

IMPOSTER PHENOMENON AND COUNSELING SELF-EFFICACY:

THE IMPACT OF IMPOSTER FEELINGS

A DISSERTATION

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JANE C. ROYSE ROSKOWSKI

DISSERTATION ADVISOR: DR. LAWRENCE GERSTEIN

BALL STATE UNIVERSITY

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ABSTRACT

DISSERTATION: Imposter Phenomenon and Counseling Self-efficacy: The Impact of Imposter Feelings

STUDENT: Jane C. Royse Roskowski

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Since the imposter phenomenon was first identified, much research has been conducted on its occurrence in different populations and its impact on functioning. This study investigated the influence of the imposter phenomenon on counseling self-efficacy among graduate level counseling and counseling psychology trainees. A structural equation model was developed and tested to determine the relationships between counseling experience, the imposter phenomenon, and counseling self-efficacy. The model indicated that the imposter phenomenon had a negative relationship with counseling self-efficacy. It also revealed the influence of prior experience, months in practicum, and number of counseling hours on counseling self-efficacy. Additionally, the lack of relationship between experience and the imposter phenomenon suggested that imposter feelings persist beyond the early levels of trainees' development. The imposter phenomenon, however, moderated the relationships between two experience variables, months in practicum and number of counseling hours, and counseling self-efficacy. The results did not reveal a mediating effect of the imposter phenomenon on the relationship between experience and counseling self-efficacy. Supplementary analysis using a

MIMIC model indicated no significant relationship between gender and imposter feelings. Strengths, limitations, directions for future research, and implications for practice and training counselors and counseling psychologists were presented.

CHAPTER I

Introduction

There is something I don't know
that I am supposed to know.
I don't know *what* it is I don't know,
and yet am supposed to know,
and I feel I look stupid
if I seem both not to know it
and not know *what* it is I don't know.
Therefore I pretend I know it.
This is nerve-racking
since I don't know what I must pretend to know.
Therefore I pretend to know everything.
I feel you know what I am supposed to know
but you can't tell me what it is
because you don't know that I don't know what it is.
You may know what I don't know, but not
that I don't know it,
and I can't tell you. So you will have to tell me everything.
R. D. Laing

Clance and Imes (1978) coined the term “imposter phenomenon” after observing and treating over one hundred women who considered themselves imposters despite academic and professional success. The phenomenon may not be uncommon. While no scientific journals have published studies of the imposter phenomenon’s pervasiveness in the general population, a 1994 issue of *Psychology Today* estimated, based on an editorial survey, that approximately one third of Americans believed more strongly than a passing thought that they were frauds and that others were convinced of their façade (Zorn, 2005).

The purpose of this study is to examine the influence of the imposter phenomenon among a specific population, counseling trainees in graduate school. As trainees acquire training and counseling experience, the imposter phenomenon may hinder their beliefs about their counseling abilities. This study uses statistical modeling to determine how the imposter phenomenon affects the relationship between counseling experience and counseling self-efficacy. An overview of the imposter phenomenon, counselor development, and counseling self-efficacy will be provided. A review of the literature on the phenomenon, counselor development, and self-efficacy in general, and specifically applied to counselor trainees will follow. Structural Equation Modeling will be used to identify direct and indirect effects of the imposter phenomenon on the development of counseling self-efficacy as trainees gain experience.

Overview of the Imposter Phenomenon

Persons reporting the imposter phenomenon doubt their intelligence, attribute their accomplishments to luck or error, and believe that others overrate their capabilities despite overwhelming evidence to the contrary (Clance & Imes, 1978). Furthermore, they maintain the belief that they are imposters by using charm and passive compliance in their interactions with others to avoid disagreement or conflict. They use compliant behaviors in response to societal stereotypes (Clance & Imes). Long term, imposters seem to be capable and confident because of their behaviors and successes. However, they suffer from anxiety, depression, and fear (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995; Fried-Buchalter, 1992, 1997; Holmes, Kertay, Adamson, Holland, & Clance, 1993), ultimately resulting in personal dissatisfaction. Fulfilling their potential becomes more difficult for those who struggle with the imposter phenomenon.

Since Clance and Imes' (1978) original publication, substantial research has been conducted examining various properties of the imposter phenomenon and its occurrence in different populations. The relationships between the imposter phenomenon and other constructs such as gender, attributional style, comparative ability appraisal, negative feelings about evaluation, and the fear of failure have been assessed (Cozzarelli & Major, 1990; Fried-Buchalter, 1992, 1997; King & Cooley, 1995; Leary, Patton, Orlando, & Wagoner Funk, 2000). Research associating females with more imposter feelings has been equivocal. Some researchers suggested that women tend to have more imposter feelings than men (Cozzarelli & Major, 1990; Kumar & Jagacinski, 2006). Such findings suggest women and men may experience the imposter phenomenon differently. Imposter feelings among women were associated with beliefs that competence means outperforming others. Imposter feelings among men were associated with the fear of failure (Kumar & Jagacinski). However, this fear of failure is not characteristic of only men. The fear of failure in women and men has been noted in research examining the occurrence of the imposter phenomenon among business managers (Fried-Buchalter, 1997).

The research that examined the relationship of the imposter phenomenon with other constructs focused on the imposter phenomenon and attributional style, comparative ability appraisal, and negative feelings about evaluation. According to one empirical study, the attributional style of imposters was often a function of anxiety and lower trait self-esteem (Cozzarelli & Major, 1990). Imposters tend to attribute perceived failures to low ability. These failures more profoundly impact their self-esteem and satisfaction than they do nonimposters. Nonimposters who discount prior successes and

lower expectations before entering new situations use these behaviors adaptively to defend against loss of self-esteem and to motivate their performance (Cozzarelli & Major).

Achievement behaviors have been associated with greater imposter feelings in women, but not men. This may be because of limitations in operational definitions. Women tend to define achievement in academic terms. Men may define achievement using a wider range of experiences including sports, academics, art, and/or dating (King & Cooley, 1995). Men consider academics important when defining achievement, yet tend to attribute less importance to academics than women. Regardless of gender, a negative correlation between the imposter phenomenon and overall academic self-concept has been empirically demonstrated (Ewing, Richardson, James-Myers, & Russell, 1996; Phillips, 1987). Thus, as one's academic self-concept strengthens, imposter feelings decline. These studies demonstrated the negative relationship between imposter feelings and academic self-concept, but not causality.

How does the imposter phenomenon develop? Researchers have theorized about not only the development, but also the treatment of the phenomenon (Arnkoff, 2000; Clance & Imes, 1978; Harvey, 1981; Langford & Clance, 1993). Clance and Imes suggested that families who negatively compare one child with an intelligent sibling produce imposters. The child obtained success, but the family continued the negative comparison, leading the child to doubt his or her intelligence and attribute success to his or her personality. Families with impossibly high standards produced imposters as well. In this situation, the child strived to meet the standards and internalized parental expectations of success. Difficulties achieving to that level resulted in the child

attributing these difficulties to personal inadequacies leading to labeling his or herself an imposter. Other research suggested families of imposters are characterized by conflict or low cohesion (Langford & Clance, 1993). Lack of validation of the child's strengths and accomplishments coupled with little emotional support resulted in the future imposter forming a false self. One quantitative study linked children's perception of their parents' beliefs about their offspring's competence with imposter feelings (Phillips, 1987). The children's perceptions of parental appraisal had a greater influence on the children's perceptions of academic competence than evidence of personal achievement. Thus, in environments with little parental emotional support, the future imposters may equate a lack of validation with lower levels of personal competence.

Once the presence of the imposter phenomenon has been identified, how might counselors facilitate change? Researchers have suggested several approaches when counseling individuals exhibiting symptoms of the imposter phenomenon. Theoretically, the primary goal of treatment is to increase the imposter's sense of self-worth and disconnect his or her self-esteem from others evaluations (Langford & Clance, 1993). One way for imposters to disconnect their sense of self-worth from others evaluations is by challenging their beliefs using cognitive therapy. Cognitive therapy includes comparing expectations with likely outcomes (Arnkoff, 2000) and disputing the imposter's irrational beliefs about intelligence, mistakes, failure, and inadequacy (Goud, 1994; Langford & Clance, 1993). Langford and Clance suggested that treatment focus on family dynamics and childhood experiences providing imposters with the opportunity to correct the childhood emotional experiences that contributed to imposter feelings.

Shortly after Clance and Imes (1978) published the first article on the imposter phenomenon, researchers began developing instruments to assess the presence of imposter feelings. In 1981, Harvey created the first objective measure of the phenomenon, Harvey's Imposter Phenomenon Scale (HIPS; Harvey, 1981). Two other instruments: Clance's Imposter Phenomenon Scale (CIPS; Clance, 1985) and the Perceived Fraudulence Scale (PFS; Kolligian & Sternberg, 1991) were developed later. The HIPS examined academic success in terms of ability, luck, self-monitoring, and charming personality (Harvey). Clance's measure of the imposter phenomenon, the CIPS, added the fear of evaluation, a negative comparison to peers, and the fear that success cannot be repeated (Chrisman et al., 1995). The PFS was created to differentiate the imposter phenomenon from depressive symptoms (Kolligian & Sternberg).

Cronbach's alpha for the HIPS has ranged from a poor reliability of .34 (Edwards, Zeichner, Lawler, & Kowalski, 1987) to questionable reliability of .64 (Kolligian & Sternberg, 1991), to a high reliability of .91 (Holmes et al., 1993). While the CIPS and the PFS have been studied less frequently, the reliabilities produced demonstrated less variability. The CIPS has shown internal consistency with Cronbach's alphas of .92 (Chrisman et al., 1995) and .96 (Holmes et al., 1993). The PFS has shown greater consistency with Cronbach's alphas of .94 (Chrisman et al., 1995) and .95 (Kolligian & Sternberg, 1991).

The discriminant validity of the CIPS and HIPS was demonstrated by Holmes et al. (1993). Responses to two measures of self-esteem, the Self-Esteem Scale and the Rosenberg Self-Esteem Scale, were more highly correlated with each other ($r = .75$) than they were to responses to the CIPS ($r = -.54$ and $r = -.60$, respectively). These

correlations showed that the imposter phenomenon and self-esteem were different constructs and that the CIPS and HIPS differentiated between the two constructs. The results of Holmes et al.'s study corroborated Harvey's (1981) findings in which responses on the Rosenberg Self-Esteem scale and open-ended measures of self-esteem correlated with each other ($r = .65$) more than responses to the HIPS ($r = -.28$ and $r = -.34$, respectively).

Earlier research used the HIPS more frequently than the CIPS. Both the HIPS and the CIPS differentiated imposters and nonimposters in both clinical and nonclinical groups (Holmes et al., 1993). However, the CIPS seemed to be more sensitive, showing less overlap between imposter and nonimposter groups. Furthermore, the greater variability of scores with the HIPS occurred with the nonclinical imposter group which suggested that Clance's scale was more applicable to the general population, while Harvey's scale best served the clinical group (Holmes et al.).

The relationships between the imposter phenomenon and constructs such as achievement orientation, the development of the imposter phenomenon, and the development of scales to measure imposter feelings are addressed in the literature on the imposter phenomenon. The occurrence of the imposter phenomenon in specific populations also has been assessed (Bischoff & Barton, 2002; Brems, Baldwin, Davis, & Namyniuk, 1994; Grant, Battle, Murphy, & Heggoy, 1999; Harvey, 1981; Kwan, 1992; Studdard, 2002). The imposter phenomenon occurred in the following populations: gifted persons, students, faculty members, business managers, and beginning counselors (Bischoff & Barton; Brems et al., 1994; Grant et al., 1999; Harvey; Kwan; Studdard). For example, Bischoff and Barton characterized anxiety as "the primary internal

experience” (p. 236) of counselors in the early stages of development. In other words, beginning counselor trainees feared that clients would recognize their lack of experience and personalized negative counseling experiences as incompetence. Their fears and beliefs about incompetence led the trainees to view themselves as frauds.

Understanding the occurrence of the imposter phenomenon among counselors and the influence of this phenomenon on counselor development could have implications for graduate training programs. If the imposter phenomenon affects counselor self-efficacy, particularly if it hinders counselor development, attending to this phenomenon in supervision or as part of a practicum may be recommended. Bischoff and Barton (2002) found that beginning marriage and family therapy trainees were more likely to feel as though they were pretending to be experts and were more likely to believe that their clients would detect their inadequacies. Supervision focusing on trainees strengths, however, reduced imposter feelings. Bischoff and Barton also found that feelings of inadequacy and fraudulence diminished as the trainees moved into further stages of counselor development. Yet, imposter feelings may not always lessen. The Bischoff and Barton study did not account for persistent imposter feelings occurring as a trait, which Clance and Imes (1978) initially described. Trait imposter feelings, those that persist beyond the early stages of job adjustment, have been found among faculty members (Brems et al., 1994) and business managers (Fried-Buchalter, 1992, 1997).

Research on the imposter phenomenon specific to counselors is limited. Bischoff and Barton (2002) examined the influence of imposter feelings on marriage and family therapy trainees and concluded the phenomenon was characteristic of beginning trainees. Research that focuses on the influence of imposter feelings on counselors, both novice

and experienced is, therefore, still needed. The current study looks at the presence of imposter feelings and the development of counseling self-efficacy among counselor trainees who vary in their levels of counseling experience and training.

This study will also focus on how the imposter phenomenon affects counselor trainees' development. The levels of imposter feelings of graduate counseling students, beginning and advanced, and the impact of imposter feelings on the students' perceptions of their counseling abilities will be determined. It is possible that counseling students' imposter feelings will decrease as they gain experience just as imposter feelings decreased with experience among marriage and family therapy trainees in the Bischoff and Barton (2002) study. Or, imposter feelings may continue to influence the developmental process of counseling trainees as they did faculty members and business managers (Brems et al., 1994; Fried-Buchalter, 1992, 1997). In order to clarify these relationships, a model of counselor development initially called the Counselor Complexity Model (Stoltenberg, 1981), will be used to provide a structure for the examination of counseling self-efficacy and the imposter phenomenon.

Overview of Counselor Development

Stoltenberg's Counselor Complexity Model (1981), for instance, offers a frame of reference to understand counselor development. This model depicts counselor characteristics at four levels of development and includes environmental factors that influence development. Stoltenberg and Delworth (1987) suggested that self-efficacy also affected motivation and performance throughout the counselor's development.

At Level 1, the counselor trainee lacks a varied repertoire of therapy techniques, but has a strong motivation to make a difference (Stoltenberg & Delworth, 1987). Lack

of self-awareness and lack of skills combines with high motivation resulting in anxiety and difficulty conceptualizing client problems. Structured direction and validation from the trainee's supervisor are recommended to increase skill level and combat anxiety (Stoltenberg, 1981; Stoltenberg & Delworth, 1987).

In the next level of development, Level 2, the counseling trainee seeks independence, yet relies on the supervisor in what Stoltenberg (1981) called the Dependency-Autonomy conflict. Greater self-awareness and greater ability to conceptualize client problems enables the trainee to see mistakes and weaknesses in his or her counseling skills. This recognition leads to vacillating motivation and anxiety (Stoltenberg, 1981; Stoltenberg & Delworth, 1987).

At Level 3, in what Stoltenberg (1981) called Conditional Dependence, counseling trainees gain professional identity. Open-mindedness to alternative beliefs, tolerance of other opinions, more insight and greater empathy characterize this developmental level. Anxiety typically decreases as trainees become able to integrate feedback without feeling devastated (Stoltenberg, 1981; Stoltenberg & Delworth, 1987).

In the last level of development, Level 4, the counselor is considered a "Master Counselor" (Stoltenberg, 1981). The counselor is capable of independent practice and exhibits self- and other-awareness. These characteristics reflect a secure professional identity (Stoltenberg & Delworth, 1987).

Since Stoltenberg (1981) introduced the Counselor Complexity Model and Stoltenberg and Delworth (1987) described supervision activities appropriate for each stage of development, other research has examined the model thoroughly. Thompson (2004) found that counseling trainees with high self-efficacy were able to conceptualize

client problems more easily and remained motivated to improve their counseling skills when challenges arose. In her description of the Counselor Complexity Model, Thompson suggested that development was influenced by many factors and was not necessarily linear. A counseling trainee's ability to assimilate information and modify his or her thinking and behaviors, along with the trainee's openness to change, ability to take responsibility for change, assessments of professional strengths and weaknesses, and awareness of interpersonal style contributed to the trainee's progression from one stage to another (Thompson). In addition to a linear progression, counselor trainees could have returned to previous levels, integrated more information, and advanced again. Thompson suggested that as the trainees' counseling self-efficacy increased, their movement from level to level became more linear as Stoltenberg (1981) initially described.

Other research has provided support for Stoltenberg's (1981) description of counselor development and suggested ways the imposter phenomenon might affect development. In their examination of marriage and family therapy trainee development, Bischoff and Barton (2002) found that the imposter phenomenon seemed to be prevalent among trainees at the first level of development. While Bischoff and Barton found that characteristics of the imposter phenomenon were typical of early development, Thompson (2004) found that counseling trainees' anxieties and fears of appearing incompetent, characteristics of the imposter phenomenon, potentially hindered the development of counseling skills.

Research also suggested that the imposter phenomenon might influence more advanced levels of development. For example, Thompson (2004) reported that Level 2 trainees become defensive to protect themselves from perceived inadequacies and high

anxiety. On the other hand, research conducted by McNeill, Stoltenberg, and Pierce (1985) found that more advanced trainees increased in self-efficacy prompting improved application of skills and theory. The differences in development found in these studies could be due to other factors such as the imposter phenomenon. The defensive trainees (Thompson) matched the description of imposters who behaved defensively to hide perceived inadequacies (Clance, 1985). Thus, the imposter phenomenon may occur not only in the first level of development, but the second level as well.

Given the research showing that anxiety is common among counselor trainees in the first two levels of development (Bischoff & Barton, 2002; Stoltenberg & Delworth, 1987), it seems logical that the imposter phenomenon might influence the first two levels of development. However, it might seem counter-intuitive for counselors to experience imposter feelings at Level 3, after anxiety has diminished and the counselors are developing a stable professional identity. Yet, studies have shown that experienced professionals in business management and academic professions experienced the imposter phenomenon well into their careers (Brems et al., 1994; Fried-Buchalter, 1992; 1997; Miller & Kastberg, 1995). If experienced business-management professionals and university faculty have imposter feelings, it is possible that more experienced counselors, those at Level 3, might also experience the imposter phenomenon.

While the imposter phenomenon has been found among experienced professionals in other fields (Brems et al., 1994; Fried-Buchalter, 1992; 1997; Miller & Kastberg, 1995), its presence in counselors at the fourth level of development seems contradictory to the presence of a secure “Master Counselor” identity characteristic of Level 4. Counselors at this advanced level were aware of their professional strengths and

weakness (Stoltenberg & Delworth, 1987). In contrast, those with the imposter phenomenon misperceived their abilities (Clance, 1985). Therefore, counselors performing at Level 4 are not expected to experience imposter feelings. Future research would need to confirm this conjecture as it was not incorporated into the current study.

Overview of Self-efficacy

The current study examines the influence of the imposter phenomenon on one specific aspect of counselor development, self-efficacy. Stoltenberg and Delworth's (1987) Counselor Complexity Model of counselor development provides a foundation for understanding counselors' professional growth and a theoretical foundation for understanding counseling self-efficacy. In order to understand the potential changes in self-efficacy during counselor development, counseling self-efficacy first must be operationalized. Self-efficacy will be defined using Bandura's (1977) self-efficacy theory. Then, an examination of counselor development in terms of self-efficacy will provide a framework from which to determine the potential influence of the imposter phenomenon on the counseling self-efficacy of graduate counseling trainees.

One influential model that explains the changes in an individual's perception of ability and in his or her development of competence coping with threatening situations has been self-efficacy theory (Bandura, 1977). Beliefs about one's ability to exercise control over personal functioning and other events, i.e. self-efficacy, come from four sources: "performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal" (Bandura, 1977, p. 80). According to Bandura's findings, successful performances increase expectations of competence, while failure followed by success often results in the belief that both effort and persistence can lead to competence.

Bandura also explained that vicarious experience can be obtained through observation of a model. In other words, watching another overcome anxiety and fear to attain success builds confidence in one's ability to do the same. Likewise, seeing others work through complicated tasks may result in improved awareness of the steps required to achieve success (Bandura). Verbal persuasion, as simple as encouragement or as complex as disputing distorted thoughts, is also a significant factor in determining the level of performance and competence. Finally, emotional arousal can inhibit success when fear or anxiety rise to a debilitating level (Bandura).

How do the four sources of self-efficacy apply to counselor trainees? Larson's (1998) quantitative research found that the counselor trainees' perceptions of counseling outcomes, observations of counseling sessions, perceptions of feedback after counseling sessions, and perceptions of anxiety as manageable are sources of counseling self-efficacy. Larson found that these four sources occur in the counselor training environment and demonstrated that they are the means by which trainees gain self-efficacy. Social Influence Theory and the research Bandura (1986) conducted to support this theory suggest that both training environment and the trainees' personal characteristics influence learning. Extrapolating from Social Influence Theory (Bandura), the counselor-training environment and counselors' personal characteristics such as level of self-efficacy may influence the counselors' learning process, thereby influencing the counselor's performance. Performance could then influence the counselors' personal characteristics including self-efficacy. Bandura called this cycle triadic reciprocity. Thus, self-efficacy can have a direct, positive relationship with performance, and performance can have a direct, positive relationship with self-efficacy.

In their review of outcome studies, Williams and Chambless (1990) found that studies of psychotherapist variables and treatment outcomes, positively related client outcomes to counselor self-confidence, well-being, and psychological adjustment. Perceived therapeutic mastery has shown a consistent, positive relationship with currently experienced growth among counseling students and experienced professionals (Orlinsky et al., 1999).

The suggestion that self-efficacy directly relates to the quality of counseling performance has been empirically demonstrated (Larson & Daniels, 1998; Lent, Hoffman, Hill, Treistman, Mount, & Singley, 2006; Thompson, 2004). In Thompson's study, counselors' low self-efficacy led to stagnant cognitive development due to difficulty assimilating information from new experiences. Among counselors, high self-efficacy has been associated with a more accurate conceptualization of clients' problems and better implementation of intervention techniques (Barnes, 2004; Larson & Daniels, 1998). Self-efficacy also had a positive correlation with both client and counselor perceptions of session quality (Lent et al., 2006). High self-efficacy has been related to more positive expectancies for counselors, while low self-efficacy has been associated to impaired judgment (Barnes, 2004; Larson & Daniels, 1998; Stoltenberg & Delworth, 1987). The specific impact of the imposter phenomenon on counselors' perceptions of their skills, however, has not been studied.

Objective of this Study

The purpose of this study, therefore, is to examine the impact of the imposter phenomenon on counseling self-efficacy. One supposition is that the imposter phenomenon and counseling self-efficacy may be influenced by years of counseling

experience. A positive correlation between counselor self-efficacy and experience has been found (Larson et al., 1992; Melchert, Hays, Wiljanen, & Kolocek, 1996). Qualitative descriptions of changes in counselors' self-efficacy during development have corroborated this positive relationship. In Stoltenberg and Delworth's (1987) model of counselor development, counselors experience fluctuations in anxiety and motivation then develop a stable professional identity with low anxiety and stable motivation. Bischoff and Barton (2002) found that as counselor trainees gained experience they became aware of personal strengths and experienced fewer imposter feelings. Thus, with experience, the trainees' perceptions of counseling competence increased (Bischoff & Barton, 2002). The relationship between counseling competence and experience was highlighted when Orlinsky et al. (1999) found that a significant 25% of variance in therapeutic mastery was predicted by years practicing among 2,079 psychologists interviewed. Of course, experience does not always prevent imposter feelings. The imposter phenomenon was found among faculty members with a mean of 12.06 years of experience and business managers with a mean of 8.6 years of experience (Brems et al., 1994; Fried-Buchalter, 1992, 1997).

While there has been a considerable amount of research on self-efficacy and counselor development, most investigators still suggested the need for future projects. Lent et al. (2006), for example, suggested assessing the relationship between counseling self-efficacy and counselor competence and identifying variables other than self-efficacy that influence the development of competence. One such variable could be the imposter phenomenon. One study of 112 university faculty members found that the presence of the imposter phenomenon was associated with faculty performance (Brems et al., 1994).

Faculty members with more imposter feelings were less productive and had less realistic self-appraisals than faculty members with fewer imposter feelings (Brems et al.). The presence of imposter feelings in counselor trainees who had little experience also suggested a relationship between the imposter phenomenon and counselors' perception of their counseling abilities (Bischoff & Barton, 2002).

As evident in the definition of self-efficacy, the perception of competence is integral to self-efficacy. The misattributions of competence and emotional arousal are the bases for suppositions about the influence of the imposter phenomenon on self-efficacy. Self-efficacy is more likely to increase if successes are attributed to skill rather than luck (Bandura, 1977; 1993). A major tenet of the imposter phenomenon is that imposters attribute success to luck or chance (Clance, 1985). Likewise, the perception of arousal as anxiety coming from personal inadequacy is likely to inhibit behaviors (Bandura, 1977). Research on the imposter phenomenon has shown that imposters are more likely to attribute perceived failures as caused by personal inadequacy than nonimposters (Cozzarelli & Major, 1990).

In addition to showing the relationship between perceived failures and personal inadequacy among imposters, Cozzarelli and Major's (1990) research showed that the imposter phenomenon has a direct relationship with academic self-efficacy among undergraduate college students. Other research (Lundeberg, Fox, & Puncochar, 1994) suggested that differences in self-confidence and the attribution of failures only occur in specific situations. In one such situation using undergraduate and graduate psychology students as participants, female undergraduate and graduate students showed less confidence than male students in mathematics, while the male students showed more

confidence in their answers when they were wrong than female students (Lundeberg et al., 1994). According to Social Influence Theory (Bandura, 1977; 1986), as stated earlier, performance has a reciprocal relationship with self-efficacy. When self-efficacy is high, individuals are motivated to practice the desired skills and incorporate feedback until they master the skill. Mastering the skill strengthens their self-efficacy. When self-efficacy is low, individuals are more likely to give up attempts to develop the behavior without improving (Bandura, 1977; 1993). Extrapolating from this theory, more counseling experience is likely to have a positive relationship with counseling self-efficacy. Furthermore, given the influence of the imposter phenomenon on beliefs about one's abilities, the imposter phenomenon may affect the relationship between counseling experience and self-efficacy. There has not been any research on these relationships, however.

Research Questions and Study Significance

Several questions emerge from the research on the relationships among the imposter phenomenon, counselor development, and self-efficacy. How does the imposter phenomenon affect counselor development? Does the imposter phenomenon influence an increase in self-efficacy as a counselor develops? The current study attempts to answer these questions by providing an analysis of the relationships among the imposter phenomenon, counselor experience, and counseling self-efficacy. Understanding these relationships may affect the education and supervision of counselors. Addressing the imposter phenomenon, for example, may become a part of counselor training programs if the phenomenon has a consistently detrimental influence on counseling students or if the impact of the phenomenon on counseling self-efficacy is statistically significant. Even if

imposter feelings affect only a small number of counseling students, understanding its impact on self-efficacy can add to the available psycho-educational information that could aid counselor growth by lessening anxiety and increasing motivation about counseling performance. Ultimately, greater understanding and awareness could help counselors experiencing the imposter phenomenon fulfill their potential by increasing their effectiveness in counseling sessions.

Chapter II

Review of the Literature

This chapter is a review of previous research on the imposter phenomenon, counselor development, and self-efficacy. First, the imposter phenomenon will be described. Literature describing the etiology of the phenomenon and strategies to treat the associated maladaptive behaviors will be addressed. Scales that have been developed to measure the intensity of imposter feelings will be described. An examination of the relationship between the imposter phenomenon and other constructs, such as achievement dispositions and personality characteristics, will follow. Finally, the occurrence of the imposter phenomenon in specific populations, including counselors, will provide a bridge into the discussion of counselor development. A review of the literature on models of counselor development with an emphasis on the Counselor Complexity Model and Integrated Developmental Model is the second major component of this review. The last section of this review will focus on self-efficacy, as described in Social Cognitive Theory, as it affects counselor development. The literature on counselor development and self-efficacy provides a foundation for understanding the influence of the imposter phenomenon on counselors' professional growth.

Definition of the Imposter Phenomenon

Clance and Imes (1978) typified those struggling with the imposter phenomenon as highly successful women who, despite earned degrees, high achievement, receiving praise and professional recognition, did not experience “an internal sense of success” (p. 241). The women Clance and Imes interviewed considered themselves unintelligent. These women believed that they used their personality and social skills to create a deceptive façade of intelligence. They negated evidence of achievement and feared discovery of their perceived intellectual inadequacy (Clance & Imes). The imposters reported that other persons believed them to be highly qualified and competent. In her next publication, Clance (1985) reported that under their competent façades, the imposters were unable to accept positive feedback and were quick to recall negative feedback. They feared the inevitable discovery of their imposture. They considered mistakes and failure personally humiliating. Later research showed that the careers of those reporting imposter feelings were affected (Clance & O’Toole, 1988). Imposters may turn down positions or ignore opportunities because of their fears and may accept positions that do not challenge or satisfy them.

Persons manifesting the imposter phenomenon have certain common characteristics in addition to their perceptions of inadequacy and beliefs that they lack intelligence. Based on psychotherapy with female university students and faculty, common characteristics of women with strong imposter beliefs include introversion, fear of evaluation, fear of failure, guilt when successful, difficulty internalizing positive feedback, anxiety, a tendency to overestimate others abilities coupled with underestimating their own, distorted beliefs about intelligence, and family backgrounds

that include lack of support (Clance & O'Toole, 1988). It is important to note that these characteristics are based on observation of female clients only despite evidence that men also struggle with imposter feelings. Clance's and Imes' (1978) etiological theory was also based solely on women.

Harvey (1981) broadened the definition of the imposter phenomenon to include men. In her study of college students, she found that the most severe cases of the imposter phenomenon occurred among honor students, both male and female. She proposed etiological bases for the imposter phenomenon such as labels and disapproval that applied to both men and women. Other research corroborated her study, revealing no gender difference in prevalence of the imposter phenomenon (Cowman & Ferrari, 2002; Cromwell, Brown, Sanchez-Huceles, & Adair, 1990).

Components of the Imposter Phenomenon

As interest in the imposter phenomenon grew, researchers attempted to measure the phenomenon. Factor analyses of data from instruments designed to quantify the imposter phenomenon have provided empirical evidence for the theoretical components of the construct. The imposter phenomenon is believed to be a multi-dimensional construct including high achievement orientation, feelings of fraudulence, fear that others will discover the fraud, difficulty internalizing success, and energy expenditure maintaining the syndrome (Chrisman et al., 1995; Edwards et al., 1987; Holmes et al., 1993; Kolligian & Sternberg, 1991). The imposter phenomenon may seem like negativity, low self-esteem, or social anxiety. However, research indicates that responses to measures of self-esteem, depression, and social anxiety are more positively associated with responses to other measures of these same constructs than with responses to

measures of the imposter phenomenon (Chrisman et al.; Harvey, 1981). Thus, the phenomenon is a distinct syndrome with features of depression, low self-esteem, and social anxiety, and unique components such as feelings of fraudulence as well. The imposter phenomenon seems to be a “maladaptive, pervasive style of interacting in the world” (Ross & Krukowski, 2003, p. 478).

The feeling of fraudulence is a key component of the phenomenon (Clance & Imes, 1978; Harvey & Katz, 1985; Kolligian & Sternberg, 1991). Individuals exhibiting the imposter phenomenon believe that they are, in some way, inadequate. They strive to achieve, but, because of their perceived inadequacies, never feel accomplished. They might consider their daily routines an “act” in which they pretend to be knowledgeable. Harvey and Katz described this as a sense of fooling others into overestimating one’s ability.

Another component is the belief that they attained their current positions or situations by luck or happenstance (Clance & Imes, 1978). They do not belong in their current position or situation; it is a mistake that they have attained a position of authority or success. Other research suggests that successes are more generally attributed to external factors rather than their intelligence or skills (Harvey & Katz, 1985). These components are evident in the discrepancy between the imposter’s self-view and others’ perceptions of him or her. Successes seem unimportant to imposters. Imposters may fear success because they may feel pressure to repeat the successful performance or believe that others’ expectations of them may be heightened by their success (Clance, 1985; Fried-Buchalter, 1997). On the other hand, success may be one way to avoid exposure, because they may believe that others will not recognize that they are frauds if they

succeed (Clance). Imposters both fear success and view it as a way to avoid exposure of their perceived fraudulence.

The third component of the phenomenon is the imposter's belief that his/her luck in maintaining his/her fraudulence without being detected will run out (Clance, 1985; Clance & Imes, 1978; Harvey, 1981). Thus, those struggling with the imposter phenomenon are characterized by the fear that others will recognize their fraudulence. Fear of exposure is evident in the high anxiety levels imposters report (Clance & Imes; Cromwell et al., 1990; Langford & Clance, 1993). Their anxiety may in fact amplify others awareness of their imperfections, leading to what imposters consider an irreparable disaster (Harvey & Katz, 1985). They may spend considerable energy keeping up what they perceive to be the appearance of success. Success may stave off the inevitable exposure that the imposter fears, but success may also work against the imposter. Imposters fear that when they are successful, others expectations of them rise to unattainable levels (Harvey & Katz).

Feeling like a fraud and fearing that others will see the fraud arise from the imposters' inability to accept positive qualities and success (Clance, 1985). They may discount achievements at work and home. Imposters see others' positive qualities, but struggle to accept their own personal strengths. Clance found that the imposters' tendency to discount their positive attributes and successes perpetuates the phenomenon reinforcing their belief that attaining success has been due to luck. The phenomenon is also maintained by the "Imposter Cycle" (Clance, 1985). The cycle starts when the imposter is anxious and fearful of a task. Because of the negative emotions associated with the task, the imposter procrastinates or over-prepares. If the imposter succeeds, a

feeling of relief ensues, closely followed by anxiety about future performances. When the next task arises, the imposter repeats the cycle, thereby strengthening it. The imposter internalizes irrational beliefs about needing to feel the same and act the same as he or she has in the past in order to succeed (Cromwell et al., 1990).

Understanding of the characteristics of the imposter phenomenon provides a foundation for examining the relationships between other constructs and the phenomenon. Information on the imposter phenomenon gathered by researchers over the past twenty-five years falls into four main categories: studies attempting to understand the imposter phenomenon in terms of its development and treatment; studies focusing on instrument development and scale validation; studies assessing the relationship of the imposter phenomenon with other constructs; and studies assessing the presence of the imposter phenomenon in certain populations.

Etiology of the Imposter Phenomenon

One body of research explored the etiology and continuance of the imposter phenomenon (Castro, Jones, & Mirsalimi, 2004; Clance & Imes, 1978; Cromwell et al., 1990; Harvey, 1981; Harvey & Katz, 1985; Langford & Clance, 1993; Phillips, 1987). Clance's work was based on interviews and clinical experience, but not empirical research. Castro et al. (2004), Cromwell et al., Harvey, and Phillips conducted quantitative research on the etiology and perpetuating behaviors.

Clance and Imes (1978) addressed the etiology of imposter feelings, suggesting that only females are affected by the phenomenon. Based on qualitative interviews, they described two specific family types that produce imposters. In the first, the family negatively compares the future imposter to an intelligent sibling. The imposter believes

this message but wants to disprove it as well. When the child succeeds, the family continues to negatively compare the future imposter with the intelligent sibling. The child begins to doubt his/her intelligence and attributes success to his/her personality (Clance & Imes). In the second type, the family treats the future imposter as superior. The child wants to meet their high expectations but has difficulty achieving that level of success in some tasks. After internalizing high parental expectations of success as standard, the child considers any achievement difficulties to be personal inadequacies and thinks of his or herself as an imposter (Clance & Imes).

Harvey and Katz (1985) also attributed persistent and severe imposter feelings to early childhood experiences. They suggested that children who feel like frauds attempt to hide these unacceptable feelings from others. In what could be considered compensation, the child approaches tasks with meticulous attention and concern but worries continually about failing, while others appreciate the hard work and praise the behavior. Harvey and Katz hypothesized that children with imposter feelings are impervious to compliments because hard work is not the goal; the protective façade is. The child's behaviors reinforce the imposter feelings and the imposter phenomenon becomes the norm. Harvey's and Katz' hypothetical trigger of imposture seems related to components of the phenomenon such as an inability to integrate success. However, the causal relationship between childhood experiences and the development of the imposter phenomenon was not empirically validated and should be interpreted with caution.

What makes feelings of fraudulence develop? Harvey and Katz (1985) suggested that family labels play a role. Both positive and negative roles have implications for the child's abilities. A focus on one label emphasizes its importance and thereby decreases

the importance of other personality dimensions. In essence, the child becomes one-dimensional, putting an emphasis on fulfilling that one role in order to gain approval. Any struggles or conflicts experienced in performing the functions of that role may be perceived by the imposter as weakness or failure (Harvey & Katz).

The label given to the child determines how the imposter phenomenon develops. Clance and Imes (1978) found that the women with imposter feelings whom they observed were often placed in the “smart one” or “sensitive one” roles. Harvey and Katz (1985) stated that other roles such as the “caretaker,” the “talented one,” or the child with the great personality may be connected with the imposter phenomenon. Castro et al. (2004) found that parentified children, those placed in the role of caretaker of their parents, developed imposter feelings. In order to maintain emotional connection with parents, the parentified child hid his or her feelings of inadequacy and eventually developing a false self. The relationship between imposter feelings and the caretaker role that Castro et al. found may apply to counselors in their roles as client care providers. Labels may affect imposters in other ways. Being labeled the “smart child” could influence the choice to pursue a higher degree, since graduate education is mentally demanding and the child might consider pursuing a graduate education a form of role-appropriate success.

Roles and labels may elicit imposter feelings in some children. On the other hand, roles and labels do not seem to affect other children in this way. Harvey and Katz (1985) suggested that criticism and approval are other routes by which imposter feelings develop. Children subjected to constant criticism may begin to believe that their actions, and eventually they themselves, are never good enough. While they initially felt

inadequate to please their parents, they eventually accept the impossible standards as their own and struggle to please themselves (Harvey & Katz). While this etiological theory is similar to Clance and Imes's (1978) second family type, Clance and Imes focused on parental criticism, while Harvey and Katz considered sibling criticism potentially as important in developing internal doubt and disapproval.

Disapproval may influence imposter feelings in another way. When one parent is highly critical and the other complimentary, imposters tend to emphasize the criticism and seek approval from the disapproving parent, and doubt the praise and judgment of the positive parent (Harvey & Katz, 1985). Eventually the imposters doubt praise in general, whether it comes from family members or those outside the family. People who do not accept them or acknowledge their accomplishments are the ones who must be convinced of their worth.

Harvey and Katz (1985) considered not only the role of parental disapproval in the etiology of the imposter phenomenon, but parental approval as well. Some imposters reported that they received only praise from their parents. These children did not get constructive criticism or negative feedback and developed unrealistic ideas about their abilities. They faced two challenges when living independently; they learned that they were not as important as they had thought, and that others might disapprove of their actions. These imposters had no practice evaluating and revising their opinions. They relied on others for validation and felt accepted only when praised. When working without feedback or when inexperienced at using constructive criticism, imposter feelings developed (Harvey & Katz).

The influence of parental beliefs on children's perceptions of competence has been corroborated (Phillips, 1987). Children's perceptions of their own competence, related to their parents' appraisals of them, were found to influence the development of imposter feelings. Specifically, children's perceptions of parental appraisal had a greater influence on their perceptions of academic competence, which could be considered similar to imposter beliefs about competence, than did direct evidence of their personal achievement (Phillips). Furthermore, a significant percentage of young children (20% of third graders in Phillip's study) displayed distorted perceptions of their competence, which was directly related to parental beliefs about their abilities. Thus, Clance and Imes's (1978) original conceptualization about the influence of parental beliefs was generally correct, although the specifics remained quantitatively unsubstantiated.

Other research has examined more general family characteristics, beyond parental appraisal, associated with imposter feelings. Families of imposters have been found to be characterized by conflict (Langford & Clance, 1993). Typically, the family provides little emotional support to the future imposter. Often there is a lack of validation of her/his strengths and accomplishments, driving the future imposter to create a "false" self, leading to feelings of fraudulence (Langford & Clance). Cromwell et al. (1990) found that imposter feelings were associated with parental expectations of compliance and conformance to family rules during the "plastic years" of development, ages 2 to 6. Imposter feelings and low self-esteem have also been found to be directly related to parental over-protectiveness (Sonnak & Towell, 2000). Over-protectiveness was associated with decreases in self-esteem and increases in imposter feelings.

Imposter Feelings, Gender, and Education

As previously mentioned, Clance and Imes (1978) originally conceptualized imposterism as a female-only phenomenon. Evidence indicates that Clance and Imes' (1978) conceptualization of imposterism as a gender-specific phenomenon is not correct (Harvey, 1981; Henning, Ey, & Shaw, 1998; Kwan, 1992; Phillips, 1987; Topping & Kimmel, 1985). Quantitative research on the etiology of imposter phenomenon has shown that males are affected by imposter feelings too. In their study of university faculty members, Topping and Kimmel found that more men than women reported experiencing imposter feelings. They suggested that few women experiencing the imposter phenomenon may attain faculty positions. Females who do attain faculty status may attribute their success to their hard work, contrary to the characteristic imposter tendency to attribute success to luck.

Some research has suggested that differences in the levels of education achieved by imposters and their families may exacerbate the imposter's feelings of being different (Harvey, 1981; Miller & Kastberg, 1995). Being the first person in one's family to go to college or to obtain a doctorate could cause inner conflict over one's identity in the family. It might be feared that success could lead to rejection by the family. Often those who achieve beyond the level of others in the family receive little encouragement for their work. Their families are likely to reinforce career paths typical in the family rather than other paths which may be perceived as risky (Harvey & Katz, 1985; Miller & Kastberg).

Maintaining the Imposter Phenomenon

Many hypotheses about the etiology of the imposter phenomenon have been suggested. Many suppositions about the manner in which imposters maintain the phenomenon have also been hypothesized. Qualitative research has suggested that persons with imposter characteristics work hard to maintain their façades. Imposters are often involved in achievement oriented activities (Harvey, 1981; Langford & Clance, 1993). Their motivation in these pursuits seems to involve, in large part, façade maintenance that helps them appear intelligent to others (Langford & Clance). The imposters' self-esteem was not generally low, but varied markedly in achievement-related areas (Clance & Imes, 1978; Harvey). They were found to share their viewpoints only rarely, thereby protecting their positions by leaving their views untested (Clance & Imes). They relied more, instead, on their social skills as a means of gaining approval, tended to internalize any negative consequences that they experienced (Clance & Imes), and emphasized these negative consequences more than their successes (Harvey & Katz, 1985). Imposters often displayed distorted definitions of intelligence that reflected their biased standards of success and distorted ideas about behaviors that lead to success (Cromwell et al., 1990). They tended to compare their weaknesses with others' strengths (Clance & O'Toole, 1988), thereby perpetuating their feelings of inadequacy.

Clance (1985) described the Imposter Cycle as a way imposters maintain the phenomenon. The cycle starts when the anxious imposters over-work or procrastinated on tasks, but achieve success. The imposters feel relieved because of their success, but generalize their anxiety and the need to repeat their behaviors to other tasks. Clance described the Imposter Cycle based on imposter reports. Cowman and Ferrari (2002)

empirically demonstrated the cycle in their research on self-handicapping behaviors. They suggested that imposters work harder and longer than others in order to be able to use their need to work harder as an explanation for their success. That is, imposters procrastinate and then worked overly hard so that, somewhat paradoxically, they can attribute their success to luck. They then use these rationalizations for their success as explanations in order to avoid potential negative evaluation in the future (Cowman & Ferrari). For example, the imposter believes that because he or she had to work harder than others to be successful, he or she would not be viewed negatively nor would he or she suffer from raised expectations by others. Unfortunately, this kind of self-sabotage, beliefs that they are less competent than others, results in a sense of shame (Cowman & Ferrari), reinforcing their distorted beliefs about personal inadequacy. Evidence to date for these formulations is promising but tentative. While few empirical studies (Cowman & Ferrari; Harvey, 1981) have been conducted, most published studies on maintenance of the imposter phenomenon have been based on interviews with imposters (Clance; Clance & O'Toole, 1988; Harvey & Katz, 1985).

Treatment of the Imposter Phenomenon

The negative effects of the Imposter Cycle and the self-sabotaging behaviors of imposters can be clinically treated. In fact, several studies have generated suggestions for treatment of the imposter phenomenon. Goud's (1994) work focused on fear of growth and cognitive strategies for promoting development. Cognitive and cognitive behavioral strategies have been recommended by other authors as well (Arnkoff, 2000; Castro et al., 2004; Clance & O'Toole, 1988; Harvey & Katz, 1985). Others suggested a focus on

family of origin dynamics (Clance, 1985). Support and guidance also were considered necessary treatment components (Studdard, 2002).

The primary goal of treatment is to increase the imposter's sense of self-worth and disconnect self-esteem from others' evaluations (Langford & Clance, 1993). Support and guidance have been recommended as necessary treatment components as well (Studdard, 2002). Participation in therapeutic groups may also be helpful in providing an environmental impetus for change by allowing imposters to see their problematic qualities in others (Clance & Imes, 1978).

The primary goals of treatment are typically to increase the imposter's sense of self-worth and to disconnect her/his self-esteem from others' evaluations (Langford & Clance, 1993). One treatment recommendation, based on a single case study, was to provide imposters an explanation of the phenomenon so that they could separate their feelings of inadequacy from their overall self-concepts (Arnkoff, 2000). The imposter phenomenon might give rise to a fear of growth because of the inability to accept and integrate success, resulting in developmental stagnation (Goud, 1994). Reducing the security and comfort of staying in the current situation and reducing the perceived dangers of growth such as fear of failure and fear of rejection have been used to promote change, particularly when accompanied by identification of the potential benefits of change (Goud). Once therapeutic conditions promoting change are in place, treatment strategies should shift to fear management. These strategies included identification of previously successfully handled situations, systematic desensitization, and anxiety management (Goud).

Cognitive therapy strategies include comparing expectations with likely outcomes (Arnkoff, 2000) and establishing realistically attainable standards (Castro et al., 2004). These strategies utilize disputation of irrational beliefs about intelligence, mistakes, failure and inadequacy (Goud, 1994; Langford & Clance, 1993). Practical behavioral strategies such as listing times imposter feelings are likely to arise, breaking tasks that increase anxiety into manageable steps, and practicing relaxation exercises, may be coupled with cognitive restructuring (Harvey & Katz, 1985).

Others have suggested that therapy must focus on family dynamics and childhood experiences in order to be successful. A therapeutic relationship characterized by warmth and acceptance, may address insufficient nurturing experienced by clients earlier in their lives (Langford & Clance, 1993).

Gestalt techniques have also been suggested (Clance & Imes, 1978). Recalling those the imposter believes he or she has deceived, “confessing,” and imagining their responses is an exercise that has been suggested to increase awareness of phoniness. Role-plays, in which the client has a conversation with both the intelligent self and the unintelligent self, have been suggested to aid the client in addressing self-image (Clance & Imes, 1978).

Presenting rationales to clients with imposter issues provides them with more information and may help to empower them. Cognitive therapy addressing distorted thoughts has been shown to be efficacious in studies with other clinical populations (Hunsley & Lee, 2007). The same is true for insight-oriented therapies that address childhood experiences and family dynamics (Beutler et al., 2004; Sexton, Alexander, & Mease, 2004). To date, however, treatment of imposter phenomenon with these

techniques or other particular therapy has not been adequately empirically validated. Such validation is a prerequisite to considering these treatments to be efficacious in cases involving the imposter phenomenon.

Instruments used to Quantify the Imposter Phenomenon

Shortly after Clance and Imes (1978) introduced the imposter phenomenon, Harvey (1981) created the first scale to measure imposter feelings. To date, three scales have been developed to measure imposter phenomena: the HIPS (Harvey), the CIPS (Clance, 1985), and the PFS (Kolligian & Sternberg, 1991). As previously discussed in Chapter I, the reliabilities of the imposter phenomenon measures have been found to vary from poor to high.

The HIPS has been found to demonstrate the most variable reliability. Edwards et al. (1987) found alphas for the HIPS to be low at .34, but found alphas for the factor scores to be much higher, ranging from .65 to .71 to .81. Hellman and Caselman (2004) found a Cronbach's alpha of .70 for the total scale score, and Holmes et al. (1993) found the HIPS to have high internal consistency with an alpha of .91 for the total scale. The range of alphas from poor to high suggests that the HIPS may not be the best choice for research on the imposter phenomenon because of the variability in reliability.

Like the variability in reliability, findings regarding the factor structure of the HIPS have also been inconsistent. Three factors, Imposter, Unworthiness, and Inadequacy, were extracted in one study which used a cutoff of .40 for the factor loadings (Edwards et al., 1987). These factors had eigenvalues that ranged from 4.5 (Imposter) to 1.37 (Inadequacy). Edwards et al. used cross-loaded items; question 1 loaded onto the Imposter and Unworthiness factors and question 14 loaded onto the Imposter and

Inadequacy factors. While the reliability of the factors was adequate, the factor analysis suggested that the constructs Imposter, Unworthiness, and Inadequacy were not clearly differentiated threatening the validity of the HIPS.

Another study of the HIPS extracted four factors: Congruence of Achievement and Competence, Sense of Competence, Not an Imposter, and Self-Estimate of Intellectual Ability (Fried-Buchalter, 1992). The eigenvalues of these factors ranged from 4.19 for Congruence of Achievement and Competence to 1.33 for Self-Estimate of Intellectual Ability. While Fried-Buchalter did not specify a cutoff for factor loadings, the lowest loading was .51 for item 14. There was greater differentiation between factors than in the factor analysis conducted by Edwards et al. (1987) as only one item cross-loaded. This item, item 8, loaded more highly onto one factor and fit this factor conceptually. On the other hand, only two items loaded onto Factor 4, Self-Estimate of Intellectual Ability (Fried-Buchalter), suggesting that this factor had limited construct validity.

The most recent factor analysis of the HIPS (Hellman & Caselman, 2004) initially found four factors with eigenvalues greater than 1 using the factor loading cutoff of .60. Hellman and Caselman used a loading standard of four items or more to indicate stable and reliable structure. The four factors they initially found were subsequently collapsed into two so that the minimum of four items loaded onto each factor. One of these final factors reflected self-confidence and the other reflected imposter characteristics (Hellman & Caselman). While none of the items cross-loaded, four did not meet the loading criteria. Two of these were omitted, while the other two were retained to maintain the total score reliability of .70. Overall, the construct validity of the HIPS seemed

compromised as items were omitted and only one of the two final factors was composed of imposter characteristics (Hellman & Caselman).

All of these analyses have extracted a factor closely associated with imposter feelings. The factors Inadequacy (Edwards et al., 1987), Self-confidence (Hellman & Caselman, 2004), Sense of Competence, and Self-Estimate of Intellectual Ability (Fried-Buchalter, 1992) appear to constitute similar constructs that involve self-confidence (or lack thereof). However, as Hellman and Caselman suggested, the lack of reliable structure across studies suggests that the HIPS may not have the validity to justify using.

The inconsistency in the factor analyses research findings could be due to differences in the analyses employed, i.e. the use of principle components analysis (PCA) versus principle axis factoring (PAF). The use of PCA (Fried-Buchalter, 1992; Hellman & Caselman, 2004) may have been inappropriate because of the statistical assumption that the instrument upon which the factor analysis is conducted be highly reliable and the factors uncorrelated (French, Ullrich-French, & Follman, 2008). Only Holmes et al. (1994) found high reliability. French et al. (2008) also found that the factors were correlated and suggested that more robust analysis, confirmatory rather than exploratory factor analysis, would be more useful. The different loading factor cutoffs may have affected the number of factors extracted as well. In fact, Hellman and Caselman, suggested that use of .60 as the cutoff may have reduced the factors found by Edwards et al. (1987) from three to two.

The inconsistencies in factor analyses could be due to differences in the sample populations participating in the studies. Edwards et al. (1987) used 104 participants working in the San Francisco Bay area. These participants had unspecified, advanced

degrees. Holmes et al. (1993), included participants referred by mental health clinicians and nonclinical, undergraduate college students. The referring clinicians in the Holmes et al. study classified their clients as imposters or nonimposters. One of the primary researchers interviewed each participating college student and classified them as imposter or nonimposters. Fried-Buchalter (1992, 1997) researched the imposter phenomenon among business managers. The participants in the Hellman and Caselman (2004) study were a convenience sample of Midwestern high school students. Clearly, the sample populations differed in age, education, career, and living situation which could have affected responses to the HIPS.

While the CIPS and the PFS have been studied less frequently, the reliabilities reported for them have been less variable. The CIPS has shown strong internal consistency with Cronbach's alphas of .92 (Chrisman et al., 1995; French et al., 2008) and .96 (Holmes et al., 1993). The PFS has shown good consistency with Cronbach's alphas of .94 (Chrisman et al.) and .95 (Kolligian & Sternberg, 1991).

A factor analysis of the CIPS extracted three factors: Fake, Discount, and Luck (Chrisman et al., 1995). This structure reproduced the factors extracted in an earlier, unpublished study (Kertay, Clance, & Holland, 1992). The authors suggested that the replication of these factors indicated that the CIPS has a stable structure and, therefore, adequate construct validity (Chrisman et al.). French et al. (2008) initially used the three factor structure found by Chrisman et al., but found that the parameter estimates of Fake and Discount indicated that these two factors might not be distinct. They suggested combining Fake and Discount and using this two-factor model because it was most parsimonious (French et al.). While this may suggest that the construct validity of the

CIPS is questionable, French et al. noted that the three factor structure yielded fit indices comparable to the two factor structure and that the three factor structure was “theoretically preferred” (p.1274) because it corroborated Clance and Imes’s (1978) description of the imposter phenomenon.

The third scale created to measure imposter feelings is the PFS. Kolligian and Sternberg (1991) used the term “perceived fraudulence” interchangeably with the imposter phenomenon. Their scale consisted of two factors, Inauthenticity and Self-Depreciation. Scores on the CIPS and the PFS were found to be significantly positively correlated ($r = .78, p \leq .01$). Scores on both instruments were related to scores on measures of other constructs such as depression, self-esteem, and self-monitoring. Compared to the CIPS, the PFS loaded more highly on social desirability. Thus, it was more sensitive to concern about others’ opinions and the extent to which an individual will work for approval and recognition (Chrisman et al., 1995). The authors of the PFS noted that it needed further validation. They also believed that the PFS did not represent the typical college student (Kolligian & Sternberg).

While there is a considerable research using the HIPS, it was not used in this study because of its inconsistency in internal consistency (Edwards et al., 1987; Fried-Buchalter, 1992; Hellman & Caselman, 2004). Additionally, a comparison of the HIPS and the CIPS revealed the CIPS to be more sensitive in that it differentiated imposters from nonimposters more successfully than did the HIPS in an analysis of covariance in which the HIPS scale scores were held constant (Holmes et al., 1993). The PFS was not selected because of its authors’ cautions about generalizability (Kolligian & Sternberg, 1991) and the paucity of research using this instrument. The CIPS, in contrast, was found

to be consistently reliable (Holmes et al.; Chrisman et al., 1995). French et al. (2008) suggested that the factor structure of the CIPS needs further study, but other studies have replicated the three factor structure involving Luck, Fake, and Discount (Chrisman et al.). Finally, the CIPS has been described as more useful than the other instruments considered for clinical work and research because of its more manageable length (Chrisman et al.). For these reasons, the CIPS was used in the current project.

Imposter Phenomenon and Other Constructs

Another body of research has examined the relationship of the imposter phenomenon with other constructs. Constructs such as achievement orientation, attributional style, comparative ability appraisal, negative feelings about evaluation, and fear of failure, that appeared to be directly related to the imposter phenomenon, have been examined (Cozzarelli & Major, 1990; Fried-Buchalter, 1992, 1997; King & Cooley, 1995; Leary et al., 2000; Lundeberg et al., 1994; Roberts, 1991). More generally, families in which achievement was highly valued were more apt to have children with imposter feelings (King & Cooley).

In earlier research imposters were found to have lower expectations and to be more anxious about evaluation than non-imposters (Cozzarelli & Major). Cozzarelli and Major and Leary et al. found that the imposters' low expectations function to protect the imposters from the risk of loss of self-esteem if they were unsuccessful, and by eliciting support from others (Cozzarelli & Major; Leary et al.). Cowman and Ferrari (2002) corroborated these results with their research that showed that imposters use self-handicapping behaviors to protect themselves from high expectations.

In addition to its association with achievement orientation, the imposter phenomenon has been associated with fear of failure and fear of success. Fried-Buchalter (1992) found that the imposter phenomenon was closely related to fear of failure and to fear of the negative consequences of success in middle-level business managers. Gender was not related to responses to measures of the fear of failure or the imposter phenomenon, but was related to responses to a measure of fear of success. Additionally, there was a significant positive relationship between fear of success and the imposter phenomenon (Fried-Buchalter, 1997). Fried-Buchalter found that both men and women experience the imposter phenomenon and fear of failure. However, females with imposter feelings experienced greater fear of success than males with imposter feelings.

Other related constructs such as racial identity (Ewing et al., 1996), and responses to the Big Five Personality factors of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (Bernard, Dollinger, & Ramaniah, 2002; Ross, Stewart, Mugge, & Fultz, 2001) have been found to correlate with individuals reporting the imposter phenomenon. A holistic worldview was found to be associated with fewer imposter feelings. Ewing et al., using Cross' model of African American identity development, found that only the Immersion-Emersion stage of racial identity development, in interaction with academic self-concept, was associated with the imposter phenomenon. This was the stage characterized by immersion into African American culture, separation from the dominant (White) culture, and increased pride in African American culture. Among students with a positive academic self-concept, as immersion-emersion attitudes increased imposter feelings decreased (Ewing et al.). When students

have positive views about their academic abilities, cultural belonging and pride seem to protect against feelings of fraudulence and the inability to integrate success.

The research by Ewing et al. (1996) showed that a belief in connectedness, the belief that all things are connected in a holistic manner, is inversely related to imposter feelings. Academic self-concept and academic self-concept in interaction with identity development, appear to be involved as well. Positive beliefs about academic abilities interacting with immersion in one's racial group seemed to protect against the development of imposter feelings (Ewing et al.) by contributing to a stable identity and clear understanding of academic strengths. Neither of the main effects, race nor stage of racial identity development, was related to the imposter phenomenon outside of this significant interaction (Ewing et al.; Harvey, 1981). Other research has increased the information on the relationship between the imposter phenomenon and race. African American students have been found to report fewer imposter feelings than Caucasian students (Castro et al., 2004; Grant et al., 1999). African American honor students explained that they wanted to prove that those who doubted their abilities were wrong (Grant et al.). It is possible that learning to cope with discrimination enables African American students to gain comfort with their identities and with success, thereby diminishing their susceptibility to feelings of fraudulence.

The imposter phenomenon has been associated with the Big Five Personality Factors as measured by the NEO-Personality Inventory-Revised (NEO-PI-R, Costa & McCrae, 1992). In a comparison of the Big Five Personality factors and responses to measures of the imposter phenomenon, imposters tended to score high in Neuroticism (Bernard et al., 2002; Ross et al., 2001), particularly depression and anxiety facets. Using

the CIPS, Bernard et al. found that imposters tended to score low in Conscientiousness. Ross et al. found a negative association between imposter feelings and Conscientiousness and imposter feelings and Extraversion using the HIPS. Imposters may be more lackadaisical about working on goals (Costa & McCrae). Those with more imposter feelings may feel more inept and may struggle to motivate themselves. The increase in imposter feelings associated with decreased Extraversion suggests that imposters are more reserved, unlikely to disclose their true feelings (Costa & McCrae).

A construct central to the imposter phenomenon is fear of failure. Quantitative research has corroborated a relationship between fear of failure and the imposter phenomenon (Fried-Buchalter, 1992; Ross et al., 2001). Furthermore, the fear of negative consequences that could result from success has also been positively related to the imposter phenomenon (Fried-Buchalter, 1997), suggesting a connection between the imposter phenomenon and neurotic tendencies such as those measured in the Five Factor Model of personality. Persons with high scores in the Neuroticism domain of the NEO-PI-R (Costa & McCrae, 1992) tended to experience negative emotions such as fear and anger. They felt anxious and tended to worry. Furthermore, they were easily discouraged, sensitive to ridicule, and susceptible to panic in crises. Given that imposters tend to have high scores in the Neuroticism domain (Bernard et al., 2002; Ross et al., 2001), they might perceive success as a crisis that raises the standard at which they feel driven to achieve as do others with high scores in Neuroticism (Costa & McCrae).

Quantitative research has shown that imposter feelings correlate positively with Neuroticism but negatively with Conscientiousness, another domain of the NEO-PI-R (Bernard et al., 2002; Ross et al., 2001). The positive relationship between the imposter

phenomenon and Neuroticism seems logical since depression and anxiety are facets of the Neuroticism domain, and the imposter phenomenon has been characterized by anxiety and depressive experiences (Clance & O'Toole, 1988; Chrisman et al., 1995; Kolligian & Sternberg, 1991). The relationship between imposter feelings and Conscientiousness might reflect a desire for achievement in the absence of a strong drive or hard work (Bernard et al., 2002). This notion is contradictory to research that described the achievement drive of imposters (Clance & Imes, 1978; Ewing et al., 1996; Harvey, 1981; King & Cooley, 1995). Imposter feelings have also been found to be negatively correlated with certain facets of Agreeableness, specifically Trust and Straightforwardness (Ross et al., 2001), which is not surprising given imposters' tendency to hide their feelings (Clance, 1985).

Given its relationship to depression, anxiety, cognitive distortions (Clance & O'Toole, 1988; Cromwell et al., 1990; Harvey & Katz, 1985), and facets of Neuroticism (Costa & McCrea, 1992), the imposter phenomenon is likely to be associated with psychological disorders. Three studies examined this relationship between the imposter phenomenon and psychological disorders (Robinson & Goodpaster, 1991; Ross & Krukowski, 2002; Striegel-Moore et al., 1993). In a quantitative study of the impact of parental alcoholism on imposter phenomenon as measured by the CIPS, adult children of alcoholics scored high on external locus of control and the imposter phenomenon (Robinson & Goodpaster). Adult children who attended support groups scored somewhat higher than those who did not. Robinson and Goodpaster suggested that attendance at support groups might be sought more often by individuals who particularly need validation from others, a characteristic associated with imposter feelings (Clance, 1985).

Since many of the adult children of alcoholics in this study were students, academic status might have been a moderating factor. However, because students with non-alcoholic parents had the lowest scores among all participant groups, parental alcoholism was considered more influential on imposter feelings than student status (Robinson & Goodpaster). The higher rate of imposter feelings among adult children of alcoholics (Robinson & Goodpaster, 1991) suggests the need for statistical methods that allow statements of causality to examine the influence of parental alcoholism or lack of parental validation and support (Clance & Imes, 1978).

Another quantitative study of the imposter phenomenon and psychological disorders examined bulimia and perceived fraudulence as indicated by Kolligian and Sternberg's (1991) PFS scale (Striegel-Moore et al., 1993). Given the common presentation of a false self among eating disordered persons, the imposter phenomenon seemed a likely occurrence. Body dissatisfaction and presence of bulimia were related to public self-consciousness, social anxiety and perceived fraudulence (Striegel-Moore et al.). Thus, the belief that one appears competent coupled with the inner experience of incompetence characteristic of the imposter phenomenon also characterized persons with higher body dissatisfaction and disordered eating behaviors (Striegel-Moore et al.). These findings were congruent with research linking the imposter phenomenon with self-presentation and public performance (Langford & Clance, 1993; Leary et al., 2000).

Based on their research showing that persons with certain personality disorders have intense imposter feelings, Ross and Krukowski (2002) suggested that the imposter phenomenon might be a type of pathology. Higher levels of imposter feelings were associated with Paranoid and Schizotypal Cluster A disorders and Borderline Personality

Disorder from the Cluster B disorders. Imposter feelings were more prevalent in those diagnosed with Cluster C disorders than in those with Cluster A or Cluster B disorders; the imposter phenomenon had a positive relationship with all Cluster C disorders (Ross & Krukowski). The Cluster C disorders (Avoidant, Dependent, and Obsessive Compulsive personality disorders) are characterized as avoidant disorders. Thus, the association between the imposter phenomenon and Cluster C disorders supports early descriptions of imposters' avoidant behaviors (Clance, 1985; Harvey & Katz, 1985). Ross and Krukowski also found that detachment and dependency positively predicted imposterism, while entitlement was a negative predictor.

In addition to its association with personality factors, psychological disorders, and academic self-concept, the imposter phenomenon has been linked with achievement orientation. This link was initially described by Clance and Imes (1978). Subsequent empirical research has shown high levels of achievement orientation in the families of imposters (King & Cooley, 1995). King and Cooley found that achievement behaviors had a stronger positive association with imposter feelings in females than in males. Positive correlations have been found between academic self-concept and imposter phenomenon in males as well as females (Ewing et al., 1996; Phillips, 1987).

The interaction of gender and the imposter phenomenon remains unclear. Female gender was associated with more imposter feelings in the King and Cooley (1995) study, while gender had no influence in the Ewing et al. (1996) study. Though female gender was a defining factor of the imposter phenomenon as it was initially conceived, subsequent research has shown no relationship between gender and prevalence of imposter feelings (Fried-Buchalter, 1997; Harvey, 1981; Leary et al., 2000). King and

Cooley (1995) suggested that the gender differences that they found might have been due to the overly narrow operationalization of achievement behaviors. The females in their study tended to define achievement in academic terms. Achievement, however, could have been defined in terms of success in sports activities or artistic endeavors, not academics alone (King & Cooley).

Achievement has been related to the imposter phenomenon in ways other than the achievement orientation described by King and Cooley (1995). The imposter phenomenon also has been associated with achievement disposition, particularly competitiveness, anxiety, and self-handicapping (Cowman & Ferrari, 2002; Ferrari, 2005; Kumar & Jagacinski, 2006; Ross et al., 2001). Levels of imposter feelings have been found to be inversely related to cooperative tendencies and positively to anxiety (Kumar & Jagacinski). Personal development competition, which has been defined as the tendency to view success as a means to personal growth rather than the desired end of a win-lose situation (Ross et al., 2001), has been negatively correlated with imposter feelings. This means that individuals, who consider success to be winning when competing and also growing personally, experience fewer imposter feelings. Individuals' beliefs about competition and personal growth have been related to the imposter phenomenon in other ways. Those who struggle with the imposter phenomenon might use social skills to maintain the phenomenon, appearing non-competitive, while inwardly competing with peers (Ross et al.). They might use self-handicapping strategies, such as placing blame for unsuccessful performances on external obstacles, to cope with anxiety or to protect their self-esteem (Cowman & Ferrari; Leary et al., 2000).

The imposter phenomenon also has been related to the way individuals view achievement through its influence on the types of goals imposters establish and the ways they define competence (Kumar & Jagacinski, 2006). Women with more imposter feelings tend to view competence more comparatively; competence is seen as out-performing others. Ability-approach goals have been defined by Kumar and Jagacinski as goals designed to demonstrate competence by showing the use of one's abilities. In contrast, fear of failure leads to the selection of ability-avoid goals, which are goals designed to avoid failure. Kumar and Jagacinski found that men with more imposter feelings tended to choose more ability-avoid goals to avoid failure. Kumar and Jagacinski also found that women with imposter feelings viewed intelligence as a fixed entity; the individual was born with a set amount of intelligence. These women tended to choose ability-approach goals.

The view that intelligence is fixed is one example of attributional style. The attributional style of imposters prior to examinations seems to be a function of their anxiety and lower self-esteem, according to one empirical study (Cozzarelli & Major, 1990). Imposters tended to attribute their perceived failures to low ability. These perceived failures affected their self-esteem and satisfaction more profoundly than they affected non-imposters. Non-imposters discounted prior successes and lowered expectations before entering new situations, using these behaviors adaptively to defend against loss of self-esteem and to motivate performance (Cozzarelli & Major). Imposters, in contrast, seemed to perpetuate a negative cycle of anxiety.

Other research on self-confidence, which has been closely tied to the imposter phenomenon (Cromwell et al., 1990; Edwards et al., 1987; Harvey & Katz, 1985), has

questioned the imposter phenomenon's impact on self-esteem and credited gender for differences in attributional style (Roberts, 1991). Females have been found to use negative feedback more informatively than males, who tend more to discount information they perceive as negative (Roberts). Other empirical research suggests that these gender differences in self-confidence and attribution are context specific (Lundeberg et al., 1994). Men were found to be more confident in areas such as math and were viewed as overconfident. Women more accurately predicted their own performance in these areas even though they appeared less confident (Lundeberg et al.). Such gender differences in attributional style may have contributed to the apparently contradictory findings in past research on gender differences and the imposter phenomenon. This is an area warranting more empirical study to clarify the impact of gender on imposter feelings and clarify the differences in the attributional styles of those with many imposter feelings and those with few.

There has been some question about the interpersonal or intrapersonal nature of these imposter attributions. Quantitative studies have demonstrated that scores on measures of the imposter phenomenon (HIPS, CIPS, and PFS) negatively correlate with a five question scale of self-appraisal, the imposters' opinions of themselves; a five question scale of reflected appraisal, the imposters' beliefs about how others perceive them; and the difference between self and reflected appraisal (Leary et al., 2000). For example, if imposters believe others over-rate their capabilities, they are likely to show a negative difference in self-ratings compared with others ratings of them. Furthermore, imposter feelings seem to be more a manifestation of self-appraisal than of the difference between self and reflected appraisal (Kruger, 1999; Leary et al.). This interpretation

contradicts Phillips' (1987) finding that children's perception of competence was strongly influenced by the reflected appraisal of their parents. It could be that, during their development from elementary school to college, imposters internalize reflected appraisals into their own self-concepts. Phillips' study provided some validation of Clance's and Imes's belief that imposters internalized appraisals by their parents that negatively compare them to their siblings (Clance & Imes, 1978).

Interpersonal and intrapersonal interactions are influenced by the imposter phenomenon. Imposters tended to misjudge their comparison groups, believing their own circumstances to be much worse than those of their peers (Kruger, 1999). Other intrapersonal characteristics of the imposter phenomenon have been examined. For example, research has also shown that the imposter phenomenon involves a self-presentation issue (Edwards et al., 1987; Langford & Clance, 1993; Leary et al., 2000), which is consistent with the underlying construct of self-monitoring in that the imposters assess their self-presentation to determine if their perceived fraudulence has been detected. Imposters had lower self-expectations and were more self-derogatory when their performances were public than when they were not, which might indicate a defensive attempt to avoid public disapproval, or a need for encouragement (Leary et al.). The latter interpretation is consistent with some of the family dynamics theorized to contribute to development of the imposter phenomenon (Clance & Imes, 1978).

There are several apparent contradictions in research findings about the imposter phenomenon and achievement orientation, attributional style, comparative ability appraisal, and conscientiousness. For example, Bernard et al. (2002) found a strong negative relationship between achievement striving and imposter feelings, while Ross et

al. (2001) found no significant relationship between them. Bernard et al. also found that Conscientiousness had a significant negative relationship with imposter feelings, while Ross et al. found no significant relationship between them. Ferrari (2005) reported that a high achievement orientation contradicted the self-handicapping behaviors characteristic of imposters. Differences have also been found in the way females and males construe achievement in some studies (King & Cooley, 1995; Kumar & Jagacinski, 2006), but not in others (Bernard et al.; Phillips, 1987). Other research has indicated differences in the role and importance of self-appraisal and reflected appraisal (Leary et al., 2000; Phillips).

Some of these contradictions can be explained by methodological differences such as participant sampling and use of different instruments. For example, Bernard et al. (2002) used a sample population of undergraduate psychology students, while Ross et al. (2001) used students from the general college population. Phillips' (1987) study was conducted with third grade children, while Leary et al. (2000) used college students. Additionally, gender differences found in the achievement orientation of imposters may have resulted from use of different instruments such as the NEO-PI-R (Bernard et al.), the Achievement Orientation subscale of the Family environment scale (FES; King & Cooley), or the Patterns of Adaptive Learning Scales (Kumar & Jagacinski, 2006).

The explanations for other contradictions in the imposter phenomenon and achievement orientation literature are less apparent. Ferrari's (2005) report that high achievement orientation contradicted self-handicapping behaviors may reflect parental or family emphasis on achievement (King & Cooley 1995) rather than a personal value of the student with imposter feelings. The self-handicapping behaviors Ferrari noted may reflect strategic use of imposter feelings (Leary et al.). Additionally, some imposter

reports may reflect social desirability which is congruent with concerns about positive self-presentation (Leary et al.). In order to clarify the differences, research examining the relationship between imposter phenomenon and the interaction of attributional style and gender is needed, as are replication studies of the differences between achievement orientation and achievement behaviors among those with and without imposter feelings.

Imposter Phenomenon and Specific Populations

Much of the research on the imposter phenomenon has focused on its prevalence in certain populations. The occurrence of the imposter phenomenon in the gifted population has been examined conceptually (Reis, 1991, 2002), qualitatively (Miller & Kastberg, 1995), and quantitatively (Grant et al., 1999; Kwan, 1992). Dedicated students seem particularly susceptible to imposter feelings (Clance & O'Toole, 1988; Harvey, 1981; Studdard, 2002) consistent with the positive associations of achievement striving and academic self-concept with the imposter phenomenon (Bernard et al., 2002; Clance & O'Toole; Ewing et al., 1996). Imposterism among university faculty has been empirically investigated (Brems et al., 1994; Topping & Kimmel, 1985). It has also been demonstrated in beginning counseling students (Bischoff & Barton, 2002). This section will describe the literature examining imposter feelings in these specific populations.

The occurrence of the imposter phenomenon in gifted populations has been examined in depth. Gifted individuals of different genders, races, and socioeconomic statuses have been used as participant populations. It has been theorized that the imposter phenomenon is a barrier to achievement in gifted women (Reis, 1991, 2002). Gifted women have been found to be more likely than gifted men to attribute their success to effort or to external factors such as luck, but to attribute failure to lack of

ability on their parts (Reis, 2002). Gifted men, on the other hand, were more likely to attribute success to their own abilities and failure to external factors (Reis, 2002). In some cases, gifted women seemed to have a basic misconception of the relationship between effort and ability. Instead of viewing their ability as high when they were able to complete a task with little effort, they were more likely to feel like imposters (Reis, 2002). These patterns have also been reported in gender-specific research (Roberts, 1991) and in studies of imposters that were not limited to gifted individuals (Cozzarelli & Major, 1990).

There have been some contradictory findings in the research on race, giftedness, and imposterism in children. A quantitative study with qualitative follow-up participant interviews investigated the imposter phenomenon among 13-year-old, gifted Chinese students (Kwan, 1992). Students with imposter feelings felt inferior to some of their classmates, believed placement in gifted programs was a mistake, and felt separated and different from their peers (Kwan). In another quantitative study with qualitative interviews, African-American gifted students displayed the opposite of the imposter phenomenon (Grant et al., 1999). They had more stable, confident self-perceptions and determination to disprove the low expectations of them that they perceived others to hold (Grant et al.). These two studies had fundamental differences in the students' perceptions of others expectations that may account for the different outcomes. Perception of parental appraisal has been shown to play a strong role in imposter phenomenon development (Phillips, 1987). Thus, the African-American students' perceptions of low expectations may have protected them from developing imposter feelings or encouraged a "beat the system" attitude (Grant et al.). Kwan suggested that others high expectations

of the gifted students' successful performance contributed to depression, one feature of the imposter phenomenon (Harvey, 1981). The differences in the way the gifted Chinese students in Singapore and the gifted African, American students in the rural, southern United States handled others expectations may have been influenced by population differences as well (Cook & Campbell, 1979).

A descriptive field study examined the impact of socioeconomic status on imposter phenomenon among gifted women (Miller & Kastberg, 1995). Coming from a working class background and maintaining a professional, high achieving career were associated with heightened fear of discovery, a central tenet of the imposter phenomenon (Clance 1985). These women felt the need to work harder than their peers to prove their worth and compensate for their backgrounds (Miller & Kastberg). The characteristics of the imposter phenomenon were accompanied by a sense of coming from the "wrong crowd." The women reported that role models and mentors were important in helping them acknowledge their abilities and reach their potentials (Miller & Kastberg).

In a theoretical article, Bernard (1988) outlined the struggle of women in academic positions who attempted to find a place in a historically male-dominated field. Bernard described the use of negative treatment such as ignoring or excluding to discourage these women from entering the academic world. Other challenges such as lack of encouragement and support exacerbated the difficulties these women experienced (Bernard; Reis, 2002). Some of these women joined with their disparagers and settled for positions beneath their abilities. Conceptually inferred from Bernard's work, the imposter phenomenon was encouraged in academic settings prior to the feminist movement of the 1960s.

Clance's (1985) description provides a rationale for the occurrence of the imposter phenomenon in college students and faculty. Research using undergraduate and graduate students from the general college population as participants has suggested that they are vulnerable to the imposter phenomenon (Clance). Both theoretical formulation (Clance & Imes, 1978; Studdard, 2002) and empirical research (French et al., 2008; Harvey, 1981; Henning et al., 1998) have linked student status and higher education in scientific and helping professions with the imposter phenomenon. French et al. (2008) found that scores on an imposter phenomenon scale were negatively associated with levels of self-efficacy among students enrolled in a School of Engineering as well as with interest, performance, and retention in science, technology, engineering, and mathematics. Imposter feelings and low self-efficacy were associated with high self-doubt and feelings of incompetence, that were in turn associated with lower student persistence and performance in those fields (French et al).

Quantitative research has shown that imposter feelings that occur in response to a new situation lessen over time (Harvey, 1981). Theoretically, age appeared to be related to adaptation to new situations. Younger persons were more likely to experience the phenomenon (Studdard, 2002) and older college students experienced decreases in imposter feelings as they gain experience in their programs (Harvey & Katz, 1985; Studdard, 2002). An exception to this is the adult woman student, defined as a re-entry student who juggles school, family and possibly fulltime work responsibilities. Re-entry female students tend to restrict themselves to positions beneath their abilities (Studdard). They struggle with stereotypical beliefs that they should be satisfied with nurturing, caregiving roles rather than seeking career or academic achievement. The need to fill

multiple roles may exacerbate the imposter phenomenon (Studdard). Reis (2002) suggested that the need to fulfill multiple roles prevents rigorous focusing on one role, leading to limitations in confidence and perception of ability.

The imposter phenomenon among university faculty (Brems et al., 1994; Topping & Kimmel, 1985) has been attributed to topical limitations of teaching expertise, to stereotypes students hold toward teachers, and to other general characteristics of academia (Overall, 1997). Professors might be called upon to teach in areas outside of their expertise, potentially resulting in feelings of fraudulence (Overall). Additionally, Overall noted that female professors were expected to exhibit nurturing qualities. They were expected to “mother” their students and to avoid giving bad grades. Behaving outside role expectations might result in conflicted feelings about pleasing others and meeting others expectations. Quantitative research in which tenured and non-tenured faculty completed measures of the imposter phenomenon has confirmed the presence of the imposter phenomenon in faculty, but did not corroborate Overall’s suppositions about the particular difficulties faced by females in academia (Brems et al.; Topping & Kimmel).

The quantitative research that confirmed the presence of the imposter phenomenon in faculty members showed that both male and female faculty members have imposter feelings (Brems et al., 1994; Topping & Kimmel, 1985). This research also found that the presence of the imposter phenomenon among faculty impacted both the students and the department in which the faculty taught (Brems et al.). Faculty members with imposter feelings tended to be uncomfortable serving as role models or mentors. They were often uncomfortable being admired by their students (Brems et al.).

Those with few imposter feelings were more able to encourage students' questions. They were more realistic in their self-appraisal and self-esteem, enjoyed mentoring and advised more students than other faculty (Brems et al.). Thus, faculty members who experienced fewer imposter feelings were more productive. Faculty members who reported more imposter feelings also reported lower self-esteem and higher trait anxiety (Topping & Kimmel). Topping and Kimmel found that imposter feelings decreased as faculty members increased in rank. Perhaps faculty adapted to their roles over time, similarly to students (Harvey, 1981), or perhaps as they rose in rank they learn to internalize success more fully. The mechanisms by which the imposter phenomenon influences persons in academic settings remains untested.

The relationship of imposter feelings with qualities such as caretaking (Castro et al., 2004; Harvey & Katz) and teaching (Brems et al., 1994; Topping & Kimmel, 1985) raises the possibility of the occurrence of the phenomenon among those that care for other individuals. Given the association between caretaking and the imposter phenomenon, one might expect health care providers to be at risk for developing imposter feelings. Henning et al. (1998) assessed the relationship between status as a graduate student in medicine, dentistry, nursing, or pharmacy, with perfectionism and imposter feelings. They found that scores on the CIPS were the strongest predictor of psychological distress among medical and dental students, outranking academic year, race, marital status, age, and perfectionism. Henning et al. found that imposter feelings were the only significant predictor of distress, among the predictors they examined, in pharmacy students. Among nursing students, imposter feelings predicted distress along with gender and perfectionism (Henning et al.). Thus, the imposter phenomenon played

an important role in the well-being of graduate students in these health care fields.

Graduate students in psychology were not included in this study. Research to date on the imposter phenomenon among psychology students has been limited to undergraduates (Bernard et al., 2002; Chrisman et al., 1995; Cozzarelli & Major, 1990; Ferrari, 2005; King & Cooley, 1995; Kolligian & Sternberg, 1991; Sonnak & Towell, 2001).

The research on the imposter phenomenon has included therapists-in-training, specifically master's level marriage and family therapy students (Bischoff & Barton, 2002). This research, which the authors described as quantitative, was in fact primarily qualitative, and looked at the development of clinical self-confidence and the imposter phenomenon. Imposter feelings appeared most frequently in the first stage of counselor development, when anxiety was highest (Bischoff & Barton). Other quantitative research has supported the finding that high anxiety accompanying new situations is associated with imposter feelings (Cozzarelli & Major, 1990; Harvey, 1981). Bischoff and Barton found that beginning counselors were more likely to feel that they were pretending to be experts and were more likely to believe that their clients would see their inadequacies. Imposter feelings have been shown to diminish as the counselor moves into later stages of professional development (Bischoff & Barton). Imposter feelings might be transient, but they might also influence the amount of distress experienced by counselor trainees regardless of academic year in their graduate programs, as seen in the research with other health care students (Henning et al., 1998). There is a paucity of research on the imposter phenomenon in counselors; research in this area would be a valuable addition to the literature.

In summary, the imposter phenomenon has been shown to be associated with a number of psychological variables in several populations. Among gifted individuals it was linked to expectations about achievement and the value placed on achievement by the imposter and his/her parents (Clance, 1985; Ewing et al., 1995; Kwan, 1992). Increased anxiety involving new situations, public performance and self-presentation influenced the occurrence of imposter feelings (Langford & Clance, 1993; Leary et al., 2000). While causal conclusions cannot be drawn from these findings, several problem areas needing further investigation were indicated. The impact of imposter feelings on faculty productivity suggests the need for intervention or prevention studies (Brems et al., 1994). The presence of imposter feelings among health care providers (Henning et al., 1998) suggests the need for clarification of the presence of imposterism among counselors.

In order to understand the influence of imposter feelings on counselors, it is necessary to have a foundational understanding of counselor development. The next section will address counselor development generally through an examination of the literature on Stoltenberg's model and its revision (Stoltenberg & Delworth, 1987). Particular attention will be devoted to the literature on counselor development that focuses on counseling self-efficacy.

Counselor Development

Development can be defined as the "qualitative and quantitative changes in behavior, physical abilities, social interactions and roles that occur as a consequence of physical maturation or deterioration, influences from the environment, or from an interaction between the current status of the organism and the environment which causes

more quantitative shifts in beliefs, values, and attitudes” (Thompson, 1999, p. 56).

Psychological literature suggests that development involves knowledge acquisition and practice (O’Byrne, Clark, & Malakuti, 1997). There are two types of knowledge central to development: declarative and procedural. Declarative knowledge consists of facts. Procedural knowledge involves awareness of how to perform certain activities. For novices, procedural knowledge may feel stilted, but with repetition tasks become automatic. Eventually, the individual steps taken to perform a task may be difficult to recall (O’Byrne et al.). How do counselors acquire knowledge while developing expertise? Models of counselor development attempt to shed light on knowledge acquisition and application.

Models of counselor development have existed for decades. Fleming published a model in 1953 (Sakai & Nasserbakht, 1997) that identified types of learning trainees might expect to gain from supervision. Fleming (1953) stated that imitative learning follows observation of the supervisor. Corrective learning occurs when the trainee recognizes mistakes he or she makes. Increased understanding of interpersonal relationships and increased ability to form therapeutic relationships with clients was considered Creative learning (Fleming). Hogan published a model addressing counselor characteristics and supervisory needs in 1964. His model described four levels of development that “intermingle” (p. 140), as counselors cycle through the levels multiple times. Level 1 counselors are strongly influenced by the method of counseling promoted in their training programs. Hogan described counselors in this level as “neurosis-bound” (p. 139) because of lack of awareness of their motives or their impact on the counseling

relationship and because of high motivation to apply everything they learn. Their anxiety is expected to decrease with sufficient practice (Hogan, 1964).

During Level 2, counselors begin to develop their own styles. A dependency-autonomy conflict is likely while they struggle to integrate the therapist role with their personalities (Hogan, 1964). These counselors struggle to differentiate between insight and presumptions. They also struggle with overconfidence in their skills and may feel overwhelmed with the responsibility of counseling people who are hurt.

In Level 3 (Hogan, 1964), counselors shift from emphasizing methods or balancing method and person elements to emphasizing their personal approaches and beliefs. At this level, the counselors might deny remnants of dependence or might develop insight about their needs. Their motivation typically stabilizes as they integrate their negative and positive intentions.

In Level 4, counselors develop their own creative approaches that reflect a balance of technique and personality. They become able to practice independently. These counselors are aware of insight and its limitations. They are secure in their capabilities and aware of lingering areas of insecurity (Hogan, 1964).

Hogan (1964) suggested that counselors have different supervision needs at each level. He described a learning process that begins with modeling and imitation, helps counselors clarify their feelings when struggling in Level 2, and supports growth in the ability to confront and eventually accept collegiality. This process results in counselors attaining the more accurate self-perception and originality that reflects the art of counseling (Hogan, 1964; Reising & Daniels, 1983).

In their study of Hogan's model, Reising and Daniels (1983) asked masters level trainees, doctoral level trainees, and professional counseling staff about their development as counselors and their supervision needs. They found five significant trainee factors: Anxiety/Doubt; Independence; Commitment Ambivalence; Method; and Work Validation. Overall, Reising and Daniels' study supported Hogan's model of trainee factors. They found two significant supervision factors, Skills Training and Success Confrontation, out of eight supervision factors and concluded that Hogan's recommendations for supervision, however, were not supported. Generally, pre-masters and masters level trainees reported greater anxiety, dependence, and need for validation (Reising & Daniels). This might reflect the presence of the imposter phenomenon that Bischoff and Barton (2002) determined to be characteristic of new counselors. The trainees in Reising and Daniels' study focused on techniques more than did doctoral professionals. An unexpected finding was that doctoral level professionals reported more personal doubts about their ability to be helpful than did advanced masters-level trainees. Perhaps persistent feelings of doubt reflected the presence of imposter feelings that continued beyond early training, such as those found among university faculty by Topping and Kimmel (1985).

Stoltenberg used Hogan's model as the basis of the Counselor Complexity Model (McNeill et al., 1985; Reising & Daniels, 1983; Stoltenberg, 1981; Stoltenberg & Delworth, 1987). In the model, Stoltenberg (1981) described the counselor characteristics and supervision environment conducive to ongoing professional growth. The Counselor Complexity Model presents a linear path of development. It does not address domain-specific development, which is a limitation because trainees might be at

different levels of development in different counseling skill domains. The model was expanded into the Integrated Developmental Model (IDM), which presents three primary structures in which changes occur, and eight specific domains of counselor activity (Stoltenberg, 2008; Stoltenberg & Delworth; Stoltenberg, McNeill, & Delworth, 1998). The structures, which serve as markers for change, are self and other awareness, motivation, and autonomy.

The eight domains represent general areas of professional activity: intervention skills competence, assessment techniques, interpersonal assessment, client conceptualization, individual differences, theoretical orientation, treatment goals and plans, and professional ethics (Stoltenberg & Delworth, 1987; Stoltenberg et al., 1998). Intervention skills competence was described as the trainee's beliefs about his or her abilities as well as actual ability to perform therapeutic interventions. This area involves performing techniques, in addition to knowing the individual steps to do interventions. Assessment techniques refer to the trainee's confidence in the use of psychological assessments including selection, administration, and interpretation (Stoltenberg, 2008). Client conceptualization involves understanding how the client's characteristics, history, and current situation contribute to his or her psychological functioning. Additionally, client conceptualization involves integrating the trainee's theoretical orientation with client information (Stoltenberg). Individual differences refer to understanding the influence of static variables such as race and gender as well as culture and personality on each person. Theoretical orientation refers to knowledge of counseling theories and integration of them with personal beliefs and values. Treatment goals and plans refer to the trainees' ability to conceptualize client problems and strategize interventions

(Stoltenberg). Professional ethics refers to the trainee's understanding of standards of practice and integration of that understanding with her or his personal values and standards (Stoltenberg).

At Level 1, the counselor trainee has little counseling experience. Some trainees might have experience in specific orientations or areas that differ from their current training program, placing them in Level 1 (Stoltenberg et al., 1998). Trainees acquire declarative knowledge in academic courses such as counseling theories, assessment, and multiculturalism. In introductory practicum courses, they learn basic helping skills such as attending, reflecting, and paraphrasing. In this stage, trainees are dependent rather than autonomous. They are also rule-bound, focusing on counseling the "right way." Early successes might decrease dependency and encourage trainees to take risks. Thus, they need structured supervision to build a foundation for practice (Stoltenberg & Delworth, 1987; Stoltenberg et al.). They are unaware of the client's perspective or other process variables such as their reactions to the client. These trainees tend to anticipate negative evaluation, resulting in confusion, anxiety, and fear (Stoltenberg et al.). At the same time, their motivation is high, reflecting the desire to learn the "best" techniques. High motivation might increase their confidence. Trainees imitate their supervisor's or well-known clinicians' counseling approaches, which provides them with a sense of performing correctly. Encouragement to try new techniques and conceptualizations within a structured environment stimulates growth of the trainee's counselor identity. Structured direction and validation are necessary to increase skill level and reduce anxiety (Stoltenberg, 1981; Stoltenberg & Delworth).

The Level 2 counseling trainee is characterized by a dependency-autonomy conflict (Stoltenberg, 1981). These trainees seek independence, moving away from imitation as they try different counseling styles. Self-awareness increases (McNeill et al., 1985; Tryon, 1996), even as the trainee feels both confident and overwhelmed. These trainees become able to focus on clients and their perspectives. They develop an understanding of their therapeutic relationships with clients. Greater awareness of the process may, at times, lead to greater confusion (Stoltenberg et al., 1998). They come to know what they do not know. When confused, some trainees seek support and guidance effectively, maintaining their motivation. Others experience feelings of inadequacy and then moments of confidence, causing their motivation to shift (Stoltenberg et al.). Such fluctuation in motivation is typical at this level (Tryon). Stoltenberg suggested that supervisors allow trainees as much freedom as possible to the extent that trainees and clients benefit. However, the trainees are still dependent and sometimes need instruction and advice. Trainees might be defensive to protect themselves from perceived inadequacies and high anxiety (Thompson, 2004), or evasive if they fear negative evaluation (Stoltenberg et al.). They improve in counseling proficiency when supervisors listen to their treatment rationales with sensitivity to their struggles for independence (Stoltenberg & Delworth, 1987).

At Level 3, the counselor trainee is characterized by an increased sense of counselor identity and confidence. These trainees become less rule-bound and more flexible in their approaches (Stoltenberg, 1981). They focus on self, but with a different quality than the focus in Level 1. For instance, the trainees at this level understand their strengths and weaknesses. They have a degree of self-acceptance that allows them to use

themselves as a tool in the therapeutic relationship (Stoltenberg & Delworth, 1987; Stoltenberg et al., 1998). For example, they might reflect on their personal reactions to clients and comment on these reactions in sessions. They become more able to empathize with clients, supervisors, and peers (Stoltenberg). Their motivation stabilizes as their doubts about their capabilities became manageable rather than incapacitating. The trainees' level of autonomy is evident in their "commitment to retaining responsibility" (Stoltenberg et al., p. 25) for their clinical work. Supervision begins to shift toward collegial relationships (Stoltenberg; Stoltenberg & Delworth).

At the last stage of development, Level 4, the counselor is considered capable of independent practice (Stoltenberg, 1981). The counselor understands his or her self and is aware of similarities and differences between self and fellow counselors. Personal identity is integrated with professional. This level was renamed 3i in the IDM to reflect this personal-professional integration. The counselors' awareness of their personal characteristics, their impact on the counseling process, the clients' perspectives, and their colleagues' perspectives is consistent across the roles of counselor, supervisee, supervisor, and peer (Jennings & Skovholt, 1999; Stoltenberg & Delworth, 1987). Motivation tends to be high. These counselors recognize areas of lower motivation and usually understand why this is the case (Stoltenberg & Delworth; Stoltenberg et al., 1998). Transitioning from one task to another is more fluid because of their highly integrated identities. Consultation is more helpful than structured supervision at this level (Stoltenberg & Delworth). These master therapists have not only integrated their personal and professional identities, but have also developed strong relationship skills that enable them to emphasize a strong therapeutic alliance. They are able to tolerate

their clients' emotions and to use their own emotional experiences as therapeutic tools (Jennings & Skovholt).

Development is an ongoing process (McNeill et al., 1985). It is not simply a matter of acquiring all the necessary declarative knowledge in Level 1 and gaining procedural knowledge in higher levels. Trainees acquire therapeutic skills and theoretical sophistication from the beginning through the intermediate and to the advanced levels of development. Dependency and autonomy change throughout development as well (McNeill et al., 1985). Some research has found that dependency-autonomy issues characterize both beginning and intermediate trainees (McNeill, Stoltenberg, & Romans, 1992). According to McNeill et al. (1992), this overlap between the stages could reflect inadequate differentiation of trainees at Level 1 and Level 2 or vacillation in dependency-autonomy characteristics of trainees at Level 2. McNeill et al. (1985) found that self-awareness increases from beginning to intermediate levels of development, but not from intermediate to advanced levels. Thus, increases in self-awareness do not seem to occur in Level 2, although self-awareness does increase overall across the stages. Tryon (1996) found significant gains in self-awareness in Level 2 trainees, in contrast to earlier research. McNeill et al. (1992) found a progressive increase in self and other awareness from beginning to advanced trainees and expanded the research to include motivation, which also increased across levels of development. Orlinsky et al. (1999) found little to no relationship between years practicing and current growth. Instead, growth was found to occur in both novice and veteran therapists. Additionally, as therapists gained experience, their perceptions of mastery increased. Therapists' perception of mastery was related to current growth, suggesting that those with high self-efficacy felt as if they

were growing, or that those who believed they were growing felt more self-efficacious. Orlinsky et al. suggested that another variable might have influenced perceived mastery and current growth. Perhaps the imposter phenomenon plays a role.

Together, these studies indicate that counselors grow by acquiring skills and gaining understanding of their personal qualities and how those qualities impact their work with clients. Persons with the imposter phenomenon adamantly believe they lack the skills necessary to achieve success. Thus, counselors with the imposter phenomenon are likely to doubt their mastery of counseling skills. Their development may be hindered if they do not increase in self awareness, which is an integral part of counselor development. These studies also validated the Counselor Complexity and Integrated Development models. Other research has examined development in specific areas.

Development is domain specific (McNeill et al., 1992). When counselors begin training in new areas, they function at Level 1 or 2 in these areas. Some counselors progress rapidly in certain areas, advancing to an integrated level quickly. At the same time, they may be unable to progress beyond Level 1 or Level 2 in other areas (Stoltenberg et al., 1998). Leach, Stoltenberg, McNeill, and Eichenfield (1997) found evidence for domain specificity when examining changes in counselor self-efficacy in two domains: intervention skills competence and individual differences. They found that all Level 2 trainees had greater self-efficacy than Level 1 trainees. They also found that trainees who worked with sexually abused clients gained more self-efficacy than those who worked with depressed clients. Experience was positively related to self-efficacy only when working with sexually abused clients (Leach et al., 1997). This suggests that developmental gains were specific to experience and situation. If development is domain

specific, it would follow that the imposter phenomenon might occur in one area but not in others, as described by Harvey and Katz (1985).

Development involves significant events and changes. Heppner and Roehlke (1984) described four major categories of critical incidents that influence development: self-awareness; professional development; competence; and personal issues. Consistent with the notion of domain specificity, critical incidents that occurred in these areas varied in significance according to the level of development of the trainee. For example, beginning counselors were concerned with competence to a greater degree than were advanced trainees (Heppner & Roehlke; Stoltenberg & Delworth, 1987). Advanced trainees experienced less need to fix their clients' problems (Ronnestad & Skovholt, 2001). They more fully recognized the impact of their emotions and their behaviors in their counseling sessions, enabling them to use their selves as therapeutic tools (Jennings & Skovholt, 1999).

In a qualitative study of beginning trainees, Howard, Inman, and Altman (2006) found five broad categories of critical incidents: professional identity: personal reactions, competence, supervision, and philosophy of counseling. The greatest percentage of incidents fell within the professional identity category. These incidents involved the trainees' sense of self as counselors, sense of belonging in practicum classes or their training program, and satisfaction with their career choices. Trainees with imposter feelings are apt to struggle in this area, as feelings of fraudulence supersede feelings of belonging (Clance, 1985).

Another category of significant critical incidents is personal reactions (Howard et al., 2006). Personal reactions refer to the trainees' ability to identify their internal

responses toward their clients (Howard et al.), including insight into their impact and the impact of their reactions on the therapy process. Other research suggests that this kind of awareness appears later in development (Jennings & Skovholt, 1999; Stoltenberg, 1981), but the research conducted by Howard et al. found that beginning counselors also experienced moments of awareness crucial to their development.

A third category of critical incidents involves competence (Howard et al., 2006). Heppner and Roehlke (1984) found that beginning trainees were concerned with competence. Stoltenberg and Delworth (1987) suggested that Level 1 counselors often have concerns about performing correctly. Howard et al. determined that counseling self-efficacy and the moments that influence the trainees' beliefs about their capabilities were common concerns for them. Competence, specifically counseling self-efficacy, will be addressed later in this review.

The final two critical incident categories, supervision and philosophy of counseling, together account for a smaller percentage of incidents than do each of the other three categories individually (Howard et al., 2006). Supervision critical incidents refer to significant moments in supervision and in interactions between trainees and supervisors. Philosophy of counseling, which refers to experiences that aid the trainees' abilities to conceptualize client problems and the therapy process, are also critical to trainees' development (Howard et al.). In the area of philosophy of counseling, Stoltenberg, McNeill, and Crethar (1994) found that experienced counselors were more consistent in their conceptualization of client problems.

Stoltenberg (1981) recommended that supervision change in a parallel process with counselor development. Miars, Tracey, Ray, Cornfeld, O'Farrell and Gelso (1983)

found few differences in supervision between Level 1 and Level 2 trainees. There were significant changes in the amount of structure, direction, support, and didactic information supervisors provided advanced trainees, partially supporting Stoltenberg's model. In the Miars et al. (1983) study, trainees were divided by number of semesters in their program. Miars et al. recognized that the difference between one semester and two in a program might not accurately distinguish Level 1 from Level 2 development, which could account for the lack of findings in this area.

The stages of development and changes in self-efficacy become apparent when comparing graduate counseling students, undergraduate trainees, and doctoral level counselors (Stoltenberg et al., 1998). As the counselors gain experience, their perceptions of their own skills increase. Research has shown that master's level counselors use more open questions, confront more, and self-disclose less than undergraduate trainees, resulting in consistent increases in counseling self-confidence (Thompson, 1986). However, counseling psychology students in their first practicum experience also expressed self-doubts about their skills and fears about becoming psychologists (Al-Darmaki, 2004). Doctoral level psychologists who professionally identified as counselors confronted more than novice graduate level counseling trainees and graduate level counseling trainees with one year of experience, but did so in a less domineering manner (Tracey, Hays, Malone, & Herman, 1988). Apparently, as counselors gain experience they became more confident in their self-appraisals and use their counseling skills more effectively.

According to the IDM, counselors grow from Level 1 (characterized by high motivation, lack of confidence, and lack of awareness of process variables including

personal feelings) to Level 2 (where counselors begin to understand personal variables that influence counseling, but vacillate in motivation and confidence) (McNeill et al., 1985; Stoltenberg et al., 1998; Tryon, 1996). Level 3 counselors develop more confidence to examine their weaknesses and stabilize in motivation, enabling them to manage feelings of doubt and responsibility (Stoltenberg & Delworth, 1987; Stoltenberg et al.). In the last stage of development counselors integrate professional and personal identities, which allows them to deal with changing roles and tasks and tolerate their and their clients' emotions (Jennings & Skovholt, 1999). Development is an ongoing process that does not follow a specific time schedule, and continues from initial training into professional practice (McNeill et al., 1985; McNeill et al., 1992). Whether development occurs quickly or gradually, it involves significant events (Heppner & Roehlke, 1984; Howard et al., 2006). The imposter phenomenon becomes meaningful for counselor development because the self-awareness characteristic of master level therapists (Stoltenberg & Delworth) is not characteristic of those with imposter feelings who are plagued by self-doubt and fear of success and become ritualistic about performance (Harvey & Katz, 1985). Thus, the imposter phenomenon may hinder development, impairing counselors' attainment of professional and personal integration.

Self-efficacy

Social Cognitive Theory provides a foundation from which to describe self-efficacy, one core construct in the current study. Social Cognitive Theory differentiates three forms of agency, i.e. control: personal, proxy, and collective (Bandura, 2000). Bandura (2000) defined personal agency as one's individual sense of power or influence. When individuals cannot control their environment or the policies governing their lives,

or when they have low levels of commitment to a task, they might be using proxy agency, whereby another person acts on their behalf (Bandura, 2001). Finally, collective agency is defined as shared beliefs about the group's ability to accomplish a task together (Fernandez-Ballesteros, Diez-Nicolas, Caprara, Barbaranelli, & Bandura, 2002; Bandura, 2000). Fernandez-Ballesteros et al. (2002) described individual social efficacy, individuals' beliefs about their ability to influence society, as similar to proxy agency. Fernandez-Ballesteros et al. used the belief that individuals' actions could change society as an example of individual social efficacy. Belief that a collective voice could elicit social change reflected perceived collective social efficacy.

Research has indicated that personal self-efficacy is stronger than individual or collective social efficacy (Fernandez-Ballesteros et al., 2002). Gender influenced social efficacy in the Fernandez-Ballesteros et al. study. Females had lower individual and collective social efficacy than males. Age was another influential factor; younger persons had greater individual social efficacy than did older persons (Fernandez-Ballesteros et al.). Higher socioeconomic status was associated with greater self-efficacy and individual social efficacy. Furthermore, socioeconomic status influenced collective social efficacy, but to a lesser degree (Fernandez-Ballesteros et al.). Thus, perceived efficacy varied among individuals and groups depending on demographic variables (Fernandez-Ballesteros et al.; Bandura, 2000, 2001). Sense of personal efficacy and individual social efficacy might be pertinent to the imposter phenomenon in that those with imposter feelings tend to compare themselves negatively to others and to fear that others find them less competent than their peers (Clance, 1985), two indications of low personal self-efficacy. However, the imposter's perception of collective agency may be

greater than his or her perception of individual efficacy because the power of the collective could surpass the inadequacies the imposter sees in him or herself.

Bandura (1977) stated that modeling, self-corrective adjustment based on feedback, and observations of outcomes lead to learning. Behaviors change as a function of learning. Cognitive processes such as motivation play a vital role in acquiring and maintaining behaviors (Bandura & Cervone, 1986). Bandura defined efficacy expectations, another cognitive factor, as psychological procedures that create or strengthen beliefs about one's ability to perform a behavior that will result in the desired outcome (Bandura). Efficacy expectations have three dimensions: magnitude, generality, and strength (Bandura). Bandura stated that the magnitude of efficacy expectations influences the difficulty of tasks that an individual attempts. The greater the magnitude of efficacy expectations, the harder the task a person might be willing to undertake. Bandura described generality of efficacy as ranging from specific to global. The strength of efficacy expectations determines the individual's commitment to complete a task. Strong efficacy expectations result in tenacious efforts to accomplish a task (Bandura).

Emphasizing the importance efficacy expectations, Bandura (1982) theorized that successful performance requires more than just knowledge and skills. Beliefs about self mediated the relationship between knowledge and action (Bandura, 1982, 1993). In other words, beliefs about one's capabilities affect both motivation and choice of action. Successful performance requires efficacy expectations, beliefs that one is capable of performing the skills, and outcome expectations, beliefs that certain behaviors will lead to specific outcome (Bandura, 1977, 1986). Bandura defined perceived self-efficacy as "judgments about how well one can execute courses of action required to deal with

prospective situations” (Bandura, 1982, p. 122). Individuals’ appraisals of their abilities serve several purposes. People avoid actions that they believe exceed their capabilities (Bandura, 1982). If they believe they have the capabilities, they try harder to accomplish a task (Bandura & Cervone, 2000). If they have a strong perception of self-efficacy, but are uncertain about the difficulty level of a task, they make better preparations to complete the task (Bandura, 1982).

Bandura (1982) manipulated levels of perceived self-efficacy and measured coping behaviors at the different levels. He found that, as perceived self-efficacy increased, the research participants accomplished more difficult performances. He also found that initially modeling and experiencing success increased self-efficacy. However, at more difficult levels of performance, self-efficacy did not change much. This suggests that perceived self-efficacy influences behaviors more than does actual performance (Bandura). Thus, perceived self-efficacy mediates the relationship between knowledge and action.

Bandura (1977, 1982) suggested four sources of efficacy expectations: performance attainment, vicarious experiences, verbal persuasion, and physiological states. People develop positive efficacy expectations through performance attainment. Successful performances became mastery experiences. Successful mastery increases self-efficacy; repeated failure decreases self-efficacy. Failures that occur early in the performance of a task also lower self-efficacy. Bandura described four different means of treatment that generated performance accomplishments: participant modeling, performance desensitization, performance exposure, and self-instructed performance (Bandura, 1977). These treatments involve varying degrees of exposure to threatening

situations. One might expect counselor trainees' sense of efficacy to develop similarly. As counselors gain experience (i.e. exposure) with counseling, their skills increase and they develop beliefs that they are capable of effective intervention (McNeill et al., 1992; Stoltenberg et al., 1994). Mastery experiences did not necessarily have to be actual counseling experience. Counseling role-play also provided counselor trainees with mastery experience (Ivey, 1988; Rabinowitz, 1997). However, role-play and actual counseling do not always increase counseling self-efficacy. If a counselor had low self-efficacy and few skills, role-play designed to increase counseling self-efficacy might actually decrease it (Larson et al., 1999). Bandura (1977) stated when success was perceived as resulting from external influences self-efficacy might be less likely to increase. Input from others during role play (Rabinowitz) could be conceived as the external influence.

Vicarious learning is another source of efficacy expectations for those attempting unfamiliar or fearful tasks. Seeing others perform successfully might increase one's efficacy expectations, an "if they can, I can" situation (Bandura, 1982). Live demonstrations resulted in greater increases in counseling self-efficacy than mere discussion (Romi & Teichman, 1995). Thus, observations that are typically part of practicum classes might be more beneficial than discussions of what to do with particular clients. Vicarious learning was found to be most effective early in counselors' development (Barnes, 2004). Since vicarious experiences sometimes involve social comparison (Bandura, 1977), the imposter phenomenon, which includes a tendency toward negative social comparison (Harvey & Katz, 1985), may play an inhibiting role.

If the tendency is to compare oneself negatively to others, then the individual may see the situation as “they can, I can’t.”

Verbal persuasion is another means by which counselors gain self-efficacy. Verbal persuasion includes feedback on progress, strengths and growth areas (Bandura, 1982). It influences the person’s belief that he or she can perform a task. Positive feedback generally leads to increases in counseling self-efficacy, while negative feedback, identifying growth areas, leads to decreases (Daniels & Larson, 2001). Thus, verbal persuasion is more positively influential when it is cheerleading. Verbal persuasion has a brief influence that is affected by how realistic the persuasion is. It is a weaker means of gaining self-efficacy because it lacks the experiential component. It can be used in conjunction with performance to induce a stronger perception of efficacy (Bandura, 1977). Verbal persuasion may be more important in early stages of counselor development when self-appraisal skills are few, anxiety is high, and counseling trainees are most reliant on supervision.

The last source of efficacy expectations is the physiological states people experience in threatening situations (Bandura, 1977, 1982). Emotional arousal serves two functions. It provides information about the current situation and affects level of motivation. Information and motivation interact to produce skill development, which in turn reduces emotional arousal by providing a sense of control over the situation (Bandura, 1977). When tense or agitated, individuals might interpret their physical stress as personal inadequacy. They could also attribute anxiety to environmental factors that hinder task completion. The counselor’s perceptions of emotional arousal influence counseling performance. High levels of anxiety prior to counseling sessions have been

associated with lower counseling self-efficacy (Barnes, 2004). Persons with imposter feelings often attribute difficulties in performance to personal inadequacies. Perceptions that one is a fraud, soon to be discovered by clients or supervisors, would be expected to lower counseling self-efficacy.

Self-efficacy plays a key role in self-regulation. It influences thought, motivation, behavior and affect. The impact of self-efficacy varies depending on the process through which it acts. There are four major processes affected by self-efficacy: cognitive, motivational, affective, and selective (Bandura, 1993).

Self-efficacy and Cognitive Processes

Self-efficacy affects attention and thinking processes (Bandura, 1993). Those with strong self-efficacy set higher goals and stay committed to them for longer periods of time (Bandura; Bandura & Locke, 2003). Bandura (1993) found that children with the same knowledge and skills performed differently depending on the impact of self-efficacy. Those with high self-efficacy imagined successful completion of tasks, while those who doubted their capabilities ruminated on the difficulties inherent in tasks (Bandura). Those who doubted their capabilities became “preoccupied with evaluation when encountering difficult environmental demands” (Bandura & Wood, 1989, p. 806). Dwelling on deficiencies, whether real or imagined, may lead to failure.

Self-efficacy is influenced by beliefs about ability (Bandura, 1993). Some persons view abilities as learned skills that increase as one gains knowledge and experiences performance success. Others view ability as inherent. The view that ability is inherent typically results in personalizing failures and experiencing others successes as personally threatening (Bandura). Research shows that the inherent view of abilities is

associated with tenuous self-efficacy (Wood & Bandura, 1989). Wood and Bandura found that, when difficulties arise, self-efficacy falls, thinking becomes less strategic, and goals become less challenging. Furthermore, feedback that presents performance as less efficient or declining relative to others performances has been found to result in decreased self-efficacy, inefficient thinking, less challenging goal setting, and negative affect (Bandura & Jourden, 1991). Thus, viewing abilities as inherent and social comparison are cognitive mechanisms that influence self-efficacy and, ultimately, performance. This observation is pertinent to the imposter phenomenon in that imposter feelings may initially arise from negative comparison (Clance & Imes, 1978). The etiology of the imposter phenomenon suggests that imposters view ability as inherent, a supposition that is partially supported by research with women reporting imposter feelings (Kumar & Jagacinski, 2006).

Another belief that influences self-efficacy is that the environment is controllable (Bandura, 1986). Underlying the view of controllability is individual social efficacy and the belief that the environment can change (Bandura & Wood, 1989). Bandura and Wood tested the relationships among self-efficacy, controllability, performance standards, and actual performance in an organizational setting. They found that belief that the organization was hard to control was associated with low perceived self-efficacy regardless of the performance standards. In controllable settings, flexible standards were associated with higher self-efficacy than were rigid and difficult standards. When standards were higher in a controllable environment, individuals initially set higher goals. Later, goals were not as difficult to reach. This research showed that self-efficacy influences not only action, but also personal goals indirectly affecting choice of analytic

strategies. Analytic strategies then affected performance. Self-efficacy was part of a cyclical relationship (Bandura; Bandura & Wood). Self-efficacy was lower in the group with the belief that behavior did not change easily (Bandura & Wood). Performance declined in this group. Self-efficacy remained strong in the other group; goals became more challenging and performance reached a high level (Bandura & Wood). Thus, self-efficacy influenced cognitions of controllability, goal-setting, and performance.

Self-efficacy and Motivation

Self-efficacy plays an important role in motivational processes. Individuals motivate themselves by generating beliefs about their ability to do a task. Motivation comes in three forms: causal attributions, outcome expectancies, and perceived goals (Bandura, 1993). Bandura found that those with high self-efficacy tended to attribute failure to lack of effort or to external factors. Those with low self-efficacy attribute failure to personal inadequacy. Imposters also tend to attribute failure to low ability (Cozzarelli & Major, 1990), but they attribute success to luck (Clance & Imes, 1978).

Self-efficacy influences motivation through its effects on outcome expectancies (Bandura, 1993). Expectations that a behavior will lead to a successful outcome, coupled with the belief that one has the ability to perform that behavior, results in greater motivation to perform the behavior. Of course, when expectations that a behavior will result in success were coupled with low self-efficacy, motivation was lower. Bandura found that motivation promoted better preparation and task commitment. Thus, self-efficacy had a direct influence on motivation by means of preparation and effort expended (Bandura & Cervone, 2000).

Self-efficacy affects motivation indirectly via goal setting (Bandura & Locke, 2003). Challenging goals increase motivation (Bandura, 1993). Goals influence motivation through two processes: self-evaluation and self-efficacy (Bandura & Cervone, 2000). Bandura and Cervone (2000) divided participants into four groups: those given feedback and goals, those given feedback only, those given goals only, and those given neither. They then gave the participants a physical task to complete. The feedback was designed to create some dissatisfaction with performance and the goal was designed to be attainable. Those who received feedback and goals outperformed all other groups, while those in the goal only or the feedback only group moderately improved their performance. Bandura's and Cervone's research indicated that self-dissatisfaction and self-efficacy worked together to increase motivation and, subsequently, performance. Self-dissatisfaction alone or self-efficacy alone was associated with improved performance, but to a lesser degree (Bandura & Cervone). Thus, goals motivate by means of self-evaluation and self-efficacy, which involve social comparison. Goals create standards for behavior. Feedback may emphasize the discrepancy between actual and desired behavior. When this discrepancy is manageable, individuals retain a high sense of self-efficacy and push themselves to attain more challenging goals, thereby reducing the discrepancy (Bandura; Bandura & Cervone).

Self-efficacy and Affective Processes

Self-efficacy plays a central role in stress management and emotional arousal (Bandura, 1977; Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003). Bandura (1977) found that people regulate their choices of behavior according to their levels of self-efficacy. Those with a strong sense of self-efficacy attempted to manage more

threatening tasks, experiencing mastery experiences through management of affective responses (Bandura, 1977). The role of self-efficacy in regulation of affective processes was clearly seen in academic settings (Bandura, 1993; Bandura et al., 2003; Rayle, Arredondo, & Robinson Kurpius, 2005). Anxiety developed when past performance lowered self-efficacy. When students had strong academic self-efficacy, they were able to achieve academically regardless of anxiety level (Bandura, 1993). Beliefs about the ability to regulate affect were accompanied by high academic self-efficacy, self-efficacy in the ability to resist peer pressure, and confidence in the ability to relate to the emotional experiences of others (Bandura et al., 2003). Educational self-efficacy was predicted by academic stress, self-esteem, valuing education and educational commitment (Rayle et al.). Thus, self-efficacy influenced regulation of affect, while factors related to affect also influenced self-efficacy.

Self-efficacy is specifically related to depression (Bandura, 1993; Bandura et al., 2003). Bandura suggested that those with unrealistically high standards of self-worth might become depressed. Social efficacy was also related to depression in that those with positive social efficacy established social relationships and received social support that lessened the impact of stressful situations (Bandura). Among adolescents, a strong belief that they can manage their negative emotions is inversely related to the likelihood of depression (Bandura et al.). Self-efficacy or the assurance that one can regulate cognitions lessens depression by providing a sense of control over pervasive negative thoughts (Bandura).

Different levels of self-efficacy are associated with different interpretations of challenges (Bandura, 1977; Bandura, Pastorelli, Barbaranelli, & Caprara, 1999). For

example, those with high self-efficacy view failures or challenges as manageable and try harder to overcome the challenges. Those with low self-efficacy interpret failures and challenges as disabling, resulting in dejection and decreased motivation (Bandura et al., 1999). Low self-efficacy is related to depression directly as well as indirectly. Low self-efficacy in academic settings influences depression through its impact on academic achievement, positive social interactions, and negative behaviors (Bandura et al., 1999). Depression is related more to perceptions of academic inadequacy than to actual academic performance (Bandura et al., 1999; Bandura et al., 2003), highlighting the cognitive mechanisms through which self-efficacy acts. More specifically, a strong sense of efficacy in one's ability to regulate negative affect decreases the likelihood of experiencing depression (Bandura et al., 2003). Perceived ability to manage negative affect was found to be fully mediated by empathic efficacy, the perceived ability to relate to others' emotions. Thus, low confidence in one's ability to respond to others' emotions was directly related to low confidence in one's ability to manage one's own negative emotions (Bandura et al., 2003).

Self-efficacy and Selection Processes

Self-efficacy influences self-regulation through its influence on the individual's choice of activities and environments (Bandura, 1977; Wood & Bandura, 1989). This could be viewed more generally as decisions about one's direction in life. Self-efficacy has been found to influence organizational performance via decision making (Bandura & Jourden, 1991; Wood & Bandura). Wood and Bandura found that high levels of self-efficacy promoted choice of higher standards and greater use of analytic problem solving strategies to improve performance when participants were given decision-making tasks

designed to attain certain levels of organizational performance. Low self-efficacy was associated with more erratic decision-making and lower performance. Bandura and Jourden found that decision makers who believed they were progressing in organizational tasks compared to others perceived themselves as more efficacious, set higher goals, and exhibited improved organizational performance.

The relationship between self-efficacy and selection has been demonstrated by the influence of self-efficacy on career development as well (Bandura, 1993; Lent, Brown, & Hackett, 1994). Bandura found that stronger self-efficacy was associated with reporting more career options. Those with stronger self-efficacy showed more interest in a greater variety of career options, prepared more thoroughly for different careers, and showed greater commitment to their careers when challenges arose (Bandura). Lent et al. (1994) suggested that triadic reciprocity, the interaction of personal attributes, environmental factors, and behaviors, influenced career choices. Self-efficacy and outcome expectations mediated those relationships. People tended to develop interests in activities they believed they were competent at performing and about which they had positive outcome expectations (Lent et al.). Other research corroborated and expanded our understanding of the relationship between self-efficacy and career interests, revealing that high self-efficacy is associated with linear increases in interest rather than reaching a threshold beyond which interest declines, as Bandura had suggested (Rottinghaus, Larson, & Borgan, 2003). Personality influences beliefs about the ability to perform. People with a positive emotional temperament, i.e. efficacious, actively involved in their environment, and ready to experience positive emotions, are more confident overall (Larson & Borgen, 2006). Self-efficacy and outcome expectations are associated with

goals which guide behavior by linking satisfaction with goal accomplishment (Lent et al.).

It is apparent that self-efficacy affects behavior directly and indirectly by way of goals, aspirations, outcome expectations, affective states, and perceptions of challenges and opportunities (Bandura, 1977; Bandura et al. 1999; Wood & Bandura, 1989).

Efficacy affects thinking, whether random or strategic, optimistic or pessimistic (Bandura, 1993; Bandura & Jourden, 1991; Bandura & Locke, 2003). Efficacy affects choice of action, goals, commitment to goals, effort expended, and affective responses (Bandura & Cervone, 2000; Bandura et al, 1999; Wood & Bandura). Overall, self-efficacy affects adaptation and change (Bandura, 1977, 2000). This information raises questions about the influence of self-efficacy on counselor development. Is high self-efficacy necessary to counsel effectively? Does it influence counselor trainees' education? The next section reviews the literature relevant to counselor development and self-efficacy.

Self-efficacy and Counseling

Bandura's Social Cognitive Theory suggests an important role for personal agency in the development of counseling self-efficacy in counselor trainees (Larson, 1998). Since judgments and actions are self-determined, people can change their selves and their circumstances through the use of personal agency, the "dynamic, interactive complex system that allows humans to be responsive in an always changing environment and proactive in determining the environment" (Larson, p. 227). Larson identified seven personal agency components that influence counseling. Counseling self-efficacy is a primary component among these. Other components include: prior counseling-related

knowledge, outcome expectancies, goals and plans, affective processing, and self-evaluation. Larson also suggested that the different kinds of personal agency might interact with each other to influence counselor development.

Counseling-related knowledge includes procedural counseling knowledge, the “how” of counseling; understanding theories and other foundational areas; and prior experience with counseling, which could result from having been a client or a provider (Larson, 1998). Duchemy, Alletzhauser, Crandell, and Schneider (1997) found that graduate counseling programs typically emphasize proficiency in theoretical knowledge, research and statistics, and knowledge of ethics. They did not often include teaching time management skills or awareness of professional development stages and common hazards (Duchemy et al., 1997). Imposters are, by definition, high achieving individuals (Clance & Imes, 1978). Knowledge acquisition might be a personal strength for those with the imposter phenomenon. However, awareness of professional development might require personal introspection, which could feel threatening (Harvey & Katz, 1985) to those with negative views of their abilities.

Larson (1998) identified outcome expectancies as another component of personal agency. Outcome expectations appear in two ways among counseling trainees (Larson et al., 1992). One outcome expectation is that the counseling session will help the client (Larson et al.). The other outcome expectancy concerns counselors’ beliefs about their performance in the counseling session (Sharpley & Ridgway, 1993). Counseling self-efficacy interacts with outcome expectations ultimately influencing the counselor’s behavior (Bandura, 1982) and goals (Lent et al., 1994).

Goals and plans are another part of personal agency that influences counseling (Larson, 1998). Goals and plans are crucial to motivation (Bandura & Locke, 2003). Wood and Bandura (1989) noted their importance in business management. Setting and meeting goals are key components of counseling competence as well. One could infer that counseling self-efficacy combined with specific outcome goals might lessen a trainee's anxiety about the session allowing him or her to enter it with a sense of purpose and determination. This process would be similar to the way self-efficacy and goals interacted to increase motivation and productivity among business managers in the Wood and Bandura study.

Cognitive processing, which Larson (1998) described as the counseling trainee's attention to feedback and value placed on feedback, influences perceived counseling self-efficacy (Daniels & Larson, 2001). Counseling trainees might dismiss feedback, an indication of defensiveness that could hinder counseling development (Larson, 1998). Trainees with the imposter phenomenon might be more likely to dismiss positive feedback that increases counseling self-efficacy (Daniels & Larson) because of their belief that successful outcomes, for them, are attained by luck or charm (Clance, 1985; Clance & Imes, 1978; Harvey & Katz, 1985).

Affective processing, another component of personal agency (Larson, 1998), refers not to the counseling trainee's awareness that he or she had an emotional reaction, but to his or her identification of the specific emotion and perception of the emotion as helpful or hindering (Barnes, 2004; Larson). Beginning counseling trainees experience anxiety much differently than do seasoned professionals (Borders, 1989). Borders found that concerns about what to say changed to concerns about sounding judgmental during

the progression from beginning to intermediate counselor status. Difficulty experiencing, expressing and describing emotional responses has a direct influence on counseling self-efficacy (Hall, 2009). Accomplished counselors recognize the impact of their emotions on their performances and tolerate their clients' emotional reactions (Jennings & Skovholt, 1999).

Self-evaluation is the last personal agency factor identified in Larson's (1998) application of Social Cognitive Theory to counseling. Self-evaluation includes judgments of prior counseling performances (Larson), and the counselors' tendency to focus on aspects of their performance that they can change (Bandura, 1982). Self-evaluation is linked to mastery experiences and modeling, sources of self-efficacy (Bandura, 1977). Counselors' perceptions of a session as effective were found to determine whether the session would be considered a mastery experience and aid in the counselor's development (Larson). If the counselor judged another's performance to be successful, the session served as a model and increased self-efficacy. If the counselor judged his or her own performance to be successful, that session served as a mastery experience. Thus, positive judgments of prior counseling sessions were related to higher counseling self-efficacy (Larson et al., 1992).

Counseling self-efficacy is a key personal agency factor for counselors. Larson (1998) described counseling self-efficacy as a causal link between knowing what to do and actually doing it in a session. Triadic reciprocal causation, the interactions among environment, personal agency and actions (Bandura, 1989), applies to counseling as well. In the counseling field, the environment includes supervision sessions, counseling sessions, and the social and cultural climate in which the counseling trainee works and

studies (Larson). The counseling environment factors interact with personal agency, counseling self-efficacy being the primary component. The environment also interacts with actions, the counseling trainees' behaviors in counseling sessions, in supervision, and with fellow counseling trainees. Counselors develop self-efficacy through the interaction of personal agency, environment, and actions (Larson).

According to Lent, Hill, and Hoffman (2003), counselor self-efficacy is important for two reasons: it might affect clinical performance and it might increase counselors' understanding of career development. Research suggests that it affects counseling skills and outcomes by influencing counselors' cognitive, affective, and behavioral responses in session (Larson & Daniels, 1998; Lent et al., 2003). Barnes (2004) suggested that examination of counselor trainees' perceptions of training, personal cognitions, and affective experiences increases understanding of how counseling self-efficacy develops and is maintained. A greater understanding of counseling self-efficacy aids overall counselor development (Barnes). Barnes gave the following example. If counselor trainees overestimate their counseling self-efficacy, examination of the underlying factors such as personal cognitions might lead the trainees to more accurate perceptions. Discussion of other social cognitive variables that influence self-efficacy, such as anxiety, self-talk, and working alliance, might be needed as well (Barnes). This examination requires introspection, which might be too threatening in the early stages of counselor development when anxiety and doubts about performance are high (Stoltenberg et al., 1998). Because imposters experience high levels of anxiety and self-doubt (Clance, 1985), their development as counselors might be hindered.

The second reason counseling self-efficacy is important is its influence on career development (Lent et al., 2003). Research on children and self-efficacy has revealed that children's general self-efficacy affects their perceptions of their ability to perform different occupational activities even more than does their academic achievement, thereby influencing their career choices (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). The study described in subsequent chapters is less concerned with career development than with the influence of counseling self-efficacy on counseling trainees and counseling performance when the imposter phenomenon is involved.

Measuring Counseling Self-efficacy

Lent, Hackett, and Brown (1998) identified several problems that arise in defining and measuring counseling self-efficacy. Most counselor self-efficacy scales assume that the counselor has at least a rudimentary knowledge of counseling. A trainee asked about comfort level in applying a theory might be unable to answer if he or she has not completed a theories course. Some counseling self-efficacy scales (e.g., the Self-Efficacy Inventory; Friedlander & Snyder, 1983) incorporate constructs beyond counseling self-efficacy. Lent et al. (1998) identified "values" as a construct often used in counseling self-efficacy scales. Incorporating values assumed that there is a standard set of values needed to feel efficacious about one's ability to counsel. The Self-Efficacy Inventory (Friedlander & Snyder, 1983) incorporates case management and completion of academic requirements (Larson & Daniels, 1998). Other measures, such as the Counselor Self-Efficacy Scale and the Career Counseling Self-Efficacy Scale, are more specialized, focusing on specific types of counseling such as group or career (Melchert et al., 1996; O'Brien, Heppner, Flores, & Bikos, 1997). Finally, scales that reflect basic knowledge

and beginning skills might not be adequately represent more advanced counseling levels (Lent et al.).

The current project used the Counseling Self Estimate Inventory (COSE; Larson et al., 1992) to measure counseling self-efficacy. The COSE, based on Bandura's (1977) Social Cognitive Theory, was constructed to measure counselor trainees' outcome expectancies and counseling self-efficacy. The initial 67 item scale contained information with which beginning counselors should be familiar. Factor analysis of the final 37-item COSE resulted in five subscales: Microskills, Process, Difficult Client Behaviors, Cultural Competence, and Awareness of Values (Larson et al.). The Microskills subscale is designed to reflect basic counseling skills and includes items that focus on the clarity and conciseness of the counselors' responses and the counselors' ability to respond appropriately to clients' responses. Process reflects conceptualization, treatment planning, and the ability to determine meaning from clients' verbal and nonverbal responses. Difficult Client Behaviors includes items that focus on challenging problems such as alcoholism, suicidality, abuse, and resistance. The items in Cultural Competence address working with clients from different cultures, ethnicities, and social classes. Awareness of Values focuses on counselors' awareness of their own biases and values. The COSE contains items addressing basic counseling skills and more advanced process skills. Rather than addressing the counseling trainees' values, the COSE assesses the trainees' awareness of their own value systems (Larson et al.). The COSE has been validated and used in many studies of counseling self-efficacy (Daniels & Larson, 2001; Hall, 2009; Halverson, Miars, & Livneh, 2006; Humeidan, 2002).

Larson et al. (1992) examined the relationship between COSE scores and academic performance, anxiety, and social desirability. They found little relationship between COSE scores and academic performance as represented by GPA and GRE scores, but there was a significant negative relationship between COSE scores and trait and state anxiety. The COSE scores were positively related to measures of problem solving (Larson et al.). This relationship suggests that scores on measures of the imposter phenomenon, which is characterized by anxiety and negative self-assessment (Clance, 1985; Harvey & Katz, 1985), might be negatively related to self-efficacy and to perceptions of problem solving abilities.

Responses to the Microskills and Awareness of Values subscales of the COSE are related to social desirability (Larson et al., 1992). Those who are strongly influenced by social desirability tend to be more reactive, depending on their outcome expectancies, and more susceptible to social influence. Larson et al. also found that they tend to be more defensive and more likely to present in an inauthentic manner. One might expect a relationship between the imposter phenomenon and microskills and awareness of values, given the fraudulent personas imposters believe they present.

The COSE scores were compared with measures of classroom training and years of counseling experience and examined for gender differences in a series of studies conducted by Larson et al. (1992). There was no significant relationship between responses to the COSE and gender. However, training and experience were related to COSE scores. Larson et al. found that bachelors level counseling trainees had lower scores than masters level trainees and doctoral level professionals indicating that the bachelors level trainees had less counseling self-efficacy than master's level trainees or

doctoral professionals. Years of experience, apart from training, related positively to counseling self-efficacy (Halverson et al., 2006; Humeidan, 2002; Larson et al.). The influence of training and experience is one focus of this study. Imposter feelings may weaken the influence of training and experience on the trainees' perceptions of their own competence.

Research suggests that there are several components of counseling self-efficacy (Lent et al., 2003). The counselor's perceived ability to perform helping skills is one. Helping skills include the ability to integrate information into conceptualizations of client problems and treatment plans. Another component is the perceived ability to handle more difficult clinical situations (Lent et al.). Lent et al. found indicators of helping skills, especially insight, to have strong positive relationships with counseling self-efficacy. Trainees' beliefs about their ability to handle difficult clinical situations were positively related to counseling self-efficacy as well. Lent et al.'s study suggests that trainees' beliefs about managing difficult clinical situations are sensitive to their experience. Other research has shown that counseling self-efficacy is related to cognitive development, affect, and counseling actions (Leach et al., 1997). Leach et al. found that more experienced trainees understood the counseling process and their own values more fully, and were more confident in their ability to deal with difficult client behaviors, than were less experienced trainees.

Counseling Self-efficacy and Cognitions

Cognitive development is one important aspect of counseling self-efficacy (Larson, 1998). Stoltenberg (1998) stressed the importance of schema development for understanding the counseling process. Schemata that are too general or specific or that

focus on similarities and exclude differences were found to hinder counseling trainees' cognitive development (Stoltenberg). The perception of cognitive competence could be hindered by anxiety, fears of being "wrong," and desire to appear competent (Thompson, 2004). Imposters, who experience anxiety, fear of failure, and fear of success, and who expend energy to maintain the presentation that belies their feelings, might find that their perceptions of cognitive competence remain stuck (Clance, 1985). Research conducted by Halverson et al. (2006) showed that counseling trainees' conceptual levels increased from year 2 to year 3, but not during the first year of training. When practicum was added to the training program, cognitive complexity increased. Counseling self-efficacy increased during all years of training (Halverson et al.). Cognitive development was evident in counselors' ability to conceptualize client problems. Experienced counselors were more consistent in conceptualization and considered cases clearer than did inexperienced counselors (Stoltenberg et al., 1994).

Borders (1989) found that counseling self-efficacy was generally low in beginning trainees. Cognitively, they tended to think in black and white, absolute terms and to experience frustration and impatience. Increases in self-efficacy were accompanied by increases in empathy and tolerance and more worry about sounding judgmental (Borders). Eventually, trainees typically developed the ability to self-evaluate without needlessly criticizing their performances. Over time, trainees' concerns about competence shifted away from judgments of their personal reactions and toward their clients' needs and responses (Borders). The self-appraisal, or confidence, component of their cognitive abilities increased (Fong, Borders, Ethington, & Pitts, 1997). Their levels of self-acceptance increased (Thompson, 1986). The ability to

distinguish between realistic self-appraisal and irrational self-criticism was necessary to reduce anxiety related to counseling performance (Fitch & Marshall, 2002). These cognitive changes might not occur in trainees with the imposter phenomenon. Typically, imposters hold negative views of their abilities. It is possible that they do not develop the tolerance of negative feelings needed to self-evaluate effectively (Harvey & Katz, 1985), leaving them unable to distinguish between realistic self-appraisal and unrealistic self-criticism, as described by Fitch and Marshall. Imposters' anxiety levels are likely to remain high because evaluation, personal issues, performance, and fear of trying new things--all of which often maintain anxiety (Fitch & Marshall)--are ongoing concerns for them (Clance, 1985; Clance & Imes, 1978).

Counseling Self-efficacy and Affect

The relationship between counseling self-efficacy and anxiety is substantiated by both theoretical explanation (Barnes, 2004) and empirical evidence. Anxiety, in particular, hinders the development of counseling self-efficacy. High levels of anxiety hinder counseling trainees' skill development and might ultimately contribute to burnout (Fitch & Marshall, 2002). This idea is relevant given the relationship between anxiety and the imposter phenomenon. Counseling self-efficacy and anxiety might interact. For example, Bischoff and Barton (2002) proposed that anxiety would decrease and confidence increase as trainees gain experience. They described the decrease in anxiety as a natural change as trainees become less reactive to situational changes. Thompson (1986) found that graduate and undergraduate counseling trainees experienced fear and anxiety at the beginning of their training. With more training, their self-efficacy increased and their anxiety decreased. Trainees began practicum courses with self-doubts about

their skills and ability to work with clients. They expressed fears, inadequacy feelings, and anxiety about becoming psychologists (Al-Darmaki, 2004). Counseling self-efficacy and trait anxiety together predicted counseling performance in another study (Larson et al., 1992). Positive feedback increased counseling self-efficacy and concurrently decreased anxiety (Daniels & Larson, 2001). Overall, counseling self-efficacy enabled counselors to experience anxiety as challenging rather than disabling (Larson, 1998).

Counseling Self-efficacy and Actions

Actions that interact with environment and personal agency are part of a pattern of triadic reciprocity (Bandura, 1982). These actions, or behaviors, could occur in supervision, in counseling, or while interacting with others in the counseling environment (Larson, 1998). Bandura (1982) proposed that several factors moderate the influence of self-efficacy on behavior. Lack of self awareness, misjudgment of task requirements, poorly defined self-efficacy, unplanned situational constraints on action, and disincentives to act can weaken the influence of self-efficacy on behavior. New experiences can increase or decrease self-efficacy by strengthening or weakening its impact (Bandura).

Larson (1998) described characteristics of actions that increase the impact of mastery experiences which build self-efficacy. These characteristics include action patterns of gradual improvement or even failure followed by improvement, actions that required some effort on the part of the trainee, and actions accomplished with little assistance. Larson suggested that multiple characteristics could interact, increasing the impact of the experience beyond the level that actions with one characteristic would have. For example, if a counseling trainee researched efficacious interventions, planned ways

to apply the intervention, and used the intervention successfully with a client, the experience would probably carry more weight than a supervisor telling the trainee to do the intervention. The counselor's attribution of success and focus on helpful responses also tend to increase the impact of the experience.

Brammer (1997) used computer generated assessment scenarios to determine the influence of experience and training on confidence and information gathered during assessment. More advanced psychology trainees, doctoral candidates and those with their doctoral degrees, were more attentive and asked more questions to fill in gaps in the information presented. However, those with more clinical experience asked fewer questions overall compared to the number of questions asked by trainees beginning doctoral level training. The questions more advanced trainees and doctoral level professionals asked were more often diagnostic. Brammer found that confidence and perceptions of expertise were positively related to each other, but not related to experience. This corroborated research that found imposter feelings among experienced professionals (Fried-Buchalter, 1997; Topping & Kimmel, 1985).

Earlier research showed that doctoral level counselors confronted clients more than advanced students and novice trainees did, but did so in a less domineering manner (Tracey et al., 1988). Doctoral level counselors were more flexible in their responses, less flexible with client demands, and less verbose. Tracey et al. found that the only significant differences in responses of novice and advanced students were immediacy and verbosity; advanced students provided more immediate and longer responses. Tracey et al. suggested that learning certain responses and learning when to use them occur together. They showed that self-efficacy increased continuously, in general, with

experience and training. The research previously cited regarding changes in development and self-efficacy among graduate counseling students, undergraduate trainees, and doctoral level counselors provides another example of changes in specific actions among counseling trainees (Thompson, 1986). Thompson's research showed that as counselors gain experience and confidence, they reduce irrelevant responses, using their counseling skills more effectively.

It is important to include outcome and performance in a discussion of counseling self-efficacy and actions because of the equivocal research findings in this area. Larson (1998) suggested that counseling self-efficacy plays a role in thoughts, feelings, and behaviors related to counseling performance. Other research data on this relationship are unclear (Lent et al., 2006). Sharpley and Ridgway (1993) assessed the relationship of counseling self-efficacy with trainee predictions of their grades in a counseling skills class before, during, and after the class. They found that counseling self-efficacy did not predict performance in the class and predicted confidence in the trainees' predictions of their grades only once during the class. Sharpley and Ridgway concluded that counseling self-efficacy is not a valuable predictor of performance.

Lent et al. (2006) asked counselor trainees to rate their confidence in their ability to perform counseling tasks over the next week and with the client they were about to see, in order to determine the impact of general counseling self-efficacy and specific counseling self-efficacy. Both trainees and clients rated session quality. Lent et al. found some overlap between client-specific counseling self-efficacy and general counseling self-efficacy, as well as some distinct properties. Both general and specific counseling self-efficacy increased over time, consistent with theoretical expectations regarding this

relationship (Lent et al.). Client ratings of session quality were related to counseling self-efficacy only as mediated by counselor ratings of session quality. In other words, counselor ratings mediated the relationship between client ratings and counseling self-efficacy. Furthermore, the counselors' perceptions of performance were related to specific counseling self-efficacy (Lent et al.). Lent et al.'s study provided some evidence for the specificity of counseling self-efficacy, but did not clarify the influence of counseling self-efficacy on counseling performance.

As mentioned previously, research has shown that trainees filter their perceptions of successful counseling performance through their internal belief systems (Larson et al., 1999). Outcome expectancies regarding the predicted likelihood of a specific counselor response leading to a desired client reaction were also associated with counseling self-efficacy. Larson et al. (1992) also found that higher levels of counseling self-efficacy were associated with more positive outcome expectations. This finding has ramifications for the influence of the imposter phenomenon, which is characterized by negative internal judgments (Harvey & Katz, 1985), on counseling self-efficacy.

Outcome expectations and perceptions about performance are not the same as performance as rated by others. In the case of performance rated by others, the positive relationship between self-efficacy and counseling performance is equivocal. Sharpley and Ridgeway (1993) found that counseling self-efficacy did not predict performance during one semester of training. Halverson et al. (2006) found no relationship between counseling self-efficacy and supervisor ratings of clinical skills. Lent et al. (2006) found that counseling self-efficacy increased over one semester and over four client sessions. While counseling self-efficacy did predict counselor ratings of performance, it was not

significantly related to client ratings of session quality. Conversely, Larson et al. (1992) found that counseling self-efficacy was positively related to counseling performance. In the Larson et al. study, performance was operationalized as use of microskills that included clarity, conciseness, relationship establishment, nonjudgmental responses, effective responses, and interview responsibility. Independent reviewers rated trainee performance.

Counseling Self-efficacy, Experience, and Training

Experience and training are strongly indicated by research evidence as important in the development of counseling self-efficacy. It seems self-evident that counseling self-efficacy increases with experience. Orlinsky et al. (1999) found that perceived therapeutic mastery did increase with experience. Those with a great deal of experience perceived their mastery of counseling skills to be greater than it was earlier in their careers. Could experienced counselors still struggle with the imposter phenomenon? Because of the negative association of imposter feelings and feelings of competence (Clance & Imes, 1978), one could reason that an experienced counselor with imposter feelings would have decreased perceived therapeutic mastery just as the experienced faculty members in the Brems et al. (1994) study lacked mentoring skills.

Johnson, Baker, Kopala, Kiselica, and Thompson (1989) found that self-efficacy of master's level trainees increased after a prepracticum course. Melchert et al. (1996) found that levels of self-efficacy fell into four groups that corresponded with developmental levels in the Counselor Complexity Model. Counseling self-efficacy increased from first to second year in a master's level training program, from master's to doctoral level, and reached its highest level in practicing psychologists. The increase in

counseling self-efficacy from first to second to third year was replicated by Halverson et al. (2006), who found that self-efficacy increased over the first year of training when courses were purely academic. A more significant increase occurred when practicum was initiated (Fong et al., 1997; Furr & Carroll, 2003).

In his study of counseling trainees' and doctoral professionals' responses, Brammer (1997) found that experience did not have a significant effect on perceived expertise or confidence. Confidence, in turn, did not influence questions asked. Training, however, had a significant influence on counselor responses (Brammer). Other researchers previously reported that training accounted for more variation than experience in counseling self-efficacy (Melchert et al., 1996).

Sipps, Sugden, and Faiver (1988) hypothesized that beginning trainees would have higher levels of counseling self-efficacy than later trainees because they would underestimated the complexity of counseling, while second year trainees would experience a slump in self-efficacy related to increased awareness of these challenges, and that third and fourth year trainees would experience linear increases in self-efficacy. The impact of experience was controlled in order to get a clear understanding of the impact of training, and the hypothesized results were found. Self-efficacy and outcome expectations were lowest among second year trainees, higher among first year trainees, higher yet among third year trainees, and highest among fourth year trainees. Perhaps the low self-efficacy and outcome expectations of second year trainees reflected the vacillation in motivation and doubt characteristic of dependency-autonomy conflict (Stoltenberg & Delworth, 1987).

Heppner, Multon, Gysbers, Ellis, and Zook (1998) suggested that self-efficacy may be specific to training and experience. Their research looked at the relationship between career counseling self-efficacy, use of a therapeutic model, and practicum experience. Previous practicum experience that was not career related was not associated with higher levels of career counseling self-efficacy. The relationship between self-efficacy and outcome was unclear as well. When counselors reported more self-efficacy, clients experienced less growth in the area of personal control. This suggests that the counselor's behaviors vary with their self-efficacy levels. Heppner et al. (1998) suggested that counselors may become more directive or provide more advice as they became more confident or that clients concede more control to confident-appearing counselors. When training or experience increase counselors' confidence resulting in advising, imposter feelings might dampen this influence, paradoxically allowing clients greater self-direction and growth. In this project, as described in Chapter 3, training and experience were differentiated to determine the effects of both on counseling self-efficacy and the imposter phenomenon.

The relationship between counseling self-efficacy and self-concept should not be ignored when examining the impact of imposter feelings on counselor trainees. Wheeler (2002) suggested that self-concept influences counseling performance. Counselors with negative self-concepts might use therapy as an opportunity for self-healing. In such cases the drive for positive outcomes is attributable to the counselor's desire for enhanced self-worth. Few empirical studies have addressed the relationship between counseling self-efficacy and self-concept. Counseling self-efficacy is positively related to self-concept in general (Larson et al., 1992). A doctoral dissertation by Alvarez reported that counseling

self-efficacy had a negative relationship with perceived fraudulence (Larson & Daniels, 1998).

Our understanding of counseling self-efficacy is most effectively advanced by attending to both theoretical and empirical knowledge. This provides the best foundation for examination of the imposter phenomenon and its impact on counselor development. The importance of experience in the development of counseling self-efficacy and general counselor development has been reviewed. The importance of the interaction between experience and the imposter phenomenon and the overall impact of the imposter phenomenon will now be considered. It is anticipated that the imposter phenomenon directly affects counseling trainees' perceptions of their counseling abilities. Imposter feelings are also likely to affect counseling self-efficacy indirectly through their impact on experience.

Summary

Characteristics of the imposter phenomenon, including the pervasive feeling of fraudulence, the attribution of success and achievement to luck or other external factors, and the fear that others will discover the fraud (Clance & Imes, 1978), have been discussed. Suppositions about the development of the imposter phenomenon were also presented. Causal influences on the development of the imposter phenomenon such as childhood labels, parental appraisals and expectations, and more general family environment factors such as conflict within the family, parenting style, and lack of emotional nurturance have been hypothesized but not empirically validated (Clance & Imes; Harvey & Katz, 1985; Sonnak & Towell, 2000). The role the future imposter takes in her or his family of origin, i.e. the caretaker role, has been considered influential in

eliciting imposter feelings (Castro et al., 2004). The relationship between imposter feelings and the caretaker role may be particularly important given the tendency of many health care providers to assume such roles and to experience imposter feelings (Henning et al., 1998). Unfortunately, little research directly addressing the presence of the imposter phenomenon in counseling professionals has been conducted. The current project's focus on the impact of the imposter phenomenon in counseling trainees fills an important research gap.

The relationship between the imposter phenomenon and other constructs has been thoroughly researched. The imposter phenomenon has been demonstrated in the gifted population and in academic professionals. Both students and faculty in higher education have reported imposter feelings that cause significant distress and impaired productivity (Brems et al., 1994; Hackett et al. 1992; Henning et al., 1998; Topping & Kimmel, 1985). The presence of the imposter phenomenon among individuals with certain personality traits and individuals with specific psychological problems has also been noted (Robinson & Goodpaster, 1991; Ross & Krukowski, 2002; Striegel-Moore et al., 1993). Research on the imposter phenomenon among counselors, however, has been sparse. Bischoff and Barton (2002) identified the imposter phenomenon in marriage and family therapy trainees. They determined that the phenomenon was characteristic of beginning trainees and suggested that imposter feelings dissipated as the therapists developed (Bischoff & Barton). The anxiety of performing in new and unfamiliar situations has also been associated with imposter feelings (Cozzarelli & Major, 1990), though some accomplished, experienced individuals report imposter feelings as well (Fried-Buchalter, 1992; Topping & Kimmel, 1985). The current project included experience and training

as part of a model of the influence of the imposter phenomenon to determine if imposter feelings lessen during development in future psychologists.

The purpose of the current project is to determine the impact of the imposter phenomenon on counselor development and on the counselor trainees' perceptions of their abilities. The literature describing counselor development and self-efficacy was reviewed in order to evaluate current knowledge of how counselors develop and how imposter feelings might affect that development. Stoltenberg and Delworth (1987) made a notable contribution to the research on counselor development by describing the Counselor Complexity Model and its revision, the Integrated Developmental Model. The IDM is a four stage model that describes counselor growth through changes in self and other awareness, motivation, and autonomy (Stoltenberg et al., 1998). Counselors in the beginning level are characterized by anxiety, a desire to be helpful, and a primary focus on themselves. These counselors struggle to gain independence, vacillating between confidence and self-doubt, independence and dependence, and low and high motivation (Stoltenberg et al.). At more advanced levels, greater self-awareness and other-awareness, more stable motivation, and more independence emerge. One might expect the imposter phenomenon to be present among beginning counselors, given the anxiety and difficulty of viewing the counseling relationship beyond the counselor's internal experience as described in the IDM (Stoltenberg et al.). Imposter feelings accompanying self-doubt would be expected in the middle level of development as well. However, the presence of the imposter phenomenon among more advanced levels of development seems less likely. The lack of clarity about the presence and impact of the phenomenon in counselors at all levels led to two questions: is the imposter phenomenon present in

counselors at different developmental levels, and; if present, how does it impact the counselors?

Bandura's (1977) Social Cognitive Theory suggests that self-efficacy plays a role in personal agency. Other research has clarified the role that self-efficacy plays in cognitive processes, motivation, goal-setting, and affective processes. Bandura and colleagues found that persons with higher self-efficacy set more challenging goals, set higher standards of performance, and used more analytic problem solving strategies (Bandura & Cervone, 2000; Bandura & Locke, 2003; Wood & Bandura, 1989). Those with lower self-efficacy thought less efficiently, set less challenging goals, and had more negative affect (Bandura & Jourden, 1991). High self-efficacy was associated with the belief that the environment could change and that emotions are manageable, resulting in decreased risk of depression (Bandura et al., 2003; Bandura & Wood, 1989). Bandura et al.'s (2003) work showed that decreased self-efficacy led to more anxiety and less confidence in one's ability to empathize. Extrapolating from these studies, one might expect counselors with higher self-efficacy to set higher standards of performance than those with low self-efficacy. Furthermore, counselors with low self-efficacy might exhibit less efficient problem solving strategies, less empathy, and more depression and anxiety. The imposter phenomenon has been associated with depression, anxiety, and a focus on internal experiences (Clance, 1985; Harvey & Katz, 1985) suggesting an association between the imposter phenomenon and self-efficacy. Beliefs typical of those experiencing the imposter phenomenon, such as the view that ability is inherent, were associated with self-efficacy, and in particular with the tendency to personalize failures and feel threatened by others successes (Bandura, 1993; Kumar & Jagacinski, 2006).

Similarities in these beliefs supports the notion that self-efficacy and the imposter phenomenon are associated.

Larson (1998) expanded Social Cognitive Theory to explain the importance of self-efficacy in counselor development. Self-efficacy has an impact on the counselors' fears and anxieties, on their action choices, and on the effects of training and experience in their development as counselors. Larson et al. (1992) created and validated the COSE to measure counselors' self-efficacy and found that counseling self-efficacy is positively related to counseling performance. Thompson (1986) found that experience and training are associated with decreased counselor anxiety and increased self-efficacy. Such research raises the question of how experience and training might influence the imposter phenomenon and how the imposter phenomenon might in turn affect counseling self-efficacy. It is possible that experience and training might lessen imposter feelings as Bischoff and Barton (2002) suggested. Imposter feelings might also endure beyond early developmental levels into counselors' professional careers, as was found among business managers (Fried-Buchalter, 1992, 1997). Imposter feelings might also decrease counseling self-efficacy and adversely affect performance (Bandura, 1993; Larson et al., 1992). The current project tested a model of the relationship between counselor training and experience, the imposter phenomenon, and counseling self-efficacy using path analysis and structural equation modeling in order to determine causal effects of the imposter phenomenon on counseling self-efficacy.

Hypotheses

Two hypotheses can be derived from suppositions about the relationship between the imposter phenomenon and self-efficacy, and from the research that has revealed a

positive relationship between self-efficacy and counseling competence (Bandura, 1986; Larson & Daniels, 1998; Lent et al., 2006; Orlinsky et al., 1999). The first hypothesis for this study, therefore, is that the amount of experience a graduate level, counselor trainee has will affect the level of the imposter phenomenon, which will have a moderating effect on the relationship between experience and self-efficacy (see Figure 1). Research has indicated that feelings of inadequacy and deception decrease as counseling trainees gain experience (Bischoff & Barton, 2002). Research has also linked experience with increases in self-efficacy and competence (Melchert et al., 1996; Orlinsky et al.). Furthermore, research on counselor development has shown that increases in self-efficacy are related to level of training and that mastery of counseling skills is linked to experience and level of training (Eriksen & McAuliffe, 2003; Leach et al., 1997; Orlinsky et al.). Thus, as counselor trainees gain experience, imposter feelings may decrease. The first hypothesis reflects the influence of the imposter phenomenon on counseling self-efficacy (Bandura, 1977, 1986). Misperception of one's ability may increase or decrease self-efficacy, and confidence in one's abilities affects performance (Bandura, 1986). The first hypothesis specifies a moderated relationship (Frasier, Tix, & Barron, 2004) in that graduate level counselor and counseling psychology trainees' imposter feelings are expected to weaken the relationship between experience and self-efficacy (Figure 1).

The second hypothesis for this study emerges from two sources. The first source is research that investigated the association between anxiety, fear of success, and the imposter phenomenon (Chrisman et al., 1995; Fried-Buchalter, 1992, 1997). The second source is the research on the impact of anxiety on counseling self-efficacy (Larson, 1998; Larson et al., 1992). Responses to measures of the imposter phenomenon correlated with

responses to measures of anxiety ($r = .54$ and $r = .59$; Chrisman et al.). Fear of success and the imposter phenomenon were also related in studies using business managers of both genders as participants. The relationship between fear of success and the imposter phenomenon was stronger among women ($r = .63$) than men ($r = .29$; Fried-Buchalter, 1992, 1997). Furthermore, negative relationships between both state and trait anxiety and perception of counseling competence were found ($r = -.42$ and $r = -.51$; Larson, 1992). Considering these relationships, it is hypothesized in the current study that counselor trainees' levels of the imposter phenomenon will partially mediate the relationship between the trainees' experience and counseling self-efficacy. The trainees' experience is expected to affect their self-efficacy and the degree of imposter feelings they feel. While this relationship can be modeled in the same way as the moderating relationship, it is an indirect effect.

Analyzing the relationships among the imposter phenomenon, counselor experience and counseling self-efficacy will not only fill a gap in the research on the imposter phenomenon, but will also increase knowledge of factors affecting counselor development. Ultimately, this research may lead to training more self-assured, effective counselors.

CHAPTER III

Methods

This study was conducted to explore the relationship of the imposter phenomenon with counseling experience and counseling self-efficacy. The influence of the master's level counselor trainees' and doctoral level counseling psychology students' year in their graduate level counselor training programs and the influence of the amount of training on imposter feelings and self-efficacy were considered. Additionally, this study tested the impact of the imposter phenomenon on the relationship between counseling experience and counseling self-efficacy to determine if there was a direct or indirect effect.

Power Analysis

An a priori power analysis was conducted to determine the number of participants needed to retain good statistical power and detect an effect size of $R^2 = .16$, the most conservative effect size found in previous research, in a path analysis. Past research of counseling self-efficacy and other constructs such as anxiety and experience varied widely in effect sizes detected. Using data from the Collaborative Research Network, Orlinsky et al. (1999) investigated the relationship between years of experience and the perception of mastery of counseling skills. They calculated effect sizes of the differences between subgroup means and total sample means and detected a moderate effect size of .50 (moderate was considered $>.4$, but $<.7$) for psychologists (Orlinsky et al., 1999).

Research on the relationship between self-efficacy, moral development, conceptual development, and counselor trainees' skills yielded a statistically significant relationship ($R^2 = .41$) that was quite strong (Halverson et al., 2006). A strong relationship ($R^2 = .26$) between counseling self-efficacy and trait anxiety was also detected in the Larson et al. (1992) study that validated the Counseling Self-Estimate Inventory. Additionally, Melchert et al. (1996) found a relationship ($R^2 = .42$) between responses to the Counseling Self-Efficacy Scale, a measure of counseling self-efficacy, level of training, and amount of counseling experience.

A few studies of the imposter phenomenon reported effect sizes in terms of R^2 . In their study relating the imposter phenomenon to racial attitudes and worldview, Ewing et al. (1996) found an effect size of $R^2 = .16$. In another study of the ability of the NEO-Personality Inventory factors to predict imposter phenomenon scores, an effect size of $R^2 = .27$ for Neuroticism and $R^2 = .30$ for Conscientiousness (Bernard et al., 2002) was discovered. The current study took a conservative approach when conducting a power analysis using $R^2 = .16$, as found in the Ewing et al. study in a simulation conducted to determine the necessary sample population. The simulation built models of possible results using a range of values for the unknown variable. In this analysis, the number of participants needed to obtain an R-squared value of .16 was the unknown variable. A minimum of 150 participants was deemed necessary in order to have adequate statistical power to detect smaller effect sizes in the current project.

Participants

Counseling and counseling psychology trainees were recruited from universities in the Midwest to participate in this study. The original sample was composed of 296

graduate level trainees. The participants ranged in age from 21 to 60 years old; mean age was 29.38 ($SD = 8.1$). Two participants omitted their age. There were 259 (87.5%) female and 37 (12.5%) male participants. This disproportion in the sample population was expected due to the increase in the number of females in counseling graduate programs (Norcross, Kohout, & Wicherski, 2005).

A mix of ethnicities would have been ideal, but a higher percentage of Caucasian students were expected given the makeup of training programs which typically have a smaller percentage of students from ethnic minority groups (Norcross et al., 2005). As anticipated, most of the participants identified as Euro-American/White (89.2%). Another 3.7% identified as African American/Black. Asian or Asian American trainees made up 3.4% of the sample population, while Latino/Hispanic trainees made up 2.0% of the participants. Five (1.7%) participants identified as “Other” and specified being of mixed, bi-racial, or Middle Eastern descent.

The participants in the original sample were in different stages of training, 175 (59.1%) were pursuing a master’s degrees in counseling or human service fields, while 121 (40.9%) were pursuing doctoral degrees in psychology or marriage and family therapy. A larger percentage of master’s level students was expected due to the overall size difference of master’s and doctoral level programs. Of those pursuing master’s degrees, the majority (36.6%) reported specializing in Mental Health Counseling, while 26.3% reported specializing in School Counseling and 19.4% reported specializing in Community Counseling. A smaller percentage of participants working toward their master’s degree specialized in Social Psychology (2.3%), Rehabilitation Counseling (4.6%), or in a combination of two specialty areas (9.7%). Two master’s level trainees

(1.1%) did not specify their area of specialization. Those specializing in Social Psychology or Rehabilitation Counseling were not included in the project analyses because of the small sample sizes and/or because the focus of the study was counseling trainees. The doctoral level trainees reported specializing in Counseling Psychology (43.8%), Clinical Psychology (37.2%), School Psychology (9.1%), Counseling and Marriage and Family Therapy (5.8%), and combined Clinical and Counseling Psychology (1.7%) programs. One participant reported specializing in Law (0.83%) and two participants (1.7%) did not specify the type of program in which they were enrolled. Those specializing in Clinical Psychology, School Psychology, Marriage and Family Therapy, and Law were not included in the project analyses.

Only the participants who specialized in counseling or counseling psychology programs were included in the project analyses in order to focus on counseling training and to avoid the threat to internal validity inclusion of varied training programs would create. This sample included 170 participants. The mean age of this group was 29.82 ($SD = 8.34$). There were 27 male (15.9%) and 143 female (84.1%) participants. The participants were of Euro-American/White (84.7%), African American/Black (5.3%), Asian or Asian American (5.9%), Latino/Hispanic (1.8%), Middle Eastern (.6%), and “mixed” (1.8%) descents. The majority of these participants, 115 (67.6%), were pursuing master’s degrees in counseling including mental health counseling, while 55 participants (32.4%) were pursuing doctorates in Counseling Psychology. The paragraphs to follow will only report on additional demographics on these two groups.

Family Environment

Demographic information about the graduate level counseling trainees' childhood environment that might influence the occurrence of imposter feelings (Clance, 1985; Langford & Clance, 1993; Harvey & Katz, 1985) was obtained. This included family conflict, parental education, and achievement. While these variables were not the focus of this study, the information was used to provide support for previous research examining the origins of imposter feelings. Family conflict has been suggested as a factor influencing the etiology of the imposter phenomenon (Clance; Langford & Clance). Referring to a 1 (none) to 10 (severe) scale of family conflict, five of the 170 counseling trainees (2.9%) reported no conflict and two trainees (1.2%) reported severe conflict. The counseling trainees rated the mean level of conflict in their family of origin at 4.6 ($SD = 2.23$).

Parental Education

Research has suggested that persons who surpass their parents' level of education particularly first generation college graduates (Harvey & Katz) and white-collar professionals who grew up in a blue-collar family (Miller & Kastberg, 1995) are at risk for developing the imposter phenomenon. Participants were asked about the highest level of education obtained by their parents. The largest percentage of graduate level counseling trainees (28.8%) reported that their mother had an undergraduate degree. Another 22.9% reported that their mother had some college education and 21.2% reported their mother graduated from high school. Mothers of 18.8 % of participants had graduate degrees. A small percentage, 6.5%, had some high school education and 1 participant, 0.6%, reported that the highest level of education their mother attained was

elementary school. Fathers attained similar levels of education although a few more (21.8%) obtained graduate degrees. Another 25.3% of fathers obtained bachelor's degrees, 23.5% had some college experience, and 18.2% graduated high school. As with the participants' mothers, 5.9% attained some high school education. Only 2.4% of participants' fathers completed 8th grade or less.

Family Composition

Clance and Imes (1978) suggested that some imposter feelings develop from comparisons with a sibling. The majority of graduate level counseling trainees (94.1%) in the current study reported having siblings. Among the participants with siblings, most (37.6%) were oldest children. Another 35.3% were youngest children, while 21.2% were middle children.

Achievement

Imposters are, by definition, high achievers (Clance & Imes, 1978). Achievement in the current project was represented by graduate GPA, undergraduate GPA, graduation honors, dean's list recognition, and participation in honor societies (Hirschberg & Itkin, 1978; Pfeifer & Sedlacek, 1974; Schmidt, Homeyer, & Walker, 2009). Four participants did not report their graduate GPA. The mean graduate GPA of the majority of participants was 3.85 ($SD = 0.20$). Ten participants omitted their undergraduate GPA. The mean undergraduate GPA of the participants was 3.50 ($SD = 0.35$). This suggested a generally high level of achievement in both bachelor and graduate level programs. Only one participant (0.6%) reported a GPA of less than 3.0 in current graduate studies, while 16 participants (10%) reported a GPA of less than 3.0 but higher than 2.0 in undergraduate studies. Almost half of the participants graduated with their Bachelor's

degree with honors: 18.2% Cum Laude, 16.5% Magna Cum Laude, and 11.2% Summa Cum Laude. Many participants, 70.6%, reported being on the Dean's List during their undergraduate studies and 50.6% were members of an Honor Society.

Counseling Experience

The graduate level counseling trainees in the current study had different amounts of counseling experience ranging from none to 240 months of experience prior to entering their counseling training programs. Including those with no experience could skew the results by decreasing the mean level of prior experience. The mean prior experience of the counseling trainees was 12.63 months ($SD = 31.77$). The time in their training programs reported by the participants ranged from just starting (0 months) to 120 months with a mean time in their program of 21.44 months ($SD = 17.82$). Practicum experience ranged from none to 84 months with a mean of 15.45 months practicum experience ($SD = 17.15$). Three of the trainees were excluded from analysis because they did not respond or provided improbable responses to the questions of number of months in their training programs and months of practicum experience. For example, a participant who reported a total of 39,875 months in the training program was excluded from the analyses.

The last demographic variable related to counseling experience was assessed by the number of direct counseling hours accumulated. Of the 170 participants, 4 were excluded from determining the number of counseling hours due to non-response. The remaining 166 participants' reports of time spent counseling ranged from none to 5200 hours. The mean number of direct counseling hours obtained by counseling trainees was 370.25 hours ($SD = 672.20$).

Procedures

Master's and doctoral students at Midwestern universities were invited by the primary researcher to participate through an e-mail solicitation (Appendix D) to program training directors, classroom announcements by the primary researcher, and snowball sampling in which persons who completed the survey gave the e-mail solicitation to their peers. Participation in random drawings for \$25 Barnes & Nobel® gift cards was used as an incentive to participate. The study was set up as an on-line survey using the Integrated Network Quizzing, Surveying, and Interactive Testing System (InQsit; Fortriede & Draper, 1996). Those who agreed to participate were given the web address for the survey, which included an introductory page, the demographic sheet, the two instruments, and a debriefing summary. The introductory page provided a brief explanation describing the purpose of the study as an examination of factors affecting counselors' perceived ability to effectively assist their clients. This explanation was designed to minimize social desirability by describing the imposter phenomenon as a factor that affects counseling efficacy. The introduction also included an explanation of informed consent and referral information to the participants' university counseling centers had any of the participants experienced discomfort after completing the questionnaires. The introduction page including informed consent can be viewed in Appendix E. The debriefing summary (see Appendix F) provided the researcher contact information if any participants wanted to find out the results of the study. While the introductory page was placed first and the debriefing summary was placed last, the demographic sheet, the CIPS, and the COSE were placed in varying order for counter-balanced administration.

The participants' responses were coded so that there would be no names or other identifying information attached. Therefore, participant anonymity was assured.

Instrumentation

Demographic Questionnaire

A brief demographic questionnaire was given to all participants (see Appendix A). This questionnaire requested information about a number of demographic variables including the participant's age, gender, ethnicity, and degree program. The questionnaire included items related to the four experience-related variables. Demographic information related to the imposter phenomenon such as family conflict, achievement, and parental education was also obtained. Only prior experience, number of months in the training program, number of months in practicum, and number of counseling hours were used in the analyses examining the influence of the imposter phenomenon on the relationship between experience and counseling self-efficacy. Information about family conflict, achievement, and parental education was used in preliminary analysis that provided information about theoretical relationships between imposter feelings, family conflict, achievement values, and educational differences (King & Cooley, 1995; Langford & Clance, 1993; Miller & Kastberg, 1995).

The Imposter Phenomenon

The CIPS (Clance, 1985) was used to measure the level of imposter feelings. The CIPS (see Appendix B) is a 20-item, self-report instrument that measures fear of evaluation, feeling less capable than peers, fear that success cannot be repeated, feelings of inadequacy, and self-monitoring behaviors. Clance (1985) worded the measure specifically to acknowledge success and minimize social desirability. CIPS items are

anchored with a Likert scale with a 1 (*not at all true*) to 5 (*very true*) response range. Items on the CIPS include: “I can give the impression that I’m more competent than I really am,” and “At times, I feel my success has been due to some kind of luck.”

Factor analysis of the CIPS resulted in three factors: Fake, Discount, and Luck (Chrisman et al., 1995). The first factor, Fake, included items related to self-doubt and concerns about intellect and abilities. Discount included items related to fear of evaluation and difficulty accepting success. Luck, the third factor, included items related to beliefs that successful performances were due to chance or erroneous evaluation. Fake accounted for the greatest percentage of variance in the CIPS (38.5%), while Discount accounted for 9.2% of variance and Luck accounted for 7.2% (Chrisman et al.). Chrisman et al. (1995) reported that the results of the factor analysis were consistent with those found in an unpublished study by Kertay, Clance, and Holland (1991) providing preliminary support for the construct validity of the CIPS by validating its stable structure. French et al. (2008) conducted a confirmatory factor analysis and found that responses that loaded onto the Fake and Discount subscales were correlated. A two-factor model that combined Fake and Discount had a comparable fit to the three-factor model. French et al. (2008) noted that the three-factor model fit the data well and called it “theoretically preferred” (p. 1274). French et al. considered the two-factor model, described as one factor made up of Fake and Discount combined and a second factor made up of Luck, most parsimonious. The authors also suggested that lack of clarity in the factor structure warranted use of the total CIPS score in practice (French et al., 2008).

The CIPS has shown a high level of internal consistency with alpha values for the total score reported at .92 (Chrisman et al., 1995; French et al., 2008) and .96 (Holmes et

al., 1993). Alpha values for the subscales, Fake, Luck, and Discount, indicated acceptable internal consistency (French et al., 2008). French and colleagues found the alpha for Fake to be .84, while alpha values for Luck and Discount were .70 and .79, respectively.

Responses to the CIPS have been found to correlate with responses to other measures of the imposter phenomenon (Chrisman et al., 1995; Harvey, 1981; Holmes et al., 1993; Kolligan & Sternberg, 1991) demonstrating construct validity. Total scores on the CIPS and Harvey's Imposter Phenomenon Scale (Harvey, 1981) were significantly correlated ($r = .89$), while total scores on the CIPS and the Perceived Fraudulence Scale (Kolligan & Sternberg, 1991) correlated at $r = .78$. Studies by Chrisman et al. (1995) and Holmes et al. (1993) found that responses to the CIPS significantly correlated with responses to the Beck Depression Inventory (BDI; $r = .42$) and the Depressive Experiences Questionnaire (DEQ; $r = .62$), the Self-Esteem Scale (SES; $r = -.54$), and the Rosenberg Self-Esteem Scale (RSES; $r = -.60$), the Fear of Negative Evaluation Scale (FNE; $r = .54$), and the Social Recognition Scale (SRS; $r = .27$). These significant correlations indicated that the imposter phenomenon is related to depression, self-esteem, and social anxiety. Responses to the BDI, DEQ, SES, RSES, FNE, and SRS correlated more highly with each other than they did the CIPS demonstrating that the imposter phenomenon is also distinct from depression, self-esteem, and social anxiety (Chrisman et al., 1995; Holmes et al., 1993) and demonstrating the discriminant validity of the CIPS. The CIPS also differentiated the imposter phenomenon from self-esteem and depression (Clance, 1985).

Clance (1985) stated that a score of 40 or less on the CIPS indicated few imposter characteristics. Higher scores, however, indicated more frequent and more severe imposter feelings that were more likely to impede the individual's functioning. Scores in the range between 41 and 60 indicated a moderate degree of imposter characteristics, while scores between 61 and 80 indicated frequent imposter experiences and scores greater than 80 indicated intense imposter feelings (Clance, 1985). Clance's divisions seemed to be arbitrary; she provided no supporting evidence for the ranges. A later study recommended use of a cutoff of 62 to differentiate imposters from non-imposters because that cutoff score resulted in only one false positive and no false negatives (Holmes et al., 1993). As previously stated, French et al. (2008) recommended that the total CIPS score be used to represent the imposter phenomenon because their factor analysis of the CIPS yielded an unclear factor structure. Given that there is more support for the validity and reliability of a total CIPS score as compared with the CIPS subscale scores, the analyses in this study will employ the total score.

Counseling Self-efficacy

The Counseling Self-estimate Inventory (COSE) is a 37 item, self-report instrument with 5 subscales: Microskills, Process, Difficult Client Behaviors, Cultural Competence, and Values Awareness (Larson et al., 1992) (see Appendix C). The Microskills subscale focuses on the quality of the counselors' responses in terms of conciseness, clarity, and relevance to clients' responses. Larson et al. (1992) described the focus of the Process subscale as the counselors' responses over a series of verbal interactions with the client as well as the counselors' ability to integrate underlying meanings of behaviors and assessment information. The items on the subscale "Difficult

Client Behaviors” reflect the counselor’s knowledge and skills to handle unmotivated, suicidal, abused, alcoholic, indecisive, and silent clients (Larson et al.). Cultural Competence focuses on the counselors’ perception of their ability to work with clients of other cultural, ethnic, or socioeconomic groups. Awareness of Values focuses on ethical issues such as resolving personal problems and imposing personal values onto clients (Larson et al.).

COSE items are linked with a Likert scale anchored with a 1 (*strongly disagree*) to 6 (*strongly agree*) response range (Larson et al., 1992). Items on the COSE include: “I am confident that I will be able to conceptualize my client’s problems” and “I am likely to impose my values on the client during the interview.” Higher total scores on the COSE represent a higher perception of counseling self-efficacy (Larson et al.). Larson et al. stated that the COSE was designed to apply Bandura’s self-efficacy theory to the counseling process. Therefore, it is not a measure of a personality trait, but a measure of counselors’ judgments of their ability to perform specific counseling activities, in essence, their personal agency (Larson et al.).

The COSE demonstrated high internal consistency (Larson et al., 1992). The total measure Cronbach’s alpha was .93. Cronbach’s alpha for the subscales’ were: Microskills, $\alpha = .88$; Process, $\alpha = .87$; Difficult Client Behaviors, $\alpha = .80$; Cultural Competence, $\alpha = .78$; and Awareness of Values, $\alpha = .62$. Test-retest reliability of the total score over a three week period was $r = .87$. Convergent validity was demonstrated between responses to the COSE and responses to measures of self-concept (COSE and Tennessee Self-Concept Scale; $r = .51$), anxiety (with State Trait Anxiety Inventory; $r = -.42$ with state anxiety, $r = -.51$ with trait anxiety), and problem-solving (with the Problem

Solving Inventory; $r = -.73$). The COSE was sensitive to changes related to experience (Larson et al., 1992). In a comparison of counselor trainees seeking bachelor's degrees, master's level counselors, and Ph.D. level counseling psychologists, COSE scores increased as degree level increased, years of experience increased, and semesters of supervision increased. Furthermore, among master's level counselors, COSE scores increased over one semester in all but one student (Larson et al.). These changes demonstrated construct validity in that an increase in scores reflected the expected increase in self-efficacy postulated in both the self-efficacy (Bandura, 1993) and counselor development (Stoltenberg & Delworth, 1987) literature. In the current study, the COSE subscales were used to represent the latent construct of counselor self-efficacy in the structural equation model (Figure 1).

Research Design

Model building is an “iterative process that cycles through the phases of research including theory, field observation, construct definition, measurement development, construct analysis, model testing, field trials, and model revision” (Dishion & Patterson, p. 502). The current project is based on the theories about the imposter phenomenon initially described by Clance and Imes (1978), and Bandura's (1977; 1986; 1993) Social Cognitive theory as applied to counseling trainees specifically (Larson, 1998). The constructs of the imposter phenomenon and counseling self-efficacy were represented in the model by two instruments, the CIPS (Clance, 1985) and the COSE (Larson et al., 1992). These instruments were validated as part of their use in research projects (Chrisman et al., 1995; French et al., 2008; Larson et al.) and are now incorporated in the current study into models of the relationships between experience, the imposter

phenomenon, and counseling self-efficacy. In the current project, the hypotheses that the presence of the imposter phenomenon will influence counseling development by either moderating or partially mediating the effects of experience on self-efficacy were tested using a structural equation model and a path model. The structural equation model was tested to determine the nature of the relationships between the imposter phenomenon, counselor experience and counseling self-efficacy. The path model was used to test moderation of the imposter phenomenon on the relationship between experience and counseling self efficacy.

The Structural Equation Model

The structural equation model (see Figure 1) was used to model the relationships between experience, the imposter phenomenon, and counseling self-efficacy. The structural equation model had two parts, the measurement model and the path model (McDonald & Ho, 2002). The measurement model was the set of observed variables that served as indicators of the latent variables. The measurement model included the four observed, exogenous variables representing experience and the observed, endogenous variables which included the twenty questions making up the CIPS, and the subscales of the COSE. The path model included the observed, endogenous, latent variables, the imposter phenomenon and counseling self-efficacy. Often SEM models use both observed and latent variables (McDonald & Ho, 2002), which is the case in the current model where the experience indicators are not latent variables. The 27 error variables were also included in the structural equation model. The model included 92 parameters and had 372 degrees of freedom.

It was expected that a more complex model, the structural equation model, would more closely fit the data than a path model. Structural equation modeling is superior to path models because all relevant paths are tested and measurement error is incorporated into the model (Baron & Kenny, 1986). Hopwood (2007) clarified that use of latent variables rather than observed estimates effects more reliably because any error present in one observed variable is unlikely to be the same in the other observed variables. SEM allows unique representation of error in the observed variables such that the latent variable is a more accurate reflection of the construct.

The modeling was accomplished using AMOS 7 (Arbuckle, 2006). Maximum likelihood (ML) estimation was used to obtain model parameter estimates. The fit indices compared the models to models that had no constraints (Hopwood, 2007). That is, the models incorporated directed arcs rather than having every variable free to relate to any other variable. Some fit indices are more prone to specific problems than others. Three fit indices that were among those recommended because they were less sensitive to distribution and sample size problems and less sensitive than other indices to simple model misspecification were the Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) (Hu & Bentler, 1998). Other researchers have found that indices such as the RMSEA, the TLI, the incremental fit index (IFI), and the CFI are less vulnerable and generalize better (Martens, 2005), making them a better choice for analyses. Citing the model chi-square and significance test and several other indices is the typical practice in SEM (Hopwood, 2007). Thus, the chi-square and significance test and the CFI, TLI, and RMSEA were used in the current project.

The Path Model

A path model (see Figure 2) was used to model moderation by the imposter phenomenon. This model used observed variables to represent the relationships between experience, the imposter phenomenon, and counseling self-efficacy. While structural equation models are statistically superior to path models, the path model was used to test moderation because of ease of analysis. Specifically, it was not possible to model interactions between latent variables using AMOS. The path model was a recursive model meaning that there were no closed cycles formed by directed arcs or paths (McDonald & Ho, 2002). Prior experience, months in the program, months of practicum, and counseling hours provided four observed, exogenous variables meaning that no directed arcs ended on these variables (McDonald & Ho). The total CIPS score and the total COSE score were used as the observed endogenous variables, i.e., at least one directed arc ended on these variables (McDonald & Ho). Experience variables had direct arcs to the CIPS and direct arcs to the COSE (see Figure 2). The CIPS was directly connected to the COSE as well. Four interaction variables, the interactions of the four experience variables and the CIPS were included in the model. These interaction variables, the CIPS total score, and the COSE total score were observed endogenous variables because directed arcs ended on them (McDonald & Ho). Six unobserved, exogenous variables, the errors connected with the total CIPS, the total COSE, and the four interaction variables were included in the model. The path model included 30 distinct parameters and had 35 degrees of freedom. Each interaction variable was individually incorporated into the model to test the potential moderation of the imposter

phenomenon on the relationships between each experience variable and counseling self-efficacy.

In this model, as with the SEM, the researcher determines direct and indirect effects prior to analysis. The path model has the same drawback as multiple regression analysis in that latent constructs are not represented and, therefore, error is not included in the analysis. Another disadvantage is that a single measure is used to represent each observed variable (Kline, 1991). The advantage of the path model was that it allowed use of four interaction variables and subsequently four tests of moderation. Use of the structural equation model would require testing the interaction of each experience variable with each CIPS item, eighty potential interactions.

Moderator and Mediator Testing

The two hypotheses included in the model testing were as follows:

- 1) The counselor trainees' level of the imposter phenomenon will moderate the relationship between the trainees' experience and counseling self-efficacy.
- 2) The counselor trainees' level of the imposter phenomenon will partially mediate the relationship between the trainees' experience and counseling self-efficacy.

While direct and indirect effects can be tested with regression analyses, observed variable path analysis is a statistically stronger technique because statements of causality can be made (Kline, 1991). The strategy for testing for moderator effects as described in the first hypothesis of this study varies if the moderator is a dichotomous or continuous variable. Using CIPS scores as continuous variables is more complex because the number of interaction variables that would be constrained would equal the product of the

number of indicators of experience and the number of indicators of the imposter phenomenon (Holmbeck, 1997). As previously described, the product of the CIPS total score (Chrisman et al., 1995), and the four indicators of experience (number of months in the training program, number of months in practicum, number of direct counseling hours, and number of months experience prior to training) yielded four interaction terms. The four interaction terms were constrained one by one to determine the presence of moderation effects. The difference in the chi square values of the constrained and unconstrained models represented the degree of the moderator interaction. In other words, a moderator effect was indicated if the fit of the constrained model was significantly worse than the unconstrained model, (Holmbeck, 1997).

The alternative, mediation model was tested in a similar fashion. First, the fit of the entire model was tested. Then, the path coefficients of the experience to imposter phenomenon arc, the imposter phenomenon to counseling self-efficacy arc, and the experience to self-efficacy arc were examined for significance and direction. The fit of the unconstrained model where the experience to counseling self-efficacy arc was unconstrained, was compared to the fit of the constrained model where the experience to counseling self-efficacy arc was constrained to zero. A mediation effect was indicated if the fit of the constrained model was worse than the unconstrained model (Holmbeck, 1997) as indicated by the presence of significant indirect effects in the analysis matrices (Arbuckle, 2006). Through all these analyses, the influence of the imposter phenomenon on counseling self-efficacy was clarified.

CHAPTER IV

Results

Preliminary Analysis

Before testing the hypotheses of the direct and indirect effects of the imposter phenomenon on counseling self-efficacy, preliminary analyses were conducted to determine the correlations of the variables included in the analyses, presence of collinearity among the variables, and reliability of the scales representing the latent constructs. The mean scores of the CIPS, COSE, and COSE subscales were also determined as was the participants' level of imposter feelings.

Correlations and Collinearity

Prior to the modeling the relationships between experience, the imposter phenomenon, and counseling self-efficacy, Pearson correlation coefficients between the variables representing experience, the imposter phenomenon, and counseling self-efficacy were calculated to determine the strengths of the relationships between the them. As displayed in Table 1, correlations ranged from $-.02$, the lowest, between months in practicum and total CIPS score to $.91$, the highest, between the COSE total score and COSE subscale Process. Relationships between the COSE total score and COSE subscales tended to be the strongest.

Experience was conceptualized as the number of months of experience prior to entering the training program (Priorex), the number of months in the program (Monthprog), the number of months in practicum (Pracmonth), and the number of direct service hours obtained in the training program (Cnshours). Calculating the coefficient alpha reliability of Experience as a scale was not appropriate since the variables representing experience were observed rather than latent constructs and the four reported elements of experience represented different aspects of the construct. Pearson's correlation coefficients indicated that the experience variables were related as expected (Table 1). The number of months that the participants were in their programs was strongly related to the number of months of practicum experience they reported. Those who had more months of practicum experience also reported more counseling hours. A less strong, positive relationship was present between the participants' prior experience and the participants' total number of counseling hours.

Collinearity, the "data vectors of two variables fall on the same line" (Pedhazur, 1997, p. 295), refers to extremely strong relationships among the variables, which can have a negative impact on the estimation of path coefficients and their standard errors. A regression analysis was conducted to determine whether collinearity was present among the experience variables by obtaining variance inflation factor values (Pedhazur). The regression model used family conflict as the dependent variable and the four experience variables: prior experience, months in program, months in practicum, and number of counseling hours, as independent variables. The regression analysis was conducted only to determine collinearity between variables, using the variance inflation factor (VIF) as the indicator. A cut-off value of $VIF < 5$ as criteria was used (Pedhazur). The largest

VIF was months of practicum with $VIF = 2.01$ (Table 2). Other factors were $VIF = 1.58$ for number of counseling hours, $VIF = 1.46$ for months in the program, and $VIF = 1.06$ for prior experience. Thus, it was determined that collinearity was not present between the four experience variables and they were used as observed variables separately indicating the construct Experience in the subsequent analyses.

Reliability

Reliability analyses using Cronbach's internal reliability coefficient were conducted on the CIPS and the COSE (see Table 3). When assessing reliability, the guidelines suggested by DeVellis (2003) were used: below .60 = unacceptable; .60-.65 = undesirable; .65-.70 = minimally acceptable; .70-.80 = respectable; and .80-.90 = very good. The reliability results for the CIPS was .91 indicating very good reliability. Cronbach's alpha for the COSE was .94 indicating very good reliability. Internal reliabilities for the COSE subscales were as follows: Microskills =.88; Process =.88; Difficult Client Behaviors =.81; Cultural Competence =.80; and Awareness of Values =.63. All the subscales with the exception of Awareness of Values had very good internal consistency. Cronbach's alpha of Awareness of Values fell into the undesirable range. The reliability of alpha increases as the number of items in the scale increases (DeVellis). Thus, the low alpha of Awareness of Values may reflect use of only four items in the subscale. Caution should be used when making interpretations based on the Awareness of Value subscale. No interpretations based solely on Awareness of Values were made in this study.

Scale Response Characteristics

The CIPS and COSE were scored by calculating the mean scores for the participants (Table 4). Higher scores on the CIPS indicated more imposter feelings, that is, stronger experiences of the imposter phenomenon. Mean score on the CIPS was 54.99 ($SD = 12.47$) which was similar to the mean score of 54.7 found among medical students and lower than the 56.4 and 59.4 found among nursing and pharmacy students respectively (Henning et al., 1998). This mean score was also less than the 59.25 mean score found among undergraduate psychology majors (Cowman & Ferrari, 2002) and the 70.59 mean score found among third year undergraduates classified as high achievers (Sonnak & Towell, 2001). The lowest CIPS score was 25, while the highest was 92. Scores on the CIPS were divided into levels of imposter feelings according to the divisions recommended by Clance (1985). Clance considered the intensity of imposter feelings when dividing scores into ranges rather than dichotomously dividing participants into “imposter/non-imposter” categories that suggest nonimposters have no imposter feelings. The ranges of CIPS scores for these categories in the current sample were as follows: total CIPS score of 40 or less indicates few imposter characteristics; total score between 41 and 60 indicates moderate imposter feelings; score between 61 and 80 indicates frequent imposter characteristics; and a score higher than 80 reflects intense imposter feelings (Clance). The majority of participants endorsed moderate levels of imposter feelings (61.2%). Forty participants (23.5%) endorsed frequent imposter feelings. Only 4.1% or seven respondents reported intense imposter feelings.

Higher scores on the COSE indicated that the participants had higher levels of self-efficacy in their ability to effectively counsel. Total COSE scores ranged from 98 to

210, with the mean total COSE score of 157.54 ($SD = 20.76$). This mean was slightly lower than the mean of 158.17 ($SD = 15.44$) found among counseling psychology trainees, clinical psychology trainees, and university counseling center personnel in a study by Humeidan (2002). The current mean was higher than the mean COSE scores found among first (144.42) and second (155.05) year master's level counseling trainees in a study by Halverson et al. (2006). The current mean scores for the COSE subscales were also calculated. Average scores for the subscales were Microskills = 53.31; Process = 40.68; Difficult Client Behaviors = 27.39; Cultural Competence = 18.31; and Awareness of Values = 17.85. Table 4 shows the COSE total scale and subscale means, standard deviations, and ranges of scores.

Gender Effects

Gender has been considered an important factor in the occurrence of the imposter phenomenon (Clance, 1985). While Clance and Imes (1978) characterized the imposter phenomenon as a problem specific to women, other researchers found imposter feelings among both men and women (Fried-Buchalter, 1992, 1997; Topping & Kimmel, 1985). While the relationship between gender and the imposter phenomenon has been often debated, it was not the primary focus of this study. However, because of the equivocal beliefs about the influence of gender on the imposter phenomenon and the feminization of counseling in general (Norcross et al., 2005), a preliminary analysis of gender effects, imposter phenomenon, and counseling self-efficacy was conducted.

In the analysis of gender effects, group invariance was determined using a Multiple Indicator-Multiple Indicator Cause (MIMIC) model (Joreskog & Goldberger, 1975). First, an additional path was created between the observed variable gender (G)

and latent variable CIPS. This path was removed and a path was added linking gender and the latent variable counseling self-efficacy. The path estimates for gender and the imposter phenomenon and gender and counseling self-efficacy indicated the difference between males and females on the CIPS scores and the COSE scores.

The model fit of the MIMIC model ($\chi^2 = 915.15$ (400), $p < .001$) and fit indices (CFI = .75, TLI = .71, RMSEA = .09) indicated that the model did not represent the data well. However, the focus of this analysis was gender effects. The parameter estimate of the path from gender to the CIPS was $-.20$ (Standard Error = .17) and the critical ratio was -1.21 , $p = .23$. These results indicate that there were no gender differences on the CIPS. Additionally, the path coefficient from gender to the imposter phenomenon was close to zero ($\beta = -.095$). There was no significant difference in perception of imposter feelings in men or women.

The model fit for the model testing the impact of gender on counseling self-efficacy was significant as well ($\chi^2 = 914.11$ (400), $p < .001$). This model was not a good fit for the data. The fit indices were CFI = .75, TFI = .71, RMSEA = .09. The path coefficient from gender to the COSE ($\beta = -.11$) suggested that there was not a significant relationship between gender and counseling self-efficacy. The parameter estimate of the path from gender to the COSE was -1.60 (Standard Error = .10). The critical ratio was -1.61 , $p = .11$, corroborating that gender had no influence on perception of counseling self-efficacy.

The MIMIC models showed that gender did not have an effect on imposter feelings or counseling self-efficacy. The current results disconfirmed Clance and Imes's (1978) initial conjecture that imposter feelings are a female experience and confirmed

studies that found no difference in imposter feelings among men and women (Fried-Buchalter, 1997; Topping & Kimmel, 1985). Additionally, the current study showed no significant difference in levels of counseling self-efficacy among men and women.

Main Analysis

In the main analysis, the fit of the structural equation model, was assessed.

Additionally, the following hypotheses were tested:

- 1) The amount of experience a counselor trainee has will affect the level of the imposter phenomenon, which will have moderating effect on the relationship between experience and self-efficacy.
- 2) The counselor trainees' level of the imposter phenomenon will partially mediate the relationship between the trainees' experience and counseling self-efficacy.

Hypothesis one was tested by comparing the influence of the experience variables and the interaction of the experience variables and the CIPS on counseling self-efficacy. The causal relationships between the four experience variables, observation of the imposter phenomenon as represented by the CIPS, and observation of counseling self-efficacy as represented by the COSE were modeled. Four interaction variables, the products of each experience variable and the CIPS, were created. The paths between with each interaction variable and the COSE were tested individually to identify any moderating effects (Figure 2).

The model fit indices for each moderation model are provided in Table 6. As with the original model (main effects only), the fit indices indicated that the moderation models did not fit the data well. Still, the models provided important information. Standardized regression weights, estimates, standard errors, and critical ratios of the paths

between the interaction terms and the COSE are provided in Table 8. The interaction term between months in practicum and counseling self-efficacy was significant indicating that imposter feelings moderated the relationship between months in practicum and counseling self-efficacy. As indicated by significance, imposter feelings moderated the relationship between counseling hours and counseling self-efficacy. Thus, imposter feelings changed the impact of months in practicum and number of counseling hours on the development of counseling self-efficacy.

The interaction of prior experience and the imposter phenomenon was not significant indicating that imposter feelings do not moderate the relationship between prior experience and counseling self-efficacy. The interaction of months in the program and imposter feelings was also not significant. Because imposter feelings moderated the impact of two of the experience variables on counseling self-efficacy, the first hypothesis was partially supported.

The structural equation model (Figure 3) showed the relationships among the four experience variables, the imposter phenomenon, and counseling self-efficacy. It was used to determine if experience influences the occurrence of imposter feelings and levels of counseling self-efficacy, and to test for mediation effects (Hypothesis 2). The structural equation model had 92 parameters and 372 degrees of freedom. The standardized path coefficients from months in practicum to the COSE, from number of counseling hours to the COSE, and from prior experience to the COSE were significant ($p < .05$). The path from the CIPS to the COSE ($p < .001$) was also significant. The parameter estimates and critical ratios of the structural equation model are shown in Table 5.

The fit indices of the structural equation model are provided in Table 6. A non-significant chi-square indicates good fit (Tabachnick & Fidell, 2001). A CFI closer to 1 indicates a better fit (Hopwood, 2007). A TLI of .9 is the cutoff value indicating good fit (McDonald & Ho, 2002). A RMSEA less than .05 is considered a good fit, while a RMSEA less than .08 is considered acceptable (McDonald & Ho).

The model fit ($\chi^2 = 882.97 (372), p < .001$) was significant. This significant chi-square suggested that the model did not fit the data. The chi-square goodness-of-fit value is sensitive to sample size and non-normality. In general, a significant chi-square value may reflect model misspecification, and therefore, is not often used as the sole indicator of fit (Hu & Bentler, 1998). The CFI of the model (CFI = .748) also suggested the model did not adequately fit the data. Likewise, the TLI of the model (TLI = .705) was below the recommended .9, indicating a poor fit. The RMSEA (.09) and the range of the RMSEA (.083-.098) were larger than the recommended level of .05. As was true of the other fit indices, the RMSEA also suggested that the proposed structural equation model did not fit the data very well.

While the fit indices showed that the model as a whole did not fit the data well, several of the model parameters did reveal some statistically significant relationships among variables (Table 5). The significant relationships among prior experience ($\beta = .19, p = .007$), months in practicum ($\beta = .16, p = .02$), and number of counseling hours ($\beta = .15, p = .04$) on counseling self-efficacy were evident. Months in the program ($\beta = .07, p = .30$) did not significantly influence counseling self-efficacy. The significant influence of the imposter phenomenon on counseling self-efficacy ($\beta = -.47, p < .001$) was a notable finding. As denoted by the negative path coefficient, greater imposter feelings

resulted in decreased counseling self-efficacy. The lack of significant paths between the experience variables and the CIPS showed that imposter feelings are not related to prior experience ($\beta = -.07, p = .38$), months in a training program ($\beta = .09, p = .28$), months of practicum experience ($\beta = -.02, p = .78$) and the number of counseling hours ($\beta = -.04, p = .60$). The path from the first CIPS item to the CIPS was not significant ($\beta = .10, p = .21$) suggesting this item does not adequately reflect characteristics of the imposter phenomenon. This item, “I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.” (Clance, 1985) may reflect a construct similar to the imposter phenomenon that is also distinct such as anxiety (Holmes et al., 1993).

The original structural equation model (Figure 3) showed that the paths from the experience variables to the imposter phenomenon as represented by the CIPS were not strong. One would expect strong relationships between experience and the imposter phenomenon and the imposter phenomenon and counseling self-efficacy, if imposter feelings acted as a mediator between experience and counseling self-efficacy. Additionally, if imposter feelings acted as a full mediator, the paths between experience and counseling self-efficacy would approach zero while paths to the CIPS were significant. The path between months in the program and counseling self-efficacy was near zero. However, the path between months in the program and the imposter phenomenon was also near zero. Thus, imposter feelings did not fully mediate the relationship between experience and counseling self-efficacy. Presence of mediation, full or partial, would be evident in the indirect effects of the analysis (Hopwood, 2007). The

absence of indirect effects (Table 9) in the current analysis showed that imposter feelings did not act as a full or partial mediator. Thus, hypothesis two was not supported.

Chapter V

Discussion

This project explored the impact of the imposter phenomenon on the development of counseling self-efficacy among counseling trainees. The influence of the imposter phenomenon on the relationship between experience and counseling self-efficacy was modeled. Hypotheses about the direct and indirect effects of the imposter phenomenon were tested. Additional analyses assessed the influence of gender on the occurrence of the imposter phenomenon and on perceptions of counseling self-efficacy among counseling trainees.

Generally, the imposter phenomenon has traits associated with other psychological conditions and personality features (Castro et al., 2004). The phenomenon includes qualities such as depression, anxiety, low self-esteem and perfectionism (Chrisman et al., 1995; Henning et al., 1998; Holmes et al. 1993). The imposter phenomenon has been related to personality characteristics such as introversion and neuroticism and to facets of the Agreeableness, and Conscientiousness personality domains of the NEO-PI-R (Bernard et al., 2002; Ross et al., 2001). While Holmes et al. differentiated imposters from non-imposters in a study using participants receiving outpatient mental health therapy, Clance (1985) described the phenomenon in terms of intensity. The CIPS cutoff score of 62 that Holmes et al. used to indicate imposters falls

into the range Clance described as indicative of frequent imposter feelings. Clance wrote that the more frequent and intense the imposter phenomenon, the more it interferes in the individual's daily functioning. Thus, the presence of imposter feelings does not reflect pathological problems (Clance), but imposter feelings that increase and intensify become a syndrome that is associated with other psychological problems (Ross & Krukowski, 2003) and affects quality of life (Clance, Harvey & Katz, 1985).

The findings of this study indicated that imposter feelings were present at moderate levels or more among most (88.8%) of the counseling trainees. Notably, according to the criteria used by Holmes et al. (1993), over one quarter of the counseling trainees suffered from the imposter phenomenon, which justified the investigation in this study. Imposter feelings could be considered more common than not among graduate level counseling trainees, which necessitates a greater understanding of their influence in counselor development.

The Imposter Phenomenon and Counseling Self-efficacy

Generally, in this study, the imposter phenomenon was related to counseling self-efficacy. Correlation coefficients reflected a negative relationship between the imposter phenomenon and counseling self-efficacy. As counseling trainees' levels of imposter feelings increased, their perceptions of their ability to effectively counsel decreased. This negative relationship corroborated the early definitions of the imposter phenomenon that described the phenomenon as perceived inadequacy and a tendency to negate good performance (Clance & Imes, 1978; Clance & O'Toole, 1988). The negative relationship corroborated other research that associated imposter feelings and lower self-efficacy with feelings of incompetence among trainees in helping professions (Henning et al., 1998).

The correlation between imposter feelings and counseling self-efficacy indicated that 20% of the variation in counseling self-efficacy was accounted for by variations in levels of the imposter phenomenon. This leads to the conclusion that it may be advantageous to consider the imposter phenomenon when studying the development of counseling self-efficacy.

In order to aid the examination of the influence of the imposter phenomenon on counseling self-efficacy, several components of the imposter phenomenon were considered by the primary researcher in the current project. Prior research linked the imposter phenomenon to anxiety, depression, self-confidence, and goal setting. Chrisman et al. (1995) found that an increase in anxiety and depression was associated with an increase in imposter feelings. Cozzarelli and Major (1990) found that those who suffered from the imposter phenomenon reacted to anxiety by personalizing perceived failures resulting in lower self-esteem than those who did not have imposter feelings. Hellman and Caselman (2004) found decreased self-confidence was a key factor in the imposter phenomenon. Ross et al. (2001) described the imposter phenomenon as a generally negative outlook. Kumar and Jagacinski (2006) found that those who have imposter feelings established goals to either avoid failure or to successfully compete with others. Furthermore, research has shown that anxiety, depression, and goal setting are linked to self-efficacy (Bandura, 1993; Bandura & Locke, 2003). Bandura (1993) related increases in anxiety and depression to decreases in self-efficacy. Bandura and Cervone (2000) found that those with positive self-efficacy set more demanding goals. Thus, the previous research showed that the imposter phenomenon was related to increased anxiety, increased depressed feelings, and decreased self-confidence. Additionally, it showed that

increased anxiety and depression were related to decreased self-efficacy and that those with less self-efficacy set less challenging goals. The current study filled a gap in the research on the imposter phenomenon and counseling self-efficacy showing a negative correlation between the imposter phenomenon and counseling self-efficacy. More imposter feelings were associated with decreased counseling self-efficacy.

In this study, correlation coefficients of the relationship between responses to a measure of the imposter phenomenon and responses to the COSE subscales Microskills, Process, Difficult Client Behaviors, Cultural Competence, and Awareness of Values reflected the expected negative relationships as well, confirming that counseling self-efficacy decreased as imposter feelings increased. More intense imposter feelings were associated with weaker perceptions of the ability to respond to clients in a concise, clear, and meaningful way; decreased confidence in the ability to effectively respond to clients over the course of therapy; decreased confidence in the ability to counsel unmotivated, suicidal, indecisive, or silent clients; decreased confidence in the ability to respond to clients from different ethnic groups or social classes; and decreased confidence in the ability to manage personal biases, all the skills reflected in the five COSE subscales (Larson et al., 1992). Thus, the series of analyses by Larson et al. and the results of the current study indicate a negative relationship between the imposter phenomenon and trainees' perceptions of their abilities to perform many aspects of counseling from basic skills to handling more challenging situations. Additionally, the negative association between imposter feelings and Awareness of Values provided corroboration of the negative relationship between imposter feelings and self-perception observed by Clance (1985).

The varying degrees of association between the imposter phenomenon and responses to the COSE subscales may indicate the selective influence of the phenomenon (Harvey & Katz, 1985); that is, it may have a greater influence in some areas of counseling self-efficacy than on others. The variation in the strengths of the relationships identified above may also provide some corroboration for the specific influence of counseling self-efficacy during counselor development (Leach et al., 1997; Stoltenberg et al., 1998). Stoltenberg described this as domain specificity, a general tendency of counselor trainees, including those with imposter feelings, to progress quickly in some developmental areas, while struggling to advance in other areas. Thus, in this study, the counselor trainees with and without imposter feelings may have advanced quickly in some areas of their training and struggled to develop skills in other areas.

Experience and Counseling Self-efficacy

Previous research has shown that as trainees gain counseling experience, their confidence in their ability to effectively counsel increases (Orlinsky et al., 1999). This relationship was observed in the current study as well. Experience had a positive relationship with counseling self-efficacy, demonstrating that the counseling trainees' perceptions of counseling self-efficacy increased in conjunction with increases in experience. In the current study, the relationship between experience and counseling self-efficacy held true for previous experience, months in practicum, and number of counseling hours. Orlinsky et al. found that years of experience directly related to therapeutic mastery. The current study expanded upon Orlinsky et al.'s findings in that experience prior to entering graduate level training was related to higher counseling self-efficacy. In the current study, months in a training program were not significantly

related to higher counseling self-efficacy. Given the relationship between previous experience and counseling self-efficacy and the lack of a significant relationship between months in the training program and counseling self-efficacy, it is possible that counseling self-efficacy increased prior to attendance in a training program. However, this conjecture was not examined in this study and should be verified in future research. The results of this study also provided some corroboration of Stoltenberg's (2008) characterization of counselor development as a process by revealing that counseling self-efficacy developed when performing counseling tasks during and prior to training.

The current study considered not only prior counseling experience, but also experience within a counseling training program. Training programs have been associated with increased counseling self-efficacy. Johnson et al. (1989) found self-efficacy increased after prepracticum course participation. Halverson et al. (2006) found both academic and clinical training increased counseling self-efficacy, but clinical training had a greater impact on the trainees' growing sense of self-efficacy. The relationship between months in practicum and counseling self-efficacy found in the current study confirmed the findings in previous studies by both Johnson et al. and Halverson et al. Counseling self-efficacy increased as the trainees completed practicum experiences. The results of this study also added support to Melchert et al.'s (1996) work that showed that counseling self-efficacy increased during master's and doctoral level training in counseling psychology.

The current study's results revealed that more counseling hours were associated with more counseling self-efficacy. This result contributed to previous research by revealing more specific information about the types of experience that are associated with

increases in counseling self-efficacy. The number of counseling hours obtained during training, whether as part of practicum or other experiences, was related to increased counseling self-efficacy. This relationship between counseling hours and counseling self-efficacy highlights the necessity of clinical practice for trainees beyond their gaining academic knowledge.

In this study, the months of attendance in a counseling training program did not have a significant relationship with counseling self-efficacy. However, one could argue that spending a specific number of months in a training program represents time rather than experience. In such a case, personal agency (Bandura, 1993) may play a greater role. That is, the effort the trainee expends in the training program may influence the development of his or her counseling self-efficacy, reflecting the complex relationships among cognition, affect, behavior, and self-efficacy (Bandura).

Many other variables such as the trainees' beliefs about the controllability of the environment, acceptable performance standards, and training goals (Bandura & Wood, 1989) may also affect the trainees' experiences of their training program. Likewise, months spent in a training program may have a different impact on counseling self-efficacy for each trainee, depending on other variables such as trainee well-being or the support he or she received. For example, motivation, a variable Bandura (1993) considered to have an important relationship with self-efficacy, may change the way the trainees experience their training programs. Motivation affects one's commitment to a task and energy expended on a task (Bandura & Cervone, 2000). Lack of motivation could decrease the effort that trainees put forth in their training whether imposter feelings

are present or not and despite time spent in training, thereby limiting the relationship between months spent in the training program and counseling self-efficacy.

The Imposter Phenomenon and Experience

The relationship between imposter feelings and experience providing counseling was unexpectedly insignificant in this study. Previous research found that imposter feelings lessened with experience (Bischoff & Barton, 2002). Additionally, counselor development literature suggested that anxiety and fear of evaluation, components of the imposter phenomenon, dissipated as experience increased (Stoltenberg & Delworth, 1987). On the other hand, other previous studies found that those suffering from the imposter phenomenon adhered to their beliefs in their fraudulence even when they became experienced college faculty members (Topping & Kimmel, 1985) or experienced business managers (Fried-Buchalter, 1992, 1997). The lack of change in imposter feelings as a result of gained experience found in this project provides support for the Topping and Kimmel and Fried-Buchalter study and suggests that Ross and Krukowski's (2003) interpretation of the imposter phenomenon as a general maladaptive outlook may be correct.

Hypothesis Testing

The current study used structural equation modeling to examine the relationships between the imposter phenomenon, experience, and counseling self-efficacy. The structural equation model illustrated supposed relationships between experience, the imposter phenomenon, and counseling self-efficacy, but was not a good fit for the data that was collected. There may be other variables, such as anxiety or depression, that were not represented in the model, that have been related to the imposter phenomenon and

self-efficacy (Bandura, 1993; Bandura et al., 1999; Chrisman et al., 1995). These excluded variables could play a significant role in the relationships between the imposter phenomenon, experience, and counseling self-efficacy. The absence of potentially influential variables may also affect statistical analyses. In general, the absence of an influential variable or path in structural equation modeling is known as misspecification. Overall, misspecification may have an effect on model fit (Hu & Bentler, 1998). For example, the effects of the variables in the model could be overestimated because those effects include the effect of the absent variable. In the current study, misspecification could have occurred in the following manner. Previous research showed that anxiety and depressive experiences and the imposter phenomenon were positively correlated (Chrisman et al.; Ross et al., 2001). Inclusion of a latent construct that incorporates anxiety and depression such as Neuroticism (Bernard et al., 2002; Ross et al.) might have improved the current model and made other relationships that were influenced by the imposter phenomenon evident. Anxiety and depression also have a relationship with experience (Bischoff & Barton, 2002) and self-efficacy (Bandura; Bandura et al., 2003). In the current project, the absence of anxiety and depressive experiences may have resulted in stronger relationships between the variables in the hypothesized model. In this study, despite the lack of fit found for the structural equation model, important relationships between specific constructs, including hypothesized relationships, however, were found.

In addition to illustrating the relationships between experience, the imposter phenomenon and counseling self-efficacy, structural equation modeling was used in the current study to test two hypotheses. The first hypothesis stated that experience will

affect the level of the imposter phenomenon, which will have an indirect i.e., moderating, effect on the relationship between experience and counseling self-efficacy. The second hypothesis stated that the level of the imposter phenomenon will have a direct, negative effect on counseling self-efficacy.

The first hypothesis that experience affects the level of the imposter phenomenon and the imposter phenomenon moderates the relationship between experience and counseling self-efficacy was partially supported. The manner in which experience was operationalized in this study may have affected this relationship. The findings of this study showed that imposter feelings moderated the relationship between months in practicum and counseling self-efficacy, and number of counseling hours and counseling self-efficacy. The study revealed positive relationships between the experience variables and counseling self-efficacy and a negative relationship between responses to the CIPS and the COSE (see Table 1). Because of the negative relationship between imposter feelings and counseling self-efficacy, one might expect that the imposter phenomenon would weaken the impact of months spent in practicum and the number of counseling hours on counseling self-efficacy. Such an impact is only speculation, and should be examined in future research.

In this project, the imposter phenomenon did not moderate the relationship between prior experience and counseling self-efficacy. Given the strong relationship between prior experience and counseling self-efficacy, the fact that imposter feelings did not moderate the influence of prior experience on counseling self-efficacy may indicate that imposter feelings did not affect counseling self-efficacy attained prior to entering graduate level training. It is possible that the imposter feelings arose while in training.

Research has shown that student status, specifically graduate level, and the imposter phenomenon are related (Harvey, 1981; Henning et al., 1998). It is also possible that, as Bernard (1988) suggested, the environment of higher education lends itself to imposter feelings. Prior experience may have a protective function on the effects of the imposter phenomenon. Further research is needed to clarify the interaction of the imposter phenomenon and prior experience.

While the imposter phenomenon did not moderate the relationship between prior experience and counseling self-efficacy, imposter feelings moderated the relationships between months in practicum and the number of counseling hours and counseling self-efficacy. The findings of this study also indicated that the imposter phenomenon did not moderate the relationship between months in the training program and counseling self-efficacy. This is not surprising, since this relationship was insignificant in the model. As previously suggested, months in a training program may not adequately reflect experience. Additionally, the influence of time spent in a training program may change depending on other factors not included in the model, such as support during training or amount of supervision. Both support during training and the amount of supervision are deemed important factors in counselor development (Stoltenberg & Delworth, 1987) and on the counseling self-efficacy of trainees (Larson, 1998).

In summary, the imposter phenomenon moderated the influence of months in practicum on counseling self-efficacy. It also moderated the impact of the number of counseling hours on counseling self-efficacy. Thus, the imposter phenomenon impacted the development of counseling self-efficacy, as counseling trainees gained experience in

practicum courses and obtained counseling hours in their training programs. Implications of this relationship will be discussed later in this chapter.

The second hypothesis proposed that the counselor trainees' levels of the imposter phenomenon would directly affect counseling self-efficacy and that imposter feelings would be related to diminished perceptions of counseling self-efficacy. In other words, this hypothesis suggested that the imposter phenomenon mediated the relationship between experience and counseling self-efficacy. The findings of this study indicated that counseling trainees with more intense imposter feelings perceived their counseling skills as inadequate, suggesting a strong, negative relationship between imposter feelings and counseling self-efficacy.

While the imposter phenomenon and counseling self-efficacy had a strong, negative relationship, the relationships between experience and the imposter phenomenon were not strong as would be expected in a mediating relationship. Additionally, if imposter feelings partially mediated the relationship between experience and counseling self-efficacy, experience and counseling self-efficacy would be related until imposter feelings were added to the relationship. Upon adding the imposter phenomenon, the relationship would approach zero. Another way to consider this is that in the presence of the imposter phenomenon, experience and counseling self-efficacy would no longer be related. The relationships between experience and counseling self-efficacy presented in Table 7 indicated that the imposter phenomenon did not partially mediate the relationship. Therefore, the imposter phenomenon was not a catalyst for the relationship between experience and self-efficacy among counselor trainees, but modulated the relationship. Therefore, the second hypothesis was not supported.

The Imposter Phenomenon and Gender

The current study primarily focused on the influence of the imposter phenomenon on the relationship between experience and counseling self-efficacy. The relationship between the imposter phenomenon and gender also was of interest because of the contradictory results of earlier studies. The differential influence of imposter feelings among men and women was contested in the earliest published studies (Clance & Imes, 1978; Harvey, 1981). Among counseling trainees in this study, there was no significant difference in imposter feelings among men and women. The insignificance of the parameter estimates in the MIMIC model showed that the influence of the imposter phenomenon on experience and counseling self-efficacy was essentially the same among both female and male trainees in the current study. While there may be differences in the way men and women experience imposter feelings (King & Cooley, 1995; Kumar & Jagacinski, 2006), in the current study, there appeared to be no difference in the occurrence of the imposter phenomenon among male and female counseling trainees. Additionally, there was no difference in the impact of the imposter phenomenon on female counselor trainees' development of counseling self-efficacy compared with male counselor trainees' development of counseling self-efficacy.

The Imposter Phenomenon and Family Variables

This project found that gender had no impact on the influence of the imposter phenomenon on experience and counseling self-efficacy. In addition to the relationship between the imposter phenomenon and gender, the current study explored the relationship between the imposter phenomenon and some family environment variables. As discussed in Chapter 2, sibling comparison (comparison of siblings in which one

sibling is viewed as less intelligent or less capable than the other), childhood labels, achievement orientation, and conflicts in the imposter's family of origin have been implicated as the root causes of the imposter phenomenon (Clance, 1985; Langford & Clance, 1993). While the causal relationships between family environment variables and the imposter phenomenon were not tested in the current study, descriptive data on family conflict, parental education, birth order, and achievement provided family information about the characteristics of those with imposter feelings. The level of conflict reported by the participants in this project was moderate. However, the presence of conflict in the trainees' family of origin did not confirm the research that suggested that family conflict elicits imposter feelings (Langford & Clance, 1993). More research is needed to corroborate research concentrating on the causal influence of family conflict.

Another family-related variable examined in this study was parental education. The majority of the trainees reported that their parents had a high school education or more. Thus, it is a possibility that trainees whose parents had less than a high school education experienced more imposter feelings. Harvey and Katz (1985) suggested that individuals who have more education than other family members may develop imposter feelings. Miller and Kastberg (1995) suggested that those in white collar careers whose parents work in blue collar careers experienced more imposter feelings. Future analysis to gather support for these notions and to clarify causes of the imposter phenomenon would be useful.

The majority of the counseling trainees in the current project reported having siblings. Thus, Clance's (1985) premise, which stated that negative comparison with siblings contributes to imposter feelings, cannot be ruled out. In addition to parental

education and sibling comparison, a high achievement orientation has been related to the onset of imposter feelings (Clance and Imes, 1978). In the current study, achievement was represented by GPA (Pfeifer & Sedlacek, 1974; Schmidt et al., 2009). The counseling trainees in the current project reported high graduate school GPAs and higher than average undergraduate GPAs. Those who suffer from the imposter phenomenon have been characterized as high achievers (Clance & Imes, 1978), but achievement was not operationalized as GPA by Clance and Imes. The GPAs of the participants in this study could have signified high achievement orientation. However, this study did not differentiate between high achieving imposters and nonimposters and did not provide direct evidence of a relationship between the imposter phenomenon and achievement. Therefore, no statements about the relationship between the imposter phenomenon and achievement can be made based on the results of this study.

On the whole, the demographic information reported in this study seemed to uphold early suppositions about people who have imposter feelings. The counseling trainees in this study stated that they experienced some conflict in their families growing up, most often had siblings, achieved higher education, and had parents who achieved at least a high school education. More research is needed to understand the influence of family characteristics and to identify those characteristics that contribute to the development of the imposter phenomenon in counseling trainees and the general population.

Strengths of this Study

This project had several strengths. Analysis using structural equation modeling advanced the knowledge base of the imposter phenomenon by testing causal relationships

and incorporating error into the analysis. The finding that the imposter phenomenon is not caused by lack of experience and does not diminish as trainees gain experience stresses the importance of addressing the phenomenon in counselor training programs. The causal relationship between the imposter phenomenon and decreased counseling self-efficacy was notable. Knowing that the imposter phenomenon has this effect has implications for training future counselors. The MIMIC model used a statistically robust method to show that gender is not a determinant on the development of the imposter feelings among counseling trainees. The research design had other strengths, as well. Because a control group was not used and a treatment was not administered, diffusion of treatment, selection, and differences in responses between participants in different groups did not affect the internal validity of the design (Cook & Campbell, 1979).

Limitations

Some limitations must be kept in mind when interpreting the results of the current project. These include the generalizability of the results and threats to internal validity. Additionally, there are cautionary interpretations related to the research design, including the structural equation analysis.

The validity of the imposter phenomenon as a construct has been affected by inconsistencies in the findings of previous research. The contradictions in the research of the imposter phenomenon include differences in the relationship between imposter feelings and achievement orientation (Bernard et al., 2002; King & Cooley, 1995; Kumar & Jagacinski, 2006; Ross et al., 2001), and differences in imposter feelings among gifted students (Grant et al., 1999; Kwan, 1992). There has been disagreement over whether imposter feelings typically occur in new situations then resolve (Bischoff & Barton,

2002), or remain throughout the imposters' careers (Brems et al., 1994; Fried-Buchalter, 1992; Topping & Kimmel, 1985). Additionally, some research suggests a relationship between gender and the imposter phenomenon (Clance & Imes, 1978; King & Cooley), while other research suggests no relationship (Harvey, 1981; Fried-Buchalter). Some of the contradictions may be attributed to differences in participant populations including race, culture, and age. Differences in the imposters' parents' perceptions or family values may also account for some variability. Finally, individual differences in interpersonal experiences and psychological status may affect outcomes. Research clarifying these inconsistencies is needed to strengthen the validity of the imposter phenomenon.

Population Limitations

While the results obtained in this study cannot not be generalized beyond counseling trainees, this is not necessarily a limitation, since the focus of the study was counselor development. However, since master's and doctoral level trainees were used, the results of this study are only applicable to graduate level counseling trainees. An additional limitation to the generalizability of results from this study is the use of only Midwestern universities to recruit participants. Therefore, the results may not generalize to counselor trainees in programs in other regions. Furthermore, the use of counseling trainees limits the results to only counseling programs. The results cannot be applied to trainees in other programs, such as school psychology, marriage and family therapy, or clinical psychology, or to practicing clinicians. Additionally, the participant population was primarily Euro-American. Conclusions about the influence of the imposter phenomenon on experience and counseling self-efficacy among diverse and minority populations cannot be drawn from this sample population.

Threats to Internal Validity

The internal validity of the study was threatened by the use of one instrument to represent the imposter phenomenon and counselor self-efficacy, introducing a mono-operation bias (Cook & Campbell, 1979). Each item of the CIPS was used as an observed variable representing the construct imposter phenomenon. Each item was used to have adequate representation of the latent construct, but only one instrument was used. Likewise, the subscales of the COSE were used to represent the latent construct counseling self-efficacy, but ultimately one instrument represented the latent construct. Larson et al. (1992) recommended that the COSE subscales be used for research. Thus, clinical implications based on information derived from the COSE subscales should be made with caution.

There were also limitations related to the CIPS and its psychometric properties. Chrisman et al. (1995) found that Items 1 and 2 had lower interitem correlations than other items. They deleted these two items prior to factor analysis yielding the three factors, Fake, Discount and Luck. Kertay et al. (1991) deleted Items 1 and 2 as well as Items 19 and 20 prior to factor analysis. French et al. (2008) followed the procedure used by Kertay et al. and excluded Items 1, 2, 19, and 20 from analysis. In the current study, the path from Item 1 to the CIPS was not significant (see Table 7). This item, “I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task,” may reflect another construct such as anxiety rather than the imposter phenomenon. Excluding this item may strengthen the internal consistency of the CIPS and the internal validity of research using the CIPS.

While the paths from Items 2, 3, and 19 were significant, these items had small path estimates. Item 2, "I can give the impression that I'm more competent than I really am," reflects fraudulence, a key component of the imposter phenomenon (Clance, 1985). Because of this, Item 2 may be important despite the low loading. Items 3 and 19 (Appendix B), however, seem to reflect other constructs such as fear of failure. These items may not discriminate between the imposter phenomenon and fear of failure and could be excluded to increase the construct validity of the CIPS.

For ease of administration, self-report measures were used, rather than supervisor reports or client ratings. However, using self-report data may threaten the internal validity of the design (Cook & Campbell, 1979), as the participants may have inadvertently attempted to fill out the surveys in a socially desirable manner, even though they were assured in the recruitment e-mail (Appendix D) and the introductory page (Appendix E) that their responses would be anonymous. Additionally, the instructions preceding the CIPS and the COSE asked the participants to answer as honestly as possible and assured them that there were no "wrong" or "right" answers. Even so, the participants could have guessed the hypotheses, and they may have tried to respond in ways that they assumed would please the primary researcher. The introductory page of the survey, however, was worded to reduce the chance of hypothesis guessing, using the explanation that the study examined factors that affect counselor development (Appendix E) rather than the imposter phenomenon. The participants who guessed the hypotheses about the imposter phenomenon may have given answers to avoid appearing like they experienced imposter feelings, if they considered having imposter feelings a deficit or inadequacy.

Limitations of the Research Design

There were limitations to the analyses and procedures employed in the study as well. The study used survey methodology at a single point in time. Some threats to internal validity such as history, maturation, and attrition (Cook & Campbell, 1979) were controlled by completion of the measures at one time. However, because the study used an on-line survey design, the setting in which the participants completed the measures was not controlled. Random distractions, such as phone calls or discussions by others in the area, or even taking the survey with a colleague might have been problematic.

As previously mentioned, structural equation modeling is a statistical method that permits inferences of causality. However, the models did not adequately represent the data and therefore, caution is warranted when making statements about causal relationships. Representation of Experience with four observed variables rather than using a latent variable that incorporated all relevant paths and error (Baron & Kenny, 1986) may have negatively affected the model fit. Furthermore, the lack of an empirically validated experience scale could have influenced the significance of the model.

While representation of Experience could have influenced the model, the poor model fit suggests that important constructs were not included in the models. As previously discussed, model misspecification, a common occurrence in poorly fitting models (Hu & Bentler, 1998), may have occurred. Variables that have a notable influence on the imposter phenomenon that also affect counseling self-efficacy could have improved the model. Anxiety and depression have been positively associated with imposter feelings (Chrisman et al., 1995; Ross et al., 2001). Furthermore, both anxiety

and depression have been related to decreased self-efficacy (Bandura, 1993). Bandura et al. (2003) found that beliefs about managing affective states influenced not just beliefs about academic success, but beliefs about empathizing with others, a counseling skill reflected in the COSE. Thus, anxiety and/or depression could influence intensity of imposter feelings as well as the participants' beliefs about their counseling. Further modeling is needed to clarify the relationships.

In addition to anxiety and depression, a variable such as achievement orientation could influence model fit. Achievement orientation and attributional style have been related to the imposter phenomenon (Cozzarelli & Major, 1990; King & Cooley, Kumar & Jagacinski, 2006). Cozzarelli and Major found that those with the imposter phenomenon expected to perform more poorly than their peers. These expectations could extend to beliefs about counseling abilities affecting the relationship between experience and counseling self-efficacy and/or the relationship between the imposter phenomenon and counseling self-efficacy. Early research on the imposter phenomenon considered the general attributional style of imposters; imposters attributed success to external factors (Clance, 1985; Clance & Imes, 1978). Kumar and Jagacinski examined attributional style more specifically. They found that female imposters consider success performing better than others, while male imposters consider success avoiding failure (Kumar & Jagacinski). The attributional styles that are related to imposter feelings could influence counseling self-efficacy. Models that include variables representing achievement orientation and attributional style are needed to clarify the relationships and the imposter phenomenon.

Sample size affects the accuracy of path analysis and SEM. A power analysis was conducted to determine the necessary number of participants based on effect sizes and number of participants used in previous research. The power analysis simulation indicated that using 150 participants would be adequate. Anderson and Gerbing (1988) recommended using a minimum of 150 participants in order to obtain parameter estimates with small standard errors. On the other hand, Kline (1991) stated that 5 participants for each parameter would be needed. Following Kline's recommendation, the structural equation model, which included 92 parameters, may have been too complex. Still, indices that are less vulnerable to the effects of sample size (Hu & Bentler, 1998; Martens, 2005) were used to minimize problems related to sample size. Additionally, the data were tested to ensure multivariate normality to decrease the likelihood of inaccurate results and inflated Type I error rates (Martens).

Implications

Theoretical Framework

Despite the limitations, this research added to the knowledge gathered on the influence of the imposter phenomenon and counseling self-efficacy. Bischoff and Barton (2002) suggested that counseling trainees grow out of the imposter phenomenon. Stoltenberg and Delworth (1987) described symptoms of the imposter phenomenon as characteristic of counseling trainees at the first or second levels of development when the trainees lack knowledge about counseling skills, feel anxiety about their responses, and vacillate in motivation. The results of this project contradicted these studies, finding no significant causal relationships between experience and the imposter phenomenon.

The current project also provided valuable information about the measures used in the study. The CIPS and the COSE had high reliability similar to the reliabilities demonstrated in previous research. The subscales of the COSE ranged from good to questionable reliability, reiterating that their use may best be in research (Larson et al., 1992). In this project, the accuracy of differentiation of imposters and non-imposters by the CIPS was less important than the relationships modeled. Further research is needed to confirm the usefulness of the CIPS at differentiating imposter and non-imposter counseling trainees, particularly if the CIPS is to be used for practical identification of trainees in need of intervention.

The experience variables made a distinction between experience in training and time spent in a graduate program, adding to the knowledge about the influence of experience on both the imposter phenomenon and counseling self-efficacy. This project showed that time spent in a graduate training program is less important for the development of counseling self-efficacy than time spent practicing counseling skills. These results substantiate the results found by Halverson et al. (2006), where clinical training yielded greater increases in self-efficacy than academic training. The current project also showed that clinical experience, indicated by months in practicum and number of counseling hours, has a negative relationship with imposter feelings.

This study has contributed to the knowledge of how the imposter phenomenon interacts with other factors, specifically different types of experience that influence counseling self-efficacy. Other factors related to the imposter phenomenon include depression, self-esteem, emotional regulation, and achievement orientation. One might infer from this that these components also influence counseling self-efficacy, but further

research is needed to confirm this. Based on Bandura (1982), one would expect that counselors' behaviors, thoughts, and affect are strongly influenced by their counseling self-efficacy, and that self-efficacy determines the amount of effort expended in counseling tasks. Since the presence of the imposter phenomenon decreased counseling self-efficacy in the current study, the implications of imposter feelings to counseling trainees are important to discuss.

Implications for Counselor Training Programs

The causal relationship between months in practicum and counseling self-efficacy suggests that programs that emphasize training practitioners begin practicum training early and maximize practicum classes throughout training. Additionally, the number of counseling hours the trainees obtained affected their counseling self-efficacy; as the hours increased, so did counseling self-efficacy. Thus, practicing counseling skills during practicum courses and as a training program requirement may be necessary to increase counseling trainees' self-efficacy beyond the self-efficacy obtained through gaining knowledge in academic courses (Halverson et al., 2006).

The impact of the imposter phenomenon on counseling self-efficacy suggests that the imposter phenomenon might be a useful concept for supervisors to consider. This study showed that the imposter phenomenon and months in a training program had little relationship. The imposter phenomenon may be present in novice or advanced trainees. The presence of the imposter phenomenon throughout the trainees' development rather than only early in their programs suggests that addressing imposter feelings among trainees may aid their development. Failure to address the imposter phenomenon may result in ongoing struggles with professional productivity, as found in Brems et al.'s

study (1994). Clance (1985) divided the scores on the CIPS into low, moderate, and intense categories. Holmes et al. (1995) suggested a cut-off score of 62 on the CIPS to identify imposters and non-imposters. The current project suggests that supervisors use a reliable measure such as the CIPS to determine the level of imposter feelings among their supervisees, so that they can intervene with trainees affected by the imposter phenomenon. The information presented Chapter 2 included treatment strategies suggested by Clance and O'Toole (1988), Langford and Clance (1993), and Amkoff (2000). Research assessing the effectiveness of these strategies is necessary to determine if they reduce or eliminate imposter feelings. Further research is also needed to determine the level of the imposter phenomenon that is detrimental to the trainees' development. For this reason, addressing the imposter phenomenon generally (e.g., in practicum classes) would be helpful.

Future Research

While this study contributed to the research on the imposter phenomenon, particularly in its effect on counseling trainees, additional research would increase awareness of the causes of the imposter phenomenon. Others (Clance, 1985; Castro et al., 2004; Harvey & Katz, 1985; Sonnak & Towell, 2000) have suggested that family environment including the presence of conflict, family role such as caretaker, parental labeling, and parental appraisal lead to imposter feelings. The research on family environment conducted by Clance, Castro et al., Harvey and Katz, and Sonnak and Towell was hypothetical or correlational, and therefore, statements of causality could not be made. Research using statistical techniques that support causal statements is needed to understand how the imposter phenomenon develops.

Previous research on the impact of the imposter phenomenon in specific populations used Marriage and Family Therapists (Bischoff & Barton, 2002) and health care providers such as graduate level medical, dental, nursing, and pharmacy students (Henning et al., 1998). The current study examined the relationship between imposter feelings and graduate counseling trainees. Clinical Psychology and School Psychology students as well as students in Rehabilitation Counseling, Social Psychology and Marriage and Family Therapy programs were excluded. Future research comparing the occurrence of imposter feelings among students in different human service programs is needed to determine if the imposter phenomenon is more problematic in specific training programs.

In the current study, the model representing the relationship between the imposter phenomenon, experience, and counseling self-efficacy did not adequately reflect the data. Therefore, other models that include other variables considered important in the research need to be tested to help understand the process by which the imposter phenomenon operates. Models including constructs such as depression or anxiety, achievement orientation, attributional style or family of origin characteristics may be beneficial.

Additional investigation of other factors that moderate experience and counseling self-efficacy is needed to understand factors that may hinder counselor development. Therapist variables such as motivation may be important because of their influence on self-efficacy (Bandura, 1977, 1993). Client variables such as the characteristics represented by the COSE subscale Difficult Client Behaviors (Larson et al., 1992) may also influence the relationship between experience and counseling self-efficacy. If client's problems are challenging beyond those with which the counselor typically works,

the counselor's self-efficacy may diminish despite considerable experience.

Environmental factors such as the training program procedures and policies may affect the development of counseling self-efficacy (Larson, 1998) by influencing the trainees' perceptions of control and by influencing the amount of experience the trainees' obtain. Bandura and Wood (1989) found that perception that the environment was controllable increased self-efficacy. In a training program, perception of control might be the ability to choose one's thesis or dissertation committee members rather than have them appointed. Policies that affect development include practica requirements such as number of direct service hours trainees must complete, number of clients trainees manage, and resources available such as videotaping and peer feedback (Daniels & Larson, 2001; Larson, 1998; Larson et al., 1999). Finally, the impact of decreased counseling self-efficacy on counselor effectiveness needs to be clarified in order to understand the specific influence of counseling self-efficacy on client outcomes.

Conclusion

The current project tested hypotheses about the moderating or mediating influence of the imposter phenomenon on the relationship between experience and counseling self-efficacy among graduate level counseling trainees. The imposter phenomenon acted as a moderator on the relationship between months of practicum and counseling self-efficacy, and number of counseling hours and counseling self-efficacy. The imposter phenomenon had a direct, negative influence on counseling self-efficacy, but did not mediate the relationship between experience and counseling self-efficacy. Moreover, experience did not influence the imposter phenomenon, indicating that both graduate level counseling trainees with little experience and graduate level counseling trainees with much

experience can be affected by the imposter phenomenon. Furthermore, the results of this project suggested that both male and female counseling trainees experienced imposter feelings, which suggested that gender had no impact on the occurrence of the imposter phenomenon or on the impact of the imposter phenomenon on counseling self-efficacy. Research projects clarifying the cause of imposter feelings and the effectiveness of treatments for the imposter phenomenon are needed to prevent the negative effects of the imposter phenomenon on counseling trainees.

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Table 1

Correlations Among and Between Experience, Imposter Phenomenon, and Counseling Self-efficacy Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Priorexp	1.00	.07	.16**	.37**	-.11	.27**	.20**	.25**	.28**	.14*	.12*
2. Monthprog	.07	1.00	.63**	.40**	.04	.19**	.19**	.12*	.19**	.09	.20**
3. Pracmonth	.16**	.63**	1.00	.56**	-.02	.30**	.26**	.23**	.30**	.15*	.23**
4. Cnshours	.37**	.40**	.56**	1.00	-.03	.30**	.23**	.23**	.31**	.14*	.21**
5. CIPS	-.11	.04	-.02	-.03	1.00	-.45**	.33**	-.53**	-.37**	-.24**	-.16**
6. COSE	.27**	.19**	.30**	.30**	-.45**	1.00	.86**	.91**	.86**	.66**	.52**
7. Microskill	.20**	.19**	.26**	.23**	-.33**	.86**	1.00	.71**	.68**	.45**	.24**
8. Process	.25**	.12*	.23**	.23**	-.53**	.91**	.71**	1.00	.71**	.49**	.42**
9. DiffBehav	.28**	.19**	.30**	.31**	-.37**	.86**	.68**	.71**	1.00	.52**	.34**
10. CulComp	.14*	.09	.15*	.14*	-.24**	.66**	.45**	.49**	.52**	1.00	.45**
11. Values	.12*	.20**	.23**	.21**	-.16**	.52**	.24**	.42**	.34**	.45**	1.00

Note: Priorexp – Months of experience prior to entering the training program; Monthprog – Number of months in the training program; Pracmonth - number of months in practicum; Cnshours - Number of direct service hours obtained in the training program; CIPS – Clance Imposter Phenomenon Scale; COSE – Counseling Self-Estimate Inventory; Microskill – Microskills; Process – Process; DiffBehav – Difficult Client Behaviors; CulComp – Cultural Competence; Values – Awareness of Values.

*. Correlation is significant at the .05 level (2-tailed).

** . Correlation is significant at the .01 level (2-tailed).

Table 2

Multicollinearity Statistics

Variable	Tolerance	VIF
Priorex	.94	1.06
Monthprog	.68	1.46
Pracmonth	.50	2.01
Cnshours	.63	1.58

Note: VIF=Variance Inflation Factor

Table 3

Reliability Estimates for Scales in Previous Studies and the Current Study

Scale	Number of Items	Cronbach's α previous studies	Cronbach's α current study
CIPS	20	.96	.91
COSE	37	.93	.94
Microskills	12	.88	.88
Process	10	.87	.88
Difficult Client Behaviors	7	.80	.81
Cultural Competence	4	.78	.80
Awareness of Values	4	.62	.63

Note: Cronbach's α in previous studies: CIPS (Holmes et al., 1993); COSE total and subscales (Larson et al., 1992).

Table 4

Scale and Subscale Means, Standard Deviations, and Ranges

Scale	Mean	Standard Deviation	Range (possible range)
CIPS	54.99	12.47	25-92 (20-100)
COSE	157.54	20.76	98-210 (37-222)
Microskills	53.31	6.78	25-66 (12-72)
Process	40.68	7.69	24-58 (10-60)
Difficult Client Behaviors	27.39	5.43	14-42 (7-42)
Cultural Competence	18.31	3.03	8-24 (4-24)
Awareness of Values	17.85	2.79	9-24 (4-24)

Table 5

Observed Variables Standardized and Unstandardized Path Estimates, Standard Errors, and Critical Ratios

	β	Parameter estimate	Standard error	Critical Ratio
Priorex → CIPS	-.07	-.03	.03	-.87
Monthprog → CIPS	.08	.06	.05	1.03
Monthprac → CIPS	-.01	-.01	.06	-.14
Cnshours → CIPS	-.05	.00	.00	-.66
Priorex → COSE	.17**	.11	.04	2.57
Monthprog → COSE	.08	.09	.08	1.12
Monthprac → COSE	.14*	.16	.08	2.07
Cnshours → COSE	.15*	.00	.00	2.19
CIPS → COSE	-.39**	-.63	.11	-5.76

Note: *. significant at the .05 level.

** .significant at the .01 level.

Table 6

Model Fit Indices

Model	Chi-Square	DF	CFI	TLI	RMSEA	RMSEA range
SEM	882.97	372	.748	.705	.090	.083-.098
Prior experience moderation model	2133.50	35	.018	-.543	.596	.574-.617
Months in program moderation model	2133.50	35	.018	-.543	.596	.574-.617
Months in practicum moderation model	2129.70	35	.020	-.541	.595	.574-.617
Counseling hours moderation model	2127.76	35	.021	-.539	.595	.573-.616

Table 7

Latent Variable Standardized and Unstandardized Path Estimates, Standard Errors, and Critical Ratios

	β	Parameter estimate	Standard error	Critical Ratio
Priorex → CIPS	-.07	.00	.00	-.87
Monthprog → CIPS	.09	.00	.00	1.07
Monthprac → CIPS	-.02	.00	.00	-.28
Cnshours → CIPS	-.04	.00	.00	-.53
Priorex → COSE	.19**	.03	.01	2.68
Monthprog → COSE	.07	.02	.02	1.05
Monthprac → COSE	.16*	.05	.02	2.26
Cnshours → COSE	.15*	.00	.00	2.05
CIPS → COSE	-.47**	-3.14	.57	-5.55
CIPS → cips1	.10	.10	.08	1.25
CIPS → cips2	.26**	.31	.09	3.32
CIPS → cips3	.39**	.51	.10	5.04
CIPS → cips4	.74**	1.03	.10	10.06
CIPS → cips5	.43**	.61	.11	5.61
CIPS → cips6	.75**	1.09	.11	10.21
CIPS → cips7	.58**	.79	.10	7.59
CIPS → cips8	.53**	.66	.10	6.92
CIPS → cips9	.70**	.81	.09	9.45
CIPS → cips10	.65**	.97	.11	8.73
CIPS → cips11	.54**	.60	.09	7.03
CIPS → cips12	.62**	.87	.11	8.18
CIPS → cips13	.80**	1.07	.10	11.09
CIPS → cips14	.76**	1.02	.10	10.48
CIPS → cips15	.77**	1.00		
CIPS → cips16	.66**	.93	.11	8.81
CIPS → cips17	.69**	.97	.10	9.34
CIPS → cips18	.67**	.89	.10	9.06
CIPS → cips19	.38**	.55	.11	4.88
CIPS → cips20	.41**	.59	.11	5.23
COSE → Microskills	.79	1.00		
COSE → Process	.87**	1.25	.11	11.58
COSE → Diffctbeh	.79**	.80	.08	10.53
COSE → Culcomp	.56**	.32	.05	7.06
COSE → Values	.42**	.22	.04	5.20

Note. *. significant at the .05 level.

** . significant at the .01 level.

Table 8

Critical Ratios in the Moderator Model

Interaction Path	β	Parameter estimate	Standard error	Critical Ratio
Priorexpinter→ COSE	.03	.00	.00	.49
Monthproginter→ COSE	.03	.00	.00	.44
Monthpracinter→ COSE	-.41**	-.01	.00	-7.82
Cnshoursinter→ COSE	-.41**	.00	.00	-7.56

Note. **. significant at the .01 level.

Table 9

Standardized Indirect Effects of Experience, Imposter feelings, and Counseling Self-efficacy

	cnshours	pracmonth	monthprog	priorex	CIPS	COSE
CIPS	.000	.000	.000	.000	.000	.000
COSE	.020	.010	-.040	.032	.000	.000
values	.069	.071	.014	.093	-.193	.000
cultcomp	.092	.094	.019	.123	-.256	.000
diffctbeh	.131	.134	.027	.175	-.365	.000
process	.146	.149	.030	.195	-.406	.000
microskill	.132	.134	.027	.176	-.366	.000
cips20	-.017	-.009	.035	-.028	.000	.000
cips19	-.016	-.008	.032	-.026	.000	.000
cips18	-.029	-.015	.057	-.047	.000	.000
cips17	-.029	-.015	.059	-.048	.000	.000
cips16	-.028	-.014	.056	-.045	.000	.000
cips15	-.033	-.017	.065	-.053	.000	.000
cips14	-.032	-.017	.065	-.053	.000	.000
cips13	-.034	-.017	.068	-.055	.000	.000
cips12	-.026	-.013	.052	-.043	.000	.000
cips11	-.023	-.012	.046	-.037	.000	.000
cips10	-.028	-.014	.055	-.045	.000	.000
cips9	-.030	-.015	.059	-.048	.000	.000
cips8	-.022	-.012	.045	-.037	.000	.000
cips7	-.024	-.013	.049	-.040	.000	.000
cips6	-.032	-.016	.063	-.052	.000	.000
cips5	-.018	-.009	.037	-.030	.000	.000
cips4	-.031	-.016	.063	-.051	.000	.000
cips3	-.017	-.009	.033	-.027	.000	.000
cips2	-.011	-.006	.022	-.018	.000	.000
cips1	-.004	-.002	.008	-.007	.000	.000

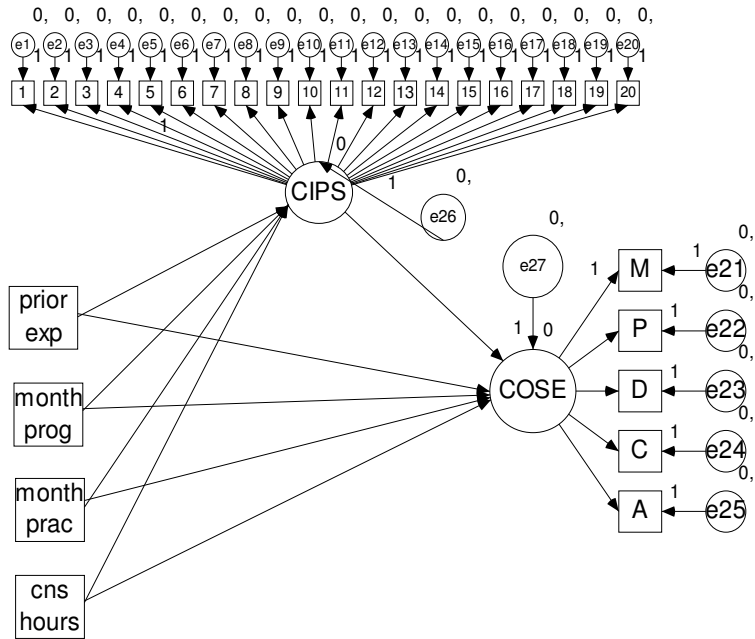


Figure 1. Structural Equation Model. This figure illustrates the relationships between prior counseling experience (prior exp), months in the training program (month prog), months in practicum (month prac), and number of counseling hours (cns hours) and the latent constructs imposter feelings, represented by the 20 items of the Clance Imposter Phenomenon Scales (CIPS), and counseling self-efficacy, represented by the 5 Counseling Self-estimate Inventory (COSE) subscales. M = Microprocess, P = Process, D = Difficult Client Behaviors, C = Cultural Competence, and A = Awareness of Values.

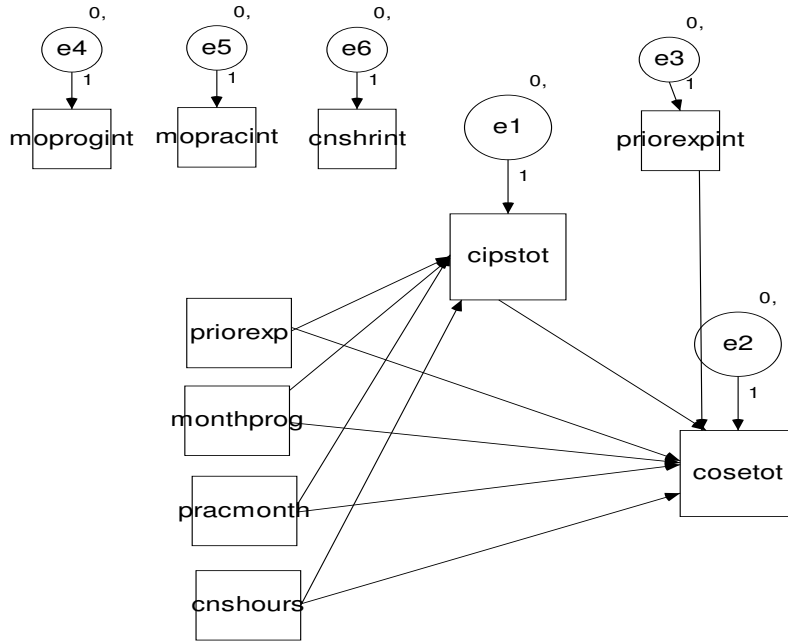


Figure 2. Path Analysis Model. This figure illustrates the relationships between prior counseling experience (*priorexp*), months in the training program (*monthprog*), months in practicum (*pracmonth*), number of counseling hours (*cnshours*), the Clance Imposter Phenomenon Scale total score (*cipstot*), the Counseling Self-Estimate Inventory total score (*cosetot*), and the four interaction variables. The path model was used four times to test one interaction term at a time. *Priorexpint* = the interaction of prior experience and the CIPS, *moprogrint* = the interaction of months in the training program and the CIPS, *mopracint* = the interaction of months in practicum and the CIPS, and *cnshrint* = the interaction of number of counseling hours and the CIPS.

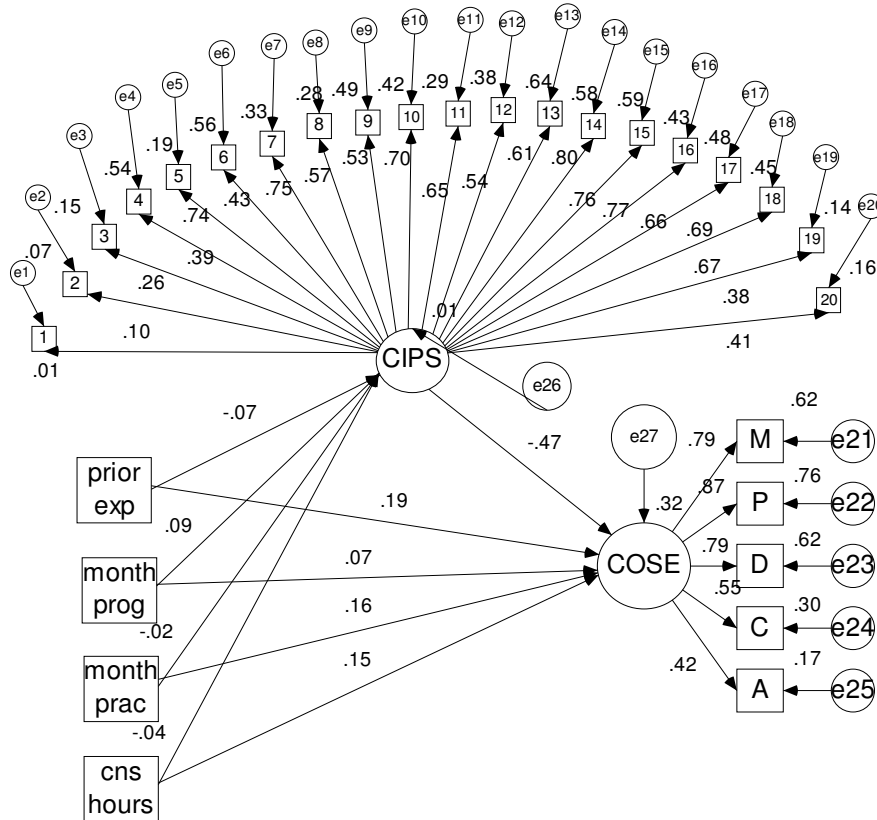


Figure 3. Structural Equation Model with the Path Coefficients. This figure illustrates the relationships between prior counseling experience (prior exp), months in the training program (month prog), months in practicum (month prac), and number of counseling hours (cns hours) and the latent constructs imposter feelings, represented by the 20 items of the Clance Imposter Phenomenon Scales (CIPS), and counseling self-efficacy, represented by the 5 Counseling Self-estimate Inventory (COSE) subscales. M = Microprocess, P = Process, D = Difficult Client Behaviors, C = Cultural Competence, and A = Awareness of Values. The standardized path coefficients are given.

Appendix A
Demographic Questionnaire

Please respond to the following questions about yourself. If you are unsure, please give your best answer.

Gender: _____ Male _____ Female

Age: _____

Race/Ethnicity:

- _____ African American/Black
- _____ Latino/Hispanic
- _____ Asian/Asian-American
- _____ Native American
- _____ Euro-American/White
- Other _____

Level of Education obtained by Mother: _____ some high school _____ high school
 _____ some college _____ undergraduate degree _____ graduate degree
 _____ other, specify _____

Level of Education obtained by Father: _____ some high school _____ high school
 _____ some college _____ undergraduate degree _____ graduate degree
 _____ other, specify _____

What is your birth order in your family: _____ oldest _____ middle _____ youngest
 _____ only

How would you rate the level of conflict in your family?
 1(none) _____ 10(severe)

What degree you are seeking?

_____ Ph.D. Ed.D. Psy.D.; Area of specialization

_____ M.A./M.S.: Course of Study:

_____ Social _____ Community _____ Rehab _____ School _____ Mental
 Health

_____ Double Track: Which Tracks? _____

What is the name of the university you are currently attending?

What is the estimated size of the student population at your current school?

What is the estimated size of the student population at your undergraduate school?

What is your current graduate school GPA? _____

What is your main counseling theoretical orientation?

Psychodynamic Cognitive/CBT Reality
 Humanistic Interpersonal Solution focused
 Behavioral Systems/Structural Feminist
 Other, specify _____

How many months of counseling experience did you have prior to entering your current graduate program? _____

How many months have you spent in your current graduate program? _____

What is the total number of months you have spent in your Masters and Doctoral Practicum? _____

How many total direct counseling hours have you accumulated? _____

Have you received live supervision in your current program? Yes No

How often do you receive supervision in your current program? _____

Have you ever been in counseling? Yes No

What is your undergraduate GPA? _____

In your undergraduate program, did you graduate Cum Laude Magna Cum Laude Summa Cum Laude?

Were you on the Dean's List during your undergraduate studies? No Yes

Were you a member of any Honor Society? No Yes, which one(s)?

Appendix B
The Clance Imposter Phenomenon Scale

Please answer the questions as honestly as possible. A rating of 1 means the previous statement is *not at all true*; a rating of 5 means the previous statement is *very true*; and an answer of 2, 3, or 4 represents the range where the statement may be true *rarely*, *sometimes*, or *often*.

Please circle the number according to the way the statement applies to you or to someone you know. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

1	2	3	4	5
Not at all true	rarely	sometimes	often	very true

2. I can give the impression that I'm more competent than I really am.

1	2	3	4	5
---	---	---	---	---

3. I avoid evaluations if possible and have a dread of others evaluating me.

1	2	3	4	5
---	---	---	---	---

4. 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.

1	2	3	4	5
---	---	---	---	---

5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

1	2	3	4	5
---	---	---	---	---

6. I'm afraid people important to me may find out that I'm not as capable as they think I am.

1	2	3	4	5
---	---	---	---	---

7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

1	2	3	4	5
---	---	---	---	---

8. I rarely do a project or task as well as I'd like to do it.

1	2	3	4	5
---	---	---	---	---

9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

1	2	3	4	5
---	---	---	---	---

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
11. At times, I feel my success has been due to some kind of luck.
- | | | | | |
|-----------------|--------|-----------|-------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all true | rarely | sometimes | often | very true |
12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I have done.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
17. I often compare my ability to those around me and think they may be more intelligent than I am.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
18. I often worry about not succeeding with a project or on an examination, even though, others around me have considerable confidence that I will do well.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

Appendix C

This is not a test. There are no right or wrong answers. Rather, it is an inventory that attempts to measure how you feel you will behave as a counselor in a counseling situation. Please respond to the items as honestly as you can so as to most accurately portray how you think you will behave as a counselor. Do not respond with how you wish you could perform each item, rather answer in a way that reflects your actual estimate of how you will perform as a counselor at the present time.

On a scale ranging from strongly disagree (1) to strongly agree (6), circle the number that best reflects your estimate of how you perform in a counseling situation at the present time.

	1	2	3	4	5	6
	strongly disagree	disagree	mildly disagree	mildly agree	agree	strongly agree
1. When using responses like reflection of feeling, active listening, clarification, and probing, I am confident I will be concise and to the point.....	1	2	3	4	5	6
2. When I initiate the end of the session, I am positive it will be in a manner that is not abrupt or brusque and that I will end the session on time.....	1	2	3	4	5	6
3. I am likely to impose my values on the client during the interview.....	1	2	3	4	5	6
4. I am confident that I will respond appropriately to the client in view of what the client will express (e.g., my questions will be meaningful and not concerned with trivia and minutia).....	1	2	3	4	5	6
5. I am certain that my interpretation and confrontation responses will be concise and to the point.....	1	2	3	4	5	6
6. I am worried that the wording of my responses like reflection of feeling, clarification, and probing may be confusing and hard to understand.....	1	2	3	4	5	6
7. I feel that I will not be able to respond to the client in a non-judgmental way with respect to the client's values, beliefs, etc.....	1	2	3	4	5	6
8. I feel I will respond to the client in an appropriate length of time (neither interrupting the client nor waiting too long to respond).....	1	2	3	4	5	6
9. I am worried that the type of responses I use at a particular time, i.e., reflection of feeling, interpretation, etc., may not be the appropriate response.....	1	2	3	4	5	6
10. I am sure that the content of my responses, i.e., reflection of feeling, clarification, and probing will be consistent with and not discrepant from what the client is saying.....	1	2	3	4	5	6

11. I feel confident that I will appear competent and earn the respect of my client..... 1 2 3 4 5 6
12. I am confident that my interpretation and confrontation responses will be effective in that they will be validated by the client's immediate response.. 1 2 3 4 5 6
13. I feel confident that I have resolved conflicts in my personal life so that they will not interfere with my counseling abilities..... 1 2 3 4 5 6
14. I feel that the content of my interpretation and confrontation responses will be consistent with and not discrepant from what the client is saying..... 1 2 3 4 5 6
15. I feel that I have enough fundamental knowledge to do effective counseling..... 1 2 3 4 5 6
16. I may not be able to maintain the intensity and energy level needed to produce client confidence and active participation..... 1 2 3 4 5 6
17. I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand..... 1 2 3 4 5 6
18. I am not sure that in a counseling relationship I will express myself in a way that is natural without deliberating over every response or action..... 1 2 3 4 5 6
19. I am afraid that I may not understand and properly determine probable meanings of the client's nonverbal behaviors..... 1 2 3 4 5 6
20. I am confident that I will know when to use open or close ended probes, and that these probes will reflect the concerns of the client and not be trivial..... 1 2 3 4 5 6
21. My assessments of client problems may not be as accurate as I would like them to be..... 1 2 3 4 5 6
22. I am uncertain as to whether I will be able to appropriately confront and challenge my client in therapy..... 1 2 3 4 5 6
23. When giving responses, i.e., reflection of feeling, active listening, clarification, probing, I'm afraid that they may not be effective in that they won't be validated by the client's immediate response..... 1 2 3 4 5 6
24. I do not feel I possess a large enough repertoire of techniques to deal with the different problems my client may present..... 1 2 3 4 5 6
25. I feel competent regarding my abilities to deal with crisis situations which may arise during the counseling sessions - e.g., suicide, alcoholism, abuse, etc..... 1 2 3 4 5 6
26. I am uncomfortable about dealing with clients who appear unmotivated to work toward mutually

determined goals.....	1	2	3	4	5	6
27. I may have difficulty dealing with clients who do not verbalize their thoughts during the counseling session.....	1	2	3	4	5	6
28. I am unsure as to how to deal with clients who appear non-committal and indecisive.....	1	2	3	4	5	6
29. When working with ethnic minority clients, I am confident that I will be able to bridge cultural differences in the counseling process.....	1	2	3	4	5	6
30. I will be an effective counselor with clients of a different social class.....	1	2	3	4	5	6
31. I am worried that my interpretation and confrontation responses may not over time assist the client to be more specific in defining and clarifying the problem..	1	2	3	4	5	6
32. I am confident that I will be able to conceptualize my client's problems.....	1	2	3	4	5	6
33. I am unsure as to how I will lead my client towards the development and selection of concrete goals to work toward.....	1	2	3	4	5	6
34. I am confident that I can assess my client's readiness and commitment to change.....	1	2	3	4	5	6
35. I feel I may give advice.....	1	2	3	4	5	6
36. In working with culturally different clients, I may have a difficult time viewing situations from their perspective.....	1	2	3	4	5	6
37. I am afraid that I may not be able to effectively relate to someone of lower socioeconomic status than me....	1	2	3	4	5	6

Appendix D
Recruitment Email

Dear Training Director/Department Chair,

I would like to invite graduate students (masters' and doctoral) in your program to participate in a study of factors affecting counselor development. Participation will take approximately 20 minutes. Participants will have the opportunity to take part in a random drawing for a gift card. If you are willing to help me with this study, please forward the request below to the Masters' and Doctoral level students in your program. Please note that the Ball State University Institutional Review Board considered this study exempt from review in accordance with federal regulations.

Thank you for your help,
Jane Royse Roskowski
Doctoral Candidate
Ball State University

Dear Potential Research Participant:

Hello! I am writing to request your participation in a research study I am conducting as part of my dissertation project. This study is intended to further our understanding of counselor trainees' development. Specifically, it is an examination of factors affecting counselors' perceived ability to effectively assist their clients. Only students in graduate level counseling programs are being asked to participate.

The direct link to the survey is:

<http://inquisitor.bsu.edu/inqsit/inqsit.cgi/royse-roskowski?Counselor+Development>

If you are willing to participate, please take the time to read the instructions and complete the online survey. Three questionnaires are included in this survey, which will take approximately 20 minutes to complete. At the end of the survey, you will have the opportunity to participate in a random selection of one \$25 Barnes and Noble gift card for every fifty participants.

Please be assured that your responses will remain anonymous and confidential. At no time should you add your name to the survey. Your participation is voluntary and you may exit the survey at any time for any reason.

Please note that the Ball State University Institutional Review Board considered this study exempt from review in accordance with federal regulations.

If you have concerns about this study, you may contact my dissertation advisor, Dr. Larry Gerstein (765-285-8040), or me by phone.

Thank you for considering my request.

Jane Royse Roskowski, M.S., L.P.C.
Doctoral Candidate
Department of Counseling & Guidance Services
Ball State University, Muncie, Indiana
(765) 285-8040

Appendix E
Introductory Page

Dear Research Participant:

This study is intended to further our understanding of counseling trainees' development. Specifically, it is an examination of factors affecting counselors' perceived ability to effectively assist their clients. Only students in graduate level counseling programs are asked to participate.

Please take the time to read the instructions and complete the online survey. Three questionnaires are included in this survey, which will take approximately 20 minutes to complete. At the end of the survey, you will have the opportunity to participate in the random selection of one \$25 Barnes and Noble gift card for every fifty participants.

Please be assured that your responses will remain anonymous and confidential. At no time should you add your name to the survey. Your participation is voluntary and you may exit the survey at any time for any reason.

The risks or ill effects from participating in this study are minimal. There is a small possibility that answering some of the questions may evoke some feelings of anxiety. Should you experience any feelings of anxiety or other uncomfortable emotions, there are counseling services available to you at your university counseling center.

One benefit of participation is greater self-awareness. Additionally, you may appreciate and gain confidence in the counseling skills you have developed.

For one's rights as a research subject, the following person may be contacted:
Coordinator of Research Compliance, Office of Academic Research and Sponsored Programs, Ball State University, Muncie, IN 47306, (765) 285-5070.

If you have concerns about this study, you may contact my dissertation advisor, Dr. Larry Gerstein, or me by phone.

By continuing with this survey, you are stating that you have read the description of the project and that you are giving your consent to participate. Please print this screen, if you wish to retain a copy of this consent.

Principle Investigator:
Jane Roskowski, M.S., L.P.C.
Doctoral Candidate, Counseling Psychology
Psychology
Ball State University, Muncie, IN 47306
47306
765-285-8040
jcroyserosko@bsu.edu

Faculty Supervisor:
Larry Gerstein, Ph.D., APA Fellow
Training Director, Counseling
Ball State University, Muncie, IN
765-285-8040
lgerstein@bsu.edu

Appendix F
Debriefing Summary

Thank you for participating in this survey. Please be assured that your responses will remain anonymous and confidential. If you are willing, please forward the link to this survey or the email containing the link to your classmates. This will help me ensure a representative sample.

If you would like to participate in a random selection of a Barnes & Noble® giftcard, please forward your email to Key Personnel.

If you are experiencing any feelings of anxiety related to completing this study, please consult with a counselor at your university counseling center.

If you are interested in receiving a copy of the results of the study you may reach me via email at jcroyserosko@bsu.edu. If you have questions or concerns about the study, you may contact me via email or my dissertation advisor Dr. Larry Gerstein. Dr Gerstein can be contacted by email at lgerstein@bsu.edu.

Principle Investigator:
Jane Roskowski, M.S., L.P.C.
Doctoral Candidate, Counseling Psychology
Psychology
Ball State University
Muncie, IN 47306
765-285-8040

Faculty Supervisor:
Larry Gerstein, Ph.D., APA Fellow
Training Director, Counseling
Ball State University
Muncie, IN 47306
765-285-8040