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Examining the Role of the Imposter Phenomenon and Self-Esteem on the Relationship between Perfectionism and Depression

Sarah McLaulin

ACCEPTANCE

This dissertation, EXAMING THE ROLE OF THE IMPOSTER PHENOMENON AND SELF-ESTEEM ON THE RELATIONSHIP BETWEEN PERFECTIONISM AND DEPRESSION, by SARAH MCLAULIN, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education & Human Development, Georgia State University.

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Gnilka, P. B., McLaulin, S. E., Ashby, J. S., & Allen, M. C. (September 2017). Coping resources as mediators of multidimensional perfectionism and burnout. *Consulting Psychology Journal: Practice and Research*, 69(3), 209-222.

EXAMING THE ROLE OF THE IMPOSTER PHENOMENON AND SELF-ESTEEM ON THE RELATIONSHIP BETWEEN PERFECTIONISM AND DEPRESSION

by

SARAH MCLAULIN

Under the Direction of Jeff Ashby, Ph.D.

ABSTRACT

Perfectionism has consistently gained attention in the literature over the last several decades (Stoeber & Otto, 2006) and recent research indicates that perfectionism in individuals is on the rise (Curran & Hill, 2019). From academic pursuits among students (e.g., Rice et al., 2015) to professional performance (e.g., Bravata et al., 2019), perfectionism affects a wide range of individuals and specific areas of their lives. Perfectionism has been linked to several negative consequential physical and mental health outcomes (Molnar et al., 2020; Eley et al., 2020) including depression (e.g., Chai et al., 2020), self-esteem (e.g., Cokley, et al, 2018), and the imposter phenomenon (e.g., Wang et al., 2019). While there have been several studies that have examined the relationship of perfectionism and depression (e.g., Wang et al., 2019; Park et al., 2010), the research has not fully considered the influence of the imposter phenomenon and self-esteem on this

relationship. This study replicated and extended the moderation model presented in Wang et al. (2019) and investigated the relationship between depression and perfectionism and whether imposter phenomenon and self-esteem moderate the relationships between these variables in a three-way interaction. Results showed that, contrary to the study hypothesis, a three-way interaction of perfectionism by self-esteem by the imposter phenomenon on depression was not significant. This study can inform helpful interventions, which may reduce or prevent depressive symptoms and could result in more effective treatment and efficient symptom reduction for with some perfectionistic clients.

INDEX WORDS: Perfectionism, Imposter Phenomenon, Self-Esteem, Depression

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DEDICATION

To my husband and forever co-pilot Elliott. May you always know how much your support and love fuels me to live our lives to the fullest. I promise, we will never go another season without a garden. And to my son, Ellis. May you always hold tight to your dreams, no matter how hard they may seem to achieve.

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CHAPTER 1

THE ROLE OF SELF-ESTEEM AND THE IMPOSTER PHENOMENON IN THE PE-FECTIONISM AND DEPRES SION RELATIONSHIP: PERTINENT INFORMATION AND CLINICAL CONSIDERATIONS FOR COUNSELORS

Introduction

Perfectionism is defined as a person having high personal standards, being organized, orderly, and striving for perfection and research indicates that is it generally viewed as a stable personality construct (Broman-Fulks et al., 1996). Over the last several decades, the construct of perfectionism has garnered considerable attention in psychological research literature (Stoeber & Otto, 2006). A recent meta-analysis found that publications related to perfectionism increased from about 100 in the 1980s to nearly 2500 in the 2000s (Smith et al., 2021). In addition to the increased interest seen in perfectionism literature, Curran and Hill (2019) recently conducted a meta-analysis of perfectionism in studies that included 40,000 college students from the U.S., U.K., and Canada between 1989 to 2016 and found that perfectionism has increased over this timeframe by 30 percent. Their analyses also revealed that those who identify as perfectionists often experience life difficulties such as eating disorders, marital problems, procrastination, and depression (Curran & Hill, 2019).

Studies focusing on perfectionism indicate that perfectionism can have meaningful implications for mental health (e.g., Limburg et al., 2017; Egan et al., 2011), self-esteem (e.g., Cokley, et. al, 2018), academic pursuits (e.g., Rice et al., 2015), and professional performance (e.g., Bravata,et al., 2019; Smith et al., 2021; Taylor et al., 2019). The increased attention regarding perfectionism over the last 40 years may be an effort to better understand the construct as it has

been linked to a number of negative consequential physical and mental health outcomes (Molnar et al., 2020; Eley et al., 2020). For instance, several empirical studies have found that perfectionism can have negative implications for an individual's mental health including higher levels of anxiety, depression, and suicide (Ashby & Rice, 2002; Ashby et al., 2012; Broman-Fulks et al., 2008; Chai et al., 2020; Curran & Hill, 2019; Egan et al., 2011; Flett et al., 2014; Hill & Curran, 2016; Limburg, Watson, Hagger, & Egan, 2017; Moroz & Dunkley, 2015; Smith et al., 2016; Smith, et al., 2018). Research suggests that perfectionism can have physical health costs such as general physical ill-health and fatigue (Dittner et al., 2011; Molnar et al., 2012). Perhaps the most compelling research highlighting the deleterious effects of perfectionism is from Fry and Debats' (2009) seven-year longitudinal study, which found that perfectionists are prone to early mortality.

Limburg et al. (2017) found evidence to support the conceptualization of perfectionism as transdiagnostic, a risk factor associated with developing and maintaining multiple forms of psychopathology, and frequently linked to depression (e.g., Smith et al, 2021; Hewitt et al., 2022). While there has been considerable research conducted on the relationship between perfectionism and depression (e.g., Smith et al., 2021), fewer studies have focused on the mechanisms by which perfectionism is related to depression. For counselors, it is important to understand what constructs may moderate this relationship when conceptualizing clients and developing treatment plans. Existing literature (e.g., Smith et al., 2021) highlights how counselors understanding the influence these variables have on the relationship between perfectionism and depression may be helpful; however, gaps exist related to conceptualizations of perfectionism, clinical best practices, and treatment interventions.

Perfectionism as a Multidimensional Personality Construct

Use of the term perfectionism has a long history in psychological literature and most early conceptualizations of the construct describe it as a unidimensional and unhealthy (Burns, 1980; Horney, 1950; Hollender, 1965; Patch, 1984). Early perfectionism theorists thought perfectionism was wholly dysfunctional, describing it as, "a kind of psychopathology" (Pacht, 1984, p.387). Perfectionism was long viewed as pathological and a way in which individuals unproductively used their accomplishments to measure of their self-worth (Burns, 1980). Blatt (1995) described the "destructiveness of perfectionism" that he observed in his clinical work and noted perfectionists often seemed outwardly successful, but painfully distressed internally to the point of suicide (p.1003). Horney's (1950) work focused on contradictions individuals often confront, such as a realistic view of self and how it compares to our "ideal life" which is heavily influenced by societal pressures. She conceptualized perfectionism as a coping strategy to reconcile the discrepancy people feel between their "ideal life" and their perceived shortcomings by, "covering up personal flaws before others become aware of them" (Horney, 1950, p. 120).

In contrast with other early authors' one dimensional and negative view of perfectionism, Alfred Adler's seminal theoretical work on the construct (Adler, 1938/1998) considered perfectionism a normal part of the human experience and believed that to some extent everyone engages in purposeful and focused adaptations to overcome challenges in pursuit of achieving the goal of perfection (Adler, 1938/1998; Hewitt et al., 2017). Adler theorized that striving for perfection motivated people to develop essential skills and abilities, which overall benefited society and posited that, "the striving for perfection is innate in the sense that it is a part of life, a striving, an urge, something without which life would be unthinkable" (Ansbacher & Ansbacher, 1956, p. 104). While Adler deemed perfectionism essential to personality development, he also

emphasized that when coupled with critical self-evaluation it can be problematic and maladaptive. Adler was one of the first scholars to recognize perfectionism as a multidimensional construct with potentially beneficial and detrimental qualities (Adler, 1956).

Hamachek's (1978) early conceptualization built on Adler's theory of perfectionism as multidimensional. While he asserted that setting and maintaining standards were essential to all perfectionists, Hamachek held that what separated "normal perfectionists" and "neurotic perfectionists" was satisfaction with their effort and results. He viewed "normal perfectionists" as individuals who are motivated by the high standards they set for themselves and focus on their strengths. Conversely, "neurotic perfectionists" fear failing to meet their standards and focus on their perceived shortcomings. A number of empirical studies (e.g., Dunkley et al., 2003, Frost et al., 1990; Hewitt & Flett, 1991; Slaney et al., 2002) and comprehensive literature reviews (e.g., Stoeber & Otto, 2006) offer evidence of perfectionism as a multidimensional personality characteristic with two distinct dimensions consistent with Hamachek's early view: perfectionistic strivings (i.e., setting and pursuing exceptionally high-performance standards) and perfectionistic concerns (i.e., endless negative self-criticism when standards are not met) (e.g., Rice & Ashby, 2007; Stoeber, 2018; Stoeber & Otto, 2006).

Individuals with high perfectionistic strivings and concerns are often described as maladaptive perfectionists as they may set excessively high standards for themselves and become overly self-critical when they are unable to meet their ideal expectations and fear making mistakes (Rice & Ashby, 2007; Stoeber & Otto, 2006). Maladaptive perfectionists maintain rigid and unyielding beliefs that they cannot successfully achieve their goals and in turn, they are unable to gain satisfaction from their efforts. They may be motivated by the "fear of failure," feel "emotionally drained" (Hamachek, 1978, p. 28), and experience psychological distress as a result

(Black & Reynolds, 2013). Individuals with high perfectionistic strivings and low concerns are often described as adaptive perfectionists. Adaptive perfectionists tend to be flexible in the pursuit of their goals, feel a sense of satisfaction from their efforts, and focus on what they have achieved versus what could have been if "everything worked out perfectly" (Stoeber & Otto, 2006, p. 316). Further, adaptive perfectionists are able to celebrate their accomplishments, adjust their standards when circumstances change, and avoid excessive self-criticism (Hamachek, 1978).

Perfectionism and Depression

A host of theoretical and empirical studies have described the relationship between perfectionism and depression (Hamachek, 1978; Hewitt & Flett 1990, 1993; Hewitt et al, 1996; Horney, 1939; Smith et al., 2021). Despite apparent success, some perfectionists chronically feel like a failure, which can lead to ongoing distress, including depression (Gnilka et al., 2018; Smith et al., 2021). Early theoretical studies that conceptualized perfectionism as unidimensional and problematic, posited that it was only negative and consistently cited depression as an outcome. Pacht (1984) described it as, "the insidious nature of perfectionism" (p. 1005) and found the relationship between perfectionism and depression unavoidable with his clients. Hollender (1965) noted that perfectionists often meet their high standards; however, rarely are they able to enjoy their achievements because complete satisfaction has not been achieved. In Blatt's research on depression (Blatt et al., 1976; Blatt 1995; Blatt 2002; Blatt 2004), he found that perfectionism emerged as a consistent theme such that he ultimately concluded that the two constructs were inextricably linked to one another and a recurring theme in his professional work. Blatt (1995) described the suicide of three individuals who experienced, "intense perfectionism," which he suggested caused significant interference with their short-term depression treatment.

He also contended that perfectionism may have been the variable that resulted in his clients being impervious to short-term cognitive or interpersonal psychotherapy (Blatt et al., 1996).

In contrast to the early theoretical views of perfectionism as exclusively maladaptive, more recent research supports perfectionism as a multidimensional construct with evidence that perfectionistic concerns and perfectionistic strivings are differentially associated with depression. Empirical studies indicate perfectionistic concerns have consistently been associated with higher levels of depression and recognized as a vulnerability factor and a predisposition for depressive disorders (Smith et al., 2021; Hewitt et al., 2022). In contrast, perfectionistic strivings have been associated with higher levels of conscientiousness (Rice et al., 2007), increased levels of hope (Ashby et al., 2011) and lower levels of depression (Ashby et al., 2011; Rice et al., 2008; Gnilka & Broda, 2019; Wang et al., 2019).

Much research has been conducted on the direct association between perfectionism and psychological outcomes, including depression (e.g., Gnilka et al., 2012; Rice et al. 1998; Smith et al., 2021); however, fewer studies have considered the mechanisms that may influence these relationships (Gnilka et al., 2012). Exploring constructs that may affect the relationship between perfectionism, and psychological outcomes including depression, have been noted as areas for future research in the recent literature (e.g., Gnilka & Broda, 2018). Two promising areas of research include the role of self-esteem and the imposter phenomenon as the constructs relate to the relationship between perfectionism and depression.

Mechanisms Affecting the Perfectionism and Depression Relationship

Self-Esteem and Perfectionism

Rosenberg (1965) noted that self-esteem is best understood as one's attitude towards oneself, which can be favorable or unfavorable. Self-esteem has been expansively studied over the

past several decades (e.g., Heatherton & Polivy, 1991; Goldsmith, 1986) with some early debate over conceptualizing self-esteem as a state variable, with the ability to fluctuate significantly, versus a trait variable that is more stable and persistent (Markus & Kunda, 1986). However, a preponderance of evidence in the literature suggests that self-esteem is a relatively stable personality trait and part of an individual's enduring character (Rosenberg, 1996) with some variation in self-evaluation across situations (Crocker & Major, 1989; Gergen, 1971; Markus & Kunda, 1986; Goldsmith, 1986; Well, 1988).

Perfectionism and self-esteem have long been linked in the literature both theoretically (e.g., Horney, 1950; Burn, 1980; Pacht, 1984) and empirically (e.g., Ashby & Rice, 2002; Preusser et al., 1994). Many of the early perfectionism authors who viewed the construct as unidimensional and maladaptive, conceptualized a path from perfectionism to lower levels of self-esteem. Horney (1950) contended that perfectionists would inevitably have low self-esteem because they had a hypersensitivity to criticism and perceived any minor negative feedback as evidence that they fell short of their "ideal self." She further described perfectionists as having a chronic fear of making mistakes and an overdependence on others in their attempt to live up to their idealized view of themselves. Horney's (1950) view of perfectionists' drive for external validation has some similarities to Carl Rogers' humanistic theory of personal development. Rogers (1951) argued that self-worth, or self-esteem, is how people view themselves, is formed in childhood, and is based on interactions with a child's mother and father. He contended that a person's ongoing sense of self-esteem could lead them to strive for perfectionism, depending on how they internalized experiences and regard from parents (Rogers, 1951). Several other authors (Moore & Barrow, 1986; Sorotzkin,1985; Blatt, 1995) contended that perfectionists derive their self-esteem from their performance and measure their self-worth through their attempts to

achieve unrealistically high standards. As a result, "perfectionist individuals experience depression that is focused on self-worth and self-criticism" (Blatt, 1995, p. 1012).

Adopting a multidimensional view of perfectionism, Hamachek (1978) described the relationship between perfectionism, self-esteem, and depression, suggesting that adaptive or "normal" perfectionists may experience less depression due to their higher levels of self-esteem, while maladaptive or "neurotic" perfectionists may experience depression with greater intensity and for longer durations, in part due to their lower levels of self-esteem. A number of empirical studies have found support for a differential relationship between aspects of perfectionism and the effect that self-esteem may have on the link between both adaptive and maladaptive perfectionism and psychological outcomes such as depression (Flett et al., 1991; Preusser et al., 1994) and the imposter phenomenon (Cokley et al., 2018)), and eating disorders (Puttevils et al., 2019; Zeigler-Hill & Terry, 2007). Among these, several empirical studies have focused on the role of self-esteem as a mediator in the relationship between perfectionism and depression (Chai et al., 2020; Cokley et al, 2018; Mirzairad et al., 2017; Rice et al., 1998). Ashby and Rice (2002) found that types of multidimensional perfectionism (i.e., adaptive, or maladaptive) can be used to predict positive and negative associations with self-esteem, an important consideration when evaluating its role as a mediator on and the relationship to depression. Adaptive perfectionism has consistently been associated with lower levels of depression (Rice et al., 2008) and positively associated with self-esteem (Chai et al, 2020). Maladaptive perfectionism has been negatively associated with self-esteem (Cokley et al., 2018; Rice et al., 1998), and consistently linked to higher levels of depression (Gnilka et al., 2012; Flett et al., 2014; Nepon et al., 2011; Smith et al., 2018; Smith et al., 2021; Rice & Stuart, 2010; Wang et al., 2019). In addition to the studies exploring self-esteem as a mediator, some empirical studies have also considered it as a

moderator (Puttevils et al., 2019; Zeigler-Hill & Terry, 2007). Puttevils et al., (2019) investigated the moderating effects of self-esteem on perfectionism and eating disorders. Moderation analyses found that patients with lower self-esteem moderated the relationship between perfectionism and the "desire to be thin" (Puttevils et al., 2019).

The Imposter Phenomenon and Perfectionism

Similar to the increased publications and lay literature on perfectionism, the same can be said of the imposter phenomenon. Bravata et al (2019) recently conducted an extensive review of the imposter phenomenon literature and found 66 published peer reviewed articles on the topic, with half of them published between 2015 and 2019. In addition to the increase in the research literature on the imposter phenomenon, Bravata et al. (2019) noted that there was a significant increase in the lay literature and during the year reviewed (March 28, 2018 – March 18, 2019) 2317 internet articles were published on the imposter syndrome, averaging 150-200 articles a month. Several studies have noted a positive relationship between the imposter phenomenon and perfectionism (Dudau, 2014, Ferrari & Thompson, 2006; Henning et al., 1998; Thompson et al., 2000) with the construct garnering attention in recent perfectionism research literature (Dudau, 2014; Cokley et al., 2018; Thompson et al., 2000).

The "imposter phenomenon" is a construct that was first defined by psychologists Clance and Imes' (1978) as, "an internal experience of intellectual phoniness despite outstanding academic and professional accomplishments" (pg. 241). Individuals who experience the imposter phenomenon are high-achieving individuals, by external standards, who fear that they are incompetent, their accomplishments are attributable to luck or chance, and their intellectual phoniness will eventually be discovered (Clance & Imes, 1978; Clance & Imes, 1985a, 1985b; Chrisman et al., 1995). Clance and Imes initially developed ideas around the imposter phenomenon as a result

of their clinical work with highly successful and educated women in the 1970s (Clance and Imes, 1998). They observed that while most of these women earned graduate degrees and attained a variety of prestigious academic and professional accomplishments, many of them attributed their successes to "luck" or "happenstance" rather than the result of their own personal attributes and hard work.

The female participants in Clance and Imes' original study (1978) reported that they frequently experienced, "generalized anxiety, lack of self-confidence, depression, and frustration related to the inability to meet self-imposed standards of achievement" (p.242). Empirical articles have linked the imposter phenomenon to psychological distress (Thompson et al., 2000; Cokley et al., 2013), with higher reported imposter feelings associated with higher levels of depression (Wang et al., 2019; Bernard et al., 2002; McGregor et al. 2008; Ross et al, 2001; Cokley et al., 2017; Clance & Imes, 1978; Cokley et al., 2017; Chrisman et al., 1995; McGregor et al., 2008; Oriel et al., 2004), and lower self-esteem (Cokley et al., 2015; Henning et al., 1998; King & Cooley, 1995; Schubert & Bowker, 2019).

Reviewing the work of some early perfectionism and imposter phenomenon researchers, similarities in the literature around these constructs is apparent. For example, Blatt (1995) found that maladaptive perfectionists of noted external accomplishments often struggled to recognize or celebrate their successes. Similarly, individuals who experience the imposter phenomenon and feel like a "fake" despite objective standards, such as excellent academic performance and accomplished careers, struggled to accept compliments about their accomplishments or intelligence (Clance & Imes 1985). Kets de Vries (2005) theorized that maladaptive perfectionism may contribute to, increase, or maintain imposter feelings. Cokley et al. (2018) investigated the relationship between perfectionism and imposter phenomenon and found that perfectionistic concerns

were significantly and positively correlated with the imposter phenomenon. This finding is consistent with the results of previous studies which indicate that individuals who experienced the imposter phenomenon also experienced higher perfectionistic concerns than those who did not experience the imposter phenomenon (Thompson et al., 2000).

Perfectionism and the imposter phenomenon have been linked theoretically (Dudau, 2013; Henning et al., 1998) and empirically (Cokley et al., 2018; Ferrari & Thompson, 2006; Wang et al., 2019) with similar positive associations to increased depression and anxiety symptoms (e.g., Bernard et al., 2002; Clance & Imes, 1978; Cokley et al., 2017; McGregor & Posey, 2008; Ross et al., 2001) and burnout (Gnilka et al., 2017). Higher reported impostor phenomenon symptoms have also been positively correlated to perfectionism and test anxiety (Cusack et al., 2013; Henning et al., 1998), and lower levels of self-esteem (Schubert & Bowker, 2019).

Cokley et al. (2018) investigated the perfectionism and self-esteem relationship with the imposter phenomenon construct as an outcome variable. He found that self-esteem partially mediated the relationship between maladaptive perfectionism and the imposter phenomenon, noting that, “a strong sense of self-esteem is important for lessening the impact of maladaptive perfectionism on imposterism” (p. 296). Wang et al. (2019) conducted separate mediation and moderation analyses and found that the imposter phenomenon influenced the relationship between perfectionism and depression and anxiety. In Wang et al.’s (2019) mediation analyses he found that the imposter phenomenon fully mediated the relationship between maladaptive perfectionism and anxiety and partially mediated the relationship between maladaptive perfectionism and depression. Results from the moderation analysis indicated that, “if a person does not fall into the imposter mindset, (e.g., fewer symptoms, such as “feeling like a fake” were indicated) the positive link between perfectionistic discrepancy and depression no longer exists” (p. 4). Consistent

with earlier findings in the literature (e.g., Cokley et al, 2018; Thompson et al., 2000), Wang et al. (2019) found that perfectionistic standards were not linked to the imposter phenomenon in his study, but perfectionistic concerns were noting, "the constant attention on one's inadequacies or perfectionistic discrepancy did correlate with the imposter phenomenon" (p. 4).

Considerations for Counselors

Perfectionism has consistently gained attention in the literature over the last several decades (Stoeber & Otto, 2006) and recent research indicates that perfectionism in individuals is on the rise (Curran & Hill, 2019). From academic pursuits among students (e.g., Rice et al., 2015) to professional performance (e.g., Bravata et al., 2019), perfectionism affects a wide range of individuals and specific areas of their lives. Perfectionism has been linked to several negative consequential physical and mental health outcomes (Molnar et al., 2020; Eley et al., 2020) including general physical ill-health and fatigue (Dittner et al., 2011; Molnar et al., 2012), eating disorders, marital problems, procrastination (Curran & Hill, 2019), depression (e.g., Chai et al., 2020), self-esteem (e.g., Cokley, et al, 2018), and the imposter phenomenon (e.g., Wang et al., 2019). Considering the increase in the perfectionism over time and its link to negative outcomes, it is important for counselors to understand the construct and variables influencing related outcomes.

Given the evidence that perfectionism is related to depression, is transdiagnostic, and is considered a risk factor for developing and maintaining mental health disorders (e.g., Limburg et al., 2017; Hewitt et al., 2022; Gnilka et al., 2012; Rice et al., 1998; Smith et al., 2021) there are several considerations for counselors in their work with perfectionistic clients. It is important for counselors to consider the role perfectionism may or may not play for clients who present with depression symptoms. First, assessing clients for perfectionism may provide helpful insights for counselors as they develop client conceptualizations.

Viewing perfectionism as a multidimensional construct that can be both adaptive and maladaptive may be helpful for counselors in their work with perfectionistic clients. Early theories about perfectionism viewed the construct as unidimensional and entirely problematic (Horney, 1950; Hollender, 1965; Burns, 1980). However, growing empirical studies have offered evidence that it is multidimensional and includes two dimensions: perfectionistic strivings (i.e., setting and pursuing exceptionally high-performance standards) and perfectionistic concerns (i.e., endless negative self-criticism when standards are not met) (e.g., Rice & Ashby, 2007). Studies adopting the multidimensional perfectionism view highlight the benefits of this approach, including a better understanding of the different perfectionism dimensions and associated outcomes, such as depression (e.g., Curran & Hill, 2019). Chai et al. (2020) emphasized the need for additional investigation of the perfectionism and depression relationship noting, "it may be more prudent for future research and treatment of depression to distinguish the impact of specific forms of perfectionism on a variety of outcomes, including depression" (p. 498). Through initial assessment, if a counselor determines that a client is a perfectionist, it is critical to determine if the client is more adaptive (i.e., high perfectionistic standards and low perfectionistic concerns) or maladaptive (i.e., high perfectionistic standards and high perfectionistic concerns) to understand how perfectionism may be associated reported depression symptoms and develop an appropriate client conceptualization and treatment plan.

Higher levels of depression have been consistently linked to maladaptive perfectionism (i.e., higher perfectionistic strivings and perfectionistic concerns), which is critical information for counselors to know as they develop treatment plans. Targeting high perfectionistic concerns and the critical self-evaluation experienced by a maladaptive perfectionistic clients may help reduce depression symptoms. Addressing a maladaptive perfectionist's high perfectionistic

concerns through cognitive behavioral therapy (CBT) interventions that focus on decreasing and reframing critical self-talk and negative views of self could result in symptom reduction and overall decreased depression. Some studies suggest that interventions for maladaptive perfectionists that target cognitive restructuring around work performance and how clients feel others perceive them may be beneficial (Grant et al., 2009; Gyllensten & Palmer, 2005). Conversely, if a counselor determines that a client who presents with depression symptoms is an adaptive perfectionist (i.e., high perfectionistic strivings and low perfectionistic concerns) interventions may be better focused on areas other than perfectionism that may be influencing their depression symptoms.

While CBT interventions may provide maladaptive perfectionists some symptom relief, research indicates that perfectionism can result in a client being impervious to depression treatment (Blatt et al., 1996). In addition to understanding the role perfectionism has in a client's mental health, it is also important for counselors to consider other variables that may affect the relationship between perfectionism and depression as these may be effective clinical intervention points. Considering the potential roles of self-esteem and the imposter phenomenon as moderating variables for the relationship between perfectionism and depression may be promising targets for clinical intervention.

Self-esteem (e.g., Cokley, et al., 2018), the imposter phenomenon (e.g., Wang et al., 2019), and their relationship to perfectionism and depression have garnered a great deal of attention in the research, practice, and lay literature (e.g., Smith et al., 2021). Multidimensional perfectionism and links to self-esteem are well-supported in the empirical literature with adaptive perfectionism consistently associated with lower levels of depression (Rice, Tucker, & Desmond, 2008) and positively associated with self-esteem (Chai et al., 2020) and maladaptive

perfectionism negatively associated with self-esteem (Cokley et al., 2018; Rice et al., 1998), and consistently linked to higher levels of depression (Gnilka et al., 2012; Flett et al., 2014; Nepon et al., 2011; Smith et al., 2018; Smith et al., 2021; Rice & Stuart, 2010; Wang et al., 2019). When self-esteem is considered as a moderating variable the extent to which it affects the relationship between perfectionism and depression is evaluated (Muller et al., 2005). Reflecting on Hamachek's (1978) theoretical work on perfectionism, he suggested that "neurotic" or maladaptive perfectionists with low levels of self-esteem may experience depression with greater intensity. Some evidence in the literature indicates that lower self-esteem strengthens the perfectionism relationship to negative outcome variables, such as eating disorders (Puttevils et. al, 2019).

In addition to assessing clients for perfectionism, it may be helpful to also evaluate a client's self-esteem during the intake process, which may assist counselors in meeting a client where they are when at the start of therapy. Niveau et al. (2021) conducted a recent meta-analysis which focused on self-esteem interventions in adults, and noted the innumerable interventions used to increase self-esteem, with CBT interventions as the most common. Other meta-analyses that have reviewed the efficacy of CBT and reminiscence-based therapies for increasing self-esteem in adults and found these types of therapies to be effective (Kolubinski et al., 2018; Pinquart & Forstmeier, 2012). Fennell's (1998) CBT interventions employ psychoeducation on how negative self-esteem is developed and helps clients modify their thoughts that underlie the cycle that maintains low self-esteem. Fennell's interventions were found to be effective (i.e., medium to large effect size) in increasing self-esteem in adults whether they were healthy, depressed, or anxious at baseline, with benefits lasting at least three months after an intervention was completed (Kolubinski et al., 2018). In addition to CBT interventions, counselors may also consider reminiscence-based interventions focus on recovering autobiographic memories and reflecting

on their content. The results of Pinquart and Forstmeier's (2012) meta-analysis supported the effectiveness (i.e., small to medium effect size) of reminiscence-based interventions, when compared to a control group, in decreasing depressive symptoms and increasing well-being and self-esteem regardless of a participants' age or physical or mental health status at baseline. Awareness of the influence a client's self-esteem may have on the relationship between depression and perfectionism is important for counselors when considering interventions points. Interventions that target self-esteem may yield a more significant decrease in a client's depression symptoms than those that focus treatment on a client's maladaptive perfectionism, which research supports may make the client impervious to depression treatment (Blatt et al., 1996).

The imposter phenomenon has been identified as an important factor in the relationship between maladaptive perfectionism and depression (Wang et al., 2019; Cokley et al., 2017). Wang et al. (2019) recently conducted an analysis that considered the imposter phenomenon as a moderator of the maladaptive perfectionism and depression relationship. Wang et al.'s (2019) results indicate that a reduction in imposter phenomenon feelings could buffer or prevent depression symptoms related to clients' maladaptive perfectionism. Considering these results, counselors working with maladaptive perfectionistic clients who present with depressive symptoms might work to focus interventions to reduce clients' imposter phenomenon feelings. As with perfectionism and self-esteem, assessing clients for imposter phenomenon symptoms when they first present for therapy may provide valuable information that can inform counselors about potential intervention points and treatment options.

While the imposter phenomenon has gained significant attention in both academic and lay literature, there is scant evidence on the effectiveness of evidence-based individual or group therapy interventions for addressing or decreasing imposter phenomenon symptoms (Bravata et

al., 2019). Early researchers Clance and Imes' (1978), who coined the term 'imposter phenomenon', offered possible interventions based on their clinical experiences. The authors highlighted that the imposter phenomenon was rarely identified as the presenting problem with clients noting that, "the 'imposter' is so convinced her belief is correct that nothing could be done to change it anyway" (Clance & Imes, 1978, p. 245). Through their observation of undergraduate, graduate, and professional women ranging in ages from 20 to 45 in individual and group therapy settings they suggested that a multimodal therapy approach (i.e., utilizing several therapeutic approaches concurrently) including group therapy, CBT, and Gestalt interventions may be the most effective treatment approach. Matthews and Clance (1985) conducted further clinical observation of clients in private practice settings and recommended interventions including validating clients' doubts and directly addressing their fears about failure and being "found out" that they are a fake. Consistent with early researchers. Lane (2015) noted that discrediting evidence of competence is a common characteristic with individuals who experience imposter phenomenon feelings. Wang et al. (2019) suggested that counselors may be able to help maladaptive perfectionistic clients decrease imposter phenomenon feelings by focusing on cognitive attribution and helping them identify their stable and positive characteristics associated with their accomplishments and successes.

Future Directions and Conclusion

Several authors suggest that there is a need for increased research on the difference between adaptive and maladaptive perfectionism (e.g., Ashby & Gnilka, 2017; Rice & Taber, 2019) and exploring potential mechanisms that link both adaptive and maladaptive perfectionism to emotional outcomes and depression that exist within the literature (Ashby & Gnilka, 2017; Blatt, 1995; Chai et al., 2020; Dunkley & Blankstein, 2000; Dunkley et al., 2006; Gnilka et al.,

2012; Gnilka & Broda, 2019; Rice & Taber, 2019). Theoretical and empirical literature provide evidence that self-esteem and the imposter phenomenon influence the relationship between perfectionism and depression. Existing studies that consider self-esteem as a mediating variable are helpful for counselors to understand the process through which perfectionism and depression and related. Additional research is needed to investigate how self-esteem and the imposter phenomenon may moderate the relationship between perfectionism and depression. Studies of this nature may be helpful for counselors to understand the influence these variables have on this relationship, which could lead to helpful interventions targeting self-esteem or the imposter phenomenon. Interventions with this focus may help to reduce or prevent depressive symptoms with maladaptive perfectionistic clients, which could result in more effective treatment and efficient symptom reduction for clients.

While there is extensive research on the effectiveness of self-esteem related interventions, there is little evidence to support what may be effective interventions for the imposter phenomenon. Considering Wang et al.'s (2019) findings, which indicated that without the presence of imposter phenomenon feelings the relationship between depression and maladaptive perfectionism ceased to exist, could provide a basis for the need to further investigate the effectiveness of evidence-based treatments for the imposter phenomenon. The need to understand the imposter phenomenon and the development of treatment options for counselors, such as cognitive behavioral therapy, has been emphasized in the literature (Bravata et al., 2019). Chrousos et al. (2020) conducted an extensive literature review of the imposter phenomenon and highlighted the need for a better understanding of the psycho-neuro-biological basis and evolutionary roots of the imposter phenomenon and investigating into prevention and CBT interventions. Recent research in human resources literature offers empirical support of the use of cognitive processing as a work-based

intervention (Hutchins & Flores, 2021). Additionally, Magro (2022) conducted qualitative research which detailed coaching experiences with clients and called for additional empirical research of evidence-based interventions that may reduce imposter phenomenon feelings. Perhaps the literature in related disciplines may provide insights that can be further researched for application in the counseling context.

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CHAPTER 2

PERFECTIONISM AND DEPRESSION: MODERATING EFFECTS OF THE IMPOSTER PHENOMENON AND SELF-ESTEEM

Introduction

Perfectionism is a personality construct that has maintained a lasting presence in psychological literature with theories on the topic dating back to the early 1900s (Alder, 1938/1998). Perfectionism has consistently garnered the attention of social science researchers over time as evidenced by Smith et al.'s recent meta-analysis (2021). Smith et al. (2021) evaluated perfectionism literature over the last thirty years and determined it is a noteworthy personality construct with publications on the topic rising from about 100 in 1980 to nearly 2500 in 2019. The increased interest in perfectionism research may be an effort to better understand perfectionism and its relationship to consequential outcomes (Molnar et al., 2020; Eley et al., 2020). Several empirical studies have found that perfectionism can have negative implications on an individual's mental and physical health including eating disorders, general physical ill-health and fatigue, higher levels of anxiety, depression, and suicide (Ashby & Rice, 2002; Ashby et al., 2012; Broman-Fulks et al.,2008; Chai et al., 2020; Egan et al.,2011; Dittner et al., 2011; Flett et al., 2014; Hill & Curran, 2016; Limburg et al., 2017; Molnar et al., 2012; Moroz & Dunkley, 2015; Smith et al., 2016; Smith, et al., 2018).

Perfectionism has been defined as having high personal standards, being organized, orderly, and striving for excellence (Slaney & Ashby, 1996). Several early perfectionism theorists conceptualized the construct as one-dimensional and problematic without any positive attributes (Hollender, 1965; Burns, 1980) with perfectionists plagued with the "tyranny of the shoulds"

(Horney, 1950, p. 65). Alfred Adler (1938/1998) was the first to offer an alternative to an entirely problematic view of perfectionism, noting that, "the striving for perfectionism is innate in the sense that it is part of life" (Ansbacher & Ansbacher, 1956, p. 104). Hamachek's (1978) early conceptualization describes perfectionism as either "normal or neurotic" with positive and negative associations for each. Hamachek's conceptualization of a multidimensional model of perfectionism is strongly supported in the literature (e.g., Frost et al., 1990; Hewitt & Flett, 1991; Slaney et al., 2002) including many empirical studies (e.g., Dunkley et al., 2003, Frost et al., 1990; Hewitt & Flett, 1991; Slaney et al., 2002). Stoeber and Otto (2006) conducted a comprehensive literature review and identified two distinct dimensions across various multidimensional perfectionism models: perfectionistic strivings and perfectionistic concerns. Perfectionistic strivings are defined as setting high personal performance expectations. Perfectionistic concerns are the perceived gap between personal standards and one's evaluation of having met those standards (Rice et al., 2014).

Individuals with high perfectionistic strivings and low levels of perfectionistic concerns are typically labeled adaptive perfectionists. Adaptive perfectionists set high standards, are not overly self-critical about their performance, strive for excellence, and are able to enjoy their accomplishments (Rice et al., 2013; Stoeber & Otto, 2006). Individuals who have both high levels of perfectionistic striving and concerns are typically labeled maladaptive perfectionists. Maladaptive perfectionists set excessively high standards for themselves, fear making mistakes, and become overly self-critical when they are unable to meet their ideal expectations (Hewitt & Flett, 1991b; Rice & Ashby, 2007; Stoeber & Otto, 2006).

Curran and Hill (2019) recently conducted a meta-analysis of perfectionism in college students from 1989 to 2016 and found that both adaptive and maladaptive perfectionism has

increased over time. Their analyses also revealed that those who identify as perfectionists often experience life difficulties (e.g., eating disorders, marital problems, and procrastination) and linked maladaptive perfectionism to many severe negative mental health outcomes, including suicide and depression (Curran & Hill, 2019). In contrast, adaptive perfectionism has been associated with lower levels of stress (Ashby & Gnilka, 2017); anxiety (Gnilka et al., 2012), and depression (Rice et al., 2008). Maladaptive perfectionism has been negatively associated with self-esteem (Cokley et al., 2018; Rice et al.,1998), and consistently linked to higher levels of anxiety and depression (Smith et al., 2021). While adaptive perfectionism allows individuals to gain a sense of satisfaction in their endeavors and be flexible in their pursuits, individuals experiencing maladaptive perfectionism focus on, "the discrepancy between what has been achieved and what might have been achieved if everything had worked out perfectly" (Stoeber & Otto, 2006, p. 316).

Theoretical and empirical research supports Hill and Curran's (2019) work, with maladaptive perfectionism positively associated with an array of consequential mental health outcomes (e.g., Smith et al., 2021; Hill & Curran, 2016), including extensive research on the positive association between maladaptive perfectionism and depression (e.g., Ashby et al., 2012; Rice et al., 1998; Rice & Stewart, 2010; Wang et al., 2019). Several authors (e.g., Chang 2000; Rice et al., 2012; Chai et al., 2020) have suggested that additional research is needed to further understand the relationship of maladaptive perfectionism to psychological distress, such as depression.

Perfectionism has long been identified in the literature as a vulnerability factor and a predisposition for depressive disorders (Hamachek, 1978; Hewitt & Flett 1990, 1993; Hewitt et al., 1996; Horney, 1939). Recent research has found that maladaptive perfectionism predicts

depression symptom severity and those who experience maladaptive perfectionism are predisposed to developing depression when exposed to stressors (Smith et al., 2021; Hewitt et al., 2022). Further clarification of the relationship between maladaptive perfectionism and depression is needed to assist clinicians in treatment planning and client conceptualization.

A number of constructs have been identified as mediators and moderators that influence the relationship between maladaptive perfectionism and depression, including the imposter phenomenon. Several authors (Wang et al., 2019; Cokley at al., 2017) have identified the imposter phenomenon as an important factor in the relationship between maladaptive perfectionism and depression. The imposter phenomenon occurs when high-achieving individuals fear they are incompetent and their accomplishments are attributable to luck or chance and their intellectual phoniness will eventually be discovered (Clance & Imes, 1978). While Clance and Imes's (1978) original research found that women more frequently reported imposter feelings than men and that they experienced imposter phenomenon symptoms with greater intensity, much of the contemporary research related to the imposter phenomenon has been conducted with college or university undergraduate student populations of men and women (e.g., Ling et al., 2020; Wang et al., 2019; Cokley et al., 2017). While a number of authors have focused on women and the imposter phenomenon (Cusack et al., 2013; Henning et al., 1998; King & Cooley, 1995; Kumar & Jagacinski, 2006), more recent literature on the construct supports the notion that both males and females experience the imposter phenomenon with some research estimating that at least 70% of males and females will experiences imposter phenomenon feelings for some part of their careers (e.g., Gravois, 2007; Jöstl et al., 2012; Li et al.,2014). Bravata et al. (2019) conducted a systematic review of the imposter phenomenon literature and found that half of the studies that included evaluation of a gender effect found no differences in the rates of men and women experiencing

the imposter phenomenon. Badawy et al. (2018) found that both males and females experienced the imposter phenomenon with males reporting experiencing it with more intensity and that they reacted more negatively under conditions of negative feedback and high accountability than females.

Several studies have noted a positive relationship between the imposter phenomenon and perfectionism (Dudau, 2014, Ferrari & Thompson, 2006; Henning et al., 1998; Thompson et al., 2000), and between imposter phenomenon and negative mental health outcomes (Thompson et al., 2000; Cokley et al., 2013). Specifically, heightened imposter feelings have been associated with higher levels of depression (Wang et al., 2019; Bernard et al., 2002; McGregor et al., 2008; Ross et al., 2001; Cokley et al., 2017; Clance & Imes, 1978; Cokley et al., 2017; Chrisman et al., 1995; McGregor et al., 2008; Oriel et al., 2004) and lower self-esteem (Cokley et al., 2015; Henning et al., 1998; King & Cooley, 1995). Recent literature (Schubert & Bowker, 2019) also found that the imposter phenomenon was positively linked to self-esteem instability and negatively associated with levels of self-esteem.

Cokley et al. (2017) found that high levels of imposter feelings moderated the relationship between perceived discrimination and depression among African American students while low levels of imposter phenomenon feelings moderated the relationship between perceived discrimination and both anxiety and depression. Lui et al. (2023) found that a brief self-compassion intervention was a significant moderator of the intervention effects in reducing maladaptive perfectionism, the imposter phenomenon, and psychological distress over time. In a study of Romanian college students, the results indicated that one of the best predictors of the imposter phenomenon was perfectionism (Dudau, 2014). Wang et al., (2019) study further supported prior findings (i.e., Dudau, 2014; Thompson, 2000) indicating that perfectionism and the imposter

phenomenon have a strong association with the imposter phenomenon being a key factor in the relationship between maladaptive perfectionism and psychological distress, specifically depression. Wang et al. (2019) conducted a moderation analysis and results indicated the relationship between maladaptive perfectionism and depression was present only when higher levels of imposter phenomenon feelings were also experienced. “If a person does not fall into the imposter mindset, (e.g., fewer symptoms, such as “feeling like a fake” were indicated) the positive link between perfectionistic discrepancy and depression no longer exists” (Wang et al., 2019, p. 4).

In addition to the imposter phenomenon, several authors have identified self-esteem as a construct that may influence the relationship between maladaptive perfectionism and depression (Cokley et al., 2018; Ashby & Rice, 2002; Blankstein et al., 2008; Grzegorek et al., 1991). Lower levels of self-esteem have been consistently linked to maladaptive perfectionism (Ashby & Rice, 2002; Blankstein et al., 2008; Grzegorek et al., 2004; Hewitt & Flett, 1991) both theoretically (Horney, 1950; Burn, 1980; Pacht, 1984) and empirically (Ashby & Rice, 2002; Wang et al., 2007). Hamachek (1978) noted the complicated relationship between perfectionism, self-esteem, and depression and suggested that adaptive perfectionists may experience less depression due to their higher levels of self-esteem. The indirect effect of perfectionism on one’s self-esteem and depression was also noted by Blatt (1995) who suggested consequential mental health outcomes (e.g., depression) may not stem directly from perfectionism, but indirectly through self-esteem. Rice et al. (1998) research further investigated this relationship and found support for the theoretical literature indicating that perfectionism may influence self-esteem and have an indirect role on depression as an outcome. Additionally, Rice et al. (1998) conducted exploratory analyses and found self-esteem served as a moderator on the relationship between maladaptive perfectionism and depression. Results indicated that maladaptive perfectionists may only

experience depression when they also experience low levels of self-esteem and found, "self-esteem to be an important buffer of maladaptive perfectionism" (Rice et al., 1998, p. 312). Cokley et al. (2018) also found that maladaptive perfectionism was negatively associated with self-esteem. In a cross-sectional study, Cokley et al. (2018) investigated the relationship between maladaptive perfectionism and the imposter phenomenon, and their analyses determined that self-esteem partially mediated the relationship. The authors called for further analyses in future studies noting, "a strong sense of self-esteem is important for lessening the impact of maladaptive perfectionism on imposterism" (p.296).

Present Study

While there have been several studies that have examined the relationship of maladaptive perfectionism to depression (e.g., Wang et al., 2019; Park et al., 2010), the research has not fully considered the influence of the imposter phenomenon and self-esteem on this relationship. Rice et al. (1998) found self-esteem moderated the relationship between maladaptive perfectionism and depression. The authors indicated that self-esteem may serve as a safeguard and lessen the strength of the relationship between maladaptive perfectionism and depression. Further, Rice et al. (1998) used a study sample that only included university students and authors suggested that future research should consider examining the stability of perfectionism in predicting outcomes in different settings and circumstances. Wang et al. (2019) found that the imposter phenomenon moderated the relationship between maladaptive perfectionism and depression. The authors indicated that the effect of the imposter phenomenon might be greater than found in their study and proposed future research utilizing a larger sample size. However, the study sample included only Russian university students, limiting its generalizability. In order to fully understand the

relationship between perfectionism and depression it is important to explore the role of the imposter phenomenon and self-esteem as potential moderators.

The purpose of this study is to replicate the moderation models presented in Wang et al. (2019) and Rice et al. (1998) and extend by investigating the relationship between depression and maladaptive perfectionism and whether imposter phenomenon and self-esteem moderate the relationships between these variables in a three-way interaction in a sample of adults living in the United States and ages 25 to 60. The age range was selected to capture participants typically working full-time at various personal and professional stages in their lives, and outside of the university setting.

Hypotheses of this study include: 1) Participants with higher levels of maladaptive perfectionism will experience higher levels of depression. 2) Participants with higher levels of the imposter phenomenon will experience higher levels of depression. 3) Participants with lower levels of self-esteem will experience higher levels of depression. 4) Self-esteem will moderate the relationship between perfectionism and depression, such that higher levels of self-esteem will weaken the relationship between maladaptive perfectionism and depression. 5) The imposter phenomenon will moderate the relationship between perfectionism and depression, such that higher levels of the imposter phenomenon will strengthen the relationship between maladaptive perfectionism and depression. 6) There will be a three-way interaction such that the imposter phenomenon and self-esteem will moderate the relationship between maladaptive perfectionism and depression. Higher levels of the imposter phenomenon and lower levels of self-esteem will result in a stronger relationship between maladaptive perfectionism and depression. Lower levels of the imposter phenomenon and higher levels of self-esteem will result in a weaker relationship between maladaptive perfectionism and depression.

Methods

Procedure

After obtaining IRB approval, participants were recruited via an online research participation system (Cloud Research Connects) that recruits participants living in the United States. Each participant was compensated $2.50 for participation in the study. The Connects system provided participants with a link to Qualtrics, an online survey platform. On Qualtrics, participants were presented with informed consent material followed by the measures listed below, with items within measures presented in random order. Data collection began and ended in August 2023.

Participants

To achieve adequate statistical power (Cohen,1992) a total of 387 participants is needed to detect a small effect size using the analyses. The sample size of 387 for the study was determined using G Power 3.1 (Faul et al., 2009) software to reflect sufficient statistical power of 0.80 and a small effect size of 0.02. Recent research (Hill et al., 2017) indicates that when utilizing multiple regression techniques with at least two predictors a small effect size (0.02) is appropriate. The initial sample consisted of 414 participants. Data from 36 participants were excluded due to either not completing the study, having any missing data in their responses, failing at least one of three attention checks (e.g., please select “strongly disagree” for this item), inability to pass bot checks, taking the study too quickly (i.e., less than two minutes), or being an outlier. Outliers were defined as standardized values that are +/-3.29 standard deviations from the mean (Tabachnick & Fidell, 2006). The remaining 378 participants included 68.5% (259) White, 10.6% (40) African American/Black, 8.5% (32) Asian/Asian American/Pacific Islander, 6.9% (26) Hispanic/Latino/Latinx, 1.9% (7) Multiracial, 1.9% (7) American Indian/Native American

individuals. Seven participants (1.9%) indicated that they identified as a race/ethnicity not listed in the survey. When asked to identify the race/ethnicity to which they identify outside of those listed in the survey, there were six responses that appeared to be specific regional locations (e.g., West Chester). Two participants (0.5%) responded "prefer not to say" on the survey. Participants were also asked to respond to the question, "How do you currently describe your gender identity?". Of the 378 participants, one responded as "gender non-binary" (0.3%), one responded as "transgender" (0.3%), and one responded as "prefer not to say" (0.3%). The remaining participants included 202 cisgender males (53.4%) and 173 cisgender females (45.8%).

All participants reported that they were adults living in the United States ranging in age from 25 to 60, with a mean age of 38 (*SD* = 8.46). Nearly half of the participants reported being married at 47.1% (178), 30.4% (115) of the participants reported being single, 10.8% (41) of the participants reported being involved in a committed partnership (non-legal), 7.1% (27) of participants reported their relationship status as dating long-term, 3.7% (14) of participants reported that they were dating casually, and 0.8% (3) reported that they were in a domestic legal partnership. Regarding participants level of education, 0.5% (2) indicated that they completed middle/junior high school, 10.3% (39) high school, 18% (68) some college/technical school, 48.4% (183) college, 3.4% (13) some professional/graduate school, and 19.3% (73) professional/graduate school. The majority of participants were employed full-time, making up 73.3% (277) of the population. Fourteen percent (53) of the participants were employed part time, 10.6% (40) were not employed, and 1.6% (6) indicated they were underemployed. Two participants (0.5%) of the 378 respondents indicated that they were full-time students. Regarding income, 22.5% (85) of respondents reported their income to be over $100,000, 17.2% (65) ranged between $75,000 and

$99,000, 25.4% (96) ranged between $50,000 to $74,000, 15.9% (60) ranged between $35,000 to $49,000, 9.5% (36) ranged between $25,000 to $35,000, and 9.5% (36) less than $25,000.

Self-Report Measures

Demographic Survey. Participants responded to questions regarding demographics, including age, gender, race/ethnicity, relationship status, employment status, level of education, and household income.

Short Almost Perfect Scale-Revised. The Short Almost Perfect Scale-Revised **(**SAPS**;** Rice et al., 2014) is an eight-item measure designed to access two major dimensions of perfectionism: standards (performance expectations) and discrepancy (performance evaluation). The SAPS is a shorter version of the Almost Perfect Scale–Revised (APS-R; Slaney et al. , 1996; Slaney et al., 2001). The Standards subscale is designed to measure perfectionistic strivings (item example, "I have a strong need to strive for excellence."). The Discrepancy subscale is designed to measure perfectionistic concerns (item example: "I am hardly ever satisfied with my performance."). The SAPS uses a 7-point Likert scale with response options ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores on the SAPS have shown good psychometric features in samples of college students (Rice et al., 2014; Wang et al., 2016; Wang et al., 2019) and clinical samples (Rice et al., 2015; Sauer et al., 2017). The subscale structure has been supported through factor analysis with factor loadings for items ranging from .49 to .86 (Rice et al., 2014). Internal consistency coefficients for Standards and Discrepancy subscales were reported in the mid - .80 range for nonclinical samples (Rice et al., 2014; Richardson et al., 2014) and 0.82 and 0.91 for clinical samples (Rice et al., 2015; Richardson et al., 2017). Prior studies with a focus specifically on maladaptive perfectionism (e.g., Ashby et al., 2006; Rice et al., 2012) have used Discrepancy scale scores for analyses. Given that the focus of this study is on maladaptive

perfectionism, only participants' Discrepancy scores were used for analyses. The internal consistency rating for the current study for the SAPS – Discrepancy scale was 0.881.

Clance Imposter Phenomenon Scale. The Clance Imposter Phenomenon Scale (CIPS; Clance, 1985) is a 20-item scale that measures if an individual has imposter phenomenon characteristics and if so, to what extent they are experiencing distress due to existing characteristics. The CIPS uses a 5-point Likert scale with response options ranging from 1 (*not true at all*) to 5 (*very true*). The measure results in a total score that ranges from 20 to 100. The higher the score, the more frequently and intensely a respondent experiences imposter phenomenon feelings. The CIPS includes three subscales: Fake, Discount, and Luck. The Fake subscale measures self-doubt and concerns intelligence and abilities (item example: "I'm afraid people important to me may find out that I am not as capable as they think I am."). The Luck subscale assesses the tendency for accomplishments to be contributed to luck, chance, or error relative to capability (item example: "At times, I feel my success has been due to some kind of luck."). The Discount subscale assesses inability to acknowledge positive performance and praise for such performance (item example: "When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.").

The CIPS has strong evidence for sound reliability with Cronbach's alphas ranging from 0.84 (Prince, 1989) to 0.96 (Holmes et al., 1993). Internal consistency reliability was 0.92 for the total scale score of the CIPS (French et al., 2008). French et al. (2008) reviewed the psychometric properties of the CIPS and suggested that use of the total CIPS scale may be most appropriate for research due to the larger coefficient alpha for the total CIPS score (0.92) than the CIPS subscales (Fake = 0.84; Discount = 0.79; Luck 0.70). The CIPS has demonstrated convergent validity with measures of perceived fraudulence, psychological well-being, depression, self-esteem,

self-monitoring, and social anxiety (Chrisman et al., 1995; Holmes et al., 1993). The internal consistency rating for the current study was 0.92.

Depression Anxiety Stress Scale-21. The Depression Anxiety Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995) is a 21-item scale used to measure psychological distress. The DASS-21 uses a 4-point Likert scale ranging from 1 *(did not apply to me at all*) to 4 (*applied to me very much, or most of the time*). The DASS-21 includes three subscales, each seven items, that assess levels of depression, anxiety, and stress. A sample item from the Depression subscale states, "I felt downhearted and blue." A sample from the Anxiety subscale states, "I felt I was close to panic." A sample items from the Stress subscale states, "I felt that I was rather touchy." Several studies (e.g., Wang et al., 2019) have used DASS-21 subscales to measure constructs most appropriate for their study. Considering that the study investigated depression as an out-come, only the Depression subscale was used for this study. Wang et al. (2019) demonstrated good reliability for the Depression subscale with Cronbach alphas of 0.84 and 0.83, respectively. The internal consistency rating for the current study for the DASS - 21 Depression scale was 0.93.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) a widely used 10-item scale that measures an individual's global perception of self-worth and value. The measure uses a 4-point Likert scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). A sample item is, "I feel that I have a number of good qualities." Scale scores range from 10-40. The RSE has demonstrated high reliability and internal consistency with a coeffi-cient of reproducibility of 0.92. Correlations of .85 and .88 were found for test-retest reliability over a two-week period indicating high stability of the RSE (Rosenberg, 1979). Rosenberg (1965) reported Cronbach alphas ranging from 0.85 to 0.88 for college samples, with a recent

study reporting Cronbach alpha as 0.86 with college students (Cokley et al., 2018). The RSE has demonstrated strong construct validity and correlates with other measures of self-esteem such as the Coopersmith Self-Esteem Inventory. Further, the RSE correlates in the predicted direction with depression and anxiety measures (Rosenberg, 1979). The internal consistency rating for the current study was 0.92.

Analyses

This is a cross-sectional study in which variables including perfection, self-esteem, the imposter phenomenon, and depression were measured among adults living in the United States ages 25 to 60. Cronbach's alpha for each instrument were calculated to determine the internal reliability of each measure for the current sample. Correlation analyses were conducted to analyze the relationship between demographic and interval study variables. Bivariate correlations examined the relations between study variables.

Hierarchical multiple regression was then used to test a model for predicting depression from participants' perfectionism scores and self-esteem scores, and for predicting depression from participants' perfectionism scores and imposter phenomenon scores. Hierarchical multiple regression was also used to test a model for predicting depression from participants' perfectionism scores, self-esteem scores, and imposter phenomenon scores. Only participants' Discrepancy scores from the SAPS measure were used for analyses, which is consistent with prior studies focusing only on maladaptive perfectionism (e.g., Ashby et al., 2006; Rice et al., 2012). Similarly, only participants' Depression scores from the DASS-21 measure were used for this study, which is consistent with previous studies focusing on depression (Wang et al., 2019). Predictor variables were centered before creating multiplicative interaction terms to aid the interpretation of regression effects.

Two-way and three-way interaction models were used for the moderation analyses. The first two-way interaction model positioned maladaptive perfectionism as the predictor, self-esteem as the moderator, and depression as the outcome. The second two-way interaction model positioned maladaptive perfectionism as the predictor, the imposter phenomenon as the moderator, and depression as the outcome. The third interaction model positioned maladaptive perfectionism as the predictor, self-esteem and the imposter phenomenon as moderators, and depression as the outcome. Thus, the analyses included a two-way interaction of self-esteem x perfectionism, a two-way interaction of the imposter phenomenon x perfectionism, and a three-way interaction of the imposter phenomenon x perfectionism x self-esteem.

Results

Descriptive Analyses

To test hypothesis 1, which stated that participants with higher levels of maladaptive perfectionism would experience higher levels of depression, a bivariate correlation analysis was performed. The analysis indicated that participants with higher levels of maladaptive perfectionism did have significantly higher levels of depression. Hypothesis 2, which stated that participants who experience higher levels of the imposter phenomenon would experience higher levels of depression was also tested with a bivariate correlation analysis. The analysis indicated that participants with higher levels of the imposter phenomenon did have significantly higher levels of depression. Hypothesis 3 stated that participants with lower levels of self-esteem would experience higher levels of depression and a bivariate correlation analysis was also performed. The analysis indicated that participants with lower levels of self-esteem did have significantly higher levels of depression. Correlation analyses showed that perfectionism, the imposter phenomenon, and self-

esteem correlated in expected directions for participants. Correlations, means, and standard deviations for participants are reported in Table 1.

Table 1

Participant Correlations Among Scales, Reliabilities, Means, Standard Deviations, Observed Ranges of Variables

Variables	1	2	3	4
1. Perfectionism	1	.71	.56	-.69
2. Imposter Phenomenon		1	.53	-.65
3. Depression			1	-.75
4. Self-Esteem				1
Mean	16.44	60.74	12.50	28.62
Standard Deviation	6.45	15.09	5.52	6.68

Note. $N = 378$. Perfectionism = Short Almost Perfect Scale-Revised; Imposter Phenomenon = Clance Imposter Phenomenon Scale; Depression = Depression Anxiety Stress Scale-21; Self-Esteem = Rosenberg Self-Esteem Scale. All correlations presented are significant at $p < .001$, two-tailed.

Assumptions of multiple regression, including linearity, normality, multicollinearity, homoscedasticity, independence of residuals, and influential cases, were conducted. Results of these analyses may be interpreted with caution, as some assumptions were not met. When testing for assumptions of normality, a graph of the data points indicated they are close to the line of normality but do not always touch it. The Shapiro-Wilk's test of normality was also conducted in addition to analyzing the graph and indicated that the outcome variable of depression was significant and not normally distributed. Assumption test results further indicated that the imposter phenomenon and maladaptive perfectionism were highly correlated and above .7 (.712) and

multicollinearity may be present. Additional collinearity tests were conducted, and results indicated that tolerance was > .2 and VIF < 5 for all predictor variables which included maladaptive perfectionism (Tolerance = .41; VIF = 2.45), the imposter phenomenon (Tolerance = .44, VIF = 2.3), and self-esteem (Tolerance = .41, VIF = 2.1), indicating that multicollinearity was not present. Further, a scatterplot that included regression standardized predicted values and standardized residual values of the sample indicated that homogeneity of variance and homoscedasticity did not exist. When predictor variables have been added to a regression model and the remaining residual variability changes as a function of something not included in the model, heteroscedasticity is present (Coxe et al., 2007; Field, 2009; Fox, 1997; Kutner et al., 2004). Heteroscedasticity can affect the reliability of the results as some terms in the regression model may be deemed statistically significant, when they are in fact not significant (Astivia & Zumbo, 2019). Huber-White (HC0) heteroscedastic consistent standard errors were used in analyses to address heteroscedasticity. HC0 recognizes the presence of non-constant variance and offers an alternative approach to estimating the variance of the sample regression coefficients (Astivia & Zumbo, 2019; Eicker, 1967; Huber, 1967; White, 1980).

Interaction Analyses

The PROCESS 4.2 macro for SPSS (Hayes, 2022) was utilized to conduct all interaction analyses. Due to the heteroscedasticity of the data, an adjustment to the standard errors was utilized in analyses (HC0). To test hypothesis 4, which stated that self-esteem would moderate the relationship between perfectionism and depression, such that higher levels of self-esteem would weaken the relationship between maladaptive perfectionism and depression, a two-way interaction model was conducted, and interaction effects were examined. The association of interest for this analysis was the effect of maladaptive perfectionism x self-esteem on depression. Results

from the model indicated that the overall model was significant *(p* = .000) and accounted for 57% of the variance in depression ($F(3, 374) = 144.57$, $p=.000$, $R^2 = .57$) and the two-way interaction of perfectionism x self-esteem was also significant *(p* = .001). Results of the regression model are provided in Table 2.

Table 2

Regression Models of the Interaction Between Perfectionism and Self-Esteem Predicting Depression

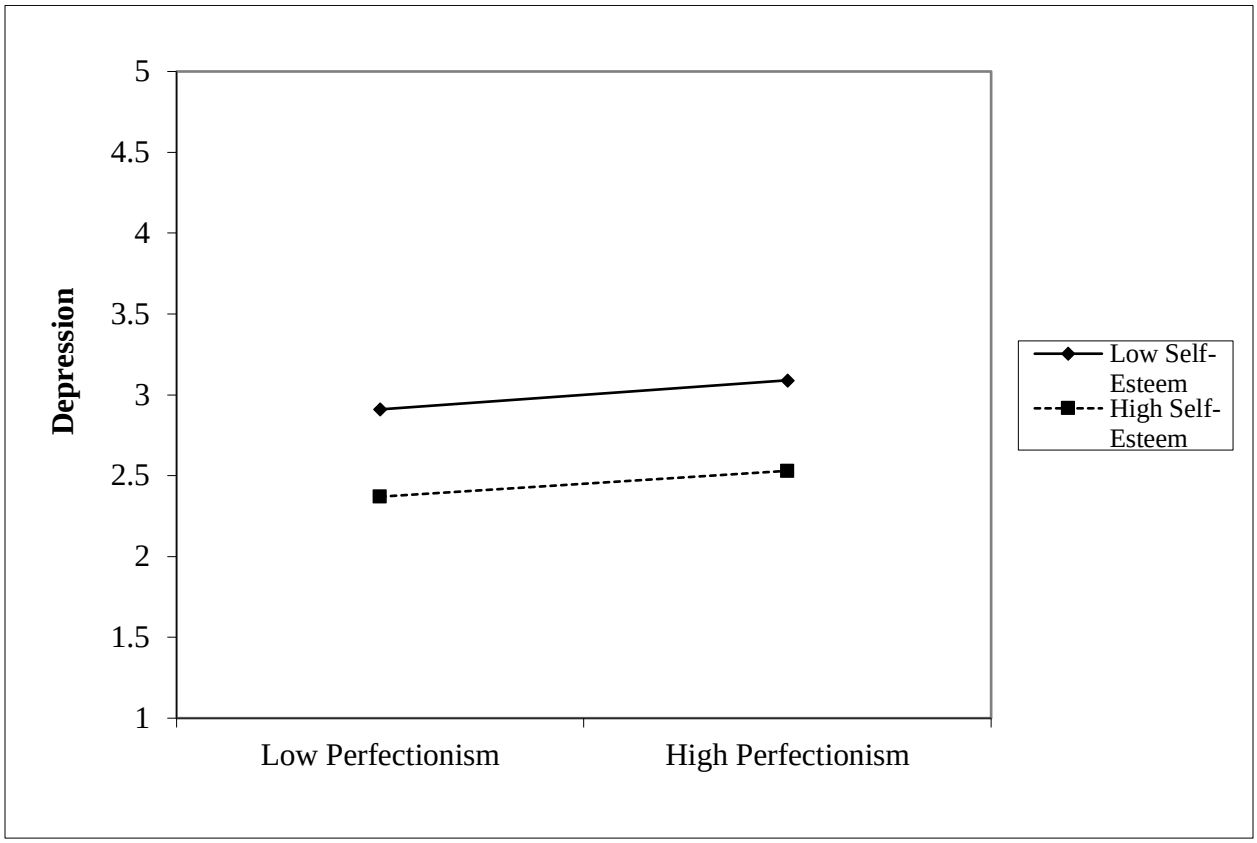
Variables	t	p	*B*	*SE B*	β	95% CI of Estimate	
						LL	UL
Perf	1.98	.049	.09	.11	.06	.00	.19
SE	-11.10	.000	-.54	-.66	.06	-.64	-.45
Perf x SE	-3.50	.001	-.02	-.11	.03	-.02	-.01

Note. *N* = 378. Perf = Perfectionism; IP = Imposter Phenomenon; SE = Self-Esteem

Results of a simple slope analysis indicated a negative and significant moderating impact of self-esteem on the relationship between perfectionism and depression (*b* = -.01, t = -3.50, *p* = .001). Figure 1 illustrates that lower levels of self-esteem strengthen the relationship between perfectionism and depression than higher levels of self-esteem. Also shown in Figure 1, as self-esteem increased, the relationship between perfectionism and depression weakened.

Figure 1

Interaction Effect of Self-Esteem on the Relationship Between Perfectionism and Depression



To test hypothesis 5, which stated that the imposter phenomenon would moderate the relationship between perfectionism and depression, such that higher levels of the imposter phenomenon would strengthen the relationship between maladaptive perfectionism and depression, a two-way interaction model was conducted, and interaction effects were examined. The association of interest for this analysis was the effect of maladaptive perfectionism x the imposter phenomenon on depression. Results from the model indicated that the overall model was significant *(p* = .000) and accounted for 35% of the variance in depression ($F(3, 374) = 94.58$, *p=.000,* R^2 = .35) and the two-way interaction of perfectionism x the imposter phenomenon was also significant (*p* = .003. Results of the regression model are provided in Table 3.

Table 3

Regression Models of the Interaction Between Perfectionism and the Imposter Phenomenon Predicting Depression

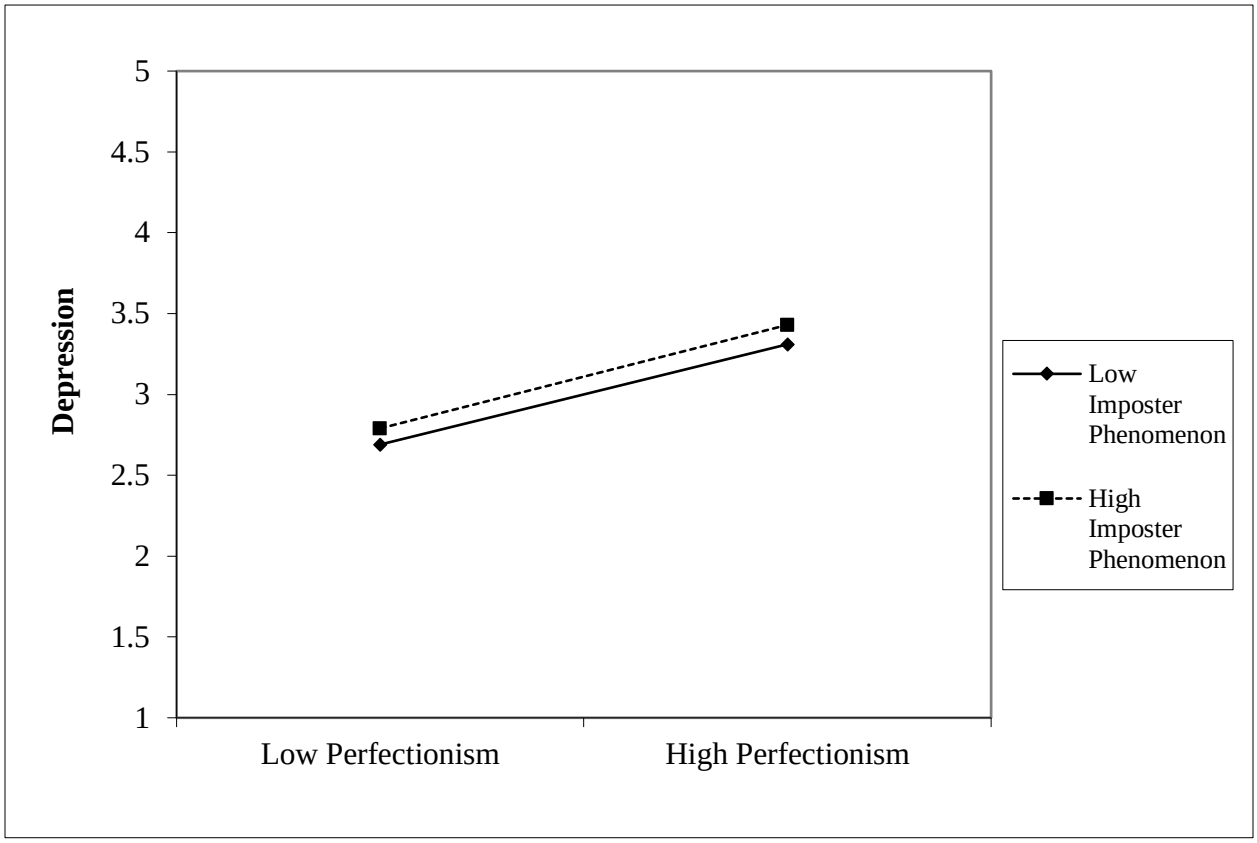
Variables	t	p	*B*	*SE B*	β	95% CI of Estimate	
						LL	UL
Perf	5.96	.000	.31	.36	.06	.21	.41
IP	4.73	.000	.12	.29	.06	.06	.15
Perf x IP	3.04	.003	.01	.12	.04	.00	.01

Note. $N = 378$. Perf = Perfectionism; IP = Imposter Phenomenon; SE = Self-Esteem

Results of a simple slope analysis indicated a significant moderating impact of the imposter phenomenon on the relationship between perfectionism and depression ($b = .01$, $t = 3.04$, $p = .003$). Figure 2 illustrates that lower levels of the imposter phenomenon weaken the relationship between perfectionism and depression. Also shown in Figure 2, higher levels of the imposter phenomenon strengthened the relationship between perfectionism and depression.

Figure 2

Interaction Effect of the Imposter Phenomenon on the Relationship Between Perfectionism and Depression



To test hypothesis 6, which stated that there would be a three-way interaction such that the imposter phenomenon and self-esteem would moderate the relationship between maladaptive perfectionism and depression, a three-way interaction model was examined. The association of interest for this analysis was the effect of maladaptive perfectionism x self-esteem x the imposter phenomenon on depression. Results of the regression model are provided in Table 4. Results from the model indicated that the overall model was significant and accounted for 58% of the variance in depression ($F(7, 370) = 89.21$, $p < .001$, $R^2 = .58$). Results further indicated that the

three-way interaction of the imposter phenomenon x perfectionism x self-esteem was not significant (p = .57). In the three-way interaction model, neither the two-way interaction effects of perfectionism x self-esteem (p = .20), perfectionism x the imposter phenomenon (p = .53), nor the two-way interaction effects of the imposter phenomenon x self-esteem (p = .22) were significant.

Table 4

Regression Models of the Interaction Between Perfectionism, the Imposter Phenomenon, and Self-Esteem Predicting Depression

Variables	t	p	*B*	*SE B*	β	95% CI of Estimate	
						LL	UL
Perf	1.37	.17	.07	.05	.08	-.03	.17
IP	.02	.12	.03	.25	.09	-.01	.08
SE	-9.38	.000	-.53	.06	-.63	-.64	-.42
Perf x IP	-.63	.532	-.01	.00	-.04	-.01	.01
Perf x SE	-1.30	.195	-.01	.01	-.07	-.02	.01
IP x SE	-1.23	.218	-.01	.00	-.09	-.01	.00
Perf x IP x SE	.58	.566	.00	.00	.02	-.00	.00

Note. N = 378. Perf = Perfectionism; IP = Imposter Phenomenon; SE = Self-Esteem

Discussion

A relationship between maladaptive perfection and depression has consistently been cited in the literature (e.g., Curran & Hill, 2019). This study was designed to examine the relationship between maladaptive perfectionism, the imposter phenomenon, and self-esteem and if the relationship explained significant variation in depression. Results supported hypotheses 1, 2, and 3 and indicated that there were significant positive correlations between maladaptive perfectionism and depression (hypothesis 1) and the imposter phenomenon and depression (hypothesis 2), as well as a significant negative correlation between self-esteem and depression (hypothesis 3).

Further, results support hypothesis 4 as the two-way interaction of perfectionism x self-esteem was found to be significant. Results also supported hypothesis 5 as the two-way interaction perfectionism x the imposter phenomenon was also found to be significant. However, contrary to the study hypothesis 6, a three-way interaction of the imposter phenomenon x perfectionism x self-esteem was not significant. These results have implications for future research and practice with adults ages 25-60.

Descriptive Analyses Findings

The first hypothesis of the study (hypothesis 1), that participants with higher levels of maladaptive perfectionism would experience higher levels of depression, was tested using bivariate correlations. Results of the analysis indicated that participants with higher levels of maladaptive perfectionism experience higher levels of depression. This finding is consistent with a large body of empirical research indicating that maladaptive perfectionism is associated with higher levels of depression (Enns et al., 2001; Hewitt & Flett, 1991a; Huprich et al., 2008; Linburg et al., 2017; Norman et al., 1998; Sassaroli et al., 2008; Nepon et al., 2011; Sherry et al., 2018).

The second hypothesis of the study (hypothesis 2) was that participants who experience higher levels of the imposter phenomenon would experience higher levels of depression, which was also tested with a bivariate correlation analysis. The results indicated that higher levels of the imposter phenomenon was associated with higher levels of depression in the sample. This finding is consistent with several empirical articles that have linked higher levels of imposter phenomenon feelings with higher levels of depression (Wang et al., 2019; Bernard et al., 2002; McGregor et al., 2008; Ross et al., 2001; Cokley et al., 2017; Clance & Imes, 1978; Cokley et al., 2017; Chrisman et al.,1995; McGregor et al., 2008; Oriel et al., 2004). The results are also consistent with a recently conducted systematic review of existing imposter phenomenon

literature in which the authors concluded that depression is frequently co-morbid with imposter phenomenon feelings (Bravata et al., 2019).

To test hypothesis 3, that participants with lower levels of self-esteem would experience higher levels of depression, a bivariate correlation analysis was also performed. The results of the analysis indicated that participants with lower levels of self-esteem did have significantly higher levels of depression. This is consistent with the broader literature as self-esteem has long been associated with depression (Brockner, 1983; Pyszczynski & Greenburg, 1987; Rosenberg, 1978). In addition, Sowislo and Urth (2012) conducted a meta-analysis of 77 longitudinal studies on depression and self-esteem and found that decreases in self-esteem were predictive of increases in depression.

Interaction Analyses Findings

To test hypothesis 4, which stated that there would be a two-way interaction such that self-esteem would moderate the relationship between maladaptive perfectionism and depression, a two-way interaction model was examined using the PROCESS 4.2 macro for SPSS (Hayes, 2022). Results are consistent with the findings in Rice et al.'s (1998) exploratory analyses, which found that self-esteem served as a moderator in the relationship between maladaptive perfectionism and depression. Findings from Rice et al.'s (1998) indicated that maladaptive perfectionists may only experience depression when they also experience low levels of self-esteem and that the construct may shield individuals against maladaptive perfectionism.

To test hypothesis 5, which stated that there would be a two-way interaction such that the imposter phenomenon would moderate the relationship between maladaptive perfectionism and depression, a two-way interaction model was examined using the PROCESS 4.2 macro for SPSS (Hayes, 2022). Results from this analysis are consistent with Wang et al.'s (2019) findings,

which concluded that the relationship between maladaptive perfectionism and depression was moderated by imposter phenomenon feelings. Wang et al. (2019) found that the imposter phenomenon moderated the relationship between maladaptive perfectionism and depression, and if removed, the positive link between maladaptive perfectionism and depression no longer existed.

To test hypothesis 6, which stated that there would be a three-way interaction such that the imposter phenomenon and self-esteem would moderate the relationship between maladaptive perfectionism and depression, a three-way interaction model was examined using the PROCESS 4.2 macro for SPSS (Hayes, 2022). The results of the analysis indicated that there was no significant interaction between perfection, the imposter phenomenon, and self-esteem in predicting depression as proposed in hypothesis 6. Specifically, the relationship between perfectionism and depression was not significantly moderated by the interaction between the imposter phenomenon and self-esteem. Prior research (e.g., Rice et al., 1998; Wang et al., 2019) would suggest that the study model might yield significant three-way interaction effects. However, contrary to the significant two-way interactions found in the aforementioned studies, and the significant two-way interactions found in the current study, neither the two-way interaction effects of perfectionism x self-esteem or perfectionism x the imposter phenomenon in the three-way interaction model were significant in this study.

The results of the current study suggest that the relationship between perfectionism, the imposter phenomenon, self-esteem, and depression may be complex and not straightforward. In the present study, both two-way interaction models (perfectionism x self-esteem and perfectionism x the imposter phenomenon) had significant results. The relationship between maladaptive perfectionism and depression was not significant when both imposter phenomenon and self-esteem were introduced as moderators. When the variables were tested in a three-way interaction

model, the overall three-way interaction model for this study was significant, but none of the interactions were significant. This means the combination of the variables explained significant variation in depression but none of the individual predictors were significant. The absence of interaction effects in the model that evaluated the relationship between perfectionism, the imposter phenomenon, self-esteem, and depression were somewhat surprising considering the extensive literature and findings that support associations with these variables and the significant two-way interactions found in this study and others (e.g., Ashby & Rice, 2002; Cokley et al., 2017; Preusser et al., 1994; Rice et al., 1998; Smith et al., 2021; Wang, et al., 2019). However, there may be moderating effects that were not detected in this study, a variable acting as a confounder, an issue with the study design, or a larger sample size may have led to significant interaction effects.

Limitations and Future Directions

Several limitations should be noted when interpreting the findings of this study. First, the majority of participants in the sample were White (68.5%), which limits the generalizability of these results. Several studies on perfectionism, self-esteem, and depression have been conducted with multiethnic samples; however, far fewer studies with the imposter phenomenon have included more diverse samples. Using a multiethnic student sample, Cokley et al.'s (2013) findings indicated that the imposter phenomenon was prevalent in minority groups and a stronger predictor for psychological distress than minority stress. Imposter phenomenon feelings were also a predictor of lower self-esteem, higher psychological distress, and poor mental health in Black and African American samples (McClain et al., 2016; Peteet et al., 2015). Further, Cokley et al., (2017) found that the imposter phenomenon moderated the relationship between perceived discrimination and mental health, exacerbating mental health stressors in ethnic minority groups.

While research on the imposter phenomenon has increased in recent years, more studies are needed with multiethnic samples. Diversity of sampling may assist in examining differences across groups and possibly determine if differences are related to measurement invariances sincere construct differences (Cokley et al., 2018). Future researchers might replicate this study with a sample that representative of different racial and ethnic groups.

Another limitation related to the imposter phenomenon, can be found in recent studies suggesting that the construct may fluctuate within a person and imposter feelings can be reduced with appropriate interventions, notably those related to self-compassion (Gardner et al., 2019; Liu et al., 2023; Patak et al., 2017). This view is contrary to that of the original authors who believed that the imposter phenomenon is a relatively stable variable (Clance & Imes, 1978; Clance & Imes, 1985a, 1985b; Chrisman et al., 1995). Considering the inconsistent findings related to the stability of the imposter phenomenon as a personality characteristic (e.g., Gardner et al., 2019; Liu et al., 2023; Patak et al., 2017), future studies may add to the literature by replicating and extending the research by including mediation analyses.

Lastly, future studies should also consider longitudinal data collection to capture whether changes in the imposter phenomenon and self-esteem over time may coincide with changes in depression.

Implications and Conclusion

Despite the limitations of the study, there are several implications. This study is the first to examine the variables of perfectionism, the imposter phenomenon, and self-esteem to predict depression. Findings from this study demonstrate that the relationship between perfectionism, the imposter phenomenon, and self-esteem are complex in their influence on depression. These results suggest that more research is necessary to better understand how these factors influence

depression. Such research could inform helpful interventions targeting self-esteem or the imposter phenomenon. Interventions with this focus may help to reduce or prevent depressive symptoms, which could result in more effective treatment and efficient symptom reduction for maladaptive perfectionistic clients.

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