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IMPERFECT INTERVENTIONS: A REVIEW OF CURRENT AND NOVEL TREATMENT
APPROACHES FOR MALADAPTIVE PERFECTIONISM

by

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B.S., University of Wisconsin-Eau Claire, 2017

A Research Paper
Submitted in Partial Fulfillment of the Requirements for the
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Approved by:

Dr. Eric Lee, Chair

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TITLE: IMPERFECT INTERVENTIONS: A REVIEW OF CURRENT AND NOVEL TREATMENT APPROACHES FOR MALADAPTIVE PERFECTIONISM

MAJOR PROFESSOR: Dr. Eric Lee, PhD

Transdiagnostic in nature, perfectionism acts as a predisposing and maintaining factor for various psychological and health conditions affecting individuals worldwide. With the prevalence of maladaptive perfectionism increasing, the implications of individuals struggling with perfectionism are significant. Consequently, it is incumbent upon researchers to continue examining the complexities of perfectionism as a construct and develop effective treatments to decrease perfectionism and associated symptoms. Thus, the current review of literature examines current and novel psychotherapy interventions from a categorical or dimensional viewpoint and the efficacy of the intervention for perfectionism and co-occurring symptoms. Further, the review discusses and proposes future research recommendations within the perfectionism literature, addressing gaps and encouraging the field to consider developing interventions that address both symptoms related to perfectionism and co-occurring disorders.

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
ABSTRACT.....	i
MAJOR HEADINGS	
HEADING 1 – Introduction.....	1
HEADING 2 – Review of the Literature	7
HEADING 3 – Discussion.....	22
HEADING 4 – Concluding Summary	24
REFERENCES	25
VITA	38

HEADING 1

INTRODUCTION

Perfectionism has primarily been described as a multidimensional construct characterized by striving for flawlessness and setting excessively high standards in addition to engaging in critical evaluations of one's behavior (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). Most of the extant research on perfectionism has been conducted by researchers who have used a trait-based approach to conceptualize the construct of perfectionism, known as clinical or maladaptive perfectionism. The cognitive-behavioral perspective conceptualization of clinical perfectionism has been described as the overdependence on self-evaluation for the determined pursuit of personally demanding, self-imposed standards in at least one highly salient domain, despite adverse consequences (Shafran et al., 2002). While this is one definition of maladaptive perfectionism, due to the multidimensional nature of perfectionism, there are multiple ways that researchers have conceptualized the construct. Yet, most perfectionism researchers have at least reached an agreement that perfectionism consists of two higher-order dimensions: (1) perfectionistic concerns and (2) perfectionistic strivings (Bieling et al., 2004; Frost et al., 1993; Limburg et al., 2017).

Perfectionistic concerns have been defined as excessive self-criticism over performance, such as one's perception of failure or mistakes and perception of one's expectations compared to their actual performance (Cox et al., 2002; Osenk et al., 2020). Perfectionistic strivings are related to one's pursuit of meeting high standards following rigid and inflexible cognitive rules and expectations. Thus, while perfectionistic strivings are connected to an individual's high standards and expectations in pursuit of achieving accomplishments, perfectionistic concerns are more related to an individual's evaluation of their performance in reaching their high standards

and expectations (Howell et al., 2020). Individuals with this type of maladaptive perfectionism evaluate their self-worth by their ability to attain excessively high levels of achievement and strivings despite of how much they are negatively impacted. Consequently, individuals will continue to engage in these maladaptive behaviors and thought patterns despite adverse consequences.

Research has demonstrated differences between individuals who primarily deal with perfectionistic strivings versus those with perfectionistic concerns. Perfectionistic strivings are mainly associated with adaptive outcomes, such as positive affect (Bieling, Israeli, et al., 2004; Limburg et al., 2017). Some research disputes that perfectionistic strivings may also lead to maladaptive outcomes (Egan et al., 2011; Limburg et al., 2017) a few studies found a higher prevalence of perfectionistic strivings in mental health disorders such as obsessive-compulsive disorder (OCD; Frost & Steketee, 1997; Sassaroli et al., 2008), depression (Hewitt & Flett, 1991a), and related to generalized anxiety disorder (GAD; Handley et al., 2014). In contrast, perfectionistic concerns have predominantly been correlated with maladaptive outcomes, such as stress, anxiety, and negative affect (Bieling et al., 2004; Limburg et al., 2017). Moreover, previous research has shown that the perfectionistic concerns factor has a higher prevalence in clinical samples compared to controls when examining mental health disorders such as depression (Huprich et al., 2008; Graham et al., 2010; Limburg et al., 2017), GAD (Handley et al., 2014; Limburg et al., 2017;), and OCD (Buhlmann et al., 2008; Limburg et al., 2017).

While perfectionism is not classified as a mental health condition or disorder by The American Psychiatric Association (APA, 2022) or the World Health Organization's (2019) International Statistical Classification of Diseases and Related Health Problems (11th ed.; ICD-11), Section III of the DSM-5 TR (2022), includes “rigid perfectionism” as one of the 25

maladaptive personality traits used to assess personality disorders. The DSM-5-TR (2022) defines rigid perfectionism as:

Rigid insistence on everything being flawless, perfect, and without errors or faults, including one's own and others' performance; sacrificing of timeliness to ensure correctness in every detail; believing that there is only one right way to do things; difficulty changing ideas and viewpoint; preoccupation with details, organization, and order. (p. 902)

Although rigid perfectionism is referred to as a trait and not a disorder (APA, 2022), this type of perfectionism is consistent with the maladaptive traits seen in clinical perfectionism research. Broadly, maladaptive perfectionism can be considered a type of self-orientated and or socially prescribed perfectionism in which maladaptive traits of perfectionistic strivings and perfectionistic concerns cause and maintain unhealthy cognitive and behavioral patterns. Further, as a multidimensional construct, perfectionism is complex, as it comprises interpersonal and personal traits that oscillate along a severity continuum across individual, interpersonal, and societal domains (Smith et al., 2022).

Previous research has found that at an individual level, traits and attitudes associated with perfectionism may be predictors of one's physical and psychological health. In fact, one longitudinal study found that self-oriented perfectionism increases the probability of earlier mortality (Fry & Debats, 2009; Eley et al., 2020; Molnar et al., 2020; Smith et al., 2022).

Although there is a need for more longitudinal research on perfectionism in clinical and nonclinical populations, maladaptive perfectionism dimensions have appeared to act as core risk and maintaining factors for numerous areas of maladjustment, diagnoses, and stress (Egan et al., 2011). Specifically, various mental health issues such as anxiety, depression, suicidality, overall

distress, eating disorders, and Obsessive-Compulsive Personality Disorder are related to perfectionism (Kothari et al., 2019; Shafran et al., 2002). For instance, maladaptive perfectionism has been demonstrated to predict baseline traits of depression and thoughts of hopelessness (Glover et al., 2007). Further, perfectionism has been associated with negative cognitions and persistent rumination, which can dynamically result in clinically significant symptoms characteristic of OCD and anxiety disorders (Patterson et al., 2021).

Additionally, higher levels of perfectionism have been related to physical issues such as migraine headaches (Amraei et al., 2020; Bottos, & Dewey, 2004), chronic fatigue syndrome (Deary, & Chalder, 2010; Van Houdenhove et al., 2013), and adjustment problems (Kempke et al., 2016; Sirois & Molnar, 2014). Moreover, a small meta-analysis that included seven healthy participants on health-related outcomes demonstrated that perfectionistic concerns, but not personal standards, were significantly linked to practicing a set of health behaviors less frequently, thus, suggesting a likelihood of similar outcomes in chronic illness populations (Sirois et al., 2013). Because of its effect as a transdiagnostic predictor of psychological and physical health in nonclinical and clinical populations, perfectionism is a construct of interest in many areas.

Academic settings are one such area that has shown a high prevalence of individuals with perfectionism. Curran & Hill (2019) conducted a meta-analysis of 41,641 participants across 164 samples that examined the prevalence of perfectionism in American, British, and Canadian college students from 1989 to 2016. Their findings supported overall linear increases in college students' mean scores of perfectionism measures, even after controlling for differences across countries and gender across timespan of 1989 to 2016. Another study of 273 undergraduate students examined perfectionism within student populations, finding that nearly two-thirds of

students can be classified as meeting criteria for perfectionism, and over one-quarter fall within the maladaptive type (Grzegorek et al., 2004). Other studies have assessed perfectionism and health symptoms in undergraduate students, finding that higher levels of perfectionism predicted poorer health outcomes over time while accounting for initial somatic symptoms (Pritchard et al., 2007; Sumi & Kanda, 2002).

Moreover, perfectionism rates have also been on the rise among youth and adolescent populations. Stornaes et al. (2019) examined perfectionism in Norwegian adolescents from elite sports/performance-oriented and conventional lower secondary schools. Findings suggest that approximately 22% of students from elite schools had some form of maladaptive perfectionism versus 38% from conventional schools (Flett & Hewitt, 2020). Another study by Sironic and Reeve (2015) investigated perfectionism profiles and their relationship to anxiety, depression, and stress in over 900 Australian adolescents. The authors implemented a latent class analysis and found three subgroups of nonperfectionist and two subgroups of maladaptive perfectionists, and one subgroup of adaptive perfectionists. Study results indicated that approximately 30% of adolescents reported having maladaptive perfectionism. This subgroup also reported significantly higher levels of anxiety, depression, and stress compared to the adaptive perfectionist and non-perfectionist subgroups.

Ultimately, perfectionism is multidimensional and presents unique challenges for individuals struggling with its cognitive and behavioral tendencies, as well as for treatment professionals. Transdiagnostic in nature, perfectionism acts as a predisposing and maintaining factor for various psychological and health conditions affecting individuals worldwide. With the prevalence of maladaptive perfectionism increasing, the implications for individuals struggling with perfectionism are significant. Consequently, it is up to researchers to continue examining

the complexities of perfectionism as a construct and develop more effective treatments to decrease perfectionism and associated symptoms.

HEADING 2

REVIEW OF THE LITERATURE

Overview

The present review of literature examines current and novel psychotherapy interventions used to treat maladaptive perfectionism. Research on the prevention or treatment of perfectionism has utilized psychological interventions such as Cognitive-Behavioral Therapy (CBT; Egan et al., 2011), Mindfulness-Based Cognitive Therapy (MBCT; James & Rimes, 2018), Compassionate-Focused Therapy (CFT; Gilbert, 2014), Acceptance and Commitment Therapy (ACT; Hayes et al., 2011), and Process-Based Therapy (PBT; Ong et al., 2022). Throughout the review, the interventions are investigated through the lens of their theoretical orientations. Further, the review identifies the relationship between interventions working from a categorical or dimensional viewpoint and the efficacy of the intervention. For instance, this review considers whether an intervention solely targets perfectionistic symptoms related to mental health disorders or if it targets the maladaptive processes maintaining perfectionistic thoughts and behavioral patterns. Finally, the review identifies, discusses, and proposes future research recommendations.

Cognitive Behavioral Therapy

CBT has been used to target perfectionism-specific maladaptive thought patterns and behaviors. Several meta-analyses have been conducted on the efficacy of randomized control trials (RCTs) using CBT for perfectionism, including internet, face-to-face, and self-help book formats (Galloway et al., 2021; Lloyd et al., 2015; Suh et al., 2019). A recent meta-analysis investigated the effect of CBT interventions on perfectionism and symptoms of depression, anxiety, and eating disorders in 15 studies (Galloway et al., 2021). The study investigated the

effects of CBT interventions on perfectionism and symptoms of depression, anxiety, and eating disorders among previous studies. The authors examined the efficacy of face-to-face and self-help treatment modalities. The studies included were primarily online interventions ($n = 10$, 63%) and self-help techniques, both guided and unguided ($n = 12$, 75%), and a small number of face-to-face interventions ($n = 7$). Intervention lengths spanned from 3 to 10 weeks and ranged from 3 to 13 sessions. For all delivery modalities, effect sizes were large, supporting the efficacy of CBT for perfectionism concerns over mistakes ($g = 0.89$), clinical perfectionism ($g = 0.87$), offering a medium level of support for the efficacy of CBT for perfectionism for personal standards ($g = 0.57$), eating disorders ($g = 0.61$), depression ($g = 0.60$), and a small level of support for the efficacy of anxiety ($g = 0.42$).

Moreover, the meta-analysis utilized a transdiagnostic approach by including participants with a broad spectrum of perfectionism levels and psychological disorders and assessing intervention efficacy using between-group effect sizes compared to within-group effect sizes. Thus, findings provide evidence to support the efficacy of CBT for perfectionism across symptoms of anxiety, depression, and eating disorders. Yet, as the meta-analyses included both nonclinical and clinical samples, future research is needed to determine if there are differences between each population and intervention efficacy. Furthermore, the meta-analysis included only a few face-to-face studies. Consequently, more research is needed to examine the efficacy of different intervention modalities.

While numerous studies utilizing CBT to treat perfectionism have shown promising results, there have also been studies with mixed findings related to the treatment of perfectionism, anxiety, and depression in individuals with clinically significant anxiety and depression. Glover et al. (2007) conducted a study using a multiple baseline design to examine a

CBT intervention for perfectionism. The study included a total of nine participants who exhibited perfectionistic thoughts and behaviors and who had a diagnosis of depression or anxiety disorders. Participants engaged in ten sessions of CBT in which the first six sessions were received biweekly. Treatment outcomes included six participants who demonstrated clinically significant reductions in perfectionism and three participants who demonstrated clinically significant decreases in depression. Yet, there were no significant changes in self-reported anxiety. Moreover, the study did not include weekly outcome measures or a baseline measure. In light of these limitations, research conducted by Egan and Hine (2008) further investigated the effectiveness of CBT for perfectionism using a single case design; however, they included baseline, weekly, and post-treatment measures. The study included four participants who had a diagnosis of either an anxiety disorder or depression in addition to elevated perfectionism. All participants received weekly 60-minute sessions across eight weeks and a follow-up session after two weeks. Study results indicated a clinically significant reduction in overall perfectionism for two participants. However, there were no significant decreases in anxiety or depression scores.

Over time, perfectionism researchers have added to the literature on treatments for perfectionism across different disorders and populations. As a result, researchers have shifted from implementing classic CBT interventions to a modified version of CBT known as cognitive behavioral therapy for perfectionism (CBT-P) in treating diverse individuals experiencing perfectionism thought patterns and behaviors (Galloway et al., 2021). CBT-P is rooted in the CBT conceptualization of perfectionism as the overdependence on self-evaluation for the determined pursuit of personally demanding, self-imposed standards in at least one highly salient domain, despite adverse consequences (Shafran et al., 2002). CBT-P combines aspects of traditional CBT and concepts from compassion-focused therapy (CFT), such as reducing self-

criticism. Though the evolution of principles and components involved in CBT-P is ongoing, the core focus remains on re-evaluating one's self-worth as opposed to lowering one's personal standards (Shafran et al., 2023).

Research utilizing CBT-P interventions has continued to grow, much like the intervention itself. Mahmoodi et al. (2020) conducted the first RCT examining the efficacy of both the unified protocol for the transdiagnostic treatment of emotional disorders (UP) and CBT-P in treating perfectionism. The study included 75 participants with anxiety and depressive disorders and elevated perfectionism who were randomized to three conditions (i.e., CBT-P, UP, and waitlist). Participants from both active treatment groups (CBT-P, UP) reported a significant pre-post reduction in symptom severity across disorders and increased quality of life with moderate-large effect sizes compared to the waitlist group. Furthermore, both intervention gains were maintained at a 6-month follow-up, with the CBT-P group reporting a significantly higher pre-post decrease in perfectionism compared to the UP group. The UP group reported significantly greater pre-post improvement in emotion regulation than the CBT-P group (Mahmoodi et al., 2020).

Other studies have researched the impact of online interventions, specifically, using guided internet-based CBT-P (ICBT-P) interventions. Shafran et al. (2017) found significant reductions in perfectionism. However, there were no significant changes in depression or anxiety. Rozental et al. (2017) found significant reductions in perfectionism and moderate effect sizes for anxiety, depression, and a large effect size for quality of life. Though the authors reported moderate to large effect sizes for secondary measures, they also caution readers that more research around secondary outcomes should be explored. Based on these previous studies, Grieve et al. (2022) conducted a similar study examining the effect of a guided ICBT-P on

perfectionism and related constructs using a randomized controlled trial in a sample of college students. The study included an intervention group and a control group. The ICBT-P intervention comprised of 8-modules. Participants in the intervention group were permitted to choose how many modules they wanted to complete over four weeks. Results from the baseline measures indicated a correlational relationship between elevated perfectionism and higher levels of anxiety, depression, and stress and lower levels of self-compassion and positive body image. Moreover, findings demonstrated that post-intervention and follow-up scores were significantly lower on perfectionism subscales, Concern over Mistakes, and Personal Standards, in the intervention group compared to the control group. In regard to secondary outcomes, there were no significant changes in anxiety, depression, stress, or self-compassion scores. These findings parallel with those of Shafran et al. (2017). Thus, while studies have provided support for guided ICBT-P reducing perfectionism, the impact on secondary constructs is unclear.

Importantly, findings from these studies pose somewhat mixed results related to the efficacy of CBT and CBT-P interventions for perfectionism for individuals experiencing comorbid emotion dysregulation, anxiety, and depressive symptoms. These treatment outcomes highlight certain groups of individuals with perfectionism and co-occurring disorders that may not have treatment options that are effective for all of their presenting concerns. However, these findings provide additional evidence for perfectionism as a transdiagnostic construct, thus requiring interventions that target not only perfectionism but also symptoms and underlying processes often experienced by individuals with elevated levels of perfectionism.

Mindfulness-Based Interventions.

One type of intervention that has shown promise in targeting various symptoms related to perfectionism is mindfulness-based interventions (MBIs). Although few studies have used an

MBI framework in treating perfectionism, previous literature findings have provided support in favor of MBIs demonstrating moderate effects on complex symptomology among individuals with perfectionism (Tobin, 2019). Mindfulness has been commonly defined as “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn & Davidson, 2012, p. 37), and includes both (a) self-regulation of attention, which is maintained in the immediate experience, and (b) orientation to one’s own present experience, characterized by curiosity, openness, and acceptance (Bishop et al., 2004). Mindfulness has been shown to promote increased attention and awareness in the present moment, which may help individuals attend to specific aspects of a situation and their own experience and improve insight on implementing or changing how they respond to difficult thoughts and emotions (Roemer et al., 2015). Previous studies have found that, on average, individuals with low levels of mindfulness have higher levels of maladaptive perfectionism, depression, and psychological distress. These findings suggest that individuals experiencing perfectionism, distress, and depression may benefit from practicing mindfulness skills and could improve levels of functioning across other areas (Hinterman et al., 2012). Thus, mindfulness may act as a transdiagnostic protective factor for individuals experiencing psychological distress.

Mindfulness-based interventions (MBIs) focus on modifying an individual’s relationship with their emotions and thoughts from how they are experienced, encouraging acceptance and curiosity about the experience. Notably, acceptance does not aim to change the experienced thoughts and emotions but promotes an individual to receive the experiences openly, without trying to control them (Hayes, 2004; Kohl et al., 2012). This perspective differs quite a bit from traditional CBT in that the goal is not to eliminate or suppress negative thoughts and emotions but to allow more space for them to exist. Moreover, research utilizing MBIs has demonstrated

promising results in addressing specific traits that individuals with elevated levels of perfectionism may experience, including unhelpful beliefs, self-critical thinking, low self-compassion, low trait mindfulness, greater rumination, and distorted beliefs about the acceptability of emotions (James & Rimes, 2018).

In particular, MBIs have brought attention to the relationship between an individual's overall well-being and self-compassion. Findings from Shafran et al. (2010) demonstrated that individuals who experience difficulty regulating thoughts and emotions might also experience difficulty fostering and maintaining mindfulness skills needed for promoting skills related to self-compassion (Shafran et al., 2010). According to Neff and Dahm (2015), "the mindfulness and self-compassion constructs are similar in that they both involve being more aware, accepting, and nonjudgmental of painful experiences" (p. 1); however, they do have their differences. While mindfulness is a fundamental element of self-compassion, self-compassion expands beyond mindfulness and involves developing a non-judgmental awareness of beliefs and feelings, acknowledgment of common humanity, and kindness towards oneself during difficult times (Gilbert, 2014; Neff, 2003b). Furthermore, self-compassion requires one to actively support themselves as challenging feelings and thoughts come up and to understand that all humans experience suffering (Neff, 2003; Tobin & Dunkley, 2021). So, although mindfulness and self-compassion share some commonalities, they differ in that mindfulness can be thought of as a way of relating to internal experiences, while self-compassion can be viewed as a way of connecting with the individual who is experiencing suffering (Neff & Dahm, 2015; Tobin & Dunkley, 2021).

Based on the definitions for the constructs of mindfulness and self-compassion provided by Neff and Dahm (2015), individuals must first build a foundation of practicing mindfulness

skills to have the ability to fully develop and engage in practicing self-compassion. This assertion is supported by findings from Shafran et al. (2010), which demonstrated that individuals who experience difficulty regulating thoughts and emotions might also experience difficulty fostering and maintaining mindfulness skills needed for promoting skills related to self-compassion (Shafran et al., 2010). Thus, MBIs have emphasized the importance of practicing both self-compassion and mindfulness skills to promote self-compassion and mindfulness strategies for individuals struggling with distress related to their perfectionistic thoughts and concerns.

In particular, mindfulness-based cognitive therapy (MBCT) may prove promising due to its integrated approach, using the CBT model of perfectionism together with mindfulness components to target co-occurring symptoms that may be causing individuals' distress (i.e., anxiety or depression; James & Rimes, 2018). Wimberley et al. (2016) did the first study to examine the effectiveness of a six-week mindfulness-based bibliotherapy intervention for perfectionism and related measures, including mindfulness, affect, and perceived stress. The study included 63 participants who were randomly assigned to the treatment or waitlist control group. Participants in the treatment group completed measures at three timepoints (pre-test, 6-week post-test, and 12-week follow-up), and individuals in the waitlist group completed measures at two timepoints (pre-test and post-test). At the post-test, both groups demonstrated a decrease in negative affect. However, the intervention group exhibited greater reductions in perfectionism and perceived stress. Moreover, the intervention group showed long-term reductions in perfectionism, negative affect, and perceived stress at the 12-week follow-up.

Subsequently, James and Rimes (2017) conducted a pilot study comparing an 8-week MBCT intervention with a self-help guide using CBT in a university sample experiencing

difficulties related to perfectionism. The sample included 65 participants who were randomly assigned to the MBCT or self-help group. Participants allocated to the self-help group were provided a 50-page self-help booklet which was an adapted version of previous CBT approaches to perfectionism (Shafran et al., 2010). The MBCT intervention booklet was based on previous content for recurrent depression (Segal et al., 2002), modified to target perfectionism.

Researchers were interested in addressing perfectionism as a primary outcome, with impact on anxiety, depression, and stress as secondary outcomes. Measures related to process variables such as decentering, mindfulness, rumination, unhelpful beliefs about emotions, and self-compassion were also administered for exploratory analyses. Participants in both groups completed measures at three-time points: pre-test, post-test, and follow-up.

Compared to the self-help group, participants in the MBCT intervention demonstrated a significant reduction in the perfectionistic strivings component of perfectionism and stress at post-intervention, and reductions in perfectionism were maintained at the 10-week follow-up. However, in the post-test, both groups still had elevated levels of the perfectionistic concerns component of perfectionism (Flett et al., 2021). Secondary outcomes showed no group differences for anxiety. However, more individuals in the MBCT group displayed improvements in stress and depression scores compared to the self-help group. Exploratory analyses showed that compared to the self-help group, participants in the MBCT group had significant increases in mindfulness, decentering, and self-compassion and lower levels of rumination and unhelpful beliefs at post-treatment.

While these findings provide preliminary evidence for the clinical utility of treating MBCT for perfectionism, further research targeting both perfectionistic strivings and concerns components of perfectionism should be investigated. One notable finding to revisit is that both

groups still had elevated levels of perfectionistic concerns at the post-test. The authors suggested one hypothesis of this finding and stated, "...perfectionistic self-presenters feel like imposters who are about to be discovered at any one moment, and they are cognitively preoccupied with these concerns rather than being focused on a mindful approach to life" (Flett et al., 2021, p. 1639). Importantly, these findings support that individuals with perfectionism may experience diminished mindfulness. Moreover, mindfulness has been known to act as a protective factor for responding to stress in social evaluations, social disconnection, isolation, and loneliness (Brown et al., 2012; Hewitt et al., 2017; Lindsay et al., 2019). Thus, the implications for individuals who experience perfectionism and are low in mindfulness are vast. Therefore, further examination and conceptualization of process variables associated with distress related to perfectionism are warranted.

Acceptance and Commitment Therapy.

Influenced by acceptance, mindfulness, and cognitive-behavioral principles, acceptance and commitment therapy (ACT; Hayes et al., 2011) is a transdiagnostic intervention that has demonstrated efficacy in treating a variety of clinical disorders, including chronic pain (Hann & McCracken, 2014; Wetherell et al., 2011), anxiety disorders (Arch et al., 2012; Ritzert et al., 2020), depression (Pots et al., 2016), and OCD (Twohig et al., 2010). The primary mechanism of change in ACT is psychological flexibility. Psychological flexibility is the ability to increase awareness of the present moment, accept inner experiences to exist, and modify or persist in behavior aligned with personal values (Hayes et al., 2006). In contrast, psychological inflexibility can be defined as a "rigid and literal style of reacting to internal experiences (thoughts, feelings, and physical sensations), which prevent living life towards one's values" (Crosby et al., 2013; Hayes et al., 2012). Previous research has found associations between

psychological inflexibility and disorders related to clinical perfectionism, such as depression, anxiety, and eating disorders (A-Tjak et al., 2015; Powers et al., 2009).

Furthermore, using a process-based approach, ACT aims to identify the functionality of maladaptive thoughts and behavioral patterns rather than focusing on symptom reduction alone. Hence, when ACT is used for perfectionism, the focus is on modifying the influence of perfectionistic thoughts on behavior rather than changing the content of the thought (Ong et al., 2019). While few studies have used ACT to treat perfectionism, various findings have provided preliminary support for its efficacy (Bisgaier, 2019; Ong et al., 2019a; Taghavizade Ardakani et al., 2019).

Moreover, Ong et al. (2021) surveyed whether skills such as self-compassion and psychological flexibility moderated the relationship between well-being and perfectionism in a sample of undergraduate students. Participants were allocated into three groups (i.e., low, average, high) of perfectionism levels using a latent profile analysis based on four factors from the Perfectionism Inventory (PI; Hill et al., 2004): striving for excellence, concern over mistakes, rumination, and need for approval. Researchers examined well-being by measuring three primary constructs: symptom impairment, psychological distress, and quality of life. The overall findings supported that psychological flexibility and self-compassion protected the influence of individuals in both the high and average perfectionism groups concerning symptom impairment and quality of life. Broadly, the study's results provided evidence for the benefits of teaching skills related to self-compassion and/or psychological flexibility to individuals experiencing high and moderate symptoms of perfectionism.

Process-Based Therapy for Perfectionism.

From a functional standpoint, perfectionism can be defined as a distinct set of processes rather than individual symptoms or behaviors. Therefore, using a framework that accommodates several orientations, rather than a one size fits all intervention in preventing and treating perfectionism, may be most effective. Accordingly, a novel framework known as process-based therapy (PBT) has recently been developed that uses an evolutionary lens to define change processes. PBT is a transdiagnostic model rather than a specific type of intervention and was developed for conducting interventions and research at a personal, idiographic level. In order to conceptualize all of the processes that may be relevant to an individual, PBT uses what is called the extended evolutionary meta-model (EEMM; Hayes et al., 2020). The EEMM can be described as “a practical framework that organizes an individual’s presenting concern along psychological dimensions (i.e., affective, cognitive, self, motivational, overt behavioral, attentional) within evolutionary systems (i.e., variation, selection, retention, and context”); Hayes et al., 2020; Ong et al., 2022).

Respectively, when examining perfectionism using the PBT EEMM framework, one could focus on the psychological dimension “cognition” and evolutionary system “variation” or “cognitive variation” to assess for maladaptive patterns of thinking and behavior. Therefore, cognitive variation can be conceptualized as the capability to flexibly work through and respond to many cognitions, for example, rules, judgments, thoughts, and memories. While cognitive variation emphasizes skills of flexibility and adaptability, cognitive rigidity is the inability to respond flexibly or adapt to cognitive stimuli in a variety of different contexts. Cognitive rigidity can result in difficulty in achieving one’s goals if an individual follows their specific rule-governed behavior regardless of the context or situation.

In maladaptive or clinical perfectionism, individuals might demonstrate cognitive rigidity by spending unnecessary time completing a task with a mindset such as, “It must be perfect to be complete.” This could be something as simple as agonizing over writing the “perfect” introduction for a paper, which might result in an individual putting off writing any other part of the paper (i.e., body, conclusion). Often this perfectionism can cause individuals to procrastinate or avoid completing the task, leading to an incomplete task which can exacerbate feelings of distress and self-critical thought patterns. Thus, working towards increasing processes (i.e., cognitive, behavioral) that promote cognitive variation would help cultivate skills such as nonjudgmental observation, decentering, and reappraisal. By expanding an individual’s cognitive response repertoire, cognitive variation training might allow individuals to consider various options for understanding and interacting with thoughts across different contexts to promote increased cognitive flexibility (Ong et al., 2022). Until recently, few studies had examined perfectionism using this framework.

One of the first studies to examine perfectionism using the PBT EEMM framework consisted of a randomized trial that developed a novel PBT-based online self-guided intervention, *A Good Enough Training*, for perfectionism (Ong et al., 2022). The study examined whether training in cognitive and motivational variation would influence change processes and whether increases in cognitive and/or motivational processes would predict increases in well-being and decreases in perfectionism. When developing the cognitive and motivational training modules for *A Good Enough Training*, the authors used empirically supported techniques for addressing perfectionism from various CBT-related models. The study used a randomized crossover design in which all participants completed both cognitive and motivational variation training components over the course of the study.

Study findings supported that the intervention collectively provided an effective response to perfectionism (evaluative concerns and striving), psychological distress, self-compassion, and cognitive strategies (cognitive fusion and reappraisal) targeted by cognitive training. The study found that participants had similar outcomes regardless of completing the cognitive or motivational variation training first. Yet, the cognitive variation increased more than the motivational variation when the cognitive training was completed before the motivational training. Although the authors did not hypothesize about order effects, further exploration regarding the gains in cognitive variation is needed. Findings also revealed that cognitive training specifically targeted cognitive variation, whereas motivational training appeared to increase cognitive and motivational variation. Thus, developing interventions with procedural precision (targeting and modifying specific change processes) may be more important for cognitive processes than for motivational processes.

While valuable as a first examination of PBT principles in a sample with significant levels of perfectionism, the study has limitations that warrant further research. First, the study did not measure any maintaining effects of the intervention at follow-up, so the duration of improvements in change processes remains unknown. Second, the authors used nomothetic methods when analyzing the study data, which assesses group effects. However, PBT was developed for conducting and evaluating idiographic research. So, while nomothetic methods may help determine which group showed more significant improvements from the training modules, idiographic methods could examine which participants showed the most significant improvements. Idiographic methods such as network models can analyze the processes and outcomes of complex bidirectional relationships. Despite the study's limitations, the findings generally provide preliminary evidence for the efficacy and feasibility of using a PBT framework

for perfectionism. Individuals demonstrated improvements in skill-building across orientations and applying skills to their personal goals. Accordingly, more research is needed to further examine the PBT model and interventions targeting perfectionism. In particular, more data is needed in examining the procedural precision of interventions on target skills and information needs to be gathered using more individualized data collection techniques.

Given the multifaceted spectrum of psychopathology associated with perfectionism and the prevalence of perfectionism in many populations dealing with maladaptive cognitive and behavioral patterns, investigating effective interventions to treat perfectionism is imperative. Furthermore, to target a multidimensional construct such as perfectionism, researchers should consider using a transdiagnostic dimensional framework, which holistically examines all aspects of perfectionism (i.e., functionally) rather than attempting to treat perfectionism categorically when co-occurring with psychological disorders.

CHAPTER 3

DISCUSSION

Broadly, this paper has examined various ways perfectionism has been conceptualized and treated from different theoretical orientations. While some studies have demonstrated evidence for treatments to help decrease levels of perfectionism, there is a need for treatments that better account for effectively reducing co-occurring symptoms, which may persist even with reduced levels of perfectionism. Future perfectionism research might benefit from assessing an intervention based on various measures instead of decreases on a perfectionism measure. For instance, including measures of psychological well-being and physical health may provide individuals with a more holistic view of overall mental and physical health that may account for underlying processes interacting with perfectionism.

Consequently, another question is whether or not a decrease in perfectionism on a specific self-report outcome measure is an effective method to measure a transdiagnostic construct. This question is further complicated by the complex nature of operationalizing perfectionism. Thus, another issue that arises is the case of construct clarity, leading to questions of whether researchers are measuring what they are intending to measure. Moreover, when researchers utilize different measures, the ability to compare treatment efficacy between studies becomes more challenging. Thus, this problem may persist until perfectionism researchers find common ground regarding the operationalization and assessment of perfectionism.

Furthermore, research interventions aimed to target only one component of perfectionism (i.e., perfectionistic strivings or concerns) have been shown to result in less effective treatment for those struggling with problems related to perfectionistic concerns, perfectionistic strivings, or both components. Moreover, previous research has shown that each component of perfectionism

is associated with different maladaptive outcomes (Limburg et al., 2017; Bieling et al., 2004). As a result, individuals who receive treatment for perfectionism focused on one component may not experience alleviation in symptoms across both perfectionistic concerns and strivings.

Thus, examining and conceptualizing process variables associated with both components of perfectionism may be beneficial for determining change mechanisms. In turn, researchers should focus on developing treatments informed by such mechanisms of change using a transdiagnostic framework. While few studies have adopted this approach, some already discussed included interventions that utilized exercises to increase mindfulness, self-compassion, and overall psychological flexibility, offering promising evidence for increasing overall well-being. Similar frameworks include novel approaches such as the EEMM, which utilizes an individualized functional approach to tailoring interventions to specific individuals.

Lastly, while most perfectionism research has been conducted among adults, the shift in examining perfectionism in youth has found associations between perfectionism and negative body image, anxiety, depression, self-harm, and suicidal ideation (Leone & Wade, 2018). Findings also suggest that adolescents with higher maladaptive perfectionism experience increased symptoms of anxiety and depression throughout the academic school year (Damian et al., 2017; Soenens et al., 2008). Future research should also focus on developing measures to assess perfectionism among youth to provide screening for perfectionism and implement early interventions as preventative measures. Further research on perfectionism in youth is critical for developing more effective treatments for transdiagnostic mental health problems in adolescent populations to promote a healthier future for generations to come.

CHAPTER 4

CONCLUDING SUMMARY

The current literature review expounded on the many negative impacts of perfectionism on individuals' psychological and physical health. While perfectionism is not generally categorized as a formal disorder, numerous studies have provided evidence for it acting as a predisposing and maintenance factor for other mental health disorders. Further, this review examined a variety of psychotherapy interventions used to treat maladaptive perfectionism and co-occurring symptoms. Finally, this review identified and proposed future research recommendations regarding problems with defining and measuring perfectionism, developing interventions to target both perfectionistic concerns and strivings, and considering process variables associated with both components of perfectionism. Additionally, the review offered recommendations for future research examining perfectionism in youth, focusing on implementing early interventions. Maladaptive perfectionism has many adverse outcomes for individuals; more research is required to improve our understanding and develop more effective prevention and treatment interventions for individuals battling perfectionism.

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Research Paper Title:

Imperfect Interventions: A Review of Current and Novel Treatment Approaches for
Maladaptive Perfectionism

Major Professor: Dr. Eric Lee