in counteractive defenses (e.g. projection, denial, reaction formation, and overcompensation). The need for perfection and self-criticism was attributed to stem from relationship with parents who were intrusive, controlling, and punitive. Thus, one of the primary tasks in treating highly perfectionistic individuals would be to enable them to relinquish aspects of their identification with harsh and judgmental parental figures that eventually would allow them to become able to define themselves “independent of their highly critical and demanding introjects while maintaining contact with the more benign and nurturant dimensions of their parental introjects” (Blatt, 1995, p. 1014). For these reasons, Blatt (1995) suggested that for perfectionistic, introjected clients long-term and intensive psychoanalytic therapy (rather than brief treatments) would be required in order to enable patients to form a strong therapeutic relationship and to begin to change deeply-seated negative mental representations of self and others.

Other theorists (Brown & Beck, 2002; Ellis, 2002; Sorotzkin, 1998) take a cognitively-oriented approach. They believe that the difficulties in treating perfectionistic clients stem, not from past dysfunctional parent-child interactions, but from perfectionists’ dichotomous thinking and irrational beliefs. Thus, these clients are unable to recognize small improvements and, in addition, their tendency to strive for perfection surfaces in their striving for achieving perfectionistic therapeutic goals. Over the years, research and theory on rational emotive behavioral therapy (Ellis, 1957, 1962, 2002) have emphasized that irrational and self-defeating
beliefs involving perfectionism (i.e., irrational fear of failure, conditional self-acceptance, pursuit of extreme and unrealistic goals) play a significant role in a wide variety of personal adjustment problems, including anxiety, depression, and in interpersonal difficulties that highly perfectionistic individuals experience. Thus, cognitive theorists argue that long-term emotional and past-oriented therapeutic approaches Blatt advocated are not all necessary. Instead, treatment could embark upon attenuating ‘‘the tyranny of the shoulds’’ (Horney, 1950) or challenging, disputing, and finally replacing maladaptive and dysfunctional perfectionistic thinking. Shafran Cooper, and Frairburn (2002) proposed a cognitive-behavioral treatment of perfectionism that has four components: The first component is to help clients identify perfectionism as a problem and to recognize that part of the problem is that their self-evaluation and self-worth are a function of achieving overly demanding standards. The second component is helping clients identify and adopt alternative ways of thinking and behaving that will expand the way they self-evaluate. The third component of treatment involves using behavioral experiments to test competing hypotheses (e.g., a client can compare the quality of her social interactions with peers when attempts to have the ‘perfect’ social interaction to the situation when the client simply tries to focus on having fun). Finally, the fourth component consists of using cognitive–behavioral techniques to address the clients' personal standards and self-criticism in general. In practice, this involves helping clients identify and change dichotomous thinking and addressing cognitive biases that maintain perfectionism, particularly selective attention to the possibility of failure and to the hypervigilant monitoring of performance.

Lundh (2004) observes, however, that addressing the client’s perfectionism as a problem may be met with resistance, because perfectionists often perceive their perfectionistic strivings as being associated with various benefits and rewards (e.g. higher achievements at school and
work). This author notes that if the client’s perfectionistic strivings are not questioned and challenged directly much less resistance on the part of the client may occur. From Lundh’s perspective, the therapist should help the client to distinguish between perfectionistic strivings and perfectionistic demands, while at the same time validating the client’s perfectionistic strivings as something healthy and functional, and discussing the pros and cons of perfectionistic demands from a more critical perspective. The goal of this approach is to facilitate client’s “striving for perfection, while being able to accept non-perfection” (p. 265). Hence, this treatment strategy focuses on helping the client develop more self-acceptance, without necessarily confronting the client’s perfectionistic beliefs and demands. Such development of more accepting attitudes “may serve as a corrective to an unbalanced perfectionism, and may thereby also produce a more healthy dialectic between change and acceptance in the therapeutic process” (Lundh, 2004, p.265).

In summary, there is support that perfectionism impedes the successful treatment of psychological problems such as depression and that perfectionism itself is very difficult to treat. Despite these concerning findings and even though theoretical models of perfectionism exist and tentative treatment protocols for perfectionism have been proposed, no controlled clinical trials have been conducted. Moreover, most research on perfectionism is correlational in nature and the perfectionist has been placed in a generally passive role in much of this research. To my knowledge, studies that involve the perfectionistic participants in a more active and reflective manner beyond the completion of study questionnaires has been the exception rather than rule, despite the potential benefits such approach might reveal about ways to understand and effectively treat perfectionism.
In addition, acknowledging that clinical trials of perfectionism treatment might be time consuming, expensive, and overall more difficult to implement, other types of interventions aiming at decreasing maladaptive aspects of perfectionism and improving psychological functioning of perfectionists can be developed. For example, it is not to be ignored that several measures of perfectionism with impressive psychometric qualities have been developed, but their direct clinical utility has not been a focus for their use. Therefore, a possible brief and effective therapeutic intervention is to provide perfectionists with feedback about their perfectionism and the aspects of perfectionism that are detrimental to their well-being. Furthermore, a significant number of studies has shown that writing about upsetting experiences improves mental and physical health (Francis & Pennebaker, 1992; Greenberg & Stone, 1992; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Sloan & Marx, 2004; Smyth, 1998). Thus, a more comprehensive, yet still easy to implement, variant of providing feedback to perfectionists would be to provide them with perfectionism feedback and then allow them to process the information received by writing about the reactions, thoughts, and emotions the feedback elicited.

Results across various studies are consistently showing that the writing paradigm has clinically meaningful effects as evidenced by positive changes in cognitions, self-esteem, and adaptive behavior (Donnelly & Murray, 1991; Smyth, 1998). An explanation for the beneficial effects of writing is that writing brings about cognitive changes. For example, communication of ideas requires coherence, self-reflection, and use of multiple perspectives that “forces a structure on an otherwise overwhelming and oftentimes chaotic experience” leading to a better understanding of one’s experiences as well as self-understanding (Esterling, L’Abate, Murray, & Pennebaker, 1999, p. 85). Moreover, translating emotions into language alters unclear feeling
states into conscious verbal labels and the mere labeling of an emotion appear to actually reduce its perceived intensity (Berkowitz & Troccoli, 1990; Keltner, Locke, & Audrain, 1993).

Although it has been suggested that long-term therapy would be necessary to treat perfectionists, it can be argued that short-term approaches, like those proposed above, might be effective at least in terms of increasing perfectionists’ desire to relinquish negative aspects associated with perfectionism. First, a brief encounter with a mental health professional might be perceived as less threatening by perfectionistic clients and thus it would be less likely to elicit defensive responses. Second, a brief intervention in which the therapeutic relationship is not the focus might prevent perfectionists from trying to be “the perfect client” by giving the kind of responses they may believe are appropriate and expected. Third, a brief intervention may increase awareness regarding both the psychological costs of perfectionism, particularly maladaptive perfectionism, and the benefits of high standards. Increased awareness might be a primary step in initiating motivation for change in what appears to be a population at risk (Prochaska & Norcross, 2001).

A brief treatment intervention does not seem long or intensive enough to teach new skills or alter personality, but it seems plausible that it could stimulate motivation for change. Frank and Frank (1991) indicate that a powerful component of therapy is the fact that it provides a rationale, a plausible explanation for the patient’s symptom. Brief treatment interventions, such as providing perfectionism feedback to perfectionistic individuals or providing feedback and an opportunity to process reactions to the feedback received, may help these individuals better understand themselves and their struggles which may sparkle their desire and willingness to change. The notion that behavior change involves a process that occurs in increments is at the core of the transtheoretical model developed by Prochaska and DiClemente (DiClemente &
Prochaska, 1985; Prochaska & DiClemente, 1983, 1992). In this model, change is viewed as a progression from an initial precontemplation stage, to contemplation, action, and finally maintenance stage. Underlying the precontemplation stage is the individual’s belief that she or he does not have a problem, whereas in the contemplation stage, one considers the pros and cons of altering the behavior. In the action stage, the individual undertakes efforts to change, and in the maintenance stage, one focuses on sustaining improvement. Sometimes a preparation stage, intermediary to contemplation and action, is also described (Prochaska, DiClemente, & Norcross, 1992). In other words, individuals move from being unaware or unwilling to do anything about their problem, to considering the possibility of change, and finally to taking action and maintaining that change over time.

The purpose of the present study is to blend interests in clinically-meaningful perfectionism research with perfectionism assessment. More specifically, the intention is to understand whether empirically-grounded structured internet feedback provided (either alone or in combination with an opportunity to react to the feedback) to perfectionists about results on a perfectionism measure affects their readiness and motivation for change and, as a result psychological distress often associated with perfectionism. The basic assumption is that brief treatment interventions, such as provision of feedback and provision of feedback combined with the opportunity to process the information provided, may speed or facilitate perfectionists’ motivation for change thus providing clinicians with a relatively simple and cost-effective approach to help clients transition from a contemplative stage to a more action-oriented stage that would allow them, in further therapy, to eventually modify maladaptive behaviors associated with perfectionism. Maladaptive perfectionists may not want to be lectured to or given “action” suggestions when they are not ready to change; as well, even if they are considering the
possibility of making a change (e.g., lowering standards) but are not quite ready to make a commitment, they may be resistant to traditional approaches that encourage (or even push) them to make changes for which they are not yet ready. For these reasons, provision of feedback seems to be a relatively neutral and non-threatening approach that would allow perfectionists to examine their particular situations and make their own decision with regard to whether they want to change anything about themselves.

**Feedback**

Kurt Lewin, who borrowed the term feedback from electrical engineering, apparently was the first to apply it in the social sciences. Generally accepted definitions of feedback in psychology emphasize that feedback involves information given to an individual by an external source about the person’s behavior or its consequences. Feedback intervention research in psychology dates back almost 100 years. Several experiments in the beginning of the century suggested that knowledge of results interventions - a form of feedback - increases performance (Arps, 1920; Book & Norvell, 1922; Brand, 1905; Elwell & Grindley, 1938–1939; Manzer, 1935; Thorndike, 1927).

In the field of performance appraisal, feedback refers to how well a person performs a task relative to some goal or standard. The single most influential theory in this area is Thorndike's (1913) law of effect. Based on the law of effect, a positive feedback was equated with reinforcement and a negative feedback with punishment. Reinforcement and punishment facilitate learning and hence performance. Both a positive feedback and a negative feedback should improve performance because one reinforces the correct behavior and the other punishes the incorrect behavior. Although there is no theory dedicated to feedback intervention, several theories and research paradigms contain the concept of feedback as a central component (Kluger and DeNisi, 1996): control theory, also known as cybernetics, (Annett, 1969; Podsakoff & Farh,
goal setting theory (Locke & Latham, 1990), multiple-cue probability learning paradigm (MCPL; Balzer, Doherty, & O'Connor, 1989), social cognition theory (Bandura, 1991), and a variant of learned helplessness theory (Mikulincer, 1994). These theories have been used to test feedback effects and, although results are at times contradictory (Kluger & DeNisi, 1996), there is general support for the positive effects of feedback.

The giving and receiving of performance feedback is ubiquitous in organizations, and the design and maintenance of feedback systems are considered essential for both individual and organizational performance (Fedor, 1991). This awareness led to studies aiming to identify processes and factors that affect the relationship between the receipt of performance feedback and an individual's response to feedback. Such studies examined relationships between individuals’ response to feedback and the power and credibility of the feedback source (e.g., Fedor, Davis, Maslyn, & Mathieson, 2001), the sign, specificity, and consistency of feedback (e.g., Podsakoff & Farh, 1989; Stone & Stone, 1985), and the acceptance of feedback (e.g., Fletcher, Taylor, & Glanfield, 1996). In a recent study Kinicki, Prussia, Wu, and McKee-Ryan (2004) analyzed a sequential chain of cognitive variables proposed to mediate an individual's response to feedback. The authors reported that a feedback-rich environment, source credibility, and desire to respond to feedback (i.e., performance) were positively associated with perceived accuracy of feedback, i.e., recipients perceived feedback as being more accurate and were willing to respond to it when it was characterized as specific and frequent and was coming from trustworthy and competent managers. They concluded that an individual's response to feedback (i.e., performance) is more contingent upon the cognitive processing of feedback (i.e., perceived accuracy) than the characteristics of the feedback itself (i.e., positive or negative feedback).
It is evident that feedback has been researched and broadly utilized in the industrial-organizational realm, however the investigation of its effects in clinical work is sparse. In the context of increased pressure for efficiency and efficacy within the mental health care field, it has been argued that providing feedback to clients within the framework of therapy or personality assessment constitutes a brief, yet cost-effective intervention (Newman & Greenway, 1997; Quirk et al., 1995). In a review of research on the outcomes of feedback as a therapeutic intervention in the contexts of individual therapy, couple and family therapy, group therapy, and personality testing, Claiborn et al. (2004) found that, in general, feedback is an effective intervention. Specifically, provision of feedback led to positive outcomes such as behavior change and symptomatic improvement.

Despite potential positive implications, feedback has received little attention in the counseling literature. Although, most people who are psychologically assessed are interested in receiving feedback about their assessment results (Graham, 2000), practitioners may be reluctant to review psychological test results with clients. This reluctance has relatively early origins and may stem from the view that providing test feedback may be potentially harmful to clients. Indeed, Klopfer (1954) cautioned psychologists that, “giving a written report to a patient is an extremely dangerous and harmful thing to do” (p. 603). If a client was particularly interested in his/her test results, he recommended giving “fairly superficial kinds of interpretation” (p. 603) that are not anxiety-provoking for the client. It has been argued that clients may not necessarily understand the information in the way the examiner intended it to be understood and that the sheer amount of information derived from such assessments, even if restricting information deemed most relevant, may be difficult for the client to integrate in the best of circumstances. The view that client’s access to their results is potentially detrimental to clients seemed to have
persisted in psychological practice. Two large studies (Pope, Tabachnick, & Keith-Spiegel, 1987, 1988) concerning psychologists’ beliefs about and compliance with ethical principles revealed that 45% of practitioners did not allow clients’ access to testing reports and more than 50% viewed such practice as unethical. Butcher (1992) provided an additional explanation for the hesitation of sharing with clients their results: many practitioners are unaware of or have not been trained in providing feedback. Indeed, there are important considerations in providing feedback, such as matching the quantity and quality of the information to what the client can be expected to reasonably comprehend and integrate in a feedback session. Butcher (1992), Clair and Prendergast (1994), Finn (1996), Graham (2000), and Pope (1992) all recommend that an important component of feedback is assessing what the client has learned from the feedback.

Despite practitioners’ hesitations to share results with clients, it has been recognized that clients have legal rights to information in their records (Brodsky, 1972). According to the Ethical Principles and Code of Conduct of Psychologists (American Psychological Association [APA], 2002), psychological assessment results should be explained to clients except under some circumstances (e.g., pre-employment security screening). The movement in both law and ethics over the past two decades has been toward an expansion of client autonomy, notwithstanding what may be in the client's best clinical interest. This trend can be seen on the federal level, on the state level, in state statutes, and in court rulings. For example, under the Health Insurance Portability and Accountability Act (HIPAA), patients are granted access to their records, with the exception of psychotherapy notes. The work of the APA Ethics Code Task Force is consistent with, and firmly in the context of, this trend. The Ethics Code Task Force gives priority to the exercise of client autonomy which entails providing clients with information related to their mental health, such as test data, that the individual wants and requests.
In addition to this mandate, there exists some compelling theoretical and empirical evidence that sharing results based on different measures can be clinically beneficial (Graham, 2000). For example, Lewak, Marks, and Nelson (1990) proposed that sharing test results can improve clients’ mental health when they are encouraged to actively participate in Minnesota Multiphasic Personality Inventory-2 (MMPI-2) feedback sessions. Finn and Tonsager (1992) and Newman and Greenway (1997) provided direct evidence that receiving MMPI-2 feedback is associated with positive effects. In Finn and Tonsager’s (1992) study, college students seeking psychological services from a university counseling center either received MMPI-2 feedback or examiner attention only. Compared with clients receiving only examiner attention, those who completed the MMPI-2 and heard their test results reported a significant decline in symptomatic distress, a significant increase in self-esteem, and felt more hopeful about their problems, both immediately following the feedback session and at a 2-week follow-up. Newman and Greenway (1997), using an improved design and slightly different measures, replicated Finn and Tonsager’s (1992) results.

Although psychologists routinely administer other assessments much briefer than the MMPI-2, it is apparent that research on the therapeutic benefits of test feedback has been limited mostly to tests that are used most often by psychologists, such as the MMPI-2. To my knowledge, there has been extremely scant systematic study of the effects of providing feedback to clients based on responses to shorter instruments. Miller, Benefield, and Tonigan (1993) demonstrated that alcoholic clients provided feedback based on two alcoholism screening measures showed greater reduction in drinking than the control group. Worthington, McCullough, Shortz et al. (1995) found that, as compared to a control group, couples receiving feedback based on a battery of brief instruments showed improvement in dyadic satisfaction and
commitment. As well, Neighbors, Larimer, and Lewis (2004) found that computer-delivered personalized normative feedback was effective in changing perceived norms and alcohol consumption.

Although some speculate that personality or adjustment factors mediate feedback (McCrae & Costa, 1991), not much is known about such factors and the roles they play in examiner-examinee feedback processes. Employing a randomized, pretest-posttest control group design, Aldea, Rice, & Gormley (under review) examined the therapeutic effects of providing perfectionism feedback to maladaptive perfectionists. Using hierarchical linear modeling the effects of perfectionism over time on outcome ratings such as emotional reactivity and psychological distress and the effects of treatment condition and gender on the relationship between perfectionism and outcomes (in general and after feedback) were observed. Results revealed that providing feedback helped reduce emotional reactivity and global symptomatic distress, including by reducing maladaptive perfectionism, for most of the participants in the study.

Internet Psychological Services

Rapid and far-reaching technological advances are revolutionizing the ways in which people relate, communicate, and live their daily lives. Technologies that were hardly used a few years ago, such as the Internet, e-mail, and video teleconferencing, are becoming familiar methods for modern communication. The Internet in particular has grown exponentially from its original conception and now takes the form of a vast network of interconnected computers. It encompasses such a wide arena within science that its impact cannot be ignored and has the potential to have as great an impact on society and human behavior as the telephone and the television (Jerome, DeLeon, James, Folen, Earles, & Gedney, 2000). Use of the Internet within the psychological domain has many advantages and recently started being embraced by
psychologists (Gosling et al., 2004). A growing number of people are using the Internet for research purposes and to provide counseling and therapy to the public. For example, behavioral health care practitioners are using a wide variety of Internet technologies to deliver counseling and therapy, including E-mail (Borowitz & Wyatt, 1998; Eysenbach & Diepgen, 1998; Shapiro & Schulman, 1996; Stein, 1997), chat rooms (Sampson et al., 1997), the World Wide Web (Maheu, 1997), and interactive video (Baer, Cukor, Jenike, Leahy, O'Laughlen, & Coyle, 1995; Huston & Burton, 1997; Stamm, 1998; Troster, Paolo, Glatt, Hubble, & Koller, 1995). Within this context, Internet-based services have been taken into consideration and have been specifically addressed in state and federal legislation regulating delivery of “telehealth” services (Alexander, 1999; Nickelson, 1998). Telehealth is defined as “the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision, education, and information across distance” (Nickelson, 1998, p. 527). EHealth is the new general term being used to refer to Internet delivery of health care services, including direct care such as counseling or psychotherapy. Behavioral eHealth is a more specific term that best captures the variety of psychological services being offered, ranging from psychoeducational information to psychotherapy. Funded and developed by private corporations, eHealth has grown dramatically in the past years (Allen, 1999).

Ethical concerns have been raised regarding the utilization of the internet to provide psychological services (Barak, 1999; Jerome et al., 2000, Maheu & Gordon, 2000). For example, while conducting such interventions, clients may believe that the Internet is secure or video teleconferencing is always completely confidential and private. To safeguard against a breach in confidentiality, practitioners should fully inform clients of the limits of confidentiality associated with such forms of telecommunications (Jerome et al., 2000). Shapiro and Schulman (1996)
discussed legal and ethical issues common in e-mail therapy and proposed guidelines and standards when using this medium. Specific concerns include the delineation of the professional relationship and the responsibilities that accompany that role, the scope of competence, informed consent, treatment of minors, confidentiality, and the duty to warn and protect (Jerome et al., 2000; Maheu & Gordon, 2000). In addition, other authors (King, 1996a, 1996b; Naglieri, Drasgow, Schmit, Handler et. al, 2004) delineated ethical problems associated with the collecting and reporting of data culled from the Internet and proposed guidelines for research conducted in Internet communities.

There are obvious advantages of using computer-assisted therapy as opposed to traditional face-to-face therapy such as the reduced cost, increased availability to large numbers of people, and potential anonymity for individuals who would otherwise feel too embarrassed to seek out therapy (Hill, Rochlen, Zack, McCready, & Dematatis, 2003). In addition, there is evidence that suggests that individuals orient towards, and respond to, computers much as they orient socially towards, and respond to, other humans (Reeves and Nass, 1996; Nass and Moon, 2000). Although effectiveness of remote consultation in psychotherapy has not been fully assessed, initial studies show promising results. For example, Klein and Richards (2001) investigated the effectiveness of an Internet-based intervention for panic disorders. Participants meeting criteria for panic disorders were randomly assigned to either the intervention or a self-monitoring control condition. The treatment condition was associated with significant reductions in measures of panic, body vigilance, and self-efficacy in managing panic. Richards and Alvarenga (2002) developed and expanded this internet-based program and reported that the use of the program was associated with significant reductions in panic disorder severity, specifically, panic frequency and distress during panic attacks in the experimental group. Murdoch and Connor-
Greene (2000) reported two clinical cases in which e-mail was used as an adjunctive therapy to enhance patients' involvement in treatment. In both cases, patients' reports suggest that therapeutic alliance and therapeutic impact improved with the use of e-mail homework reporting. The authors suggested that the improvement might be due to some patients being less inhibited discussing personal issues using e-mail than in a face-to-face setting. The disinhibiting effect of e-mail may enhance self-disclosure independent of the therapist's responsiveness. Yager (2001) used e-mail as a therapeutic adjunct in the outpatient treatment of anorexia nervosa. Results of this study showed a clinical improvement for all patients in the experimental group. Furthermore, patients accepted the rationale of using e-mail as a therapeutic adjunct, and they considered it helpful.

Bouchard, Payeur, and Rivard (2000) used videoconference to deliver cognitive–behavior therapy (CBT) to patients suffering from panic disorders with agoraphobia. Participants received several sessions of CBT by trained therapists according to a standardized treatment manual. According to the authors, e-therapy demonstrated statistically and clinically significant improvements in the target symptoms of frequency of panic attacks, panic apprehension, severity of panic disorder, and perceived self-efficacy and general improvement in measures of global functioning, such as trait anxiety. Furthermore, a very good therapeutic alliance was established after only the first session. Lange, Van de Ven, Schrieken, Bredeweg, and Emmelkamp (2000) developed an Internet system for the treatment of post-traumatic stress disorder. The treatment comprised 10 writing sessions (45 min each) over five weeks. Participants were assessed on-line before treatment, after treatment and after six-week follow-up. The results showed that following treatment participants improved significantly in terms of post-traumatic stress symptoms and general psychological functioning, and this was sustained at follow-up. Moreover, they reported
that reduction in post-traumatic stress symptoms compared favorably to changes in control and experimental groups in trials of similar but face-to-face treatment. Lange, Rietdijk, Hudcovicova, van de Ven, Schrieken, and Emmelkamp (2003) reported results of a controlled trial on the Internet-driven treatment of posttraumatic stress and grief in a group of people who manifested mild to relatively severe trauma symptoms. They found that participants in the treatment condition improved significantly more than participants in the waiting-list control condition on trauma-related symptoms and general psychopathology.

The great advantage of the Internet is that enables clients who engage in computer-mediated therapy to interact with their therapists without the necessity of face-to-face contact. In contrast to computer-guided therapy, where the computer itself both determines and provides the feedback to the client (Marks, 2000), in Internet-mediated therapy or assessment, the therapist determines and provides the feedback (tailored to client's needs) via the computer.

**Present Study**

Although much is known about perfectionism and its deleterious consequences, with very few exceptions, perfectionism has not been the explicit focus of the intervention in the literature. The limited knowledge with regard to the treatment of perfectionists comes from secondary analyses of the National Institute of Mental Health Treatment of Depression Collaborative Research Program, or other studies directed at treating different psychological disorders. Based on these studies (Blatt & Zurrof, 2002) it has been argued that perfectionism and the problems stemming from perfectionism are particularly difficult to treat and that in-depth long-term therapy is necessary to produce therapeutic effects. A different perspective is taken in this study, that perfectionists might benefit from brief and novel targeted treatment interventions such as feedback and feedback combined with writing. Feedback, including provision of feedback using the internet, has received attention in the counseling and more general psychological assessment
literature and demonstrated promising positive outcomes. Writing, used alone or in combination with different forms of therapy, showed significant positive effects on both mental and physical health.

The present study aims to investigate whether two brief experimental interventions, provision of structured online feedback and provision of feedback combined with an opportunity to express reactions to the feedback in writing, affect perfectionists’ motivation for change and, as a result, psychological problems often associated with perfectionism. Although there is increasing evidence that perfectionism is a multidimensional construct, with adaptive and maladaptive aspects, given its deleterious consequences, I focused on maladaptive perfectionism in this study. In addition, given that much of the literature concerning perfectionism describes data relevant to college students, the focus of the present study was on that population. It is noteworthy that, in a series of studies, Rice and his colleagues found that more than a half of the college student samples were clustered into the perfectionism groups, suggesting that perfectionism is a pervasive characteristic among college students. In addition, different studies have indicated that approximately 20-30% of the students within various samples of college populations can be classified as maladaptively perfectionistic (Grzegorek et al., 2004; Rice & Mirzadeh, 2000). Studies based on college students have generally found greater levels of perfectionism to be associated with more psychological symptoms and greater suicidal risk (Chang, 1998; Rice et al., 1998). Moreover, Hewitt, Flett, & Weber (1994) found that college students who had a strong tendency to set unrealistically high standards for themselves or believed that others expected only excellence in their performance, reported higher scores on measures of hopelessness and suicidal ideation. As the results of a variety of studies point out,
college students represent a group that is at considerable risk of silently suffering or, perhaps, coming to the attention of campus counseling or other treatment services.

In sum, the present study represents an attempt to address the relative paucity of systematic research on the treatment of perfectionism and the alleged difficulty in effectively helping maladaptive perfectionists based on brief interventions. It is the result of extending seminal works of Finn (Finn & Tonsager, 1992; Newman & Greenway, 1997) and Pennebaker (1997, 2004) on the therapeutic benefits of providing clients with MMPI-2 feedback and on favorable outcomes of writing, respectively. The current study also builds on a previous study (Aldea et al., under review) in which interactive verbal feedback provided to maladaptive perfectionistic college students has been shown to have some therapeutic benefits.

The present study differs from the latter study in three important aspects. First, the present study does not examine only the direct results of the experimental interventions on the outcome measures, but rather aims to understand the mechanisms that may come into play when feedback is provided. It is possible that the interventions themselves do not have a direct effect on distress, but may result in shifting participants’ readiness for change (Prochaska & DiClemente, 1992). Results from qualitative studies showed clearly that perfectionists are reluctant to change, particularly because their excessive standards are highly valued by them (Slaney & Ashby, 1996; Slaney et al., 2000). Thus increasing their motivation for change is a key issue in treatment that might be targeted through these relatively simple and inexpensive methods. For example, feedback, either alone or combined with writing, may help perfectionists become aware of and/or acknowledge their problems that may lead them to the next stage involving consideration of change; those already considering change may become better able to understand the problems
associated with perfectionism, start thinking about possible solutions, and perhaps even engage in actions conducive to change resulting in decreased distress.

Second, in the Aldea et al. study, the feedback was provided verbally following an individual interview aimed at developing an empathic relationship with the participants. It is not unlikely that the participants might have tried to please the experimenter from whom they experienced support and understanding by giving the kind of responses they thought were appropriate and expected, i.e. reports of reduced emotional reactivity and psychological problems. In the present study, it was deemed crucial to set the conditions of feedback so that the participant would be able to hear, tolerate, and own the information, while being minimally or not at all influenced by the experimenter. In this context, including a measure of social desirability and using a computer-delivered personalized internet feedback instead of a face-to-face interaction seem viable solutions. Third, in Aldea et al. study it is unclear what the mechanisms that facilitated change in participants were and whether the feedback or the initial interview had specific therapeutic value. The design of the present study would permit deciphering which experimental intervention is beneficial and whether the simple provision of feedback has a different therapeutic impact than providing feedback and allowing participants to express their reactions to the information provided. It is likely that those participants who were given the opportunity to react to feedback will show greater gains than those receiving feedback alone. There is some limited evidence from qualitative research that maladaptive perfectionists may be keenly sensitive to their perfectionism and tend to be “inflexible to other’s views” (Rice et al., 2003, p. 51). Given maladaptive perfectionists’ sensitivity, receiving feedback might be a stressful event for them. It might be expected that maladaptive perfectionists would not be able to hear and respond to feedback without defensiveness. At the same time, there has been a great
emphasis in the literature on the benefits of treatments that discourage clients from being passive recipients of treatment (Frank, 1961; Horvath & Symonds, 1991). Thus, receiving feedback and writing about the reactions the feedback elicits may gradually facilitate perfectionists (who, as implied above, are likely to be resistant to, or ambivalent about, change) producing their own arguments for change. Incorporating perfectionists’ participation by providing an opportunity to process the information received may make the feedback more personally relevant, meaningful, and easier to be accepted which would be more likely to be conducive to improvement (Finn & Tonsager, 1992).

**Research Questions and Hypotheses**

Although it has been demonstrated that feedback and writing have therapeutic benefits, very little is known with regard to whether this conclusion holds true for maladaptive perfectionists. The questions that guided this research were: Does telling perfectionists about their perfectionism benefit them (e.g., by reducing their distress)? Do perfectionists benefit more if they receive feedback only or if they receive feedback and are given the opportunity to react to the feedback? If benefits do not initially occur, do they occur later? If benefits do occur, do they persist? If participants do benefit, what are the mechanisms that lead to psychological improvement following feedback? In conclusion, the purpose of the current study is to identify whether feedback combined with the opportunity to react to feedback has more therapeutic benefits in terms of general level of distress than feedback alone or no feedback. In addition, this study investigates mediational and moderational models to explore factors that are conducive to therapeutic gains for perfectionists. The design of the study permits determining the persistence of any therapeutic effects two weeks after the experiment.

The study uses a randomized, pretest-posttest-follow-up control group design and investigates hypotheses related to condition intervention effects. In addition, mechanisms that are
conducive to therapeutic gains for perfectionists will be explored. With regard to condition effects, it is expected that:

1. When compared with no feedback control, participants receiving either experimental condition (feedback alone or feedback combined with opportunity for written reaction) will experience (a) a significant increase in motivation (readiness) for change, (b) a significant decrease in distress, (c) a significant decrease in defensiveness, and (d) a significant decrease in perfectionism.

2. Participants who are given the opportunity to react to feedback will show (a) significantly higher levels of readiness for change, (b) significantly lower levels of defensiveness, (c) significantly lower levels of distress, and (d) significantly lower levels of perfectionism when compared to participants receiving feedback alone or no feedback.

It is expected that these effects would be maintained at follow-up.

Exploratory hypotheses:

1. Participants who show low levels of readiness for change would also exhibit high defensiveness. In other words, a significant negative correlation between defensiveness and readiness to change is anticipated.

2. Readiness for change may play the role of mediator in the relationship between conditions and outcome. More specifically, the experimental conditions would impact participants’ readiness for change which in turn would affect their distress level, perfectionism, and defensiveness. It is expected that this effect would be particularly apparent for those who receive feedback and are given the opportunity to react to the information provided.

3. The relationship between condition and distress may be mediated by defensiveness. Particularly, feedback combined with reaction to feedback may lead to decreased defensiveness which in turn would lead to decreased distress, whereas feedback alone may lead to increased defensiveness that would further increase distress.

4. Readiness for change may have a moderational effect. More precisely, participants who are highly motivated to change will show the greatest therapeutic benefits. Participants who have reduced motivation to change will not benefit as much from the experimental interventions, in terms of changes in psychological distress.

5. Defensiveness may significantly influence outcomes. More specifically, participants who exhibit high defensiveness would demonstrate the least therapeutic gains whereas those exhibiting low defensiveness would show significant therapeutic improvement.

6. Defensiveness may interact with participants’ readiness to change to predict distress level. More exactly, highly defensive individuals who also have a low motivation level (low readiness for change) would show the highest levels of distress whereas participants motivated to change and less defensive would demonstrate reduced distress.
CHAPTER 3

METHOD

Participants

Participants were college students at two public universities in southeastern United States and were recruited through advertisements in various psychology classes such as introductory psychology, abnormal psychology, research methods, and personality psychology. A brief description and the weblink for the first part of the study (prescreening) were provided in those advertisements. At the website, and prior to completing the perfectionism measure, participants received an Informed Consent form (see Appendix A) with information about the general purpose of the study. Participants were informed that if they chose to participate, they had the freedom to withdraw from the study at any time without any penalty. If, after reading the consent document, the student was still interested in participating, she or he provided consent by clicking “I Agree” button, which served as an electronic signature.

Those who decided to participate were initially prescreened for perfectionism based on The Almost Perfect Scale-Revised (APS-R; Slaney et al., 1996; 2001). Maladaptive perfectionists were identified based on their scores on the APS-R and through classification rules derived from predictive discriminant function analyses (Ashby, Rice, Timmons, et al., 2004; Rice & Ashby, 2007). More specific details regarding the selection criteria appear below, in the description of measures.

A total of 821 students completed the prescreening (demographic information was not collected at this point). Enrollment figures for the sections of psychology courses were not collected, therefore participation rates could not be calculated. Of the 821 participants, 242 (50 males, 186 females, and 6 participants with missing gender data) were selected. They were directed to another secure website where they read and electronically signed a second Informed
Consent form that detailed the purpose, methods, and risks and benefits of the study (see Appendix B). Afterwards, participants completed a demographics questionnaire (see Appendix C) and the pretest measures: the University of Rhode Island Change Assessment Questionnaire (URICA), the Marlowe-Crowne Social Desirability Scale (MCSD), and the Outcome Questionnaire (OQ-45). These participants ranged in age from 18 to 27 ($M = 19.95$, $SD = 1.60$). Approximately 67% of the sample was White/European American, 9.5% Black/African American, 9.9% Latino/a, 7.5% Asian/Asian American, and about 6% described themselves as multicultural mixed race/ethnicity or “other.” The mean self-reported grade point average, based on a 1.0 to 4.0 scale for the sample was 3.32 ($SD = 0.48$) and ranged from 1.8 to 4.0. Because participants came from two universities, a multivariate analysis of variance was conducted to assess potential differences between students at the two universities on the study variables. The analysis revealed no significant differences, Wilks’s $\Lambda = .84$, $F(6, 36) = 1.04$, $p = .36$.

One week later, participants returned to the website for the intervention session. At that point, they were randomly assigned (electronically) to the experimental conditions: feedback alone, feedback and writing, and no feedback control. Immediately following the experimental conditions, they filled out the outcome measures (the URICA, the MCSD, the OQ-45, and the APS-R). There were 167 participants who completed this second phase of the study. Two weeks later, the follow-up session took place in which participants completed the dependent measures again (see Figure 3-1). Based on randomization, any differences between participants were expected to be the result of exposure to one of the three conditions in the experiment (see below).

A sample of 154 participants completed the Pretest, Posttest, and the Follow-up. Three of these participants were suspected of random or careless responding as evidenced by answering items such “Leave this item blank” and were eliminated from further analyses. Forty eight
participants were in the control condition, 55 in the feedback condition, and 48 in the feedback and writing condition. The sample size matched the targeted sample size of approximately 150 participants (or about 50 participants per group) that was established based on a power analysis to detect significant mean differences on the magnitude of a medium effect size, with alpha at .05, and power at .80 (Cohen, 1992). A multivariate analyses of variance (MANOVA) revealed no differences between conditions on any of the pretest study variables, Wilks’s $\Lambda = .93$, $F(6, 12) = 1.00$, $p = .45$ (Readiness for Change Index - RCI, MCSD, High Standards, Discrepancy, Order, and OQ-45 were the dependent variables). As well, there were no differences among conditions in terms of sex, $\chi^2 (2, N = 178) = 1.36$, $p = .51$, race/ethnicity, $\chi^2 (12, N = 181) = 13.82$, $p = .31$, age, $F(2, 184) = 2.73$, $p = .07$ or GPA, $F(2, 161) = 1.99$, $p = .14$. Students were also asked to report whether they were currently seeing a counselor. There were no differences between conditions on this variable as well, $\chi^2 (2, N = 181) = .60$, $p = .74$.

To assess attrition effects, a MANOVA was used to compare the Pretest data for the longitudinal sample with the Pretest data for the participants who dropped out at Posttest and Follow-up (RCI, MCSD, High Standards, Discrepancy, Order, and OQ-45 were the dependent variables). This analysis revealed no significant differences between the longitudinal and attrition groups on the questionnaires scores, Wilks’s $\Lambda = .96$, $F(6, 215) = 1.51$, $p = .18$. In addition, there were no significant differences between the longitudinal and attrition group with regard to the proportion of men and women, $\chi^2 (1, N = 147) = .02$, $p = .54$, race/ethnicity, $\chi^2 (6, N = 238) = 4.0$, $p = .67$, age $F(1, 238) = .27$, $p = .60$, GPA, $F(1, 208) = .39$, $p = .53$ or whether the student was currently seeing a counselor, $\chi^2 (1, N = 238) = .47$, $p = .49$. 

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Design and Procedure

The prescreening as well as the pretest, posttest, and follow-up took place online. All participants completed the online perfectionism prescreening instrument (i.e., the APS-R).

Experimental condition 1: Participants receiving feedback alone. One week subsequent to the pretest, participants in this condition received feedback based on their APS-R results (see Appendix D for the sample feedback). The feedback was specific to maladaptive perfectionists. Subsequent to receiving feedback participants completed the dependent measures. Two weeks following the receipt of feedback, participants returned to the website and completed the dependent measures again.

Experimental condition 2: Participants receiving perfectionism feedback and writing their reactions to the feedback. One week following the pretest, participants in this group received specific feedback based on their APS-R results (the same feedback received by the participants in the feedback only condition). Subsequent to receiving feedback, participants were asked to respond to the feedback received by giving in writing their reactions and feelings. Consistent with other studies on expressive writing (Pennebaker, 2004), participants were instructed to write their “deepest thoughts and feelings about perfectionism and performance expectations” and to try to let themselves “go and write continuously” about emotions and thoughts the feedback may have elicited (see Appendix E). Following this step, participants completed the dependent measures. Two weeks following the feedback session, participants completed the dependent measures again.

Control condition: Participants not receiving feedback. One week after the pretest, participants in this group received a brief description of the History of Florida, similar in length to the text participants in the experimental conditions received (see Appendix F). Next, they
completed the dependent measures. Two weeks later, participants completed the dependent measures again.

In order to control for order effects, the measures were counterbalanced. A MANOVA revealed no differences on the study variables based on the order of the questionnaires, Wilks’s $\Lambda = .92$, $F(6, 214) = .98$, $p = .48$.

**Instruments**

The Almost Perfect Scale-Revised (APS-R), developed by Slaney et al. (1996) was used to assess dimensions of perfectionism. The final version of APS-R consists of 24 items that are responded to using a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* (see Appendix G). The APS-R contains three subscales: (1) Discrepancy, (2) High Standards, and (3) Order. High Standards represent an individual's level of expectations related to his/her performance. Discrepancy represents “the perception that one consistently fails to meet the high standards one has set for oneself” (Slaney, Rice & Ashby, 2002, p. 69). Order represents an individual's need for structure and neatness. Higher scores across each subscale correspond with higher levels of each dimension. Exploratory and confirmatory factor analyses results support the three hypothesized subscales (Slaney et al., 2001). The structure coefficients ranged from .49 to .83. Cronbach’s coefficient alphas from the confirmatory factor analysis were .92 for Discrepancy, .85 for Standards, and .86 for Order. The subscales relate in expected directions with other measures of perfectionism and with measures of psychological adjustment (Rice & Slaney, 2002; Slaney, et al., 2001). The High Standards subscale taps adaptive aspects of perfectionism and the Discrepancy subscale taps maladaptive aspects of perfectionism. Individuals are categorized as maladaptive perfectionists based on a combination of High Standards and Discrepancy scores (i.e., High Standards scores equal or greater than 37 and Discrepancy scores equal or greater than 45) (Ashby et al, 2004; Rice & Ashby, 2007).
The University of Rhode Island Change Assessment Questionnaire (URICA; McConnaughy, Prochaska, & Velicer, 1983) consists of 32 statements that participants endorse on a 5-point scale that ranges from 1 = strongly agree to 5 = strongly disagree (see Appendix H). The items were written to determine how individuals perceive, contemplate, and respond to a “problem.” URICA taps four stages of change (precontemplation, contemplation, action, and maintenance) with 8 items measuring each of the four stages of change. For example, “I have a problem and I really think I should work on it” loads on the Contemplation scale, and “It worries me that I might slip back on a problem I have already changed” loads on the Maintenance scale. Several studies support the four-factor structure of the URICA, and internal consistency coefficient alphas for the scales were reported to have ranged from .88 to .89 (McConnaughy, DiClemente, Prochaska, & Velicer, 1989; McConnaughy et al., 1983). The URICA is one of the most commonly used instruments for assessing change (McConnaughy et al., 1983) and it has been validated in various settings and with different populations, including cigarette smokers (Prochaska & DiClemente, 1985; Prochaska et al., 1992), alcohol abusers (Carbonari & DiClemente, 2000; Project MATCH Research Group, 1997), illicit drug users (Belding, Iguchi & Lamb, 1996), and dual-diagnosis patients (Pantalon, Nich, Frankforter, & Carroll, 2002; Valesquez, Carbonari, & DiClemente, 1999). A modified version of the URICA (Prochaska & DiClemente, 1986) was used for the present study. Instructions were modified to specifically address problems with perfectionism rather than with other issues. Although URICA has been used with samples of college students to assess readiness to changing problems such as substance abuse, internal consistency coefficients were not provided (Hufford, Shields, Shiffman, Paty, & Balabanis, 2002). The URICA administered online in a sample of college students showed
adequate validity and test-retest reliability of the subscales that ranged from .78 to .85 (Miller, Neal, Roberts, Baer, et al., 2002).

With regard to scoring, the stages are considered to be continuous and not discreet and to date there have been no cut-off norms established to determine what constitutes high, medium or low on a particular stage. Cluster analyses often are used to classify participants with respect to their stage-of-change profile across the different dimensions. An alternative method of scoring the URICA, of interest for the purpose of the present study, was popularized by the Project MATCH Research Group (1997). The measure was scored as a single continuous measure of readiness to change. A readiness for change index (RCI) was used in the present study. The RCI was derived by summing scores from the contemplation, action, and maintenance factors and then subtracting precontemplation scores. The primary advantage of this method is that additional statistical analyses are not necessary to group participants in unique subgroups and readiness scores are easy to calculate and interpret (Carey, Purnine, Maisto, & Carey, 1999).

The Marlowe-Crowne Social Desirability Scale (MCSD; Crowne & Marlowe, 1960; Reynolds, 1982) is a 13-item self-report short version of the 33-item MCSD (see Appendix I). The 13-item version developed by Reynolds (1982) has a very strong relation with the longer version of the MCSD (> .90), a significant relation with the Edwards Social Desirability Scale (O'Grady, 1988), and an acceptable level of internal consistency. For example, Gelso, Kelley, Fuertes, Marmarosh, et al. (2005) reported internal consistency of .70 in a sample of students. The MCSD uses a true-false format and has been used extensively to assess social desirability as a response tendency in studies implementing self-report formats. In addition, MCSD has been used as a measure of defensiveness, with high scores indicating defensiveness and tendency to engage in self-protective behavior (Paulhus, 1991; Pauls & Stemmler, 2003). For example, it has
been suggested that high-scoring participants are intensely afraid of rejection, are less likely to report justified feelings of hostility and anger, and are more likely to change their privately held attitudes as a function of dissonance induction (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004; Winters, Latimer, Stichfield, & Egan, 2004).

The Outcome Questionnaire (OQ–45; Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse, & Yanchar, 1996) is a 45-item self-report measure of distress that is sensitive to changes in psychological distress over short periods of time. It uses a 5-point Likert-type response format ranging from 0 = never to 4 = almost always (see Appendix J). Higher scores are indicative of more perceived distress. A sample item is “I have difficulty concentrating.” A total score or three subscales can be calculated: Symptom Distress (SD, 25 items), Interpersonal Relationships (IR, 11 items), and Social Roles (SR, 9 items). On the basis of a normative sample that included university students (Lambert et al., 1996), internal consistency and test-retest reliability (3-week) estimates were .92 and .84, respectively. For each scale, higher scores indicate greater negativity or dysfunction on the dimension being measured (Lambert et al., 1996). Reported test–retest reliabilities for these subscales are .78, .80, and .82, respectively, and internal consistency reliabilities are .91, .74, and .71. (Lambert et al., 1996). The OQ-45 has also been demonstrated to have very good concurrent validity coefficients with a variety of self-report scales (e.g., Beck Depression Inventory, State-Trait Anxiety Inventory, Symptom Checklist–90; Umphress, Lambert, Smart, Barlow, Clouse, & Hansen, 1997; Seggar, Lambert, & Hansen, 2002).
Figure 3-1. Research Design
CHAPTER 4
RESULTS

Descriptive Statistics and Preliminary Analyses

Table 4-1 displays the range of scores and the means and standard deviations for the scale scores. Table 4-2 presents the within- and across-time correlations among scores and the Cronbach’s coefficient alpha estimate of score reliability for each measure. All scores showed adequate internal consistency coefficients, consistent with those found in other studies using the same measures with a similar population. For example, in a sample of maladaptive perfectionistic college students, Aldea & Rice (2006) reported a range of Discrepancy and High Standards scores similar to those found in this sample and reliability estimates of .89 and .86, respectively. For the MCSD in a sample of college students, Reynolds (1982) reported a mean of 5.67, standard deviation of 3.29, and internal consistency of .76, parameters comparable to those found in the current sample. Although the reliability of OQ45 in this study is similar to that reported by Lambert et al., the current mean is substantially higher than that usually reported in college students (M = 46.37, SD = 19.70) and closer to the mean found in college counseling centers clients (M = 75.16, SD = 16.74), suggesting that maladaptively perfectionistic college students tend to experience higher levels of distress than typical students.

The data were checked for normality and results revealed univariate normality for all measured variables (skewness and kurtosis values less than 2). Multivariate normality was assessed using the Mahalanobis distances for the 5 pretest variables (RCI, MCSD, High Standards, Discrepancy, OQ-45) and the critical chi-square for this test was 20.52. None of the participants had Mahalanobis distance values that exceeded this critical value.

The correlations among the scales within time were generally low to moderate and, as expected, high across time for the same measures, except for the two subscales of the APS-R
(see Table 4-2). Although previous studies reported across time Discrepancy and High Standards correlations ranging from .76 to .85 (Rice & Aldea, 2006), in the present study they were lower from Pretest to Posttest and Pretest to Follow-up, ranging from .39 to .53. At pretest and posttest, but not at follow-up, the correlation between Distress (as measured by OQ-45) and Readiness for Change was significant and positive, suggesting that individuals who are willing to consider change also tend to endorse higher levels of distress. The relationship between Distress and Defensiveness was significant and negative across the 3 time points, implying that students with lower levels of Defensiveness are more likely to admit to symptomatic distress. In addition, although the correlation between Distress and High Standards was not significant, the link between Distress and Discrepancy was significant and positive, suggesting that individuals with high levels of Discrepancy (maladaptive perfectionism) also tend to manifest high levels of Distress. Discrepancy was also positively associated with Readiness for Change and negatively with Defensiveness at posttest and follow-up, indicating that people who endorse high Discrepancy are also more ready for change and less defensive. Contrary to my expectation, the association between Readiness for Change and Defensiveness was not significant at any point in time.

**Treatment Effects Analyses**

To test the differences in the three treatment effects on the outcome variables, a 3 (Feedback/Writing/Control) x 3 (Pretest/Posttest/Follow-up) repeated-measures design was used. Five separate repeated measures analyses of variance (ANOVA) were used in which the dependent variables were Distress (measured with OQ-45), Readiness for Change (URICA), Defensiveness (MCSD), and Perfectionism (High Standards and Discrepancy), respectively. Time (Pretest, Posttest, and Follow-up) was the within-subjects variable in each analysis. With multiple outcome variables, the typical analysis approach used in the group-comparison context
is to either conduct multiple univariate ANOVAs or conduct a multivariate analysis of variance (MANOVA). Huberty and Morris (1989) suggested that multiple ANOVAs are more appropriate when the interest is on how a treatment variable affects each of the outcome variables and when the research conducted is exploratory in nature, as in when new treatment and outcome variables are studied. The current study is the first of its kind to examine whether the provision of feedback and feedback combined with expressive writing has therapeutic benefits in terms of increasing Readiness for Change and decreasing Distress, Defensiveness, and Perfectionism. The focus was on exploring which specific outcome variables these experimental conditions affect, thus a univariate analysis appeared to be the most appropriate approach to test the main hypotheses. Whenever multiple statistical analyses are performed, there is the potential problem of Type I error across all of the tests. Bonferroni corrections were used to control for Type I error inflation resulting from the number of tests conducted. The Bonferroni-corrected p value for the following five analyses was .01.

For RCI, the ANOVA showed a nonsignificant Condition x Time interaction, Wilks’s Λ = .99, F (4, 264) = .33, \( p = .86 \), \( \eta^2 = .005 \), and a non-significant Time effect, Wilks’s Λ = .99, F (2, 132) = .40, \( p = .67 \), \( \eta^2 = .006 \). The same pattern of non-significant results was revealed for MCSD, Wilks’s Λ = .98, F (4, 262) = .71, \( p = .59 \), \( \eta^2 = .01 \) (Condition x Time), Wilks’s Λ = .99, F (2, 131) = .70, \( p = .50 \), \( \eta^2 = .01 \) (Time) and OQ-45, Wilks’s Λ = .99, F (4, 270) = .18, \( p = .95 \), \( \eta^2 = .003 \) (Condition x Time), Wilks’s Λ = .99, F (2, 135) = .86, \( p = .43 \), \( \eta^2 = .01 \) (Time).

For High Standards, the repeated measures ANOVA showed a non-significant Condition x Time interaction, Wilks’s Λ = .98, F (4, 276) = .66, \( p = .62 \), \( \eta^2 = .009 \), and a significant effect for Time, Wilks’s Λ = .93, F (2, 138) = 4.99, \( p = .008 \), \( \eta^2 = .07 \). The results indicated that there was a
significant decreasing linear trend over time, $F(1, 139) = 9.96, p < .002, \eta^2 = .07$, with scores at the Follow-up significantly lower than scores at the Pretest.

For Discrepancy, the results revealed a non significant effect of Time, Wilks’s $\Lambda = .98, F(2, 138) = 1.14, p = .32, \eta^2 = .02$, but a marginally significant Condition x Time interaction, Wilks’s $\Lambda = .98, F(4, 276) = 2.13, p = .07, \eta^2 = .03$. Follow-up pairwise comparisons showed a decrease in Discrepancy from pre- to posttest for the control group and no meaningful change for any of the experimental groups (See Table 4-3 for all means and standards deviations by group).

In addition, a separate MANOVA was carried with the three OQ-45 subscales as the dependent variables, but no significant Condition x Time effect was found, Wilks’s $\Lambda = .97, F(12, 260) = .33, p = .98, \eta^2 = .02$.

**Mediation Analyses**

A sensitive data analysis process was used to test whether Readiness for Change and Defensiveness mediate the relationship between treatment and outcome (Frazier, Tix, & Barron, 2004; MacKinnon, Fairchild, & Frits, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002). In order to establish mediation, two conditions must be met: (a) the predictor (e.g., condition) is significantly associated with the mediators (e.g., Readiness for Change and Defensiveness, respectively) and (b) the mediator is associated with the outcome variable (e.g., Distress) (MacKinnon et al., 2007; MacKinnon et al., 2002). Separate sets of analyses were conducted for each proposed mediator (i.e., Readiness for Change and Defensiveness). The associations between the predictor (e.g., condition) and the mediators were not significant, revealing that neither Readiness for Change nor Defensiveness mediated the relationship between experimental conditions and outcome (See Table 4-4). The results remained non significant even when the effects of Readiness for Change and Defensiveness, respectively, at the Pretest were partialled. In other words, support was not found for the hypotheses that the
experimental conditions would lead to change in Defensiveness and/or Readiness for change, which in turn would affect outcome.

**Interaction Analyses**

In the next set of analyses, the moderational role of Readiness for Change and Defensiveness in the relation between experimental conditions and outcomes at both Posttest and Follow-up was investigated. Hierarchical multiple regressions were used to examine the Distress, Readiness for Change, Defensiveness, and Perfectionism (High Standards and Discrepancy) scores at Posttest and Follow-up as a function of experimental condition and Pretest Readiness for Change and Defensiveness, respectively (Aiken & West, 1991; Baron & Kenny, 1986; Cohen, Cohen, West, & Aiken, 2003; Frazier, Tix, & Barron, 2004). Condition was dummy-coded, with the control condition designated as the reference group, resulting in two sets of dummy-code variables for condition (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003). The predictor and the moderator variables were centered thus reducing problems associated with multicollinearity among predictor and moderator variables and the interaction terms created from them. Variables were entered in the regression equation in blocks: the centered Pretest predictor and the two dummy-coded variables for condition were entered first, followed by the product terms between the predictor and each of the dummy-coded variables (Aiken & West, 1991; Holmbeck, 1997).

**Effects on Distress**

The purpose of the analyses is to examine whether the two potential moderators, Readiness for Change and Defensiveness, interacted with condition to predict the outcome, Distress level. First, the effect of Pretest RCI predicting Distress at Posttest and Follow-up as a function of condition was examined. The procedure outlined above was followed. More specifically, the Pretest RCI score and the dummy-coded variables were entered first and the product terms
between Pretest RCI and each of the dummy-coded variables were entered next. There were no significant main or interaction effects of the Pretest RCI predicting Posttest Distress, $\Delta R^2 = .01$, $F(2, 159) = 1.20, p = .30$. The set of interaction terms, however, explained an additional 4% of the variance in Distress at Follow-up above and beyond the variance explained by the first-order effects, $\Delta R^2 = .04$, $F(2, 145) = 3.17, p = .05$. More importantly, the Pretest RCI x feedback condition interaction was significant in predicting Distress at Follow-up, $\beta = .31, p = .01$. The plotted interaction revealed that participants receiving feedback alone who had high Readiness for Change at Pretest also had high Distress scores at follow-up, whereas those low in Readiness for Change at Pretest had decreased Distress two weeks after the experiment (See Figure 4-1).

The participants in the control condition with low levels of Pretest Readiness for Change showed a slight decrease in Distress at Follow-up compared to participants highly motivated to change at the onset of the treatment condition.

Next, the effects of Pretest Defensiveness on Distress at Posttest and Follow-up were examined using a similar procedure as above. However, no significant main effects or interactions were found in the respective analyses, $\Delta R^2 = .001, F(2, 152) = .06, p = .94$ (Posttest), $\Delta R^2 = .02, F(2, 139) = 1.28, p = .28$ (Follow-up).

**Effects on Readiness for Change**

I examined the effects of Pretest Defensiveness predicting Readiness for Change at Posttest, $\Delta R^2 = .008, F(2, 152) = .63, p = .53$, and Follow-up, $\Delta R^2 = .003, F(2, 135) = .18, p = .84$, as a function of condition. None of the effects were significant, revealing that Defensiveness does not moderate the relation between experimental intervention and Readiness for Change.

**Effects on Perfectionism**

To examine the moderational role of Readiness for Change and Defensiveness, respectively, in the condition-perfectionism link, the effects of Pretest Defensiveness and Pretest
Readiness for Change predicting Posttest and Follow-up High Standards and Discrepancy were investigated. Analyses revealed no significant main or interaction effect of Pretest Defensiveness predicting High Standards, $\Delta R^2 = .02, F(2, 151) = 1.55, p = .22$, or Discrepancy, $\Delta R^2 = .02, F(2, 151) = 1.29, p = .28$. However, the Pretest Readiness for Change x condition interaction had a significant impact on High Standards at both Posttest and Follow-up, but not on Discrepancy. Although the set of interaction terms was significant only at .11 level and explained 3% of the variance in Posttest High Standards above and beyond the variance explained by the first-order effects, $\Delta R^2 = .03, F(2, 158) = 2.19, p = .11$, particularly relevant was that the Pretest Readiness for Change x feedback condition interaction was significant in predicting Posttest High Standards scores, $\beta = -.23, p = .05$ (See Figure 4-2). When the effects of Pretest Readiness for Change and condition interaction on High Standards at Follow-up were explored, the results showed that the set of interaction terms was significant and explained an additional 6% of the variance in Follow-up High Standards above and beyond the variance explained by the first-order effects, $\Delta R^2 = .06, F(2, 143) = 4.37, p = .01$. Further examination of the results evidenced significant effects of both Pretest Readiness for Change x feedback condition interaction, $\beta = -.26, p = .04$, and Pretest Readiness for Change x writing condition interaction, $\beta = -.31, p = .005$ in predicting Follow-up High Standards scores (See Figure 4-3). The plotted interactions suggest that participants receiving feedback who had low Readiness for Change at Pretest showed scores on High Standards at both Posttest and Follow-up that were approximately half of a standard deviation lower than participants receiving feedback who started off more motivated to change. The same pattern was observed for the participants in the control group. Although the difference in High Standards scores between participants in the feedback condition with high Pretest Readiness for Change and those in the control condition was minor (with those in the feedback
condition having slightly lower High Standards scores than control participants), the opposite was true for participants with low motivation for change at the beginning of the study. More specifically, at both Posttest and Follow-up, participants with reduced motivation to change receiving feedback exhibited High Standards scores that were about half of a standard deviation higher than the scores of the participants in the control group. Although the effect of the interaction between Readiness for Change at Pretest and the writing condition was not significant in predicting Posttest High Standards, it became apparent in predicting Follow-up High Standards. More specifically, individuals who had high levels of motivation to change at Pretest, and who received feedback and expressed their reactions in writing, showed decreased High Standards scores at Follow-up when compared to those who had a lower desire to change at the beginning of the study. In addition, those with high Pretest Readiness for change in the writing condition manifested lower High Standards than participants in the control group.

**Effects on Defensiveness**

There were no significant main effects or interactions of Pretest Readiness for Change, $\Delta R^2 = .004, F(2, 157) = .33, p = .72$ (Posttest), $\Delta R^2 = .01, F(2, 146) = .88, p = .42$ (Follow-up), and Pretest Defensiveness, $\Delta R^2 = .001, F(2, 151) = .22, p = .80$ (Posttest), $\Delta R^2 = .01, F(2, 140) = 2.10, p = .13$ (Follow-up), predicting Posttest or Follow-up Defensiveness scores. These results suggest that these two variables did not moderate the association between the experimental conditions and participants’ level of Defensiveness at Posttest and Follow-up.

**Effects of Pretest Readiness for Change, Defensiveness and Condition Interaction on the Outcome Variables at Posttest and Follow-up**

To test the effect of Pretest Readiness for Change x Pretest Defensiveness x condition interaction on Distress, Readiness for Change, Defensiveness, and Perfectionism at Posttest and Follow-up hierarchical multiple regressions were used. As in previous analyses, variables were
entered in the regression equation in blocks: the centered Pretest predictors and the two dummy
coded variables for condition were entered first, the product terms between each of the two
predictors and each of the code variables were entered next, and the 3-way interaction terms
were entered in the third block (Aiken & West, 1991; Holmbeck, 1997). The results showed that
none of the 3-way interactions were significant in predicting any of the outcome variables (See
Table 4-5).

**Exploratory Analyses**

It is possible that participants’ level of distress at the onset of the study may have
influenced how they responded to the conditions. Next, the effects of the interaction between
Pretest Distress and condition on the outcome variables were investigated; however the results
revealed that the Pretest Distress x condition interaction did not have a significant impact on any
of the study variables.

Blat and his colleagues (Blatt et al., 1995, 1998) found support for the hypothesis that
perfectionism interferes with the success of treatment. Next, I explored whether the two
dimensions of perfectionism, High Standards and Discrepancy at Pretest interacted with the
conditions to predict Distress, Readiness for Change, and Defensiveness, respectively, at Posttest
and Follow-up. As before, none of the interactions were significant in predicting the outcome
variables.

Finally, following a procedure suggested by Santor, Bagby, and Joffe (1997), I analyzed
whether any of the Pretest variables interacted with the treatment conditions to predict *change* in
Readiness for Change and Distress scores from Pretest to Posttest and from Pretest to Follow-up.
Change scores in Readiness for Change were calculated by subtracting the Pretest Readiness for
Change scores from the Posttest and Follow-up Readiness for change scores, respectively. Thus,
positive values indicate an increase in Readiness for Change from Pretest to Posttest and from
Pretest to Follow-up. The change in Distress was calculated by subtracting Posttest and Follow-up scores from the Pretest scores; thus, positive values indicate change in Distress in the desired direction (i.e., decrease in Distress from Pretest to Posttest and from Pretest to Follow-up).

Results revealed that the interaction between Pretest Defensiveness and the writing condition was significant in predicting change in Readiness for Change scores from Pretest to Posttest, $\beta = -.29, p = .04$ (See Figure 4-4). The plotted interaction illustrated that participants with low Defensiveness levels at the onset of the study who received feedback and expressed in writing their reactions to the feedback received showed a more significant change (i.e., increase) in Readiness for Change from Pretest to Posttest than control participants with low Pretest Readiness for change and than participants in the feedback and writing condition who were highly defensive at the Pretest.

Moreover, the Pretest Defensiveness x feedback condition interaction was significant in predicting change in Distress from Pretest to Follow-up, $\beta = .28, p = .03$ (See Figure 4-5). The plotted interaction showed that participants with high Pretest Defensiveness scores who received feedback manifested the most change (i.e., decrease) in Distress scores from Pretest to Follow-up when compared with control participants with high Defensiveness at Pretest and when compared with participants in the feedback condition who had low Defensiveness at the onset of the study.

Lastly, the interaction between Pretest High Standards and the feedback and writing conditions was significant in predicting change in Distress from Pretest to Follow-up, $\beta = .24, p = .04$ (Pretest High Standards x writing) and $\beta = .26, p = .05$ (Pretest High Standards x feedback) (See Figure 4-6). The plotted interaction suggests that participants who had relatively low Pretest High Standards and who were in either experimental condition showed more change (i.e., decrease) in Distress scores from Pretest to Follow-up than those who had high Pretest High Standards.
Standards. In addition, for participants with High Standards at the beginning of the study, those who received either experimental condition demonstrated more change (i.e., decrease) in Distress than those in the control condition.
Table 4-1. Overall Means and Standard Deviations

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest</th>
<th></th>
<th></th>
<th>Posttest</th>
<th></th>
<th></th>
<th>Follow-up</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
<td>Max.</td>
<td>M</td>
<td>SD</td>
<td>Min.</td>
<td>Max.</td>
<td>M</td>
<td>SD</td>
<td>Min.</td>
</tr>
<tr>
<td>RCI</td>
<td>5</td>
<td>88</td>
<td>51.16</td>
<td>16.98</td>
<td>4</td>
<td>108</td>
<td>51.14</td>
<td>20.69</td>
<td>5</td>
</tr>
<tr>
<td>MCSD</td>
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<td>12</td>
<td>5.25</td>
<td>2.68</td>
<td>0</td>
<td>12</td>
<td>4.82</td>
<td>2.58</td>
<td>0</td>
</tr>
<tr>
<td>HS</td>
<td>37</td>
<td>49</td>
<td>43.69</td>
<td>3.73</td>
<td>12</td>
<td>49</td>
<td>42.10</td>
<td>5.82</td>
<td>15</td>
</tr>
<tr>
<td>Discrep</td>
<td>45</td>
<td>84</td>
<td>59.03</td>
<td>10.19</td>
<td>13</td>
<td>84</td>
<td>57.03</td>
<td>13.57</td>
<td>14</td>
</tr>
<tr>
<td>OQ</td>
<td>12</td>
<td>136</td>
<td>66.15</td>
<td>23.36</td>
<td>8</td>
<td>126</td>
<td>64.83</td>
<td>25.93</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: RCI = Readiness for Change Index, MCSD = Defensiveness, HS = High Standards, Discrep = Discrepancy, OQ = Distress.
Table 4-2. Within-Time and Across-Time Scale Correlations and Reliability Estimates

<table>
<thead>
<tr>
<th>Time</th>
<th>Measure</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RCI</td>
<td>MCSD</td>
<td>HS</td>
</tr>
<tr>
<td>Pretest</td>
<td>RCI</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCSD</td>
<td>-.11</td>
<td>.66</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>.06</td>
<td>-.06</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>DISCREP</td>
<td>.22**</td>
<td>-.27**</td>
<td>-.06</td>
</tr>
<tr>
<td></td>
<td>OQ</td>
<td>.19*</td>
<td>-.26**</td>
<td>-.03</td>
</tr>
<tr>
<td>Posttest</td>
<td>RCI</td>
<td>.74**</td>
<td>-.03</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>MCSD</td>
<td>-.15</td>
<td>.71</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>.26**</td>
<td>-.11</td>
<td>.39**</td>
</tr>
<tr>
<td></td>
<td>DISCREP</td>
<td>.28**</td>
<td>-.25**</td>
<td>-.07</td>
</tr>
<tr>
<td></td>
<td>OQ</td>
<td>.19*</td>
<td>-.26**</td>
<td>-.03</td>
</tr>
<tr>
<td>Follow-up</td>
<td>RCI</td>
<td>.78**</td>
<td>-.09</td>
<td>.06</td>
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<tr>
<td></td>
<td>MCSD</td>
<td>-.06</td>
<td>.74**</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>.15</td>
<td>-.08</td>
<td>.42**</td>
</tr>
<tr>
<td></td>
<td>DISCREP</td>
<td>.23**</td>
<td>-.31**</td>
<td>-.09</td>
</tr>
<tr>
<td></td>
<td>OQ</td>
<td>.16*</td>
<td>-.29**</td>
<td>-.03</td>
</tr>
</tbody>
</table>

Note: Cronbach’s coefficients alphas appear in italics on the diagonal. RCI = Readiness for Change Index, MCSD = Defensiveness, HS = High Standards, Discrep = Discrepancy, OQ = Distress. Given that the RCI was calculated based on URICA subscales by subtracting the Precontemplation score from the sum of Contemplation, Action, and Maintenance, the reliability coefficient for RCI could not be calculated.
### Table 4-3. Means and Standard Deviations by Group

<table>
<thead>
<tr>
<th>Time</th>
<th>Measure</th>
<th>Writing M</th>
<th>Writing SD</th>
<th>Feedback M</th>
<th>Feedback SD</th>
<th>Control M</th>
<th>Control SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>RCI</td>
<td>48.54</td>
<td>16.70</td>
<td>49.84</td>
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<td>17.101</td>
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<tr>
<td></td>
<td>MCSD</td>
<td>5.00</td>
<td>2.23</td>
<td>5.43</td>
<td>2.88</td>
<td>4.85</td>
<td>2.84</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>43.16</td>
<td>3.81</td>
<td>43.34</td>
<td>4.21</td>
<td>43.53</td>
<td>3.50</td>
</tr>
<tr>
<td></td>
<td>Discrep</td>
<td>58.59</td>
<td>10.00</td>
<td>58.40</td>
<td>9.37</td>
<td>59.95</td>
<td>10.50</td>
</tr>
<tr>
<td></td>
<td>OQ</td>
<td>67.02</td>
<td>20.64</td>
<td>67.48</td>
<td>25.83</td>
<td>63.21</td>
<td>23.62</td>
</tr>
<tr>
<td>Postest</td>
<td>RCI</td>
<td>47.57</td>
<td>21.41</td>
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<td>53.03</td>
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<tr>
<td></td>
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<td>5.44</td>
<td>42.00</td>
<td>5.99</td>
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<td>54.73</td>
<td>13.60</td>
</tr>
<tr>
<td></td>
<td>OQ</td>
<td>65.36</td>
<td>23.22</td>
<td>66.57</td>
<td>26.27</td>
<td>61.57</td>
<td>27.35</td>
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<tr>
<td>Follow-up</td>
<td>RCI</td>
<td>48.20</td>
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<td>52.85</td>
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<tr>
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<td>55.85</td>
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<td>64.20</td>
<td>25.43</td>
<td>65.49</td>
<td>23.43</td>
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### Table 4-4. Regression Analyses of the Effects of Condition on Mediator Variables.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Predictor</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
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<td>2.02</td>
<td>.10</td>
<td>.19</td>
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<tr>
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<td>.25</td>
<td>-.09</td>
<td>.23</td>
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<tr>
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<td>.29</td>
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<td>MCSD3</td>
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<td>.25</td>
<td>-.05</td>
<td>.55</td>
<td></td>
</tr>
</tbody>
</table>

Note: RCI2 = Readiness for Change Index at Posttest, MCSD2 = Defensiveness at Posttest, RCI3 = Readiness for Change Index at Follow-up, MCSD3 = Defensiveness at Follow-up.
Table 4-5. Regression Analyses of the Effects of Pretest Readiness for Change x Pretest Defensiveness x Condition Interaction on Outcome Variables.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Criterion</th>
<th>ΔR²</th>
<th>F</th>
<th>df</th>
<th>p</th>
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Note: RCI = Readiness for Change Index at Pretest, MCSD = Defensiveness at Pretest, OQ2 = Distress at Posttest, RCI2 = Readiness for Change Index at Posttest, MCSD2 = Defensiveness at Posttest, Discrep2 = Discrepancy at Posttest, HS2 = High Standards at Posttest, OQ3 = Distress at Follow-up, MCSD3 = Defensiveness at Follow-up, RCI3 = Readiness for Change Index at Follow-up, Discrep3 = Discrepancy at Follow-up, HS3 = High Standards at Follow-up.
Figure 4-1. Pretest Readiness for Change x Condition Interaction Effect Predicting Follow-up Distress.
Figure 4-2. Pretest Readiness for Change x Condition Interaction Effect Predicting Posttest High Standards.
Figure 4-3. Pretest Readiness for Change x Condition Interaction Effect Predicting Follow up High Standards.
Figure 4-4. Pretest Defensiveness x Condition Interaction Effect Predicting Change in Readiness for Change from Pretest to Posttest.
Figure 4-5. Pretest Defensiveness x Condition Interaction Effect Predicting Change in Distress from Pretest to Follow-up.
Figure 4-6. Pretest High Standards x Condition Interaction Effect Predicting Change in Distress from Pretest to Follow-up.
CHAPTER 5
DISCUSSION

The purpose of this study was to provide empirical support for the potential therapeutic impact of sharing test results with maladaptively perfectionistic individuals and to examine the mechanisms contributing to change. The study represents an attempt to address the relative scarcity of systematic research on the treatment of perfectionism and the difficulty in effectively helping maladaptive perfectionists (Blatt & Zuroff, 2002). The study proposed two brief, online experimental interventions (provision of feedback alone and provision of feedback accompanied by the opportunity to express in writing reactions to the feedback received) and was the result of broadening Finn’s efforts on therapeutic benefits of providing clients with MMPI-2 feedback (Finn & Tonsager, 1992; Newman & Greenway, 1997) and Pennebaker’s (1997, 2004) work on the benefits of expressive writing. The primary goal of the present study was to examine whether the provision of feedback alone and feedback combined with the opportunity to react to feedback have immediate and/or longer-term therapeutic benefits in terms of general level of distress, readiness for change, defensiveness, and perfectionism in a sample of maladaptively perfectionistic college students. In addition, this study explored various factors that may interact with the treatment conditions in predicting therapeutic outcome.

With regard to treatment effects, results revealed that, when compared to the control group, neither participants receiving perfectionism feedback alone, nor those receiving feedback and given the opportunity to write about the reactions the feedback elicited showed a significant change in distress, defensiveness, or readiness for change, at the posttest or at the 2-weeks follow-up. In addition, no differences were found between the two experimental groups on the respective variables. The only significant findings related to perfectionism. More specifically, participants in both control and experimental groups exhibited a significant decrease in high
standards over time. In addition, and contrary to my expectations, participants in the control condition exhibited a marginally significant decrease in discrepancy from pretest to posttest. The results concerning the decrease in high standards perfectionism over time are noteworthy given that perfectionism has been found to be a relatively stable characteristic (Rice & Aldea, 2006). Although the major distinction between the control and the experimental groups was that the latter received feedback, all participants completed measures inquiring about perfectionism (e.g., APS-R and URICA). A possibility is that all participants experienced something similar to direct exposure: they had to ponder a topic perfectionists might otherwise prefer to avoid (Rice et al., 2003). The question that still remains is why the change across groups occurred in high standards but not discrepancy. In their quantitative and qualitative study, Rice et al. (2003) found that the great majority of the participants identified standards as a core feature of perfectionism. Thus, standards may be more salient to the concept of perfectionism and more available to participants’ awareness, whereas self-criticism and self-doubt (characteristics of the discrepancy dimension) may be not only subtle, but also automatic core perceptions and beliefs that may be less penetrable to alterations without a more sustained effort. Nevertheless, participants in the control group showed a very slight, marginally significant decrease in discrepancy perfectionism at the posttest, change that was not maintained at the 2-weeks follow-up. It is likely that participants in the experimental conditions may have been overwhelmed by the feedback received. Perfectionistic individuals tend to be sensitive (Rice et al., 2003) and the feedback’s attempt to increase awareness regarding the negative aspects of perfectionism and how perfectionism negatively impacts a person may have been perceived as either threatening or too “pushy” and thus generated resistance in those receiving it, whereas the control participants, simply filling out questionnaires, may have pondered their perfectionism and reached their own conclusions with
regard to what, if anything, they need to change. Participants in the experimental conditions may have simply dismissed the feedback received on the bases of the introductory paragraph to the feedback that stated: “Scores have some degree of error or imperfection, which means that, although your scores suggest the following description might fit, it is possible that, as a result of measurement error, the scores and interpretation could be wrong or partially wrong.”

Although disappointing, the failure of this study to provide support for the effectiveness of feedback as a therapeutic intervention for perfectionists can be understood in the light of the perfectionism literature, the writing paradigm research, and the general outcome research. The findings regarding the way in which maladaptive perfectionistic characteristics might affect otherwise therapeutic interventions have not been very encouraging. For instance, extensive secondary analyses of the data from the Treatment of Depression Collaborative Research Program showed that highly perfectionistic individuals tended to respond poorly when receiving short-term therapy or medication in the treatment of depression (Blatt & Zuroff, 2002; Zuroff et al., 2000). The small number of studies that have examined perfectionism as an a priori consideration in study design have reported mixed findings. Shafran, Lee, Payne, & Fairburn, (2006) found positive effects on problematic eating behavior by addressing personal standards in an intervention, though longer-term effects on trait perfectionism were not apparent from their research. Although they found that perfectionists receiving a brief cognitive restructuring intervention reported decreased anxiety ratings, DiBartolo et al. (2001) failed to find significant effects on negative automatic thoughts.

In addition to explanations regarding the nature of the population being the focus of the study, another possible account for the lack of significant differences between participants who received feedback alone and those who wrote about their reactions to the feedback received may
be found in the writing paradigm. In the studies that provided support for the benefits of writing, the intervention was administered repeatedly, for at least three sessions, at different time intervals. The repeated writing may force people to process topics they may otherwise avoid in their everyday life, and thus may be conducive to making changes in the way they think about the events in the short term and the long term (Pennebaker, 2004). The students in the present study completed only one brief writing session and this dosage may have been too limited to allow sufficient exposure to otherwise avoided issues. Even if one session of writing may have been adequate, perhaps positive effects could not be observed for at least two other reasons. First, the most common benefits of expressive writing have been on health and these effects tend not to be evident in the first 2-3 weeks of writing but rather tend to emerge in the months afterward (Pennebaker, 2004; Smyth, Stone, Hurewitz, & Kaeli, 1999). Thus, if positive effects did occur in the current sample, they may have been either evident on variables that were not measured or might take place at a later point in time. Second, in some studies, the writing method has not been particularly effective in influencing participants’ self-reports, although changes were obvious to others (Pennebaker, 2004). This may be the case with this sample. Perfectionistic individuals tend to engage in all-or nothing thinking and may be likely to minimize and/or overlook small improvements.

In addition, data from forty years of outcome research provides strong empirical support that different therapeutic approaches appear equal in effectiveness and that pantheoretical factors play a significant role in the change process (Hubble, Duncan, & Miller, 1999; Rosenzweig, 1936; Wampold, 2001). In their empirical review of outcome research, Hubble et al. (1999) point out that the therapeutic relationship and client factors account for approximately 70% of change in therapy. One very likely explanation for the results of the current study is that the
experimental manipulation did not include these two crucial ingredients conducive to improvement. Based on their review of therapy outcome, Orlinsky, Grawe, and Parks (1994) reported that the client’s role investment in therapy was associated with positive outcome in 70% of the studies examined and the client’s collaborative style was linked with positive outcome in 64% of the studies. The participants in the current study were not therapy clients, but college students who participated in the study mostly in exchange for course extra credit. Important factors in treatment outcome, such as participants’ expectations, goals, level of involvement and engagement, and openness (Orlinsky et al., 1994; Wampold, 2001) may not have been present in the sample who, despite being screened for maladaptive perfectionism, may have treated the experience simply as “another research study” rather than a therapeutic opportunity. Garfield (1994) cited studies that revealed that individuals who are interested in, and come to therapy have more specific formulations of their problems and what they want to accomplish than those who make an appointment and do not show up, and in turn, clear goals were associated with positive outcomes (Orlinsky et al, 1994). In addition, “the client has a uniquely personal theory waiting for discovery, a framework for change to be unfolded and used for a successful outcome” (Duncan, Miller, & Sparks, 2004, p. 73). Although the association between maladaptive perfectionism and a vast realm of psychological problems has been demonstrated in the literature, nothing was known with regard to how, specifically, the individuals in the present study viewed their struggles and what their theories and ideas of change were. It is possible that what the treatment conditions offered did not match or complement participants’ preexisting beliefs about their problems and the change process. Moreover, given the way in which the study was carried out (i.e., via the internet) neither the participants, nor the feedback provider were able to take a collaborative and interactive role in the process. This becomes relevant given what
individuals at the receiving end of therapeutic interventions tend to find important. Thus, Phillips (1984), through interviewing clients involved in different therapy modalities, found that important factors for clients were to have a time and a place to focus on themselves and have someone listen, care, and understand. Gold (1994) reported that clients rated the relationship with the therapist as equal to or more important than the specific therapeutic techniques used. Clinicians and researchers alike have acknowledged the central role of the therapist-client relationship in the process of change, with the definition of the alliance focusing on the collaborative and interactive elements in the relationship (Duncan et al., 2004; Gelso & Carter, 1985; Horvarth & Symonds, 1991; Wampold, 2001). Incorporating students’ participation with an emphasis on respect for the participant in accordance with client-centered principles, may have made the feedback more personally relevant, meaningful, and easier to be accepted by participants, and perhaps, ultimately leading to positive outcomes with regard to distress, readiness for change, and defensiveness.

Although the differences between the two experimental groups and the control group on the study variables were not obvious, the results of this study shed light on some of the potential mechanisms that may facilitate or hinder the effect of these interventions for maladaptively perfectionistic college students. Thus, the effects of feedback alone or feedback combined with the opportunity to express in writing the reactions that the feedback elicited appeared to be influenced by the pretreatment levels of mainly two variables: readiness for change and defensiveness. The study revealed that participants’ readiness for change at pretest interacted with the experimental condition to predict distress level at the 2-weeks follow-up and high standards scores at both posttest and follow-up. Interestingly, participants who received feedback alone and were motivated to change at the pretest (high readiness for change scores) showed
more distress two weeks after the intervention that those who received feedback and had low levels of readiness for change. The opposite pattern was observed in the control group. In other words, it appears that maladaptively perfectionistic students who have more desire to change benefit the least from receiving perfectionism feedback, whereas those with reduced readiness for change benefit the most. It is possible that the students motivated to change may have become more aware of, and discontented with some of the issues they were experiencing as a result of the feedback received. They may know what they need to change but their goals may be too unrealistic to be achieved which, in turn, is more likely to lead to frustration and disappointment with self and, ultimately to increased distress. Sorotzkin (1998) pointed out that perfectionistic individuals tend to engage in all-or-nothing thinking, strive for perfectionistic therapeutic goals, and are unable to recognize and be satisfied with small improvements. That the expectations of participants highly motivated to change may increase as a result of receiving feedback is a very likely explanation in light of the present study’s finding related to the role of readiness for change and impact on participants’ high standards perfectionism.

Similar to the effects on distress, participants’ level of readiness for change at pretest interacted with the experimental conditions to predict high standards scores at both posttest and follow-up. Individuals who were motivated to change and received feedback showed higher levels of high standards immediately after the intervention and at the 2-week follow-up than the students who received feedback and had low readiness for change at the onset of the study. The participants in the control group with low motivation to change exhibited the lowest standards scores at both posttest and follow-up. Although the effect of the readiness for change x writing condition interaction was not evident immediately following the experimental manipulation, it became apparent two weeks later. Thus, students with high readiness for change who received
feedback and wrote their reactions demonstrated lower standards at follow-up than those with low readiness for change in the same experimental condition. It appears that for maladaptive perfectionistic individuals who are willing to consider change, the simple provision of feedback is associated with elevated standards, while the provision of feedback and the opportunity to write reactions to the feedback has a more beneficial effect in terms of lowering standards. Participants motivated to change may already be aware of some of the issues they are experiencing and they may already be immersed in a process of assessing the pros and cons of their personal change. The feedback simply informs individuals of what is wrong or ineffective about themselves, but does not provide suggestions of how to go about change, which may lead to the students feeling stressed, overwhelmed, and inadequate. Because they may not have other tools readily available to respond to stress, students may react by developing unrealistic coping goals and standards and increasing self-expectations in regard to how to manage the issues they are facing. Writing after receiving feedback may represent an opportunity to process, label, organize, and restructure thought and reactions surrounding an emotionally charged issue; indeed it is this very issue which may prevent perfectionists who are highly motivated to change to increase their standards and expectations regarding how fast or profound the change should be. Indeed, based on their research with individuals who underwent traumatic events, Klein and Boals (2001) suggest that one of the effects of writing is that in the weeks following the writing sessions, but not immediately after, participants were more likely to think less about their trauma and focus on other issues in their lives.

High standards in the current sample were not only affected by the interventions, but also played a significant role in how individuals responded to the interventions. Thus, it was found that individuals in both experimental conditions who had lower standards at the pretest showed a
more significant change in their distress level from pretest to follow-up than those with high standards to begin with. It is also noteworthy that participants in the control condition with lower standards at the pretest exhibited the most change in distress, whereas control participants with elevated high standards demonstrated the least change in distress. Although all participants had high standards (maladaptive perfectionists were selected based on a combination of elevated High Standards and Discrepancy scores), it appears that even slightly lower high standards help participants benefit more from feedback. Maladaptive perfectionists with excessive high standards may hold themselves to very rigid self-expectations and self-evaluations that, combined with the stress the content of the feedback might have elicited, hinders implementation of change and is associated with higher levels of distress. The results of the present study also suggest that for maladaptive perfectionists with extremely high standards, feedback (either alone or combined with the opportunity to write) is a better intervention than no intervention at all with regard to facilitating some reduction in the distress level, whereas for maladaptive perfectionists with relatively low standards a more indirect approach rather than provision of direct feedback appears to be more useful.

Another set of results regarding the role of defensiveness merits consideration. Participants’ level of defensiveness at pretest interacted with the interventions to predict change in readiness for change from pretest to follow-up and change in distress from pretest to follow-up, respectively. With regard to the former, participants with reduced defensiveness at the onset of the study who received feedback and wrote about their reactions showed the most significant change in readiness for change two weeks after the intervention, whereas defensive participants in the feedback and writing condition showed the least change. Surprisingly, defensive participants in the control condition demonstrated more change in readiness for change than their
counterparts in the feedback and writing condition. Already defensive individuals are more likely
to feel threatened by the content of the feedback and thus more probable to reject the information
received and close off to the idea of change. Again, an indirect, non-threatening intervention may
be more effective for these individuals. The less defensive students may also be more open and,
through processing the information received by writing their thoughts and reactions they may
become more willing to consider the relevance of the feedback and, ultimately, consider change.

The results of the interaction between defensiveness at pretest and intervention in
predicting change in distress from pretest to follow-up were perplexing and not all expected.
Highly defensive students who received feedback showed the most positive change in distress
level two weeks after the intervention as did the control participants low in defensiveness at
pretest. A possible explanation for the results is that highly defensive individuals, following
feedback, may become concerned about being perceived as people with problems, an image in
direct opposition to their desired image as “the best” or “perfect.” Consequently, they may try to
put on a façade and minimize their difficulties (Rice et al., 2003). Nondefensive control
participants may have shown positive change in distress because they were more open to self-
examination, perhaps stimulated by engaging in the less threatening (as compared to receiving
feedback) task of completing questionnaires inquiring about perfectionism and distress.

Clinical Considerations

Although the provision of feedback in the current study did not bring about support for its
effectiveness as a free standing therapeutic intervention, its potential positive and beneficial role
within the context of therapy warrants further exploration. Within the framework of a strong
therapeutic alliance in which client’s theory of change is taken into consideration and client’s
input and reactions are processed, provision of feedback based on personality assessment can be
a powerful tool (Finn & Tonsager, 1992; Newman & Greenway, 1997). Indeed, maladaptive
perfectionists, although a population at risk, might be difficult to treat. In the field of therapy, some types of clients often have been portrayed as “pathological monsters of epic proportions (e.g., borderlines)” (Duncan et al., 2004, p. 49) and my concern is that maladaptive perfectionists may, sooner or later, end up in the same category. Indeed, maladaptive perfectionists may not respond well to standard therapeutic interventions, but mental health professionals more typically accommodate and adjust to the client rather than expect the client to fit what they have to offer.

As the results above illustrate, and similar to challenges with diagnostic labels, within-group variations in the category of maladaptive perfectionists should be carefully considered in clinical contexts; although more similar than different from each other in terms of perfectionism, these participants responded differently to the same interventions, based on their readiness for change, defensiveness, and high standards. This was not a comprehensive study and most likely there are many other client variables to be taken into consideration. A client-oriented or client-informed approach that is organized around client’s perceptions, views, resources, and experiences may work best for these individuals. Thus, counselors encountering clients with maladaptive perfectionistic tendencies might be advised to assess clients’ desire and readiness for change, level of defensiveness, and high standards. Clients who hardly consider significant changes in their lives, who have fewer self-protective mechanisms in place, and relatively low and more flexible standards may benefit from a more direct intervention to help them realize when and how their perfectionism negatively impacts their lives. However, maladaptive perfectionistic clients with a strong defensive armor, who are more aware of the issues affecting them and want to be better, or those with extreme high standards have to be approached with carefulness. Instead of telling these clients that they have a problem, the counselor may ask them to talk about their own perceptions of what is going on with them. Instead of challenging clients’
defensiveness the counselor may respond largely in a reflective manner, “rolling with client’s ‘resistance’ or ‘denial’ instead of challenging it head-on” (Miller, 1995, p. 95).

In addition, the counselor may inquire about client’s expectations and goals for therapy and help the client adjust the goals to be realistic and achievable. Reasonable objectives or subgoals to be achieved can be set as steps toward larger aspirations. The therapist may want to help the client acknowledge small achievements and improvements by recognizing client resources, resilience, strengths, and circumstances in and outside of therapy in which the client is capable and successful, but the client is reluctant to, or for other reasons does not, acknowledge those successes. The therapist can listen for and validate accomplishments and changes otherwise overlooked by clients and create a context in which to explore and develop new or different perspectives, behaviors, and experiences. With patient prompting, the counselor may direct attention to changes taking place not only in therapy, but between sessions as well, by asking questions that elicit further elaboration on the part of the client on the change that did occur and the client’s contribution in bringing it about. Such an approach may increase awareness of gains, large or small, that may assist the client in attributing change to personal efforts, valuing the power of small improvements, and viewing change as resulting from something the client did and can repeat in the future (Berg & Miller, 1992).

In addition to the current findings, research outcomes regarding the mediational and moderational role of different factors in the relationship between perfectionism and distress can provide helpful insights for the development of effective therapeutic interventions targeted for maladaptive perfectionists. Rather than focusing on perfectionism or the distress associated with it, which may elicit defensiveness and desires to achieve unrealistic therapeutic goals, the therapist can address the factors that could reduce the effects of maladaptive perfectionism on
symptoms. Using structural equations analyses on a large sample of college students, Aldea and Rice (2006) found support for the mediational role of emotional dysregulation, operationalized with measures of emotional reactivity and splitting, in the relationship between perfectionism and distress. Their findings suggest that maladaptive perfectionism leads to difficulty regulating emotional responses that consequently leads to increased levels of psychological distress. Thus, counselors working with maladaptive perfectionists are recommended to assess for emotion regulation concerns and employ strategies directed at helping clients to better regulate their emotional arousal, diminish their susceptibility to experience events or incidents as either “perfect” or “bad,” and increase adaptive and appropriate responses to various situations.

Other authors (Blankstein & Dunkley, 2002; Dunkley et al., 2002; Rice et al., 2006) found evidence regarding the role of stress and coping in the relation between perfectionism and different forms of distress. Stress (often self-induced) and inappropriate coping mechanisms maintain perfectionists’ anguish and prevent them from moving beyond the distress associated with perceived stressful situations. Stress management and coping strategies techniques can be incorporated in the counseling of maladaptive perfectionists. Addressing both primary and secondary stress appraisal processes (Lazarus & Folkman, 1984) may enable clients to deal more effectively with situations that trigger stress. A goal of treatment can be the development of strategies and skills that facilitate problem-focused, task-oriented, active, and adaptive coping to replace maladaptive coping mechanisms such as avoidance, overgeneralization, rumination, disengagement, and denial (Blankstein & Dunkley, 2002). Such interventions aimed at the development of coping skills and reduction of perceived stress may also be helpful in terms of facilitating client’s participation in therapy. First, these relatively straightforward techniques may provide concrete tools and some relief which may instill hope and trust in the therapy process.
Second, addressing client’s appraisal of situations and increasing ability to cope with stress, may provide client the necessary proficiency to cope with the stress the therapeutic process sometimes entails when addressing sensitive issues (such as perfectionism, high standards, self-criticism).

Additionally, lack of social support or connectedness, was found to play an important part in the link between perfectionism and distress (Blankstein & Dunkley, 2002, Rice et al., 2006). Clinicians, therefore, may want to assess both quality and quantity of perfectionists’ social support and use interventions that help clients reconceptualize and reframe their relations and maximize social support. Process-oriented group therapy in which members provide support and feedback to each other may be a useful adjunct to individual counseling. As well, interpersonal therapeutic approaches that address and process client-therapist interactions in the here-and-now may improve the therapeutic alliance and prevent at least some of clients’ disappointment or impatience with the process and preclude them from prematurely dropping out of counseling (Blatt et al., 1998).

Perfectionism is a pervasive personality characteristic relatively impermeable to change (Rice & Aldea, 2006). Perfectionistic individuals do not want to give up their perfectionism altogether (Rice et al., 2003). In addition to the strategies outlined so far and in order to prevent frustration from both client (who may want to hold on at least some aspects of their perfectionism) and therapist (who may be tempted, in a desire to help the client, to try to eradicate perfectionistic tendencies), the counselor may consider assisting clients pursue the positive, adaptive, and motivational aspect of their perfectionism in a constructive manner while diminishing the harmful effects of maladaptive perfectionism. An approach drawing from client-centered, cognitive-behavioral, interpersonal, and motivational interviewing therapies and
integrating the various strategies outlined above, might be well-suited for treating maladaptively perfectionistic clients. However, as the results of this study point out, the one-approach-fits-all strategy may undermine treatment outcome. Careful assessment and consideration of clients’ pre-treatment level of readiness and motivation for change, defensiveness, and high standards, monitoring client’s perceptions of, and reactions to the process itself and the therapeutic alliance, and therapist’s flexibility in calibrating therapy to the client’s individual needs may be essential factors in effectively helping people who experience significant distress in different areas of their lives as a result of their maladaptive perfectionistic tendencies.

Limitations and Future Directions

There are certain limitations of the current study that must be acknowledged and addressed in future research. The nature of the sample needs to be taken into consideration. The sample consisted of college students attending two large universities in the Southeast United Stated. The findings may not generalize to college students in other areas of the country or to students attending universities outside the U.S. Even though the sample size was large and relatively diverse it was comprised predominantly of White women. Although preliminary analyses revealed no significant differences between women and men on any of the pretest variables, it is possible that the results would have revealed different responses to feedback depending on gender, as well as other factors such as family history, socioeconomic status, or race/ethnicity. However, exploring such hypotheses with this sample would have necessitated examining models with group sizes too small for the analyses. Future work with larger and more diverse samples could examine, for instance, whether provision of feedback is more beneficial for some racial/ethnic, gender, or socioeconomic groups than others. In addition, the intervention may have a more significant impact on a sample of maladaptive perfectionists seeking therapeutic services, and receiving those services from trained professional counselors, versus those
participating in an online psychology experiment for course credit. It appears especially important to replicate these findings in clinical samples.

A related issue is that of diagnosis or presenting concerns. Although evidence indicates that maladaptive perfectionism is associated with a variety of specific psychological disorders such as depression, eating disorders, anxiety, social phobia, obsessive-compulsive problems, and substance abuse (Flett & Hewitt, 2002), only general level of distress was assessed in the current study. Future research needs to ensure that participants are adequately screened for specific presenting distress and could also examine whether the findings generalize to specific areas of psychological impairment. The presence of comorbid personality disorders also needs to be taken into account. Moreover, participants’ desire to receive feedback was not assessed although it might have significantly influenced the results. Snyder, Ingram, Handelsman, Wells, and Huwieler (1982) examined the therapeutic consequences of the desire for feedback and found that individuals with higher desire for feedback were more willing to participate in therapy, showed more hope for positive change, and were more responsive to feedback.

Another limitation pertains to the fact that the study relied entirely on self-report measures. Future studies could improve on the present efforts by collecting reports of perfectionism and psychological distress from other informants and diversify methodologies, such as by including the use of interview data (Slaney et al., 2000). As well, it appears important to replicate current findings using multiple measures of the constructs in order to ensure validity and generalizability of the results to related measures and constructs. One may wonder whether similar results would be reached if other measures of perfectionism, distress, readiness for change, and defensiveness were used. Collecting data over longer time intervals and having multiple writing sessions after receiving feedback would generate more insight into the long-term effects of the treatment.
conditions and would help better decipher the effects of feedback alone versus receiving feedback and processing the information received.

On the same lines, the nature and the delivery of feedback warrants further discussion. Future studies could examine which portions of the feedback maladaptive perfectionists identify with and find most relevant, whether the length of the feedback or the wording has an influence on how it is received, and in which contexts does feedback have specific therapeutic value. Future research may consider studying the effects of providing information that includes coping skills strategies and recommendations along with the perfectionism feedback. It should be kept in mind that the feedback was not interactive and it lacked the relational component imperative in the therapy encounter. The outcome therapy data shows that therapy works if there is a strong therapeutic alliance experienced positively by the client, the clients perceive therapy to be relevant to their concerns, and clients are active participants in the process (Wampold, 2001). Future studies might examine whether specific perfectionism feedback provided within the context of an ongoing therapy relationship produces more positive effects on distress and other variables than were observed here and identify underlying factors as predictors of therapeutic change.

**Conclusions**

Maladaptive perfectionism has been clearly linked with a plethora of significant psychological concerns, but less apparent from the current literature is the effectiveness of interventions aimed at helping maladaptively perfectionistic individuals reduce their psychological distress and improve their functioning. Much of the limited research that does exist is not necessarily supportive of typical therapeutic intervention efforts and it was suggested that long-term psychodynamic therapy is necessary to help this population (Blat et al., 1995, 1998). The question still remains whether it is possible to help maladaptive perfectionists
relinquish some of the distress they are experiencing without resorting to long-term therapy. Based on the research on the effects of therapeutic feedback (Finn & Tonsager, 1992) and expressive writing (Pennebaker, 1997, 2004), two brief, online interventions, provision of feedback and provision of feedback followed by an opportunity to express in writing reactions the feedback elicited, were tested in the current study on a sample of maladaptive perfectionistic college students. It was believed that providing perfectionists with perfectionism feedback pointing out the negative consequences that can be associated with perfectionism may have beneficial effects in terms of distress, readiness for change, defensiveness, and ultimately perfectionism.

Although support was not found for the therapeutic benefits of feedback, the study nevertheless offered important insights regarding the relevance of individual characteristics on how perfectionists respond to interventions. More specifically, participants with high levels of pre-intervention readiness for change, defensiveness or high standards tended to show less gains from feedback in terms of distress and readiness for change than their counterparts with low pre-intervention scores on those measures. This study suggests that although perfectionism feedback may be appropriate to use with some maladaptive perfectionists (e.g., those unmotivated to change, non-defensive, or with relatively lower standards), it may be detrimental to others. The broader implication of the current study is the necessity to include client dimensions in studies of therapeutic interventions for perfectionists and to evaluate the interaction of individual/client variables with treatment factors in predicting outcome. In searching for a way of better serving maladaptive perfectionistic individuals perhaps researchers and clinicians alike could revisit Paul’s (1967) question: “What treatment, by whom, is most effective for this individual with that specific problem under which set of circumstances?”
APPENDIX A
INFORMED CONSENT FORM 1

The purpose of this study is to investigate different personality characteristics. It is anticipated that the completion of the questionnaire to follow will take approximately 5 minutes of your time. After completing the questionnaire, you may be selected to participate further in the study. If selected, more information regarding the next steps for participation will be provided.

You can only participate if you are **18 years** of age, or older. Your participation in this study is completely voluntary. There is no penalty for not participating and you have the right to withdraw from the study at anytime without consequence.

If you have any questions concerning the survey, you may contact Mirela Aldea, Department of Psychology, University of Florida, Gainesville, FL 32611-2250, ph. 352-392-0601, adina_ald@yahoo.com or Dr. Ken Rice, Department of Psychology, University of Florida, Gainesville, FL 32611-2250, kgr1@ufl.edu.

Any questions or concerns about your rights in this study can be directed to the UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250. The study has been approved by the UFIRB (protocol # 2006-U-0158).

By checking the box below I certify that I have read the procedure described above, that I understand its contents, and that I have voluntarily agreed to participate in this research study.
APPENDIX B
INFORMED CONSENT FORM 2

The purpose of this study is to investigate the way in personality characteristics may affect how psychological test feedback is understood. There are three phases in the study. In the first phase, you will complete a set of questionnaires. These questionnaires concern certain attitudes you have about problems people sometimes have and about yourself. The second phase will occur about one week later. In the second phase, you will receive some information and then you will complete a set of questionnaires. In the third phase, about 2 weeks later, you will complete another set of questionnaires. It is anticipated that complete participation in all three phases combined will take approximately 2½ hours or less.

There are no known risks involved in completing the study and many students may find that they learn something about themselves from participating. Nonetheless, if being part of the study makes you feel uncomfortable, you may consider speaking to a counselor who may be able to help you with your reactions. You can contact a counselor through the University of Florida Counseling Center (P301 Peabody Hall, 392-1575). You may benefit by participating in this study through increased awareness and self-understanding. You will also be contributing to knowledge regarding researchers’ ability to understand psychological factors involved in the process of feedback.

Your identity will be kept confidential to the extent provided by law. Your responses on the questionnaires will be assigned a code number. The list connecting your name to this number will be kept in a password-protected computer file. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in any report.

You can only participate if you are 18 years of age, or older. Your participation in this study is completely voluntary. There is no penalty for not participating and you have the right to withdraw from the study at anytime without consequence.

If you have any questions concerning the survey, you may contact Mirela Aldea, Department of Psychology, University of Florida, Gainesville, FL 32611-2250, ph 392-0601, adina_ald@yahoo.com or Dr. Ken Rice, Department of Psychology, University of Florida, Gainesville, FL 32611-2250, ext. 246, kgr1@ufl.edu.

Any questions or concerns about your rights in this study can be directed to the UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250.

By typing my name below, I certify that I have read the procedure described above, that I understand its contents, and that I have voluntarily agreed to participate in this research study.
APPENDIX C
DEMOGRAPHIC INFORMATION

1. Please click the number next to your gender:
   (1) MALE  (2) FEMALE

2. How old are you? _______ years

3. Please click the number next to your Race/Ethnicity or please describe the specific group that you identify with the most in the blank next to your ethnicity (for example, Chinese American, German, Navajo, Alaskan Aleut):
   (1) Asian or Asian-American________________________
   (2) Black, African-American________________________
   (3) Hispanic, Latino, Mexican-American________________
   (4) Pacific Islander_______________________________
   (5) Native American or American Indian________________
   (6) White, European American_______________________
   (7) Multicultural Mixed Race________________________
   (8) Other, please specify____________________________

4. How many official organizations are you involved with at school (for example, clubs, athletics, fraternities/sororities, etc.) _______ organizations

5. Please click the number next to your current living situation while attending UF:
   (1) live on campus in a residence hall
   (2) live in a fraternity or sorority
   (3) live off-campus in an apartment or house (includes Married Student Housing)
   (4) live off-campus with parent(s)
   (5) cooperative house

6. Please click the number next to your college:
   (1) Agricultural & Life Sciences  (10) Journalism & Communications
   (2) Business Administration        (11) Law
   (3) Dentistry                     (12) Liberal Arts & Sciences
   (4) Design, Construction, & Planning  (13) Medicine
   (5) Education                    (14) Natural Resources & Environment
   (6) Engineering                  (15) Nursing
   (7) Fine Arts                    (16) Pharmacy
   (8) Health Professions           (17) Veterinary Medicine
   (9) Health & Human Performance   (18) Undecided, Undeclared

7. How many semesters have you completed at UF? (don’t count the current semester, put 0 if you are a first semester student) _______ UF Semesters

8. How many semesters of college have you completed altogether (at UF or elsewhere)? _______ Total Semesters

9. Please indicate your undergraduate Grade Point Average: (skip this if you don’t have a GPA yet) _______ GPA (4.0 scale)
10. Please click the number next to your parents’ marital status:
   (1) Married and living together     (4) Divorced and one or both parents remarried
   (2) Separated                                              (5) Widowed, or one parent deceased
   (3) Divorced and neither parent remarried  (6) Single-parent (never been married)

*****The following 2 questions ask about your MOTHER or the person who is or was the
primary female caregiver in your family.

11. How much education has she completed?
   (1) less than high school
   (2) high school degree (or GED)
   (3) post high school (e.g., trade, technical, secretarial)
   (4) some college (e.g., one year, associate’s degree)
   (5) completed college (e.g., bachelor’s degree)
   (6) some graduate or post-bachelor’s training
   (7) completed graduate or post-bachelor’s training

12. What is her current employment status?
   (1) she works full-time
   (2) she works part-time (less than 30 hours per week)
   (3) she does not work outside the home because she is employed full-time in home-making
   (4) she does not work because she is laid off or unemployed
   (5) she does not work because she is disabled
   (6) she does not work because she is retired
   (7) other (describe)______________________________

*****The following 2 questions ask about your FATHER or the person who is or was the
primary male caregiver in your family.

13. How much education has he completed?
   (1) less than high school
   (2) high school degree (or GED)
   (3) post high school (e.g., trade, technical, secretarial)
   (4) some college (e.g., one year, associate’s degree)
   (5) completed college (e.g., bachelor’s degree)
   (6) some graduate or post-bachelor’s training
   (7) completed graduate or post-bachelor’s training

14. What is his current employment status?
   (1) he works full-time
   (2) he works part-time (less than 30 hours per week)
   (3) he does not work outside the home because he is employed full-time in home-making
   (4) he does not work because he is laid off or unemployed
   (5) he does not work because he is disabled
   (6) he does not work because he is retired
   (7) other (describe)______________________________
15. Have you ever been in therapy/counseling?
   (1) Yes   (2) No

16. If you answered yes to the question above, please specify the number of sessions you had.
   _________ sessions

17. Are you currently seeing a therapist/counselor?
   (1) Yes   (2) No

18. If yes, how many sessions have you had? _________ sessions
APPENDIX D
PERFECTIONISM FEEDBACK

General Introduction
One of the questionnaires you completed measures three things: personal standards or expectations for performance, the degree to which you see yourself living up to those standards, and your preferences for order and organization. All three of these vary across individuals, with some people scoring high on all three, some scoring low, and others having a mixture of scores, with some higher than others. Although the questionnaire has been used in several ways, in much of the research the measure is used to identify perfectionists and non-perfectionists.

Your results have been compared to a large sample of over 3000 college students ranging in age from 17 to 57 (average age was almost 21 years). However, tests such as the one you completed are not, pardon this expression, perfect, and people are variable too. Scores have some degree of error or imperfection, which means that although your scores suggest the following description might fit you well, some elements of the description below may be more fitting than others.

Your results
The combination of your scores suggests that you constantly strive for perfection. You have the tendency to impose extremely high standards upon yourself. At the same time, you engage in self-evaluations that are very critical and emphasize personal shortcomings in living up to often extremely high standards for performance. You tend to view yourself as responsible for achieving your standards, yet you doubt your efforts will bring about the results you want. You are hardly satisfied with what others might consider successful or even superior achievement. Thus, you may be prone to perceiving and emphasizing your failures rather than your achievements, which often results in stress and in feelings of self-worthlessness. You may experience feelings of failure, helplessness, and hopelessness and these are often associated with depression.

You may feel you are not doing well academically even though your grades, by other standards, would be good. You may experience concerns over course difficulty, may tend to procrastinate, and express increased anxiety and worry related to being evaluated on different tasks (such as exams).

You may experience social difficulties because you may try to live up to the perceived standards and expectations imposed by others, many times seeking the approval and acceptance of significant people in your life. At the same time, you tend to be afraid of negative social evaluations, criticism, and rejection. Your stress level, self-esteem, and overall comfort in social situations may be negatively affected because you may be more sensitive to possible criticism from others, possible failure, or loss of control. In the event that you perceived that you failed in some way, you tend to become even harsher and more critical of yourself, which may further affect your self-worth, self-esteem, or social comfort.

In short, you emphasize high personal standards and a desire to excel in performance to meet those standards. You expect a lot of yourself but you are rather inflexible in those expectations. You are harsh when you evaluate yourself and extremely self-critical, and you have difficulty being fully satisfied with, and enjoying your performance and achievements. You seem to be driven by a strong need to avoid failure which, combined with your difficulty acknowledging success, leads to more stress, worry, and perhaps perceiving yourself as worthless. In other
words, you are striving for perfection and are unable to accept anything less than perfection. Although high standards in and of themselves may be motivational and adequate, the combination of high standards and self-criticism might set you up for problems, both in terms of how you feel about yourself and in terms of how effectively or pleasantly you are able to interact with others.
APPENDIX E
WRITING INSTRUCTIONS

Please think about the reactions, thoughts, and feelings you have had in response to the feedback you just received. Your task is to write for 20 minutes about your very deepest reactions, thoughts, and feelings to the feedback. In your writing, try to let yourself go and to write continuously about your emotions and thoughts related to perfectionism, performance expectations, and self-criticism that the feedback may have brought up.
APPENDIX F
EARLY HISTORY OF FLORIDA

Please take a few minutes and read the following text regarding the early history of Florida.

People first reached Florida at least 12,000 years ago. The rich variety of environments in prehistoric Florida supported a large number of plants and animals. The animal population included most mammals that we know today. In addition, many other large mammals that are now extinct (such as the saber-tooth tiger, mastodon, giant armadillo, and camel) roamed the land. The Florida coastline along the Atlantic Ocean and the Gulf of Mexico was very different 12,000 years ago. The sea level was much lower than it is today. As a result, the Florida peninsula was more than twice as large as it is now. The people who inhabited Florida at that time were hunters and gatherers, who only rarely sought big game for food. Modern researchers think that their diet consisted of small animals, plants, nuts, and shellfish. These first Floridians settled in areas where a steady water supply, good stone resources for tool making, and firewood were available. Over the centuries, these native people developed complex cultures. During the period prior to contact with Europeans, native societies of the peninsula developed cultivated agriculture, traded with other groups in what is now the southeastern United States, and increased their social organization, reflected in large temple mounds and village complexes.

Written records about life in Florida began with the arrival of the Spanish explorer and adventurer Juan Ponce de León in 1513. Sometime between April 2 and April 8, Ponce de León waded ashore on the northeast coast of Florida, possibly near present-day St. Augustine. He called the area la Florida, in honor of Pascua florida ("feast of the flowers"), Spain’s Eastertime celebration. Other Europeans may have reached Florida earlier, but no firm evidence of such achievement has been found.

On another voyage in 1521, Ponce de León landed on the southwestern coast of the peninsula, accompanied by two-hundred people, fifty horses, and numerous beasts of burden. His colonization attempt quickly failed because of attacks by native people. However, Ponce de León’s activities served to identify Florida as a desirable place for explorers, missionaries, and treasure seekers.

In 1539 Hernando de Soto began another expedition in search of gold and silver, which took him on a long trek through Florida and what is now the southeastern United States. For four years, de Soto’s expedition wandered, in hopes of finding the fabled wealth of the Indian people. De Soto and his soldiers camped for five months in the area now known as Tallahassee. De Soto died near the Mississippi River in 1542. Survivors of his expedition eventually reached Mexico.

No great treasure troves awaited the Spanish conquistadores who explored Florida. However, their stories helped inform Europeans about Florida and its relationship to Cuba, Mexico, and Central and South America, from which Spain regularly shipped gold, silver, and other products.

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APPENDIX G
THE ALMOST PERFECT SCALE - REVISED (APS-R)

The following items are designed to measure certain attitudes people have toward themselves, their performance, and toward others. It is important that your answers be true and accurate for you. In the space next to the statement, please enter a number from 1 (“strongly disagree”) to 7 (“strongly agree”) to describe your degree of agreement with each item.

<table>
<thead>
<tr>
<th>STRONGLY DISAGREE</th>
<th>DISAGREE</th>
<th>SLIGHTLY DISAGREE</th>
<th>NEUTRAL</th>
<th>SLIGHTLY AGREEE</th>
<th>AGREE</th>
<th>STRONGLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ 1.</td>
<td>I have high standards for my performance at work or at school.</td>
<td>_____ 2.</td>
<td>I am an orderly person.</td>
<td>_____ 3.</td>
<td>I often feel frustrated because I can’t meet my goals.</td>
<td>_____ 4.</td>
</tr>
</tbody>
</table>
APPENDIX H
UNIVERSITY OF RHODE ISLAND CHANGE ASSESMENT (URICA)

Each statement describes how a person might feel when approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel.

There are FIVE possible responses to each of the items in the questionnaire:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>Undecided</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. As far as I'm concerned, I don't have any perfectionism-related problems that need changing.
2. I think I might be ready for some self-improvement.
3. I am doing something about the perfectionism-related problem(s) that had been bothering me.
4. It might be worthwhile to work on my perfectionism-related problem(s).
5. I'm not the problem one. It doesn't make much sense for me to seek help.
6. It worries me that I might slip back on a perfectionism-related problem I have already changed, so I want to seek help.
7. I am finally doing some work on my perfectionism-related problem(s).
8. I've been thinking that I might want to change something about myself.
9. I have been successful in working on my perfectionism-related problem(s) but I'm not sure I can keep up the effort on my own.
10. At times my perfectionism-related problem is difficult, but I'm working on it.
11. Seeking help would pretty much be a waste of time for me because the problem doesn't have to do with me.
12. I'm hoping to better understand myself.
13. I guess I have faults, but there's nothing that I really need to change.
14. I am really working hard to change.
15. I have a perfectionism-related problem and I really think I should work at it.
16. I'm not following through with what I had already changed as well as I had hoped, and I want to prevent a relapse of any perfectionism-related problems.

17. Even though I'm not always successful in changing, I am at least working on my perfectionism-related problem(s).

18. I thought once I had resolved my perfectionism-related problem(s) I would be free of it, but sometimes I still find myself struggling with it.

19. I wish I had more ideas on how to solve the perfectionism-related problem(s).

20. I have started working on my perfectionism-related problem(s) but I would like help.

21. Maybe somebody will be able to help me.

22. I may need a boost right now to help me maintain the changes I've already made.

23. I may be part of the perfectionism-related problem(s), but I don't really think I am.

24. I hope that someone will have some good advice for me.

25. Anyone can talk about changing; I'm actually doing something about it.

26. All this talk about psychology is boring. Why can't people just forget about their problems?

27. I want to prevent myself from having a relapse of my perfectionism-related problem(s).

28. It is frustrating, but I feel I might be having a recurrence of a perfectionism-related problem I thought I had resolved.

29. I have worries but so does the next person. Why spend time thinking about them?

30. I am actively working on my perfectionism-related problem(s).

31. I would rather cope with my faults than try to change them.

32. After all I had done to try to change my perfectionism-related problem, every now and again it comes back to haunt me.
APPENDIX I
MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE – SHORT VERSION (MCSD)

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

1. T F It is sometimes hard for me to go on with my work if I am not encouraged.
2. T F I sometimes feel resentful when I don't get my way.
3. T F On a few occasions, I have given up doing something because I thought too little of my ability.
4. T F There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. T F No matter who I'm talking to, I'm always a good listener.
6. T F There have been occasions when I took advantage of someone.
7. T F I'm always willing to admit it when I make a mistake.
8. T F I sometimes try to get even, rather than forgive and forget.
9. T F I am always courteous, even to people who are disagreeable.
10. T F I have never been irked when people expressed ideas very different from my own.
11. T F There have been times when I was quite jealous of the good fortune of others.
12. T F I am sometimes irritated by people who ask favors of me.
13. T F I have never deliberately said something that hurt someone's feelings.
APPENDIX J
OUTCOME QUESTIONNAIRE (OQ-45)

Using the scale below, click the number which best describes how you felt during the past week.

<table>
<thead>
<tr>
<th>NEVER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>ALMOST ALWAYS</th>
<th>5</th>
</tr>
</thead>
</table>

1. I get along well with others.
2. I tire quickly.
3. I feel no interest in things.
4. I feel stressed at work/school.
5. I blame myself for things.
6. I feel irritated.
7. I feel unhappy in my marriage/significant relationship.
8. I have thoughts of ending my life.
9. I feel weak.
10. I feel fearful.
11. After heavy drinking, I need a drink the next morning to get going (if you do not drink, mark “never”).
12. I find my work/school satisfying.
13. I am a happy person.
14. I work/study too much.
15. I feel worthless.
16. I am concerned about family troubles.
17. I have an unfulfilling sex life.
18. I feel lonely.
19. I have frequent arguments.
20. I feel loved and wanted.
21. I enjoy my spare time.
22. I have difficulty concentrating.
23. I feel hopeless about the future.
24. I like myself.
25. Disturbing thoughts come into my mind that I cannot get rid of.
26. I feel annoyed by people who criticize my drinking (or drug use). (If not applicable, mark “never”).
27. I have an upset stomach.
28. I am not working/studying as well as I used to.
29. My heart pounds too much.
30. I have trouble getting along with friends and close acquaintances.
31. I am satisfied with my life.
32. I have trouble at work/school because of drinking or drug use (If not applicable, mark “never”).
33. I feel that something bad is going to happen.
34. I have sore muscles.
35. I feel afraid of open spaces, or driving, or being on buses, subways, and so forth.
36. I feel nervous.
37. I feel my love relationships are full and complete.
38. I feel that I am not doing well at work/school.
39. I have too many disagreements at work/school.
40. I feel something is wrong with my mind.
41. I have trouble falling asleep or staying asleep.
42. I feel blue.
43. I am satisfied with my relationships with others.
44. I feel angry enough at work/school to do something I may regret.
45. I have headaches.
REFERENCE LIST


BIOGRAPHICAL SKETCH

Mirela Aldea was born on May 29, 1973 in Iasi, Romania. An only child, she grew up mostly in Iasi, a city in the eastern part of Romania where she earned a degree in psychology and one in law from Al. I. Cuza University. She worked for three years as a visiting faculty at a small private university in Iasi and as a consultant for non-governmental organizations providing social services. In August 2000 she came to the United States where she earned a master’s degree in clinical psychology from Appalachian State University. Upon completion of her Ph.D., Mirela will complete a postdoctoral program in the Psychiatry Department at the University of Florida where she will be involved in research and clinical work primarily with clients with obsessive-compulsive disorder.