

HALL, KAREN E., Ph.D. Anxiety and Counseling Self-Efficacy among Counseling Students: The Moderating Role of Mindfulness and Alexithymia. (2009)  
Directed by Dr. Craig S. Cashwell. 199 pp.

This study explored the relationship between anxiety and counseling self-efficacy and the moderating effects of mindfulness and alexithymia. One hundred and fifty two pre-internship counseling trainees from CACREP programs across the country were surveyed to determine their levels of anxiety, mindfulness, alexithymia and counseling self-efficacy using the Trimodal Anxiety Questionnaire, the Five Facet Mindfulness Questionnaire, the Toronto Alexithymia Scale and the Counselor Activity Self-Efficacy Scales.

Pearson Product Moment Coefficients revealed significant pairwise relationships among the variables of interest in the expected directions. In a linear regression, somatic and behavioral anxiety (but not cognitive anxiety) emerged as significant predictors of counseling self-efficacy. In a Stepwise regression, the *observe*, *describe*, and *nonreact* facets of mindfulness also emerged as significant predictors of counseling self-efficacy, although the *nonjudge* and *acting with awareness* facets did not. The hypotheses that mindfulness and alexithymia served to moderate the relationship between anxiety and counseling self-efficacy were not supported, but instead mindfulness, and to a lesser extent alexithymia may be more direct predictors of counseling self-efficacy.

The results suggest that mindfulness and emotional skills training may be important variables to consider in supporting counselor trainee's self-efficacy. The

findings have implications for counselor education and supervision and provide direction for future research in counselor development.

**ANXIETY AND COUNSELING SELF-EFFICACY AMONG COUNSELING  
STUDENTS: THE MODERATING ROLE OF  
MINDFULNESS AND ALEXITHYMIA**

by

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**A Dissertation Submitted to  
the Faculty of the Graduate School at  
The University of North Carolina at Greensboro  
in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy**

**Greensboro**

**2009**

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APPROVAL PAGE

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## ACKNOWLEDGEMENTS

When I began this process I thought I was just writing a document. As it has turned out, the process of writing was only one small piece of my experience. Over the course of the time that I have been engaging with this piece of work I have had a tremendous amount of internal shifting. I have been faced with my fears about evaluation and sharing something of mine in a more public way. I have watched the play of my attachment to doing something really great and then the relaxing in to being in the process. I have felt the pull to hurry and be done out of desire for what lies on the other side of finishing, and felt the settling into *being with* the process. It is for these reasons I am exceptionally grateful for the people that have shepherded me through this process and been willing to sit with me through the unfolding of more than a document.

First, I want to thank the faculty and my fellow students and cohort at UNC-Greensboro. The gift of having such great minds and nurturing support around me has truly been an inspiration. Also, I would like to thank my entire dissertation committee: Dr. Craig Cashwell, Dr. Todd Lewis, Dr. Diane Gill and Dr. Terry Ackerman for the time, energy and caring they brought to supporting the development and execution of this study and document. I would like to extend special thanks to Dr. Craig Cashwell, my dissertation chair, for being a model of mindful presence in academia, for getting that this was about more than creating an external document for me, and for the hours spent helping me improve the quality of my writing while also attending to how I was doing as a person. This has truly shaped the type of educator I hope to become.

I also want to extend a heartfelt thank you to Chip and my family who were supportive of me even when I had little to give in return. I would like to extend a special thanks to my mom and dad for their encouragement and steady belief in me, and coming through with a phone call, a visit, or a meal when I most needed it. Finally, I would like to thank Durga and my spiritual community for continually reminding me to orient toward praise and gratitude.

## TABLE OF CONTENTS

	Page
CHAPTER	
I. INTRODUCTION .....	1
Measuring Perceived Readiness: Counseling Self-Efficacy .....	4
Anxiety as a Challenge to Counseling Self-Efficacy .....	5
Identifying Internal Skills and Skills Deficits that may Moderate Trainee Anxiety .....	6
Mindfulness .....	7
Alexithymia .....	9
Purpose of the Study .....	10
Statement of the Problem .....	11
Research Questions .....	12
Need for the Study .....	14
Definition of Terms .....	15
Brief Overview .....	16
II. REVIEW OF THE LITERATURE .....	18
Self-Efficacy .....	18
Counseling Self-Efficacy .....	22
Counseling self-efficacy defined .....	22
Performance accomplishments and counseling self-efficacy .....	23
Vicarious experience and counseling self-efficacy .....	26
Verbal persuasion and counseling self-efficacy .....	28
Emotional arousal and counseling self-efficacy .....	32
Summary of self-efficacy and counseling self-efficacy literature .....	33
Anxiety .....	34
Counselor Trainee Anxiety .....	35
Counselor trainee anxiety and its proposed origins .....	36
The impact of anxiety on counselor trainee cognitive and overall development .....	42
Reducing trainee anxiety .....	48
Summary of the anxiety and counselor trainee literature .....	52
Emotional Deficits among Counselor Trainees .....	53
Alexithymia.....	55
Alexithymia defined .....	56
Alexithymia among clients .....	57

Alexithymia among counselor trainees .....	58
Mindfulness as a Potential Internal Asset for Counselor Trainees .....	61
Mindfulness .....	61
Mindfulness and mental health .....	63
Mindfulness and the counselor .....	63
Summary .....	70
III. METHODOLOGY .....	71
Research Questions and Hypotheses .....	71
Participants .....	73
Procedures .....	73
Instrumentation .....	74
Counseling Self-Efficacy- Counselor Activity Self-Efficacy	
Scales (CASES) .....	74
Anxiety- Trimodal Anxiety Questionnaire (TAQ) .....	77
Alexithymia- The Twenty-item Toronto Alexithymia	
Scale (TAS-20) .....	81
Mindfulness- The Five Facet Mindfulness	
Questionnaire (FFMQ) .....	85
Demographic Questionnaire .....	89
Data Analysis .....	90
Pilot Study .....	93
Integrated feedback .....	93
Other feedback .....	94
Summary .....	95
IV. RESULTS .....	96
Description of the Sample .....	96
Descriptive Statistics for Instrumentation .....	99
Research Questions and Hypotheses .....	102
Research Question 1/ Hypothesis 1a-c .....	102
Research Question 2/ Hypothesis 2a and b .....	106
Research Question 3/ Hypothesis 3a and b .....	107
Research Question 4/ Hypothesis 4a and b .....	109
Summary .....	111
V. DISCUSSION .....	113
Overview of the Study .....	113
Discussion of the Results .....	115
Hypothesis 1a-c .....	115

Hypothesis 2a and b .....	122
Hypothesis 3a and b .....	123
Hypothesis 4a and b .....	127
Limitations .....	128
Implications .....	130
Counselor Education and Supervision .....	131
Future Research .....	132
Conclusion .....	135
REFERENCES .....	137
APPENDIX A: INSTRUCTIONS AND CONSENT FORMS .....	168
APPENDIX B: INSTRUMENT PERMISSIONS, DEMOGRAPHIC FORM .....	172
APPENDIX C: PILOT STUDY METHOD AND RESULTS .....	178

## LIST OF TABLES

	Page
Table 1: Instrumentation, Alpha Coefficients, Score Range .....	90
Table 2: Hypotheses, Variables of Interest, Data Analysis .....	92
Table 3: Demographic Description of the Full Study Sample .....	98
Table 4: Sample Score Ranges, Means, Standard Deviations, & Norms .....	101
Table 5: Instrument Scale Reliabilities .....	102
Table 6: Pearson Product Moment Correlations .....	105
Table 7: Multiple Regression of Anxiety Subscales as Predictors of Counseling Self-Efficacy .....	107
Table 8: Multiple Regression (Enter Method) of Mindfulness Subscales as Predictors of Counseling Self-Efficacy .....	108
Table 9: Stepwise Regression of Mindfulness Subscales as Predictors of Counseling Self-Efficacy .....	108
Table 10: Multiple Regression Analysis of Anxiety, Mindfulness and ZAnxiety X ZMindfulness Predicting Counseling Self-Efficacy .....	111
Table 11: Multiple Regression Analysis of Anxiety, Alexithymia, and ZAnxiety X ZAlexithymia Predicting Counseling Self-Efficacy .....	111
Table 12: Demographic Description of the Pilot Study Sample .....	184
Table 13: Pilot Study Instrument Descriptive Statistics .....	185
Table 14: Pilot Study Pearson Product-Moment Correlations .....	185
Table 15: Multiple Regression of Anxiety Subscales as Predictors of Counseling Self-Efficacy .....	186

Table 16: Multiple Regression of Mindfulness Subscales as Predictors  
of Counseling Self-Efficacy.....186

## LIST OF FIGURES

	Page
FIGURE 1: Hypothesized Moderating Model.....	13

## CHAPTER I

### INTRODUCTION

The need for competent mental health professionals is rising in this country. Two large scale epidemiological studies estimated that between 28 and 30% of the U.S. adult population, approximately 44 million people have mental or addictive disorders that meet diagnosable criteria (Kessler, McGonagle, Zhao, & Nelson, 1994; Regier, Narrow, Rae, & Manderscheid, 1993). Furthermore, 9% of all U.S. adults are said to suffer significant functional impairment as a result of their mental illness (National Advisory Mental Health Council [NAMHC], 1993). Currently, mental illness and suicide account for more than 15% of disease-related impact on health and productivity in the United States, making it more of a detriment to individuals and the economy than all cancers combined (National Institute of Mental Health [NIMH], 2008). One estimate suggested that mental health care payers (e.g., Medicaid, Medicare, private individuals) and providers (e.g., hospitals, psychiatrists, in-patient and out-patient facilities) spent approximately \$104 billion dollars on mental health and substance abuse services in 2001 (Mark, Coffey, Vandivort-Warren, Harwood, & King, 2005). Other estimates have suggested that indirect costs of mental health, such as loss of work by individuals with mental health issues, cost companies and employers an additional \$78.6 billion dollars (Rice & Miller, 1996).

Counselors are among those charged with providing services for these individuals with mental health needs. Counselors work in a variety of settings such as schools, colleges, community agencies, private practices, and hospitals, and with a variety of presenting concerns, including vocational issues, family/relationships, mood disturbances, and addictions. The need for counselors has increased in response to the growing number of individuals seeking mental health services and because 1) many practicing counselors are reaching retirement age; 2) increased school enrollments necessitate more school counselors; 3) more employers are offering employee assistance programs that include counseling; 4) legislation has been passed requiring job training services for welfare and disability recipients, a service often provided by counselors; and 5) managed care provisions are now available to reimburse counselors for their services (Bureau of Labor Statistics, 2008). In fact, according to the Bureau of Labor Statistics the number of counseling jobs is projected to grow 21% or more between 2006 and 2016, a rate of growth that is categorized as much faster than the average. Thus, there is a growing need for counselors.

The job demands of being a counselor, however, are unique and challenging. Counselors frequently work with people who are at life stages or crisis points where they are experiencing both high distress and low social support (Cramer, 1999). Counselors are charged with assessing complex presenting problems, sitting with people experiencing a range of emotions, and providing tools and assistance that meet the ever-changing and evolving therapeutic environment. The job demands faced by professional

counselors can cause stress. In fact, it has been suggested that in order to face the variety of problems they encounter in their work, counselors must possess a high level of physical and emotional energy (Bureau of Labor Statistics, 2008). Burnout, compassion fatigue and vicarious traumatization are among the risks of the counseling environment (Baird & Jenkins, 2003; Figley, 1995; Linley & Joseph, 2007; Marcus & Dubi, 2006).

Another challenge that counselors face is that therapeutic change may occur slowly and the impact of their work may not be readily observable. It has been theorized that receiving immediate and positive feedback from the work environment is one of the key elements that encourages individuals to persist with their work (Bandura, 1977). Frequently, though, this type of feedback eludes counselors who are called upon to interact with clients in ways that are therapeutically necessary (e.g., being honest and challenging to clients) but which may not always be received positively by the client. Consequently, counselors may need to possess a strong sense of confidence and resilience in order to create appropriately challenging therapeutic environments, and may need to find sources of satisfaction and confidence to support them in persisting with their work.

Therefore, it is vital that training programs prepare counselors not only with concrete behavioral skills for delivering counseling services, but also with the internal skills and competencies that are necessary to navigate the demands of the counseling environment efficaciously. In order to do this, it is necessary to 1) determine how to measure if counselors are equipped with the internal skills to meet the demands of being

a counselor, 2) identify what interferes with counselors feeling more equipped, and 3) identify some developable internal skills that can be targeted in counselor preparation.

### Measuring Perceived Readiness: Counseling Self-Efficacy

One way to tell if counselors feel prepared to navigate the counseling environment is to examine their counseling self-efficacy. Self-efficacy has been described as one characteristic that is related to coping and persistence through challenges (Bandura, 1977; Bandura 1982). Bandura (1982) described self-efficacy as our perception of how we will do at a given task and suggested that it in part determines our actions, feelings, and behaviors related to that task. Specifically, individuals are said to exert more effort and persist with difficult tasks when they have higher self-efficacy.

Researchers have explored the role of self-efficacy in counselor trainees developing counselors and coined the term counseling self-efficacy (Larson, Suzuki, Gillespie, Potenza, Bechtel & Toulouse, 1992). Counseling self-efficacy is the confidence in one's ability to effectively counsel individuals (Larson et al., 1992). It has been explored as a characteristic that serves to support students and professionals in coping with and persisting through the challenges of learning how to counsel (Johnson, Baker, Kopala, Kiselica & Thompson, 1989; Larson & Daniels, 1998; Larson et al., 1992; Lent, Hill & Hoffman, 2003). Also, lower self-efficacy has been posited to result in less risk-taking and less persistence when faced with challenges (Bandura, 1977, 1982, 1984; Larson & Daniels, 1998). Ultimately, counseling self-efficacy has been identified as one of the elements that predicts better counseling skills (Daniels, 1997; Friedlander, Keller,

Peca-Baker, & Olk, 1986; Larson et al., 1992) and, consequently, counselor educators and researchers have looked at ways to support the development of counseling self-efficacy among trainees (Barbee, Scherer & Combs, 2003; Cashwell & Dooley, 2001; Daniels & Larson, 2001; Efstation, Patton, & Kardash, 1990). Therefore, a measure of counseling self-efficacy could serve as one indicator that a student feels equipped, not only with concrete counseling skills, but also the internal skills necessary to meet training and in-session demands.

### Anxiety as a Challenge to Counseling Self-Efficacy

Anxiety is one internal experience that impacts counseling self-efficacy. Trainees with anxiety may experience cognitive manifestations (e.g., negative self-talk, overly negative appraisals of their work), behavioral manifestations (e.g., defensiveness to feedback, avoidance of more feared aspects of counseling), somatic manifestations (e.g., accelerated heart rate, upset stomach), or some combination of the three. Consistently, anxiety has been shown to relate negatively to trainees counseling self-efficacy (Alvarez, 1995; Daniels, 1997; Friedlander et al., 1986; Larson et al., 1992) and relate negatively to performance of in-session tasks (Friedlander et al., 1986). For example, trainees with more state and trait anxiety have lower levels of counseling self-efficacy and have more difficulty receiving feedback in supervision. (Larson & Daniels, 1998). Further, trainees with higher levels of anxiety have been shown to perform less effectively in counseling tasks (Daniels, 1997; Friedlander et al., 1986; Larson et al., 1992; White, 1992).

Consequently, the internal skills of navigating and managing anxiety seem important in exploring counseling self-efficacy.

#### Identifying Internal Skills and Skills Deficits that may Moderate Trainee Anxiety

Given the aforementioned negative relationship between student anxiety and counseling self-efficacy, it is important to identify developable internal skills that might influence, or moderate, the relationship between anxiety and counseling self-efficacy. Such skills, if identified, could be more readily developed and supported in counselor education and supervision. One approach is to consider what internal skills may help anxious trainees navigate their anxiety effectively and serve a protective or alleviating function in the relationship between anxiety and counseling self-efficacy. That is, if anxiety exists naturally in trainees, how is it that some trainee's self-efficacy is less affected? Mindfulness has been shown to reduce anxiety in the broader literature (Levitt & Karekla, 2005; Mennin, 2005) and may also reduce anxiety in counselor trainees. Further, literature already exists which articulates how to develop mindfulness, thereby making it a developable skill set. That is, if identified as supportive of anxiety reduction or self-efficacy enhancement, earlier findings related to mindfulness can be readily translated into recommendations for intervention studies and implications for counselor training.

Another approach is to identify deficits that exacerbate anxiety in trainees. That is, if a skills deficit exists that makes trainees less able to navigate the natural anxiety of their training programs and more likely to negatively affect counseling self-efficacy,

perhaps *that deficit too* could be targeted. Doing so may help educators and supervisors recognize not just what is supporting students' efficacy but also what may hinder it. Both approaches can lead to skills development, one by boosting a protective skill, and the other by reducing a skills deficit. Alexithymia, a global impairment in processing of emotion (Lane, Sechrest, Reidel, & Weldon, 1996), may be one such factor that exacerbates trainee anxiety. Similar to mindfulness, alexithymia is also a developed construct in the literature. Approaches to reduce alexithymia have already been articulated. As such, if alexithymia emerges as a factor that exacerbates anxiety or hinders self-efficacy, the alexithymia literature can be used to support counselor educators in alleviating alexithymia in trainees and to help them develop the emotional processing skills they lack. For these reasons mindfulness and alexithymia have been identified as constructs that could inform training related to the development of internal skills. Researchers have not yet examined, however, the extent to which alexithymia and mindfulness moderate the relationship between anxiety and counseling self-efficacy among counselor trainees.

### *Mindfulness*

Mindfulness training may be one way to reduce counselor anxiety and potentially increase counseling self-efficacy. *Mindfulness* is described as “the awareness that emerges through paying attention, on purpose, in the present moment and non-judgmentally to the unfolding of the experience moment by moment” (Kabat-Zinn, 2003b, pp. 145). Elements of mindfulness, such as non-judgmental acceptance of

experiences and present-moment attention, theoretically seem to be a good match for the demands and unpredictable nature of the counseling role and related anxiety. For example, a student who is mindfully focused on the present moment may be less detrimentally affected by previous negative performances. Similarly, a student with a higher level of mindfulness may be able to maintain focus on the client rather than on her or his own internal dialogue, or at least be able to shift between the two with intention.

Mindfulness has been found to be useful in reducing anxiety in clients (Evans, Ferrando, Findler, Stowell, Smart, & Haglin, 2008; Kabat-Zinn, Massion, Kristeller, & Peterson, 1992; Miller, Fletcher, & Kabat-Zinn, 1995; Roemer, Salters-Pedneault, & Orsillo, 2006), but mindfulness has not yet been explored as a potential moderator of counselor trainee anxiety. Further, only one researcher to-date (Bentley, 2008) has explored the relationship between mindfulness and counseling self-efficacy. The current study explored 1) the relationships between anxiety, mindfulness, alexithymia and counseling self-efficacy and 2) whether different aspects of anxiety (e.g., cognitive, somatic, and behavioral) accounted for more of the variance in counseling self-efficacy, 3) whether different facets of mindfulness (e.g., observing, describing, acting with awareness, non judging internal experiences, non reacting to internal experiences) accounted for more of the variance in counseling self-efficacy, and 4) whether mindfulness and alexithymia serve as moderator between anxiety and counseling self-efficacy among trainees.

### *Alexithymia*

Alexithymia has been characterized by lacking words for feelings, difficulty identifying feelings, difficulty differentiating feelings from physiological sensations, and difficulty communicating feelings verbally (Sifneos, 1973). Potentially, counselor trainees with higher levels of alexithymia may experience anxiety but lack the internal emotional skill set and resources to recognize the existence of the anxiety and articulate it to themselves or their supervisors. Consequently, these students may experience more detrimental effects of that anxiety than others who may process their anxiety more adaptively.

In theory, alexithymia has been posited to include an externally oriented operative cognitive style with poor introspection and limited imaginal processes (Taylor, Bagby, & Parker, 1997). Further, alexithymia is said to result in poor emotional regulation and contribute to or exacerbate anxiety and somatization (De Gucht & Heiser, 2003; Lumley, Stettner, & Wehmer, 1996). Alexithymia has been empirically linked to poor coping with stress (Krystal, 1979/1982; Martin & Pihl, 1985), poor bonding with others (Sifneos, 1987; Krystal & Krystal, 1988), poor suitability as a client for analytically oriented therapy (Bagby, Taylor, & Parker 1994), minimal interest in introspective and analytical cognitive endeavours (Krystal, 1982/83; Lolas & Von Rad, 1989; McDougal, 1980; Sifneos, 1975), and higher levels of anxiety, depression, self-consciousness, and vulnerability (Bagby, Parker, & Taylor, 1994), and somatization (Bermond, Vorst, Vingerhoets, & Gerritsen, 1999). Researchers have found alexithymia to be positively

correlated with anxiety (Bagby, Parker et al., 1994; Cashwell, Glossoff, & Hammond, in press). Knowing more about students' levels of alexithymia and how such deficits in internal emotional skills impact their anxiety and counseling self-efficacy could be informative, but to date these relationships have not been explored. It is possible that students with higher levels of alexithymia cope less effectively with their anxiety, are not as able to identify and express their anxiety or other feelings to teachers and supervisors, somaticize their emotional experiences, and struggle more with introspection that often is demanded in counseling programs. Exploring counseling student's alexithymia in relation to anxiety and counseling self-efficacy will inform the relative importance of anxiety on self-efficacy and the potential moderating effect of alexithymia.

In summary, there is a growing need for counselors and a unique set of internal skills is required to work in the counseling field. In order to help counselor trainees develop counseling self-efficacy while maintaining their own well-being and persisting through challenges, it is crucial to understand as much as we can about what contributes to counseling self-efficacy. Specifically, if counselor educators and supervisors can learn more about what might help or hinder anxious trainees, they can use this knowledge to better support trainees' as they prepare to enter the challenging counseling profession.

#### Purpose of the Study

Although much is known about the behavioral skills needed to be an effective counselor, less is known about the internal skills needed to be an effective counselor. Therefore, the purpose of this study was to explore factors that might alleviate or

exacerbate anxiety in trainees, and contribute to stronger counseling self-efficacy. This study does so by testing the relationship between counseling student's anxiety and counseling self-efficacy and the potential moderating effects of mindfulness and alexithymia.

### Statement of the Problem

Broadly speaking, there are necessary internal skills to navigate the challenges of the counseling environment, counselor training, and supervision. While less visible and concrete than behavioral skills (e.g., learning how to conduct an intake or reflect client affect), these internal skills (e.g., managing anxiety, staying mindful), and skills deficits (e.g., lacking healthy emotional expression, low interest in introspection), may impact the trainees' self-efficacy and performance. These internal skills and skills' deficits and how to enhance or reduce them have received less attention in the counseling literature.

It has been suggested that certain *supervisor behaviors*, such as the nature of the feedback given (Clark, 2006; Daniels, 1997; Daniels & Larson, 2001; Friedlander et al., 1986), the type of supervision intervention used (Crutchfield & Borders, 1997; Torres-Rivera, & Crews, 2000; Urbani, Smith, Maddux, Smaby), as well as efforts to induct supervisees into their roles (Shanklin, 1995) and match their developmental needs (Murray, Portman, & Maki, 2003; Stoltenberg, 2008), can support supervisee self-efficacy, but perhaps there are additional ways to more directly teach internal skills that have been less explored. Identification of internal skills and internal skill deficits that impact counselor efficacy and that can be targeted with training could offer supervisors

additional resources in supporting counselor trainees. Emotional deficits that may exacerbate anxiety (e.g., alexithymia) and levels of mindfulness that may alleviate anxiety have been proposed as two such areas of exploration. Theoretically, lower levels of alexithymia and higher levels of mindfulness could moderate the relationship between anxiety and counselor self-efficacy. These relationships have not yet been explored empirically, however, among counselor trainees.

### Research Questions

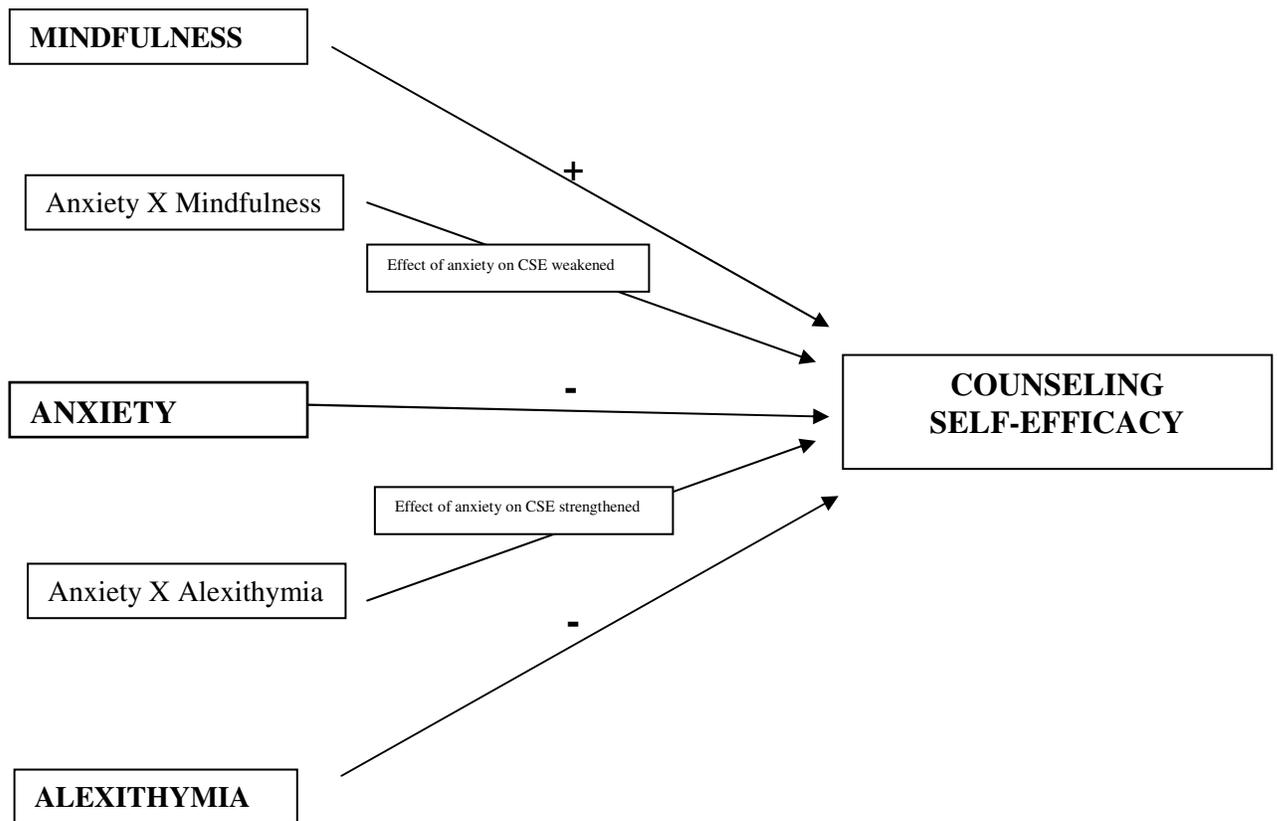
This study will test the relationship between anxiety and counseling self-efficacy and the moderating effects of mindfulness and alexithymia in a hypothesized path model. To assess these relationships, the following research questions will be addressed:

Research Question 1: What are the bivariate relationships between anxiety, mindfulness, alexithymia, and counseling self-efficacy?

Research Question 2: Which of the three anxiety subscales (cognitive, behavioral, and somatic) will be the best predictor of counseling self-efficacy?

Research Question 3: What proportion of the variance in counseling self-efficacy can be accounted for by the five facets of mindfulness (observe, describe, act with awareness, nonjudge, nonreact) in a multiple regression analysis?

Research Question 4: What are the relationships among anxiety, mindfulness, alexithymia and counseling self-efficacy within a path model that specifies a relationship between anxiety and self-efficacy moderated by mindfulness and alexithymia?



*Figure 1.* Hypothesized Moderating Model

### Need for the Study

The existence of anxiety and the need to support anxiety management among counselor trainees is well-established (Bernard & Goodyear, 2004; Borders & Brown, 2005). Additionally, anxiety has been found to negatively predict counseling self-efficacy (Alvarez, 1995; Daniels, 1997; Friedlander et al., 1986; Larson et al., 1992). Counseling self-efficacy is a desirable attribute as it has been shown to be related positively to higher self-esteem, lower anxiety, more confidence in pre-practicum tasks, and better counseling performance (Daniels, 1997; Friedlander et al., 1986; Larson et al., 1992; White, 1992), while low counseling self-efficacy has been found to interfere with hearing supervision feedback (Larson & Daniels, 1998).

Therefore, in addition to supporting counselor trainees' development of concrete counseling skills, attending to internal skills and skills' deficits that impact anxiety seems essential. Consequently a more thorough understanding of the relationship between anxiety and counseling self-efficacy, and an exploration of what developable skills could support counseling self-efficacy (e.g., mindfulness) and what skills deficits could be alleviated to support self-efficacy (e.g., alexithymia) is a crucial step in developing intentional interventions to support students in persisting in their counseling training, navigating the emotional experiences that are inherent in counseling others, and becoming better prepared to enter the field.

## Definition of Terms

*Counseling Self-Efficacy* refers to counselor's perceptions that they are equipped with the resources to handle situations that may emerge in their clinical work (Larson & Daniels, 1998). Self-efficacy theory posits that individuals with more self-efficacy are more likely to exert effort and persist when faced with challenges (Bandura, 1977, 1986a), and consequently counseling self-efficacy has been explored as it relates to effort, persistence, and performance in counselors. For the purposes of this study it will be measured with the Counselor Activity Self-Efficacy Scales (CASES; Lent et al., 2003).

*Anxiety* is an experience resulting from both a preoccupation with a threat or danger and a perceived inability to cope (Beck, Emery, & Greenberg, 1985). Similarly, Salkovskis (1996) indicated that anxiety is greatest when threatening events are perceived as likely, accompanied by detrimental consequences, and when resources or likelihood of rescue are low. Anxiety has been described as having somatic, cognitive and behavioral components (Koksal, Power & Sharp, 1991; Lehrer & Woolfolk, 1982). For the purposes of this study it will be measured with the Trimodal Anxiety Questionnaire (TAQ; Lehrer & Woolfolk, 1982).

*Alexithymia* is described most simply as a global impairment in processing of emotion (Lane et al., 1996). It has been described as including a lack awareness of ones' emotions, an inability to differentiate between physiological sensations and feelings, a difficulty describing feelings, externally-oriented thinking, concrete thinking, and limited

imaginal processes including dreaming (Sifneos, 1973; Taylor et al., 1997). As a result, alexithymia contributes to poor emotional regulation and the development, maintenance or exacerbation of anxiety, mood, eating disorders, substance use disorders, and somatization (De Gucht & Heiser, 2003; Lumley, Stettner, & Wehmer, 1996). For the purposes of this study it will be measured with the Toronto Alexithymia Scale (TAS-20; Bagby, Parker et al., 1994).

*Mindfulness* is described as “the awareness that emerges through paying attention, on purpose, in the present moment and non-judgmentally to the unfolding of the experience moment by moment” (Kabat-Zinn, 2003, pp. 145). Therefore, being mindful is in contrast to ruminating about the past, worrying about the future or assigning value to current experiences. Baer, Smith, Hopkins, Krietemeyer & Toney (2006) created a measure of mindfulness to include five facets: 1) observing, 2) describing, 3) acting with awareness, 4) nonreactivity, and 5) nonjudging. For the purposes of this study it will be measured with the Five-Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006).

### Brief Overview

In this Chapter an introduction to the study has been offered as well as an explanation of the purpose of the study, a statement of the problem addressed by the study, research questions, and a definition of terms. In Chapter II, a review of the literature related to anxiety, counseling self-efficacy, mindfulness, and alexithymia is presented. The methodology for the study, including sampling, measures, and statistical procedures, is outlined in Chapter III. In Chapter IV, the results of the study will be

described. Finally, in Chapter 5 a discussion is offered, including the limitations of the study, implications for counseling, and suggestions for future research.

## CHAPTER II

### REVIEW OF THE LITERATURE

In Chapter I, the rationale for a study of internal skills and skills' deficits that impact counselor trainees' self-efficacy was offered. Specifically, counselor trainee anxiety and the factors that could moderate it (e.g., emotional skills development, mindfulness) were discussed. In this chapter, related literature is reviewed. This chapter includes the following sections as applicable to counselor trainees: (a) self-efficacy theory, (b) counselor trainee anxiety, (c) emotional skills and emotional skill deficits in trainees, and (d) mindfulness.

#### Self-Efficacy

The current study concerns internal skills and skills' deficits that impact that counselor trainee's confidence in executing counseling skills. Therefore, literature related to confidence in executing behaviors, namely literature on self-efficacy theory, was identified and critically reviewed. Self-efficacy theory posits that our choice to execute a certain behavior is not determined solely by our expectation of being rewarded or punished for the behavior (outcome expectations), but also is influenced by our cognitive appraisal of our capabilities to perform the behavior (efficacy expectations) (Bandura, 1977). That is, even if individuals expect there will be a reward for executing a given behavior, they may still avoid doing so if they lack confidence in their ability to

successfully accomplish the behavior. Bandura (1977) referred to expectations of how we will perform as *efficacy expectations* and an individual's level of conviction that they can perform a behavior as *self-efficacy*.

Bandura (1977) suggested that individuals' self-efficacy influences their choices of the settings (e.g., educational environments, jobs, relationships) in which they engage (Bandura, 1977). That is, individuals will gravitate toward environments where they perceive a higher likelihood of success and avoid environments where they anticipate failure. After choosing a suitable environment, self-efficacy still influences how individuals cope with the process of trying out new behaviors. That is, when individuals have stronger self-efficacy, they are better able to navigate and cope with challenges that accompany novel experiences.

Bandura (1977) also suggested that self-efficacy consists of three dimensions, namely magnitude, generality, and strength. Magnitude of self-efficacy refers to the difficulty level of tasks that individuals perceive they can accomplish. That is, individuals with a low magnitude of self-efficacy may expect success with simple tasks but anticipate failure with moderate and high difficulty tasks. Generality refers to how broadly an experience of failure or success is interpreted. That is, for some, an experience of success will only result in increased efficacy for that specific task. For others, however, that experience will increase efficacy for executing a wider range of similar tasks. Strength of self-efficacy refers to how strongly ingrained one's self-efficacy beliefs are. For example, low levels of self-efficacy may either be easily countered by experiences of success, or be persistent in spite of success.

There appear to be a number of ways in which self-efficacy can be enhanced. Bandura, (1977) posited that individual's self-efficacy can be increased through performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. He described *performance accomplishments* as mastery experiences that occur through actual or symbolic practice. For example, individuals' self-efficacy increases when they are exposed to tasks, do not meet with adverse consequences, and cope successfully with associated challenges. He asserted that performance accomplishments are the single strongest way to increase individuals' self-efficacy. Also, individuals may increase their self-efficacy vicariously through observing models. Although *vicarious experiences* are said to be less effective in increasing self-efficacy than personal experiences (Bandura, 1977), they are still valuable sources of enhancing self-efficacy, particularly when individuals perceive models to be similar to them (Kazdin, 1974) and when models are seen exerting effort to successfully overcome difficulties (Bandura, 1977; Kazdin 1973; Meichenbaum, 1971). Additionally, individuals gain information about their self-efficacy through *verbal persuasion*, that is, feedback from others suggesting they are likely to succeed (Bandura, 1977). Bandura noted that using verbal suggestions to target outcome expectations (i.e., telling people what to expect) is less effective than using verbal suggestions to target self-efficacy (i.e., persuading individuals that they possess the resources needed to succeed).

Finally, individuals' self-efficacy may increase as they learn to more adaptively experience *emotional arousal* (Bandura, 1977). In contrast to the aforementioned three methods of increasing self-efficacy (performance accomplishments, vicarious

experiences, and verbal persuasion), how to approach emotional arousal is perhaps less readily apparent. When emotional arousal is offered as a self-efficacy enhancer, questions arise as to how emotional arousal impacts self-efficacy, whether there is a desirable amount of emotional arousal, and by what mechanisms emotional arousal is shifted. Bandura (1977) suggested emotional arousal could be motivating or debilitating for self-efficacy depending on an individual's interpretations. He did not suggest that there is a desired amount of arousal, but did suggest a couple of pathways to reduce detrimental emotional arousal. First, arousal could be prevented by targeting the threat that would initiate the arousal (e.g., through removing the threat or making the environment safe). Following this model, an individual's emotional arousal is minimized because he or she is introduced to situations where positive consequences or successes are highly likely. Secondly, arousal could be prevented or reduced by targeting maladaptive cognitive processes that precede, exacerbate, or perpetuate arousal. For example, Bandura asserted that "by conjuring up fear-provoking thoughts about their ineptitude, individuals can rouse themselves to elevated levels of anxiety that far exceed the fear experienced during the actual threatening situation" (1977, pp. 199). Following this model, it is necessary to counter negative thinking in order to reduce emotional arousal. In summary, self-efficacy appears to play an important role in how individuals approach new environments and behaviors and cope with and persist through the accompanying challenges (e.g., potential for failure, physiological arousal). Practicing skills, observing models, receiving verbal encouragement, and learning to manage emotional arousal are offered as methods to support self-efficacy.

### *Counseling Self-Efficacy*

Early self-efficacy research looked at efficacy as confidence in managing an encounter with a feared stimulus, such as snakes (Bandura & Adams, 1977), but researchers have since applied the concepts and theory to a broader range of novel or feared experiences for which individuals lack confidence in executing skills such as using computers (Hill, Smith, & Mann, 1987), majoring in math and science (Lent, Brown, & Larkin, 1987), performing gymnastics (McAuley, 1985) and persisting with smoking cessation (Godding & Glasgow, 1985). In the 1980's, researchers began examining the impact of self-efficacy on performance of counseling skills (Johnson et al., 1989; Munson, Stadulis, & Munson, 1986; Munson, Zoerink & Stadulis, 1986; Sipps, Sugden, & Faiver, 1988), including initial attempts to quantify and measure the emerging construct of *counseling self-efficacy* (Friedlander & Snyder, 1983; Johnson et al., 1989).

*Counseling self-efficacy defined.* Counseling self-efficacy has been defined as “counselor trainees’ judgments of their capabilities to counsel successfully in counseling situations or their expectancies for success in counseling situations” (Larson et al., 1992). Theoretically, trainees with low counseling self-efficacy would judge themselves as unable to handle challenges associated with counseling clients, avoid trying out new skills, and experience hindering cognitive processes and emotional arousal associated with counseling (Bandura, 1977; Bandura, 1986b; Larson & Daniels, 1998). Individuals with higher self-efficacy are more likely to have self-aiding thoughts and to be able to experience novel situations as challenges rather than being overcome by anxiety (Bandura, 1991). When trainees misattribute causes of success and focus on negative

aspects of performance, however, they will experience self-doubt, heightened anxiety, and low estimates of personal efficacy (Bandura, 1977; Bandura, 1986a). Given the theoretical assertion that self-efficacy relates to persistence, effort, and performance (Bandura, 1977), some counselor educators and researchers have suggested that increasing counseling trainees' self-efficacy is a worthy training goal (Johnson et al., 1989; Larson et al., 1992). As a result, a body of literature has emerged identifying correlates of counseling self-efficacy as well as methods of increasing counseling self-efficacy. In the following section, the counseling self-efficacy literature is critically reviewed. Bandura's (1977) four methods of increasing counseling self-efficacy (performance accomplishments, modeling, verbal persuasion, and decreasing emotional arousal) are used as an organizational framework from which strengths and limitations of the existing literature are reviewed.

*Performance accomplishments and counseling self-efficacy.* Performance accomplishments refer to times that individuals actually try out and master new behaviors either in person or symbolically through visualization and are suggested to be the most potent sources of self-efficacy development (Bandura, 1977). At the most basic level then, it might be anticipated that as counselor trainees' progress through their program and gain more experience with clients, their counseling self-efficacy should increase and researchers have, indeed, found this to be so. For example, in a study of 138 counseling psychology trainees and licensed professional psychologists, Melchert, Hays, Wiljanen, and Kolocek (1996) piloted a measure of counseling self-efficacy, the Counseling Self-Efficacy Scale (CSES), and explored whether it correlated with training level in the

direction expected. Results showed that level of training and amount of clinical experience did significantly predict counseling self-efficacy ( $F_{(1,135)} = 66.25, p < .00$  and  $F_{(2,134)} = 49.85, p < .00$ , respectively), together accounting for 43% of the variance in counseling self-efficacy. Additional support for the role of experience, both prior to and during counselor training was found by Barbee et al. (2003). In their study of one hundred and thirteen pre-practicum counselor trainees, counselor training/development and previous counseling-related work experience accounted for 21.8% and 8.5% of the variance in counseling self-efficacy, respectively. Even participation in brief practice experiences (e.g., a 15 minute role play scenario) increased counseling self-efficacy significantly in one study of fifty-four counseling graduate trainees (Clark, 2006). Finally, Lent, Hill, and Hoffman (2003) reported counseling self-efficacy gains from .7 to .95 standard deviations in 62 practicum trainees after 15 weeks of counseling practicum experience. They also reported significantly higher counseling self-efficacy among trainees with more training when they grouped 239 undergraduate helping skills trainees and pre-practicum graduate trainees by level of training (<1 year, 1-3 years, >3 years), ( $F_{(12,463)} = 4.34, p < .00$ ). In one qualitative study, participants reported that their confidence was particularly volatile in the first three months of their practicum and that while it stabilized over time, it still was fairly fragile even after one year of clinical experience (Bischoff & Barton, 2002). Taken together, these findings suggest that experience is a critical aspect of the development of counseling self-efficacy.

In addition to experience through practicum and internship experiences, service learning experiences *within* counseling coursework may provide an additional source of

performance practice and counseling self-efficacy development. In a study of one hundred and thirteen pre-practicum counselor trainees, Barbee et al. (2003) compared trainees' with service-learning experience to trainees without service-learning experience on counseling self-efficacy as measured by the CSES (Melchert et al., 1996). In an independent samples t-test, trainees with service-learning experience had significantly higher levels of counseling self-efficacy ( $p < .03$ ), although no F statistic was reported.

In addition to amount of clinical experience and training, developmental level appears to be related to self-efficacy. Leach, Stoltenberg, McNeill, and Eichenfield (1997) found that trainees who were Level 2 trainees (as assessed by the Supervisee Levels Questionnaire-Revised, SLSQ-R; McNeill, Stoltenberg, & Romans, 1992) had significantly higher counseling self-efficacy scores than Level 1 trainees ( $F_{(5,136)} = 18.59, p < .00$ ) on the Counseling Self-Estimate Inventory (COSE; Larson et al., 1992). Similarly, Larson et al., (1992) found main effects on counseling self-efficacy by level of training ( $F_{(92,314)} = 4.17, p < .00$ ) and by level of counseling experience ( $F_{(2,314)} = 55.75, p < .001$ ).

Although it is encouraging to note that counseling self-efficacy increases with experience, this provides little direction for counselor educators with regards to how counseling self-efficacy can be supported and developed in entry-level trainees. That is, it may be of little consolation to an entry level trainee navigating their first clinical experiences to know that over time they will feel more efficacious. Furthermore, theory also suggests that self-efficacy is resistant, at times, to training effects (Bandura, 1977). This may manifest in counselor education in the form of trainees whose skills are

progressing but confidence and clinical risk-taking seems stagnant. Therefore, more exploration of skills that are both *developable* and serve to support trainees in navigating and coping with early counseling experiences is needed.

*Vicarious experience and counseling self-efficacy.* Less direct than personal mastery experiences are vicarious experiences of success. Simply observing a model successfully performing a threatening activity is another way that self-efficacy is increased (Bandura, 1977; Bandura & Barab, 1973), particularly when the model does so through effort rather than natural facility (Kazdin, 1973; Meichenbaum, 1971). This suggests that counselor trainees may increase their counseling self-efficacy by observing models using effort to successfully navigate challenges associated with counseling.

Although modeling is commonly discussed as a training intervention, there appears to be a dearth of literature on the effects of modeling on counseling self-efficacy. Larson Clark, Wesely, Koraleski, Daniels and Smith (1999) reported the differential effects of watching a video model versus participating in a role play in a study of sixty-seven pre-practicum counselor trainees. Trainees were randomly assigned to either observe a videotaped counseling session or participate in a counseling role play. They completed pre- and post-test measures of counseling self-efficacy. Trainees who watched a videotaped model showed increases of about  $1/6$  of a standard deviation in counseling self-efficacy, while some trainees who participated in the role play experienced drops in counseling self-efficacy of about  $4/5$  of a standard deviation and some experienced increases in counseling self-efficacy of approximately  $1/2$  of a standard deviation. These results suggest that observing a videotaped model is a more consistent, albeit modest way

to increase counseling self-efficacy, while participating in a role play may be helpful or detrimental, apparently depending on some aspect of the experience. Another type of modeling explored in relation to counseling self-efficacy is the use of self-as-model (Johnson, 1986). Although self-observation is said to be an anxiety-producing experience, (Bailey & Sowder, 1970; Fuller & Manning, 1973), self-modeling, (i.e., only reviewing positive portions of one's behavior) is suggested to be a less anxiety-provoking and effective alternative (Hosford, 1980; Johnson, 1986). In counseling, self modeling involves selecting and editing together affirmative video segments of a trainee's work and showing it to them as an example of how they are positively progressing in their training. There is no compelling empirical evidence, however, that self-modeling enhances counseling self-efficacy. In his study of 17 Master's level psychology trainees, Johnson (1986) found no significant differences in counseling self-efficacy between trainees who simply observed themselves on tape versus those who participated in the self-modeling condition. This study was conducted on a sample of insufficient size, however, to make any conclusive decisions.

One of the gaps in this body of literature is that little empirical evidence exists to suggest modeling is a strong contributor to counseling self-efficacy. Additionally, modeling may be inherently different in counseling when compared, for example, to the reduction of simple phobias. When working with reducing fear of snakes, for example, it may be that viewing models having harmless encounters with snakes translates into both increased expectations of success and mimicking of the behavior to encounter similar success. In counseling, however, it may be that when individuals execute the *same skills*

they see modeled, they encounter different results or less favorable outcomes. For example, a counselor trainee could observe a model successfully delivering an effective confrontation with a client, execute that same skill, even use the same words, and even do so with the same client and receive different results. The variables in the counseling encounter are multiple and not able to be predicted or controlled. Consequently, trainees need not only learn and *observe* good skills, but also be equipped with the internal skills to navigate changing conditions in session and to cope with inevitable set-backs.

*Verbal persuasion and counseling self-efficacy.* Verbal persuasion refers to increasing self-efficacy by persuading individuals that they can accomplish feared tasks (Bandura, 1977). Bandura (1977) suggested that verbal persuasion, like modeling, is less effective in increasing self-efficacy than direct experience. Following this theoretical assertion, it might be anticipated that counselor trainees' counseling self-efficacy would be somewhat influenced by external feedback. In counselor training, however, verbal feedback often comes within the supervision relationship, a relationship where dynamics of power and evaluation may amplify the potency of verbal feedback on counseling self-efficacy. The impact of supervision on counseling self-efficacy has been explored. First, general impacts of supervision (not limited to impact of verbal persuasion) on counseling self-efficacy have been explored (Cashwell & Dooley, 2001; Larson et al., 1992). Secondly, the differential impact of positive vs. negative supervision feedback on counseling self-efficacy has been examined (Clark, 2006; Daniels, 1997; Daniels & Larson, 2001; Friedlander et al., 1986). Thirdly, the differential impact of general versus specific feedback on counseling self-efficacy has been examined (Clark, 2006). Finally,

the impact of specific supervision interventions on counseling self-efficacy (Crutchfield & Borders, 1997; Urbani et al., 2002) has been examined.

The process of receiving clinical supervision has been linked to higher levels of counseling self-efficacy. Larson et al. (1992) found a main effect for semesters of supervision on counseling self-efficacy ( $F_{(3,305)} = 33.46, p < .00$ ), with more supervision received relating to higher counseling self-efficacy scores. Cashwell and Dooley (2001) used COSE scores to examine and compare the counseling self-efficacy of 22 practicing counselors receiving clinical supervision and 11 counselors not receiving clinical supervision. Counselors receiving clinical supervision had significantly higher counseling self-efficacy scores than those not receiving clinical supervision ( $p = .02$ ).

The differential impact of types of feedback on counseling self-efficacy also has been explored. In an experimental study of 45 trainees majoring in helping professions, Daniels (1997) manipulated whether trainees received positive or negative supervision feedback for a mock counseling session. Performance feedback explained a statistically significant portion of the variance in post-test counseling self-efficacy scores (3.22%,  $F = 6.84, p < .05$ .) even after the influence of pre-test counseling self-efficacy scores, and post test performance expectations and state anxiety were removed. The minimal variance that was accounted for in this study, however, likely has little, if any, clinical significance.

Lane, Daugherty, and Nyman (1998) explored the self-efficacy and performance persistence of 29 non-counseling college trainees when receiving positive versus negative feedback. All participants responded to client vignettes, a task said to assess “innate

counseling ability” (p. 1113), and then were randomly given negative or positive feedback, and invited to continue with vignettes or complete an unrelated task. Self-efficacy scores were significantly lower among participants who received negative feedback ( $t = 1.71, p = .05$ ), but persistence with vignettes was not significantly related to the type of feedback received. Some persisted in spite of negative feedback and others did not, suggesting perhaps that something other than the existence of negative feedback impacted persistence.

Daniels and Larson (2001) also explored the relationship between type of supervision feedback (positive vs. negative) and counseling self-efficacy. Ratings of counseling self-efficacy differed significantly from pre-test to post-test ( $F_{(1,43)} = 20.78, p < .00$ ) with positive feedback increasing COSE scores by one third of a standard deviation and negative feedback decreasing COSE scores by two thirds of a standard deviation.

The level of specificity in feedback also has been considered. Clark (2006) explored if specificity of feedback (general versus specific) differentially impacted counseling self-efficacy in a sample of fifty-four graduate trainees in counseling and related fields, and found that the type of feedback did not significantly relate to counseling self-efficacy. One of the limits of the literature on feedback is that it has focused on either negative versus positive feedback or general versus specific feedback rather than on feedback as it was theoretically posited to impact efficacy according to Bandura. Bandura (1977) suggested that feedback directed to efficacy building would be more effective than feedback focused on outcome expectations, and the studies cited

above did not specify whether feedback was targeted to efficacy building or outcome expectations. That is, did positive feedback include suggestions that trainees were likely to be received favorably by a client if they executed certain skills (outcome expectations) or that they were likely to succeed given the internal resources they possessed (efficacy expectations)?

The type of training and supervision intervention has also been explored as a predictor of counseling self-efficacy. For example 29 practicing school counselors participated in a study by Crutchfield and Borders (1997) which explored the impact of two different peer supervision models (The Structured Peer Consultation Model for School Counselors [SPCM-SC; Benshoff & Paisley, 1996] and The Systematic Peer Group Supervision model [SPGS; Crutchfield & Borders, 1997]) on counseling self-efficacy. No significant main effects were found for COSE scores by training group ( $F_{(2,25)} = 0.11, p = .90$ ). Also, Urbani et al. (2002) explored whether students trained in a skilled counselor training model (SCTM) would have more gains in counseling self-efficacy than students who did not receive the training. SCTM is described as focusing not only on teaching basic counseling skills, but also on helping students appraise their work, recognize successes, and gain confidence. Masters-level counseling students completed self-efficacy measures both before and after a semester long course and were rated on their counseling skills. The experimental group completed a semester long SCTM training ( $n = 52$ ), while the control group completed a standard introductory counseling class ( $n = 9$ ). Students receiving the SCTM training had more gains in counseling self-efficacy ( $t = 5.29, p < .00$ ), suggesting that additional attention to self-

appraisal is beneficial to the counseling self-efficacy development process. The disparity in sample size, and non-randomization of groups, however, were noted as limitations by the authors.

One of the limits of the overall body of research related to verbal persuasion is that it focuses on the supervisor as an agent in counseling self-efficacy delivery with less attention to the supervisee's experience of the feedback and internal skills. Given that the role of supervisors is to assure client welfare and counselor skill development, at times negative feedback is necessary. Consequently, focusing on the internal skills that help supervisees incorporate feedback is worthy of consideration. For example, how do supervisees hold a steady sense of self and counseling self-efficacy amidst inevitable positive and constructive feedback that will be received? What internal skills support receptivity to feedback and navigation through the anxiety that often accompanies performance evaluation or observation of self on video or audio tape?

*Emotional arousal and counseling self-efficacy.* Emotional arousal is potentially detrimental to self-efficacy, particularly if it is interpreted as indicative of impending failure (Bandura, 1977). Bandura suggested reducing emotional arousal by altering arousing environments (i.e., removing potential threats) and altering maladaptive cognitive processes (i.e., interrupting negative thinking). Theoretically then, counselor trainee's may experience physiological reactions in anticipation of performing new counseling skills and their counseling self-efficacy may be supported through practicing counseling in safe environments and through learning how to combat negative thinking patterns.

Counselor educators have discussed how to create safe environments for learning and reduce threats for counselor trainees (e.g., Bernard & Goodyear, 2004; Borders & Brown, 2005; Holloway 1995). One challenge within this literature is that there are inherent differences between treating simple phobias and training counselors with regards to reducing arousal by removing the threat. For example, clients could learn to decrease an unreasonable phobia of snakes by removing the threat (e.g., by avoiding snakes all together or experiencing directly or vicariously that snakes will not harm them). Negative threats are not as easily removed, however, for counselor trainees. Often, counselor trainees lack the option of avoiding feared or difficult clients, and may very well encounter negative reactions to executing a behavior successfully. Consequently, counselor trainees need the internal skills, fortification, and resilience to still maintain feelings of efficacy *in spite of* what outcomes occur. For example, a trainee may receive negative reactions from a client in spite of having executed confrontation skills beautifully and therapeutically appropriately. Thus, while creating threat free environments could benefit counseling self-efficacy, perhaps a more pragmatic alternative is to help trainees combat negative thinking patterns that exacerbate emotional arousal.

*Summary of self-efficacy and counseling self-efficacy literature.* An overview of self-efficacy theory has been offered. The methods of increasing self-efficacy have been described and considered as they apply to counseling self-efficacy and a critical review of related literature has been provided. In summary, the process of counselor training provides no shortage of challenges; practicing skills will not always improve efficacy,

mimicking models will not guarantee success, negative feedback is likely to be encountered, emotional arousal is likely, and success cannot be guaranteed. It is essential that counselor trainees be equipped not just with concrete behavioral skills, but also with the internal skills necessary to navigate the challenges of the training environment. Consequently, the identification of internal skills and skills deficits that impact counseling self-efficacy warrants empirical attention.

One internal process that appears to impact how trainees navigate the challenges of counselor training is anxiety. In the following section, a brief introduction to anxiety as a construct is offered, and literature related to counselor trainee anxiety is described and critically reviewed.

### Anxiety

Anxiety is described as an experience resulting from both a preoccupation with a threat or danger and a perceived inability to cope (Beck et al., 1985). Similarly, Salkovskis (1996) described that anxiety is greatest when threatening events are perceived as likely, are accompanied by detrimental consequences, and when resources or likelihood of rescue are low. Consequently, individuals facing new or novel situations may experience anxiety, particularly if they perceive they will encounter challenges they cannot overcome.

Conceptually, anxiety has been discussed as both a *state*, a temporary experience that occurs in relation to a specific stimulus, and also as a *trait*, or more pervasive personality style or way of being (Spielberger, 1985; Spielberger, Gorsuch, & Lushene, 1970). Also, anxiety has been described as having somatic, cognitive and behavioral

components (Koksal et al., 1991; Lehrer & Woolfolk, 1982). That is, individuals may experience somatic arousal (e.g., accelerated heart rate, sweaty palms, digestive upset), cognitive disturbances (e.g., negative thought patterns), and behavioral manifestations (e.g., avoidance behaviors) when they perceive they are in challenging or threatening situations (Koksal et al., Lehrer & Woolfolk). Researchers also have considered more specifically how anxiety affects behavioral performance, including the performance of counseling skills. Anxiety among counselor trainees, in particular, has received a vast amount of attention among researchers.

#### *Counselor Trainee Anxiety*

Anxiety has been posited as an important factor that potentially inhibits counselor development (Bernard & Goodyear, 2004; Bowman, 1980; Carter, 1973; Dodge, 1982; Duncan & Brown, 1996; Kinjo, 1983). Ronnestad and Skovholt (1993) suggested the training process for counselors is anxiety provoking in part because it is the trainees first opportunity to check out the fit of their career choice, and also because of the achievement orientation innate in academia. Similarly, Bauman (1972) suggested trainee anxiety was attributable to a fear of change that is inherent in any new learning process. Many different approaches have been used to learn more about trainee anxiety. To organize this review of the literature, an exploration is offered of what counselor trainee anxiety looks like (i.e., are there certain common experiences that elicit trainee anxiety?), followed by the effects of trainee anxiety and what has been found to decrease counselor trainee anxiety. It is notable that a flurry of research around counselor trainee anxiety occurred during the 70's and early 80's, after which there appears to be a dearth of

literature. For this reason, some studies that would normally be considered dated are included for context.

*Counselor trainee anxiety and its proposed origins.* At the most basic level, researchers have explored whether simply providing counseling services is anxiety producing among trainees (Bowman & Roberts, 1979; Bowman, Roberts, & Giesen, 1978; Mooney & Carlson, 1976). Bowman and Roberts (1979) measured the anxiety levels of twenty-eight masters-level counselor trainees' using self-report, heart rate, and skin conductance measures. Self-report and skin conductance measures indicated significantly higher anxiety during counseling than conversing, although heart rate did not significantly vary among conditions. Bowman et al. (1978) found similar results with a sample of 20 master's level counselor trainees. Their participants reported significantly more anxiety following counseling experiences than following a reading control condition. In a similar study, anxiety related to engaging in counseling was measured among 37 pre-practicum counselor trainees (Mooney & Carlson, 1976). Anxiety, as measured by self-report, systolic blood pressure, and digital sweat index was significantly higher when trainees were about to counsel their first clients than at the beginning of the semester and at the end of the semester ( $F = 16.26$ ,  $F = 11.42$ ,  $F = 38.94$ ,  $p < .01$ , respectively). They noted that diastolic blood pressure and pulse rate did not show comparable increases preceding the counseling interview. Trainees responses to structured interview questions following their first sessions revealed that there was a strong desire to do a good job, concern with their impression on clients, fear of doing poorly and beliefs that it would be disastrous to do poorly. These results together

highlight that trainees tend to experience increases in anxiety in anticipation of counseling. The empirical literature on counselor trainee anxiety is limited and dated, however, and lacks depth as to the causes of increased anxiety.

Additionally, anxiety in counselor trainees may be attributable to elements of supervision, such as evaluation (i.e., being observed, audiotaped or evaluated) (Bernard & Goodyear, 1992; Bowman, 1980; Dodge, 1982; Ellis, Krenzel, & Beck, 2002) and supervisory relationship variables (Liddle, 1986). For example, Dodge (1982) suggested that supervisee anxiety results from a need for approval from others and a focus that relies heavily on external feedback for affirmation. According to Dodge, supervision can heighten fears for supervisees who need approval and who fear that they are incompetent. Similarly, Liddle (1986) listed supervisor evaluation as one source of anxiety for trainees, particularly trainees' awareness of their dependence on supervisors for grades and recommendations.

Bowman (1980) explored whether being audiotaped, observed, and evaluated differentially impacted anxiety using Galvanic Skin Response and self-report measures of anxiety. He assessed whether trainees' anxiety differed depending on whether the participant was in a control group (reading) versus a counseling only condition, a counseling with recording condition, or a counseling with recording and subsequent evaluation condition. Significant differences between the groups was found on the self-reported anxiety measures ( $F_{(2,36)} = 17.91, p < .00$ ) with counseling recording and evaluation the most anxiety-producing, followed by counseling with recording. Interestingly, these results were not mirrored in the Galvanic Skin Measures, suggesting

that participants perceived anxiousness that was not necessarily correlated with their physiological experience.

In contrast to these findings, researchers have reported no significant changes in self-reports of anxiety among trainees who were being audio recorded or evaluated by supervisors (Bowman & Roberts, 1979; Nolin, 1996), although the robustness of the methodology in the Bowman and Roberts study has been questioned (Hale & Stoltenberg, 1988). Results are limited and mixed, then, but there is some evidence that providing counseling sessions along with aspects of being observed and evaluated may contribute to counselor trainee anxiety.

More recently, Ellis, Kregel, and Beck (2002) revisited the question of how observation impacts trainee anxiety, and proposed self-focused attention theory as a potential explanation for earlier contradictory findings. They hypothesized that participants who were instructed to focus empathically on the client would have less anxiety and more empathic statements than those who were informed their client sessions would be videotaped and supervised. Their results failed to support this hypotheses.

Qualitative inquiries provide another window into trainees' experiences of anxiety. For example, Bischoff (1997) conducted interviews with 13 masters'-level marriage and family therapy trainees and acquired descriptions of their first three months of seeing clients. Participants described anxiety related to not feeling ready to see clients, fearing that they would be doing clients a disservice, feeling ill-equipped to help clients, and fearing being seen as an expert. Some of these trainees indicated that their anxiety manifested somatically in crying, sleeplessness, decreased appetite and gastrointestinal

problems. A limitation of these findings, however, was that they are drawn from retrospective reports. More recently, Bischoff and Barton (2002) asked 39 recent graduates of a marriage and family therapy program to reflect on their practicum experiences. Similar to results obtained by Bischoff, anxiety and lack of confidence dominated these trainees' initial experiences with clients, including a fear that their lack of experience was obvious to clients and supervisors. Similar to the Bischoff study, however, the results of this study were limited by the fact that they were drawn from retrospective reports. Mooney and Carlson (1976) followed up their study on trainee anxiety by asking trainees directly about sources of their anxiety. Similar to the trainees in Bischoff and Barton's (2002) study, participants echoed a fear of being perceived negatively by clients and added that they held high expectations for themselves while anticipating they would do poorly and meet disastrous outcomes. Results of the Mooney and Carlson study are based on trainee recollections of anxiety following one mock session. It is unclear how accurately these recollections represent trainees true experiences in session and how these results might generalize to trainees' ongoing work with clients.

Others have explored relationship dynamics as they contribute to anxiety, both between supervisor and trainee and trainee and client. For example, Liddle (1986) highlighted that the supervisory relationship itself may contribute to anxiety when the supervisor is not empathic, genuine, or respectful of the supervisee. Additionally, trainees may be susceptible to picking up on anxiety present within others in the system, namely clients and supervisors (Dombeck & Brody, 1995; Ronnestad & Skovholt, 1993). For

example, Ronnestad and Skovholt (1993) suggested that the supervisory relationship could contribute to anxiety, particularly with supervisors-in-training, who are experiencing and adding their own performance anxiety to the interpersonal dynamic.

Further, anxiety in counselor trainees has been linked to the relationship with the client and client variables. For example, Fry (1973) explored the hypothesis that trainees experience anxiety due to their fear of the intimacy inherent in connecting with clients. That is, they suggested that interacting genuinely with unknown others in an empathetic way is inherently anxiety producing. Similarly, Skovholt and Ronnestad (1992) suggested that new trainees find their relationship with clients anxiety provoking because they often need direct affirmation from clients, fear losing them as clients, and may not yet be equipped with the boundaries to separate their sense of self from the clients'. Additionally, higher anxiety has been reported when trainees worked with culturally dissimilar clients (Gunter, 2002), hostile clients (Russell, 1962; Russell & Snyder, 1963), affectively expressive clients (Gaskill, 1986), challenging clients (Nolin, 1996; Sanderson, 1989), and clients who express issues with which the trainee feels personally unresolved (Liddle, 1986).

Another area of exploration includes the impact of trainee's cognitions on anxiety levels. A preponderance of theorists have suggested that it is not simply the level of anxiety or arousal that impedes performance, but rather how one cognitively interprets and appraises the anxiety (Apter, 1984; Bowman et al., 1978; Edwards & Hardy, 1996; Hall & Kerr 1998; Kerr & Vlaswinkel, 1990; Lazarus, 1982, 1985). For example, two individuals could experience an equivalent increase in heart rate or blood pressure and

one person could interpret the experience as alertness, being ‘psyched up’, or ready for performance, while another person could interpret the experience as jitters and indicative of impending failure. We could infer that counselor trainees’ cognitive processes play a similar role in how they interact with their physiological experiences.

Following this line of reasoning, some researchers have suggested that trainees’ experiences of anxiety originate from, or are exacerbated by, their internal dialogues (Bowman et al., 1978; Fuqua, Newman, Anderson, & Johnson, 1986; Hiebert, Uhlemann, Marshall, & Lee, 1998). Bowman et al. suggested that counselor trainees’ anxiety was determined in part by their physiological state but also by their cognitive appraisal of that state. In their study, they attempted to highlight the contributions of trainees’ cognitions by looking at anticipatory anxiety (i.e., did trainees’ anxiety rise even *before* the counseling began?) and predictive anxiety (i.e., were trainees able to predict with any accuracy the level of anxiety they would experience during the counseling?). Their results indicated that trainees did experience anticipatory anxiety before counseling and they could moderately predict to what degree they would feel anxious in the actual counseling experience. While these findings point to the possibility that trainees’ were cognitively interpreting and assigning value to their physiological states, they stop short of directly exploring trainees’ cognitions.

Fuqua et al. (1986) attempted to more directly highlight the relationship between thought patterns and anxiety by exploring whether trainee’s anxiety was impacted by negative thinking (e.g., were trainees preoccupied with thoughts about their personal inadequacy and apprehension of evaluation). Thirty-six graduate trainees enrolled in a

pre-practicum course completed measures of state and trait anxiety and internal dialogue at the onset and conclusion of their semester-long course. Negative internal dialogue (termed *task distraction* in their study) correlated with both state and trait anxiety ( $r = .55, p < .05, r = .49, p < .05$ , respectively). Notable, though, is the authors' indication that the items created to measure negative internal dialogue overlapped conceptually with anxiety items. Therefore, a clean link between negative internal dialogue and anxiety was not established in this study.

In a separate study, Hiebert et al. (1998) explored the state anxiety, self-talk, and counseling performance of 95 first-term counseling graduate trainees before and after a semester long introductory counseling course. At both points in time, high anxiety significantly correlated with high negative self talk ( $r = .57, p < .01, r = .36, p < .01$  respectively). High negative self-talk also was significantly related to lower performance ratings on a 20-minute practice counseling session ( $r = -.20, p = .04$ ). Arguably, though, the correlations between negative self-talk and anxiety were modest and the ones between negative self-talk and performance were negligible and not clinically significant. It seems clear, then, that although it seems logical that negative self-talk would be a factor that exacerbates trainee anxiety, empirical evidence of this connection is limited.

*The impact of anxiety on counselor trainee cognitive and overall development.*

In addition to the origins of counselor trainee anxiety, it seems important to consider the myriad ways in which anxiety impacts trainees. Researchers and scholars have gone beyond considering the causes of trainee anxiety to consider ways in which it impedes

their evolution as a professional counselor. In particular, the scholarly literature seems to provide evidence that anxiety impacts trainee development and counseling self-efficacy.

It has been suggested that anxiety is a natural part of a trainee's developmental processes (Bernard & Goodyear, 2004; Borders & Brown, 2005; Rioch, Coulter & Weinberger, 1976). In fact, at times anxiety may need to be raised for optimal learning to occur (Borders & Brown, 2005; Dombeck & Brody, 1995). Some have even gone so far to suggest that anxiety and resultant resistance can serve a protective function for trainees (Liddle, 1986). Others have suggested, however, that counselor trainee anxiety, particularly beyond a certain level, can impede counselor learning and development. Assertions have come in the form of scholarly hypotheses (Bauman, 1972; Bernard & Goodyear, 2004; Dodge, 1982; Liddle, 1986; Peplau, 1963a; Peplau 1963b; Sarason, 1960) and empirical studies testing the impact of anxiety on various developmental factors (Birk & Mahalik, 1996; Duncan & Brown, 1996).

Some early seminal studies on anxiety and performance, although not focused on counselors, provide a context for examining counselor trainee anxiety. Sarason (1960) found that higher anxiety interferes with learning. Specifically, anxious individuals performed more poorly in general, and when faced with complex tasks became more rigid, conforming, cautious, less creative and less likely to compromise. One might infer that the complex and nebulous process of providing counseling might cause anxiety and elicit similar reactions from counselor trainees. Further, Schlenker and Leary (1982) found that when individuals want to make a good impression, they will change their communication styles, withdraw, become increasingly preoccupied with themselves,

have challenges with processing information, and difficulty maintaining self control. Similar relationships have been proposed to exist among counselor trainees. The preoccupation with self is common among counselor trainees who commonly are so focused on planning their response that they fail to hear vital aspects of the client's report. Similarly, Bernard and Goodyear (2004) suggested that supervisees' anxiety effects their ability to learn (i.e., impairs supervisees' capacity to observe and assimilate new info), performance, and impacts interactions with the supervisor as supervisees work to maintain a favorable impression.

Some have suggested that anxiety prevents trainees from being able to hear feedback from supervisors. For example, anxiety has been linked to defensiveness in supervision, which in turn interferes with receiving feedback and learning from supervisors (Bernard & Goodyear, 2004; Dodge, 1982). Borders and Brown (2005) suggested that resistance in supervision is a predictable supervisee response to supervision that may take many forms. Bauman (1972) suggested that trainee anxiety manifests as resistance in supervision in the form of submissiveness, deflecting attention from themselves, magnifying their own failings, feigning helplessness, or by focusing energy on criticizing the supervisory process. Liddle (1986) also articulated that some trainees experience supervision as threatening and experience anxiety about being evaluated. The common theme in this body of literature is that this mobilization of defense mechanisms may serve to protect trainees' sense of self-worth, but could interfere with the learning process, specifically related to receptivity to feedback.

Dombeck and Brody (1995) went further, suggesting that interpersonal and systemic impacts of anxiety were possible whereby the client, counselor, and supervisor have the potential to parallel and reflect each other's anxiety. The authors suggest that when any one individual within the system experiences higher levels of anxiety, their attention and capacity for observing their environment narrows, their reactivity to others increases, and they become less able to assimilate new information. Consequently, trainees experiencing heightened anxiety may not be clear of the origins of the anxiety, that is, whether it is an extension of their client or supervisor's anxiety versus they own. Further, they may not be able to observe their own patterns, may be reactive to clients and supervisors, and may be less able to learn new skills.

Additionally, researchers have explored the impact of trainee anxiety on aspects of trainee development such as cognitive complexity. For example, the supposition that anxiety interferes with cognitive complexity was explored with a sample of 37 counselor trainees (Duncan & Brown, 1996). Trainees were exposed to events posited to increase anxiety (e.g., leading a first group counseling session, taking exams, receiving a supervision evaluation) and their cognitive complexity was assessed. While the cognitive complexity scores were influenced by the anxiety inducing events ( $F = 3.26, p < .05$ ), state anxiety was not a significant predictor of cognitive complexity, suggesting that anxiety did not impact the development of cognitive complexity. Results of this study are hampered, however, by sample size and the fact that all participants were drawn from one training program.

In a separate study, Birk and Mahalik (1996) assessed whether trainees' anxiety levels would lead them to behave and conceptualize at lower developmental levels than trainees with lower anxiety levels. Twenty-nine pre-practicum supervisees completed the state anxiety form of the State-Trait Anxiety Inventory (STAI-S; Spielberger et al., 1970) and the trainee self-rating form of the Supervisee Description Questionnaire (SDQ-T; Wiley & Ray, 1986). When advanced developmental level scores were analyzed as covariates, highly anxious trainees rated themselves at significantly lower developmental levels ( $\beta = -.48, p < .05$ ). That is, highly anxious trainees perceived themselves to be performing skills consistent with what would be expected from trainees at beginning developmental levels. It is noteworthy that supervisors did not rate these same trainees as developmentally inferior to their less anxious peers. These findings offer the possibility that the connection between anxiety and self-perceptions of skills may be greater than the relationship between anxiety and external ratings.

Researchers also have examined the relationship between anxiety and the capacity to work with a variety of approaches and perspectives. For example, Skovholt and Ronnestad (1992) reported that trainees with high anxiety had more of an external orientation, a rigid working style, and propensity to stagnate in their development. They suggested that this might take the form of an overly narrow focus on competent performance rather than openness to a broader repertoire of skills. Further, they proposed that supervisors may add their own anxiety to the system, and unintentionally exacerbate trainee anxiety. Similarly, Schauer, Seymour, and Geen, (1985) proposed looking at anxiety through the lens of social facilitation theory (Triplet, 2007; Zajonc, 1965) that

posits that when there is a high level of drive or, in this case, anxiety, individuals will revert to well-learned responses. They hypothesized that an anxiety producing experience such as a supervisor observation could result in the novice counselor reverting to responses that are part of their initial repertoire (e.g., asking a lot of questions) rather than practicing new skills (e.g., using more reflections). In contrast, experienced counselors who are well-versed in practicing desired responses could be facilitated by the supervisor's observation. They provided a comprehensive review of the literature that provided only partial support for their hypothesis, but highlighted numerous methodological limitations of existing research that called into question the veracity of these findings.

Another area that has been explored is the impact of anxiety on counseling self-efficacy, with a variety of authors reporting that anxiety is negatively correlated with counseling self-efficacy (Alvarez, 1995; Barbee et al., 2003; Friedlander et al., 1986; Daniels, 1997; Larson et al., 1992; Larson & Daniels, 1998). For example, in a study of 94 trainees pursuing doctorates in psychology, Alvarez (1995) found that state anxiety as measured by the State-Trait Anxiety Inventory State Scale (STAI-S, Spielberger, 1983) and counseling self-efficacy as measured by the Counseling Self-Estimate Inventory (COSE, Larson et al., 1992) correlated negatively ( $r = -.24, p < .05$ ). A negative relationship between anxiety and counseling self-efficacy also was reported as part of a series of studies conducted to pilot test the reliability and validity of the COSE (Larson et al., 1992). They reported that total COSE scores correlated negatively with scores on the State Anxiety Scale (STAI-S) and the Trait Anxiety Scale (STAI-T) ( $r = -.42, p < .01, r =$

-51,  $p < .00$ , respectively) among a sample of 51 counseling master's trainees. Similarly, Barbee et al. (2003) reported a negative correlation between state anxiety and counseling self-efficacy ( $r = -.30$ ,  $p < .03$ ). Further, Daniels (1997) reported that state anxiety accounted for a significant portion of the variance in counseling self-efficacy scores in a sample of 45 counseling and psychology graduate students. Taken together, these findings suggest that anxiety is modestly but significantly related to levels of counseling self-efficacy, and suggests that trainee anxiety about engaging in counseling correlates with their beliefs about their likelihood to succeed as counselors. Additionally, the broader body of literature above suggests that anxiety has the potential to interfere with optimal learning and suggests that further attention to counselor trainee anxiety is warranted.

*Reducing trainee anxiety.* In addition to considering origins of trainee anxiety and correlates of trainee anxiety, researchers also have explored approaches that might serve to diminish trainee anxiety. It is perhaps evident that as counselors gain experience, they typically experience less anxiety in the counseling relationship (Diblin, 1969; Martin, Slemon, Hiebert, Hallbert & Cummings, 1989; Skovholt & Ronnestad, 1992). In addition to waiting for trainees to gain experience, some researchers have considered how to facilitate reductions in anxiety among entry-level trainees. For example, some researchers have suggested theoretical models for reducing trainee anxiety (Bernard & Goodyear, 2004; Dodge, 1982; Dombeck & Brody, 1995; Liddle, 1986; Ronnestad & Skovholt, 1993) while others have explored the impact of various interventions (e.g., training

experiences and supervision interventions) on trainee anxiety (Carter & Pappas 1975; Fry, 1973; Monke, 1971).

Liddle (1986) provided a series of steps that she believed would help in the reduction of trainee anxiety and related resistance defenses. She suggested exploring the source of the anxiety with the supervisee, identifying its sources, brainstorming, and implementing actions to reduce the threat (e.g., modifying supervisor behaviors, modifying the structure of supervision, clarifying evaluation criteria, cognitive restructuring etc.), implementing actions and, finally, implementing coping strategies to alleviate residual anxiety. Similarly, Ronnestad and Skovholt (1993) suggested that one of the ways to reduce trainee anxiety is through valuing self-exploration and expressions of affect and self-doubt in supervision. They suggest doing so both by inviting these types of explorations in supervision and being sensitive to the use of video or audiotaping feedback. Also, Ronnestad and Skovholt encouraged supervisors to be permissive and tolerant of mistakes in an effort to foster trainees' exploration of new behaviors and skills, rather than responding anxiously and critically and inadvertently promoting stagnation.

Dodge (1982) suggested a cognitive behavioral approach to trainee anxiety wherein trainees are encouraged to recognize their anxiety, identify cognitive patterns related to their anxiety, rationally challenge these patterns and construct alternative thought patterns. Another method of decreasing anxiety was suggested by Dombek and Brody (1995) who proposed reducing anxiety by increasing tolerance for anxiety within the client/counselor/supervisor system. For example, a supervisor could model tolerance

of a clients' anxiety and in doing so support the counselor in non-reactively tolerating the existence of client anxiety. This approach suggests that the supervisor plays an important role in helping the supervisee decrease her or his anxiety so that it does not reach detrimental levels.

Further, Bernard and Goodyear (2004) outlined suggestions for supporting anxious trainees. Their suggestions included providing a balance of challenge versus support, reducing ambiguity within the supervision experience through providing structure, and helping supervisees learn about their roles, and what to expect within the supervision environment. They also emphasized that certain amounts of anxiety might be beneficial. This last assertion is echoed by Borders and Brown (2005), who proposed that supervisors determine with intent both when to provide more support and when to increase the level of challenge. Rather than focusing on reducing anxiety, they suggest attending to each supervisee's unique needs (e.g., history of experience with evaluation) and the changing conditions (e.g., life events) to assess the level and method of challenge and support that is needed by the individual supervisee.

Although there appears to be a limited amount of empirical attention to reducing trainee anxiety, efforts to reduce trainee anxiety with desensitization procedures have been explored empirically (Fry, 1973; Monke, 1971). Monke (1971) used desensitization as an experimental condition with half of his sample of thirty counselor trainees. These fifteen trainees were guided through two body relaxation sessions and five sessions of desensitization as described by Wolpe (1961), which involved working on reducing anxiety related to an upcoming counseling session. Self-report, observational, and

physiological measures of anxiety were taken after the training was completed and five minutes before trainees conducted their first counseling session. Self-report measures indicated that the experimental group had significantly less anxiety following training and prior to the first session than their no-desensitization controls ( $F = 12.94, p < .01, F = 4.95, p < .05$  respectively). No significant differences were found in anxiety as measured by the physiological measures (skin resistance and heart rate) or the observational measures (tape evaluation by raters).

Fry (1973) focused his desensitization procedures on increasing trainee's comfort with the intimacy inherent in counseling encounters, suggesting that trainee anxiety and execution of basic skills could be improved to the extent that they reduced their fears of engaging in intimate empathic relationships. They tested this hypothesis with 30 adult psychology trainees. All trainees were trained in the same basic helping skills while half of the trainees also received intimacy desensitization training (in which they were sensitized to emotional tones of voice, facial expressions, eye contact and physical proximity). Both groups were assessed on their execution of basic skills by trained raters. While both groups improved in their execution of skills following helping skills training, those who received additional desensitization training showed significantly more effective skills than their paired controls. One limitation of this study is that participants' anxiety was not directly measured prior to and after the desensitization training, so that the improvement of skills post-desensitization can only be inferred to be the result of decreases in anxiety. Desensitization procedures appear to have some impact on the reduction of trainee anxiety and benefits for trainee performance.

*Summary of the anxiety and counselor trainee literature.* In summary, anxiety has been shown to have multiple sources and manifestations among counselor trainees and many of the theoretical assertions of how to support a reduction in trainee anxiety have yet to be tested empirically. Additionally, little of the current discussion includes reference to earlier findings suggesting the benefits of desensitization procedures. Also notable is that many of the studies that included both physiological measures of anxiety and self-report measures found the two to be either minimally correlated or, in some instances, virtually unrelated (Bowman, 1980; Bowman & Roberts, 1979; Bowman et al., 1978; Russel & Snyder, 1963). Perhaps this suggests that trainee anxiety is cognitively driven, or at minimum that it is critical to consider the multidimensionality of anxiety as it impacts trainees rather than assuming cognitive, somatic, and behavioral responses are indistinguishable. Also, the literature on trainee anxiety has focused on state anxiety, rather than considering counselor trainees general propensity toward anxiety as it impacts how they navigate counseling training and supervision.

In the preceding pages, an outline and critique of the counseling self-efficacy and counseling student anxiety literature has been offered. Further, the relationship between these variables has been reviewed and student anxiety has been highlighted as one of the important elements that relates to counseling self-efficacy development. Empirically-based explorations of counseling students' internal skills and skills deficits are limited and such studies could inform how to best temper anxiety and support self-efficacy development. In the following sections, *emotional deficits among counselor trainees*, and *mindfulness*, two internal experiences are explored in relation to their potential to

moderate anxiety and impact counseling self-efficacy. First, emotional deficits in trainees will be considered (i.e., how might the capacity for trainees to identify and articulate their emotions impact their experiences of anxiety and counseling self-efficacy). Then mindfulness in counselor trainees is considered (i.e. how might trainees' capacity for present-moment non-judgmental attention impact their anxiety and counseling self-efficacy).

### Emotional Deficits among Counselor Trainees

Emotional skills have been identified as one of the three building blocks of effective counseling, along with relational and cognitive skills, and as something that distinguishes master therapists from novices (Jennings & Skovholt, 1999; Skovholt & Jennings, 2004). In their qualitative research with master therapists, Jennings and Skovholt (1999) and Skovholt and Jennings (2004) noted that master therapists had exceptional emotional skills including an ability to remain steady amidst clients' range of emotions, an ability to manage their own emotions in session, and the capacity to remain emotionally healthy themselves. Additionally, they noted that master therapists were able to make clinically appropriate decisions with clients that were not impeded by their own emotional needs as counselors (e.g., counselors not letting their personal need for safety, attachment or comfort impair their ability to confront a client). Similarly, Melton, Nofzinger Collins, Wynne, and Susman (2005) found that when trainees experienced overwhelming emotions in session, it led to blocking behaviors such as withdrawing, topic changing, self-distancing, and increasing anxiety. They suggested that trainees with

good awareness of their affective states will be less likely to experience negative consequences associated with those emotions during their sessions.

Similarly, Martin, Easton, Wilson, Takemoto, and Sullivan (2004) suggested that counselors need to be able to identify emotions in themselves and their clients and manage emotional transference and countertransference experiences in session. Further, they hypothesized that counselors with more emotional skills (operationalized in their study as emotional intelligence) would have more counseling self-efficacy. They asked a sample of 66 master's level counseling students and 74 counseling professionals to fill out an emotional intelligence measure (Emotional Judgment Inventory, EJI, Bedwell, 2002), and a measure of counseling self efficacy (COSE; Larson et al., 1992). Using step wise regression analyses they examined which aspects of emotional intelligence were the greatest predictors of counseling self-efficacy in both samples. For the student sample, the model was significant ( $r^2=.36$ ,  $F_{(2, 63)} = 17.84$ ,  $p < .00$ ) and two of the emotional intelligence subscales significantly predicted counselor self-efficacy (Using Emotions in Problem Solving,  $\beta = .44$ ,  $p = .00$ , and Identifying Own Emotions,  $\beta = .42$ ,  $p = .00$ ). For counselors, the model also was significant ( $r^2 = .17$ ,  $F_{(2, 71)} = 7.0$ ,  $p = .00$ ) and two emotional intelligence subscales significantly predicted counseling self-efficacy (Expressing Emotions Adaptively,  $\beta = .29$ ,  $p = .01$ , followed by Identifying Own Emotions,  $\beta = .23$ ,  $p = .04$ ). The EJI, however was originally designed for use in business environments and arguably lacks construct validity for counselors due to the unique emotional skills needed for counseling as opposed to working in a business environment.

It appears, then, that emotional skills are a valuable internal skill set for counselors. Due to the current author's interest in developable internal skills that could moderate anxiety and/or support counseling self-efficacy, the above findings spurred the following questions; 1) do deficits in counselors *own* emotional skills relate to their counseling self-efficacy? (i.e., when trainees lack emotional skills do they perceive themselves as having less potential for success in counseling situations) and, 2) might students experiences of anxiety be influenced by broader deficits in the experiencing and expression of their own emotions? (i.e., if a student is anxious *and* lacks the emotional skills to navigate, express and work with this emotion effectively, might this exacerbate the anxiety?).

### *Alexithymia*

Alexithymia was identified as a construct that could aid in the exploration of the above questions. Alexithymia is described most simply as a global impairment in processing of emotion (Lane et al., 1996). Although alexithymia is a term that originated to describe a characteristic associated with clinical populations, it has also been shown to exist to varying degrees in non-clinical populations (Finell, 1997; Krystal, 1982) and the construct as defined and measured offers a snapshot of emotional skill deficits. Higher levels of alexithymia are indicative of greater deficits in emotional processing. In the following sections, alexithymia is defined, descriptions of the types of challenges faced by those with alexithymia are described, and literature related to alexithymia among counselor trainees is explored.

*Alexithymia defined.* Alexithymia has been defined as difficulty in identifying and expressing affect, impaired symbolic thinking, and externally-focused cognitive style (Nemiah & Sifneos, 1970) as well as a “deficiency in the area of affects” (Taylor, 1994, pp. 69). More specifically, alexithymia involves a disconnection from emotional experiences resulting in difficulty differentiating between physiological sensations and feelings and difficulty putting feelings into words (Sifneos, 1975). Rather than being internally oriented and introspective, those with higher alexithymia tend to be more focused on external concrete details and are vulnerable to external sources of feedback (Krystal, 1982; McDougall, 1989; Sifneos, 1975). Krystal (1979) described those with alexithymia as having a “super adjustment to reality”, such that operative thinking and a focus on details dominates at the expense of imagination and flexibility. Additionally, those with alexithymia are said to have restricted imaginative processes, including difficulty with imagery, fantasy, and dream recollection (Sifneos, 1975) and difficulty experiencing pleasure and bonding with others (Krystal & Krystal, 1988). When explored empirically, alexithymia correlated negatively with receptiveness to feelings, conscientiousness, openness to experience, and psychological mindedness (Parker, Taylor, & Bagby, 2003).

When emotions are not cognitively processed, as occurs for those with high levels of alexithymia, there is increased somatization and proneness to disease (Finell, 1997; Taylor, 1992). Further, alexithymia also has been linked to mood, eating, and substance use disorders (De Gucht, Fontaine, & Fischler, 2004; Lumley, 2000; Lumley et al., 1996). Others suggest that individuals with alexithymia cope poorly with stress (Taylor &

Bagby, 2000; Taylor, Bagby, & Parker, 1991) and are limited in their ability to self soothe (Krystal, 1982; McDougall, 1989). Krystal (1979) suggested that persons with alexithymia over-rely on reasoning in decision-making due to the absence of emotional signals.

Interpersonally, individuals with alexithymia tend to have vulnerable self-esteem due to reliance on external sources of feedback for self-regulation. As a consequence, such people are likely to be sensitive to separation and loss (Finell, 1997). Close relationships tend to be avoided (Sifneos, 1996) and often there is inadequate differentiation between self and other (Blaustein & Tuber, 1998; Taylor et al., 1997). Vanheule, Desmet, Meganck, and Bogaerts (2007) found those with higher levels of alexithymia to be more interpersonally distant and non-assertive than those with lower levels of alexithymia.

*Alexithymia among clients.* Several authors have addressed the challenges of working with clients with alexithymia, including that the aforementioned deficits limit the effectiveness of introspectively oriented counseling approaches (Finell, 1997; Krystal, 1982; Nemiah, 1977). When in counseling, alexithymics may greet the counselor with detached indifference and be slow to bond (Krystal, 1979). Counselors may experience countertransference reactions including sleepiness, boredom or a sense of helplessness (Finell, 1997). For example, in a facial affect display study, Rasting, Brosig, and Beutel (2005) found that when clients scored high on difficulty identifying their feelings, they were met with more contempt by their therapists. Holvey (1996) proposed that client alexithymia had implications for counselor and client ratings of the strength of the

working alliance and premature termination, but these hypotheses were not empirically supported.

Although challenges exist for those with alexithymia, emotional skills can be developed, and ways of working with alexithymia in counseling have been articulated (Hogan, 1995; Krystal, 1979; Taylor, 1987). In his work with individuals with alexithymia, for example, Taylor (1987) suggested that people can be trained to move from a focus on a symptom to recognition of and labeling of feelings and begin to develop the language needed to process their emotions. Further, people with alexithymia can increase their capacity to experience emotions by targeting defenses against emotions (Hogan, 1995). In contrast, Krystal (1979) suggested first helping clients observe their ways of physiologically reacting, increasing their tolerance for affect, and then moving toward verbalizing emotions. Although it is not clear, then, as to what is the best approach to address alexithymia, there is agreement that alexithymia is a dynamic experience and that the skills of emotional experience and expression are developable skills. In addition to client alexithymia, a limited number of researchers have considered the importance of alexithymia among counselor trainees.

*Alexithymia among counselor trainees.* Counselor trainees also may experience alexithymia and this has implications for counselor development. For example, individuals with alexithymia respond to questions about their internal feelings with a focus on external events (Nemiah & Sifneos, 1970). Perhaps then, counseling students with levels of alexithymia may struggle with self-awareness-focused supervision. It is possible that the inability to identify and describe one's own emotions might inhibit

emotionally based work with clients. Further, it seems likely that a limited capacity for introspection could interfere with supervision and self-awareness development and that an external orientation combined with low self-esteem might result in an unhealthy sensitivity to supervisor feedback. It seems likely, also, that challenges with self-soothing and self-care may exacerbate stress and burnout. Finally, scholars have suggested that alexithymia contributes to the development, maintenance, and exacerbation of anxiety (De Gucht et al., 2004; Lumley et al., 1996).which might negatively impact counselor development and performance. To date, however, there have been few authors who have discussed the existence of alexithymia among counselors and fewer still that have empirically tested such assertions.

Finell (1997) suggested that when alexithymia is present in therapists, they may keep the therapeutic focus on the client's external world or physical symptoms resulting in a numbing or deadlock in sessions. Krystal (1982) adds that therapists who are limited in their own emotional repertoire may fail to address similar emotional deficits in clients. These theorists have postulated that the counselor's alexithymia would have deleterious effects on the therapeutic process.

Only two empirical studies were located that examined alexithymia among counselors. The effect of counselor alexithymia on the counselor-client working alliance was explored by Tatman (2006) in a study 33 client and counselor pairs. He predicted but found no empirical support for the hypothesis that trainees' alexithymia, as measured by the TAS-20, would correlate with trainees' and clients' perceptions of the working alliance. Trainees in the study were seeing multiple clients but only one pairing was

selected at random for analysis which resulted in data from 30 clients not being analyzed. Additionally, trainees in this sample were working with clients who had had between 0-6 previous counselors. The authors suggested that client's ability to accurately assess the strength of the working alliance would be different for clients who had had less exposure to other counselors, and thus less basis for comparison. Additionally, the assessment of the working alliance was assessed by self-report from both counselors and clients. Although this is standard procedure, it is possible that the very limitations that come with having higher levels of alexithymia could impair accurate assessment of the working alliance.

It appears, similarly, that only one researcher to-date has looked at the potential impact of restricted affect on the trainee/supervisor relationship. In a study of 253 male interns and practicum students, Wester (2001) explored hypotheses that restricted emotionality would relate to lower self-efficacy, perceptions of a poor working alliance in supervision, and low satisfaction with supervision, particularly if the supervisee perceived the supervisor to be more affectively oriented. These hypotheses were not supported. In Wester's study, however, restricted affect was defined differently than in the current study. Wester measured restricted emotionality using a restricted emotionality subscale of the Gender Role Conflict Scale (O'Neil, 1986), rather than the TAS-20 (Bagby, Taylor, et al., 1994). The TAS-20 is a more comprehensive assessment of restricted emotionality.

Therefore, although emotional skills have been suggested to be essential and foundational for counselor trainees, the impact of a lack of skills (operationally defined

here as alexithymia) on trainees has not been explored empirically. For example, might higher levels of alexithymia exacerbate trainees' experiences of anxiety as they experience but lack skills to navigate their anxiety? Might higher levels of alexithymia contribute to trainee's feeling less equipped to enter the changing conditions and emotionally charged clinical environment? Specifically, the impact of alexithymia on counselor trainees' anxiety and counseling self-efficacy remains an empirical question that, to this point, has been unanswered. In addition to the role of alexithymia, it may be that trainees' levels of mindfulness also impact their experiences of anxiety and self-efficacy. That is, non-judgmental present-moment awareness may be another developable internal skill that warrants empirical exploration in counselor trainees. In the next section, mindfulness is defined and relevant literature reviewed.

#### Mindfulness as a Potential Internal Asset for Counselor Trainees

##### *Mindfulness*

Mindfulness is described as “the awareness that emerges through paying attention, on purpose, in the present moment and non-judgmentally to the unfolding of the experience moment by moment” (Kabat-Zinn, 2003b, pp. 145). Being mindful is in contrast to ruminating about the past, worrying about the future, or assigning value (i.e., “good”, “bad”) to current experiences. Therefore, being mindful involves encountering experiences with all of the senses and viewing them openly and with awareness of their ultimate transience. It appears that the most influential contributor to modern conceptualizations of mindfulness arises from the Theravadan Buddhist tradition (Mace, 2008). The word *mindful* emerged from Buddhist text translations of the Pali words *sati*

(awareness, bare attention, capacity to tidy the mind), and *appamada* (ever present watchfulness) (Mace, 2008; Nyanaponika, 1988). There are multiple methods that have been suggested to cultivate mindfulness, including slowing down to note the sensations of day to day experiences such as walking and eating, engaging in meditative practices, and increasing attention of the body and breath through practices such as yoga (Kabat-Zinn, 2003b, 2005; Mace, 2008).

Increasingly, mindfulness has been explored and applied in Western medical and mental health settings (Carson, Carson, Gil, & Baucom, 2006; Kabat-Zinn, 2003a; Segal, Williams, & Teasdale, 2002) and, as such, there has been much dialogue about what constitutes mindfulness (Bishop, Lau, Shapiro, Carlson, Anderson, Carmody, et al., 2004; Langer & Moldoveanu, 2000; Roemer & Orsillo, 2003). Further, several measures have been developed to quantify the construct of mindfulness (Baer et al. 2006; Brown & Ryan, 2003; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008; Walach, Buchheld, Büttenmüller, Kleinknecht, & Schmidt, 2006). One of the more comprehensive attempts at defining and measuring mindfulness comes from Baer et al. (2006) who created a measure of mindfulness derived from a factor analysis of items combined from several preexisting mindfulness measures. Baer et al. proposed that mindfulness consists of five facets: 1) observing 2) describing 3) acting with awareness, 4) nonreactivity, and 5) nonjudging. The facets outlined Baer et al. (2006) seem to suggest mindful individuals are very observant of their environment, intentional in interacting with this environments, and able to respond to what emerges without judging it or being reactive to it, echoing Kabat-Zinn's (2003) definition from above.

*Mindfulness and mental health.* Perhaps due to its contrast with worrying, self-judgment and rumination, mindfulness has been identified as a potentially useful tool for supporting mental health. For example, mindfulness-based interventions have applied to a range of mental health issues such as anxiety (Evans et al., 2008; Miller et al., 1995), depression (Lau & Segal, 2007; Segal, Williams, & Teasdale, 2002), binge eating (Kristeller & Hallett, 1999; Smith, Shelley, Leahigh, & Vanleit, 2006), and borderline personality disorder (Huss & Baer, 2007; Wupperman, 2007). Mindfulness principles have been incorporated into mindfulness-based therapies and programs including Mindfulness-Based Cognitive Therapy (Segal et al., 2002), Mindfulness Based-Relationship Enhancement (Carson et al., 2006) and Mindfulness-Based Stress Reduction (Kabat-Zinn, 1984, 2003). Broadly speaking, these programs and interventions are based on the principles that as clients are supported in becoming more non-judgmentally aware and non-reactive, they will experience a reduction of symptoms (e.g., less rumination), a reorientation to symptoms (e.g., increased acceptance of what is), and shifts in how they relate to others (e.g., less reactivity).

*Mindfulness and the counselor.* Counselors, too, may benefit from learning mindfulness skills. Several authors have suggested how mindful counselors could benefit the therapeutic process (Fulton 2005; Kurash & Schaul, 2006; Mace, 2008; Morgan & Morgan, 2005; Welwood, 2000), and a few have empirically tested hypothesized relationships between counselor mindfulness and various therapeutic outcome measures (Bentley, 2008; Glaser, 2006; Schure, Christopher, & Christopher, 2008). Welwood (2000) asserted that unconditional presence is “the most transmuting force and major

aspect of healing” (pp. 117-118). Further, it has been suggested that empathy increases as mindfulness is cultivated (Morgan & Morgan, 2005).

Fulton (2005) outlined the need for therapists to be mindful and proposed some of the benefits that occur within the therapeutic relationship when the counselor is mindful including; 1) wholehearted attention to the client resulting in better contact and the client feeling heard, 2) greater tolerance of own affect and the affect of clients when the counselor embraces experiences rather than resists them, 3) full attention to accepting what is in session rather than judging it as pleasant or unpleasant 4) increased compassion for clients as the counselor opens to their own suffering and experiences a connections with all others, 5) letting go of needing to fix the client, but instead seeing things for how they are with open receptivity and equanimity, 6) expanding ways of seeing and observing one’s own world helps the counselor have expanded ability to see in others, 7) letting go of a need to preserve a self-image promotes focus on the client rather than on feeding narcissism, 8) accepting stance of mindfulness allows the counselor to let go of fixed views and embrace the anxiety of the unknown, and 9) greater opening to a steadiness and happiness in spite of changing conditions creates an anchor and model for clients. Mace (2008) also offered suggestions of how counselor mindfulness impacts clinical work. Mace notes that the presence of a mindful counselor changes the clinical atmosphere whether or not they engage in unique techniques in their sessions, highlighting that mindfulness is a way of being rather than a technique. Similarly, Coltart (1998) says that sessions become like a meditation when the therapist’s attention deepens and brings a pure, bare attention to the therapeutic relationship. Taken together, these

assertions of correlates of mindfulness serve as a foundation for additional empirical inquiry.

Kurash and Schaul (2006) highlighted the potential benefits of training counselors in mindfulness in their description of integrating mindfulness principles into a college counseling center. They outlined reasons for training counseling interns in mindfulness practices including 1) supporting interns in being non-judgmentally present with clients, 2) helping interns learn to be present and therefore hold an environment of presence with clients, 3) strengthening interns attentional awareness (e.g., being in touch with body during emotions, observing their ego), and 4) supporting interns development of counselors compassion towards clients. Their training model included training supervision staff, having meditation time during the work week, training interns in introductory practices and then having interns engage in a weekly practicum for one year that includes meditation, meditative journaling and meditative dialogue. Interns also had the opportunity to lead mindfulness groups as a part of their clinical experience. To date no empirical results are provided to show the impact of mindfulness within their counseling center.

There are few empirical explorations of the impact of mindfulness on counselors. Rothaupt and Morgan (2007) interviewed six counselors and counselor educators about their experiences in using mindfulness practices personally and professionally. Their participants all indicated that their mindfulness practices really led them to a focus on the present. A variety of practices were used by these counselor educators from prayer to breathing to solitude, rituals, meditation etc. Some of the personal outcomes or results of

engaging in a practice included living intentionally, including attending to self-care, feeling a greater sense of connectedness and love as well as gratitude and non-judgment. With regards to how their practices impacted their classrooms or clinical work, participants referred to using centering moments in the classroom, using body scans, breathing and non-judgment in session, and a sense of being mindfully open and therefore inviting clients to do their own healing. These accounts from a few educators offer insight into their selected experiences of mindfulness and a few suggestions of how it impacts their work. Further, this invites additional questions such as whether a mindful educator or counselor is qualitatively different from a less mindful one.

Glaser (2007) suggested that students who received training in mindfulness practice would be more able to view clients openly and without stereotype than students who simply read about mindfulness. She divided 123 undergraduate counseling and psychology students into two groups. One group practiced mindfulness meditation for 20 minutes while the other read about mindfulness without actually practicing it. Both groups followed up their experience by watching a videotaped counseling session and filling out measures of their trait empathy, openness, state and trait mindfulness, mood, memory, stereotyping, empathic identification (i.e., would they want to work with the client), and attribution (i.e., to what do they attribute the clients problems). The experimental group scored significantly higher on state mindfulness ( $t = -3.01, p < .01$ ), indicating the mindfulness practice increased state mindfulness more than simply reading about mindfulness. The two groups were not significantly different on any of the other proposed hypotheses (e.g., those who practiced mindfulness before viewing the tape

didn't recall less stereotypical things about the client when compared to the control group). A couple of the correlational relationships were statistically significant. Participants with more state mindfulness identified more empathically with the clients ( $r = .2, p < .05$ ) and were more likely to report desire to work with them ( $r = .24, p < .01$ ), although arguably the size of these correlations is small and may lack practical significance. Additionally, this was a one-shot, short mindfulness intervention using a sample of non-master's level trainees.

A more intensive 15-week training in mindfulness was taught within the context of a three credit course with 33 first and second year counseling masters students in a study by Schure et al. (2008). Students met two times weekly for 75 minutes of mindful practice including hatha yoga, sitting meditation, qigong, conscious relaxation, and reading and journaling. After the 15 week period students responded to journaling prompts about how their life had changed, which practice they gravitated toward and why, how the training had impacted their work with clients and if and how they were integrating mindfulness into their clinical practice. Their responses were coded and qualitatively explored. Life changes reported included physical (e.g., increased energy and flexibility), emotional changes (e.g., less reactivity, reductions in self-criticism and anxiety), attitudinal changes (e.g., more self-understanding and acceptance, openness), spiritual awareness (e.g., uncovering direction and purpose in life, evaluation of own values), and interpersonal changes (e.g., responding more empathically and compassionately). With regards to which practice was most helpful, there was a variance among students suggesting that some gravitated toward more physical practices (e.g.,

yoga), while others preferred more contemplative practices (e.g., meditation). Students also reported how practicing mindfulness impacted their work with clients including increasing tolerance with silence, increased attention and responsiveness to the therapy process, and shift to view the spiritual elements of client's experiences and therapy. Most students reported they would incorporate learning from the course into their future work by including mindfulness practices in session, allowing for reflective time and time sitting with experiences in session, recommending alternative and supplementary practices to clients and personally continuing with a practice to support well-being. Although students' journals provided insight into their experiences with mindfulness and its impact on their clinical work, more could be learned by gathering quantitative data about whether mindfulness increased, correlates of mindfulness and whether improvements were different from students in a non-mindfulness based training.

It appears that only one study to date has explored the relationship between mindfulness and counseling self-efficacy. Bentley (2008) explored this relationship and the mediating effects of attention and empathy within a sample of 179 counseling master's interns and doctoral students. She found that mindfulness correlated positively and significantly with attention, empathy and counseling self-efficacy ( $r = .53$ ,  $r = .27$ ,  $r = .34$ ,  $p < .01$  respectively). The path between mindfulness and empathy was significant for the total sample ( $\beta = .27$ ,  $p < .01$ ) with 7% of the variance in empathy explained by mindfulness, but dropped below significance when considering doctoral students alone. Also, mindfulness was significantly related to counseling self-efficacy for the total sample ( $\beta = .34$ ), with 11% of the variance explained. The relationship was weaker for

masters students ( $\beta=.25$ , 6% of the variance explained) than for doctoral students ( $\beta=.49$ , 22% of the variance explained). When accounting for the whole model, mindfulness, attention and empathy accounted for 34% of the variance in counseling self-efficacy. Although several potential benefits of mindfulness training for counselors have been articulated and a couple of qualitative inquiries have highlighted the benefits experienced, there is a dearth of quantitative literature on the topic. In Bentley's (2008) study, mindfulness was shown to account for variance in counseling self-efficacy, but to date no explorations have looked at the impact of mindfulness on counselor trainees' anxiety.

Perhaps the non-judgmental and non-reactive stance of mindfulness could serve as a moderator of trainee anxiety. Additionally, the non-judgmental and non-reactive facets of mindfulness may serve a role in trainee's self-efficacy. Self-efficacy expectations are described as our cognitive appraisal of our capabilities to perform a behavior (Bandura, 1977). It is hypothesized that, consistent with theory, if one's self-appraisals were judgmental or non-affirming, self-efficacy would also be lower. Further, given the some of the earlier research has focused on the role of negative self-talk on trainees self-efficacy (e.g., Bischoff, 1997; Bischoff & Barton, 2002; Fuqua et al., 1986; Hiebert et al., 1998), nonjudgment and nonreactivity were suggested to play an important role in predicting self-efficacy.

To the extent counselor educators know more about developable skills (e.g., mindfulness), and skills deficits (e.g., alexithymia) and their impact on trainee development variables (e.g., anxiety, counseling self-efficacy), the better able they will be to plan intentional learning experiences to support trainee's development.

### *Summary*

In this chapter, a review of the literature has been offered. Specifically, research and theory related to counselor trainees' self-efficacy, experiences of anxiety, emotional skills and deficits, and mindfulness has been described and critiqued. In summary, the following has been noted: 1) attention to the internal skills and skills deficits that impact counselor trainee self-efficacy is lacking, 2) one experience that relates to counseling self-efficacy is trainee anxiety, 3) it is unclear what the internal skills and skills deficits are that alleviate or exacerbate trainees' anxiety 4) empirical research on trainee anxiety is dated, limited, focused on state anxiety, and there is evidence that the multidimensional nature of anxiety (cognitive, somatic and behavioral) needs to be considered, 5) emotional skills (or the lack thereof, defined here as alexithymia) may be an important contributor to trainee anxiety management and self-efficacy, but to date these relationships have not been explored, 6) levels of mindfulness may similarly contribute to lower anxiety and higher self-efficacy in trainees, but these relationships have not been explored empirically. The proposed study seeks to fill these gaps by focusing on internal skills and skills deficits as they relate to anxiety and counseling self-efficacy, adding to the current literature on anxiety by using a multidimensional measure of anxiety, and exploring the relationships between alexithymia, mindfulness and counseling self-efficacy. Specifically, alexithymia and mindfulness will be explored as potential moderators of the relationship between anxiety and counseling self-efficacy.

## CHAPTER III

### METHODOLOGY

Within Chapters I and II, a study of anxiety and counseling self-efficacy was introduced, a rationale was outlined, and a review of related literature was provided. The rationale and review of the literature provide a grounding and support for further exploration of the relationship between anxiety and counseling self-efficacy and suggested the possible moderating effects of mindfulness and alexithymia. In the current chapter, the methodology that was employed to test these relationships is described, including participants, instrumentation, procedures, and data analysis.

#### Research Questions and Hypotheses

The current study examined the relationships between anxiety and counseling self-efficacy and the moderating effects of mindfulness and alexithymia. The proposed model suggested that the relationship between anxiety and counseling self-efficacy would be moderated by the student's level of mindfulness and alexithymia. To test this model, four research questions were developed and six hypotheses suggested based on the review of the literature.

Research Question 1: What are the bivariate relationships between anxiety, mindfulness, alexithymia and counseling self-efficacy?

Hypothesis 1a: There will be a statistically significant negative relationship between anxiety and counseling self-efficacy.

Hypothesis 1b: There will be a statistically significant positive relationship between mindfulness and counseling self-efficacy.

Hypothesis 1c: There will be a statistically significant negative relationship between alexithymia and counseling self-efficacy.

Research Question 2: Which of the three anxiety subscales (cognitive, behavioral, and somatic) will be the best predictor of counseling self-efficacy?

Hypothesis 2a: All anxiety subscales will be significant predictors of counseling self-efficacy.

Hypothesis 2b: Cognitive anxiety will account for the most variance in counseling self-efficacy.

Research Question 3: What proportion of the variance in counseling self-efficacy can be accounted for by the five facets of mindfulness (observe, describe, act with awareness, nonjudge, nonreact) in a multiple regression analysis?

Hypothesis 3a: The five factors of mindfulness will account for a significant amount of the variance in counseling self-efficacy.

Hypothesis 3b: The factors of *nonjudge* and *nonreact* will be the strongest predictors of counseling self-efficacy.

Research Question 4: What are the relationships between anxiety, mindfulness, alexithymia and counseling self-efficacy within a path model that specifies a relationship between anxiety and self-efficacy moderated by mindfulness and alexithymia?

Hypothesis 4a: Mindfulness will be a significant moderating variable between anxiety and counseling self-efficacy such that higher levels of mindfulness will significantly weaken the strength of the relationship between anxiety and counseling self-efficacy.

Hypothesis 4b: Alexithymia will be a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of alexithymia will significantly strengthen the relationship between anxiety and self-efficacy.

### Participants

Pre-internship master's level counseling trainees were recruited for this study. Participants were recruited by contacting counselor educators at CACREP accredited counseling programs and requesting their permission to distribute surveys to pre-internship Master's level students.

### Procedures

A total of eight counselor education programs across the country agreed to participate and were mailed survey packets with return postage. Counselor educators were asked to distribute surveys during class time to maximize participation. A power analysis indicated 114 participants were needed in order for a detectable beta of .25 and

power of .8 to be attainable when using a multiple regression with 5 predictors. One hundred and fifty three surveys were returned. Five were eliminated because they did not indicate their training level and it was not possible to determine if they met the criteria of being pre-internship. One additional respondent was not included in analyses because one entire page of the survey was skipped. A total of 152 surveys were used for data analyses.

### *Instrumentation*

Participants completed a packet of 5 instruments in the following order: the Trimodal Anxiety Questionnaire (TAQ; Lehrer & Woolfolk, 1982), the Toronto Alexithymia Scale (TAS-20; Bagby, Parker et al., 1994), the Five-Facet Mindfulness Questionnaire (FFMQ; Baer et al. 2006), and the Counselor Activity Self-Efficacy Scales (CASES; Lent et al., 2003), and a brief demographic questionnaire created by the author of this study. See Table 1 for a summary of instrumentation and reliability information. See Appendix B for copies of all instruments.

#### *Counseling Self-Efficacy- The Counselor Activity Self-Efficacy Scale (CASES).*

The Counselor Activity Self-Efficacy Scales (CASES) is a self-report measure of counseling self-efficacy developed by Lent et al. (2003). It consists of 41 items with a 10-point likert-type scale in which respondents rate their confidence from 0 (no confidence at all) to 9 (complete competence). Participants respond to items by indicating how confident they are in their ability to use listed skills effectively “over the next week, in counseling most clients.” It measures three aspects of counseling self-efficacy: 1) Helping Skills Self-Efficacy (ability to create a facilitative relationship and elicit

information from client, help client gain understanding, promoting changes in affect thought or behavior) (e.g., “to point out discrepancies, contradictions, defenses or irrational beliefs of which the client is unaware or that he or she is unwilling or unable to change”); 2) Session Management Self-Efficacy (integrating basic skills to manage common counseling tasks such as responding to normative session demands)(e.g., “to keep sessions on track and focused”); and 3) Counseling Challenges Self-Efficacy (managing situations that seasoned counselors would find challenging, coping with and problem solving difficult session scenarios)(e.g., “to work with a client who shows signs of severely disturbed thinking”). For the purposes of this study, the counseling self-efficacy total score is the unit of analysis.

To explore the validity of the CASES, Lent et al. (2003) administered a packet of instruments to a sample of 345 undergraduate and graduate students. The instrument packet included the CASES as well as the Counseling Self-Estimate Inventory (COSE, Larson et al., 1992), the Interest in Therapy Activities subscale of the Scientist-Practitioner Inventory (SPI, Leong & Zachar, 1991), the Counseling Role Outcome Expectations Scale (Lent et al., 2003), the Positive and Negative Affect Schedule (PANAS, Watson, Clark, & Tellegen, 1988), and the Social Desirability Scale (SDS, Crowne & Marlowe, 1960). Additionally, the authors developed two questions regarding counseling career goals.

Each of the theoretically posited scales was explored individually with factor analysis, suggesting that the Helping Skills Self Efficacy Scale consisted of three factors

(exploration skills, insight skills, and action skills), the Session Management Self-Efficacy Scale had a one factor solution, and the Counseling Challenges Self-Efficacy consisted of two factors (client distress and relationship conflict). The total CASES was subjected to factor analyses which revealed strong inter-scale correlations and informed the collapsing of factors one and two, suggesting that helping skills and session management skills self-efficacy strongly overlapped while counseling challenges self-efficacy included distinct elements.

Convergent validity was found as the CASES correlated highly with the COSE, an existing measure of counseling self-efficacy. Further evidence of discriminant validity was established as the CASES showed small and nonsignificant correlations with the social desirability measure. Criterion validity was explored by testing relationships among administered measures against what would be anticipated by social-cognitive career theory (SCCT) interest and choice model. Consistent with the interest model, CASES scores contributed uniquely to the variance of occupational interest and, when combined with outcome expectations, accounted for 47% of the variance in occupational interest. Also, small to medium correlations were found between CASES scores and students' occupational goals, a directional relationship which is theoretically consistent, albeit modestly, with what is posited by the choice model. Additionally, CASES scores increased with level of counseling experience as anticipated and were adequately sensitive to pick up on changes that occurred during 15 weeks of pre-practicum experiences. The authors also reported the CASES total score had a high reliability with a

Chronbach's alpha of .97. Two week test-retest reliability among a small sample of undergraduate students ( $n = 32$ ) and doctoral students ( $n = 16$ ) was reported to be .75. The total scores of the CASES will serve as the unit of analysis and provide a measure of counseling self-efficacy.

*Anxiety- The Trimodal Anxiety Questionnaire (TAQ).* The Trimodal Anxiety Questionnaire (TAQ) is a 36 item self-report measure of anxiety that was developed by Lehrer and Woolfolk (1982). Items were adapted from items on the State-Trait Anxiety Inventory (STAI, Spielberger et al., 1970), the MMPI, and from clinical experiences to tap somatic, cognitive, and behavioral aspects of anxiety. Respondents endorse likert-type scale items from 0 to 8 (0 = never to 8 = extremely often). Scale one is called the somatic scale and includes items such as "I have difficulty swallowing" and "My limbs tremble." Scale two is called the behavioral scale and includes items such as "I find myself staying home rather than involving myself in activities outside," and "I avoid going into a room by myself where people are already gathered and talking." Scale three is called the cognitive scale and includes items such as "I picture some future misfortune," and "I imagine myself appearing foolish with a person whose opinion of me is important." The total anxiety score was used as the unit of analysis for research questions one and four, and the anxiety subscale scores were used as the unit of analysis for research question two.

The scale was initially constructed and tested in a series of studies by Lehrer and Woolfolk (1982). The first study of Seton Hall University undergraduates ( $n = 451$ )

tested a 60-item scale with a principal components analysis. Three factors were extracted which were then tested with varimax rotation for their correspondence to the three hypothesized factors. As predicted, orthogonal somatic, cognitive, and behavioral factors were derived using a factor loading cutoff criterion of  $\geq .5$ . The three factors accounted for 32.2% of the variance in the item pool with the somatic factor accounting for a disproportionate amount of the variance (21.6%).

In their second study, a 112-item scale was tested on Rutgers adult night school students ( $n = 289$ ), neurotic psychiatric patients presenting with anxiety ( $n = 70$ ), and community members participating in a Rutgers stress workshop ( $n = 67$ ). Only the 68 items that discriminated between the neurotic clients and night school students were used in the principal components analysis (including thirty-one of the items tested in Study 1). Again, three orthogonal factors emerged that had a good match with items hypothesized to tap somatic, behavioral, and cognitive aspects of anxiety, with only two behavioral items loading on an otherwise cognitive factor. The three factor solution accounted for 37.9 % of the variance, again with the somatic factor accounting for the largest amount of the variance (28.3%). The inventory was then reduced to include only the 36-items that loaded  $\geq .5$  on one of the factors. It is noteworthy that when only items loading  $\geq .5$  were considered, inter-factor correlations ranged from .47-.66, suggesting a moderate level of inter-correlation between the three aspects of anxiety. Split half reliabilities were computed for both initial studies and were reported as: somatic factor (.85-.93),

behavioral factor (.84-.91), and cognitive factor (.83-.92). No total scale split-half reliability coefficients were reported.

The authors then conducted four validation studies using the 36-item inventory. Support for convergent validity was found as the somatic, behavioral, and cognitive subscales correlated as expected ( $r$ 's = .34, .39, and .51, respectively) with the IPAT Anxiety Inventory (Krug, Scheier, & Cattell, 1976) and ( $r$ 's = .79, .60, and .86, respectively) with the Trait Anxiety scale of Spielberger's State Trait Anxiety Inventory (Spielberger et al., 1970). The highest correlations were found between the cognitive scale and these anxiety measures, suggesting that while all factors relate to the broader construct of anxiety, the somatic and behavioral subscales may add unique information to how anxiety is typically measured. Additionally, the inventory correlated as expected with the neuroticism and introversion subscales of the Eysenck Personality Inventory (Eysenck & Eysenck, 1968). Specifically, although all scales correlated positively and significantly with neuroticism and introversion, the strongest relationships were found between neurotic introversion and the behavioral subscale.

Further, discriminant validity was tested by Scholing and Emmelkamp (1992). As anticipated, the somatic scale converged with the SCL-90R (Derogatis, 1977) somatization scale and the Hamilton Anxiety Inventory (Hamilton, 1959) physiological factor scale, but diverged from the SCL-90R psychoticism subscale, providing further evidence for construct validity. It is important to note, however, that only the somatic anxiety subscale was found to correlate with psychiatrists' rankings of anxiety on the

Hamilton Anxiety Inventory. Preliminary evidence of criterion validity was found in a small study (Lehrer & Woolfolk, 1982) in which anxious college freshman showed significant improvements only on the subscale measure corresponding to treatment received (i.e., students receiving behaviorally oriented treatment only improved on the behavioral subscale and students receiving cognitively-oriented treatment only improved on the cognitive subscale.). It is noteworthy that, in this study, social desirability accounted for approximately 25-35% of the variance found in the inventory.

The factor structure, validity, and reliability of the 36 item version of the TAQ was explored most recently by Scholing and Emmelkamp (1992) in a three-part study involving samples of social phobics ( $n = 108$ ), randomly selected adults ( $n = 130$ ), and adolescents ( $n = 650$ ). The factor structure was explored using confirmatory factor analysis and all items loaded most highly on the factor for which they were designed. Encouragingly, across populations the same three factors held together. Only one item showed high correlation with two factors (item 36). Across three samples (social phobics, adults, and adolescents), the amount of the variance explained by all three factors was reported as 45.4%, 41.0% and 37.9% respectively. Items were shown to share a fair amount of variance, but still seemed to be tapping three distinct elements of the construct.

For the purposes of exploring the questionnaire's validity, participants in the adolescent and social phobic groups also completed additional measures (e.g., Symptom Checklist, SCL-90R; Derogatis, 1977; Fear Questionnaire, FQ; Marks & Mathews, 1979; and The Social Cognition Inventory, SCI; van Kamp & Klip, 1981). Relationships

between the scales were found to be in the direction expected with the following exceptions; the behavioral subscale correlated not only highly with another behavioral measure (FQ-social phobia subscale), but also a measure of cognitive anxiety (the SCI). The cognitive subscale had expected relationships with subscales of the SCL-90-R but, surprisingly, had low correlation with the SCI, a measure of cognitive anxiety. Evidence of discriminant validity was promising as the TAQ consistently discriminated between the socially phobic patient and the group of non-phobic adults. This discriminant function was attributed almost solely to the behavioral subscale which predicted group membership with 80.3% accuracy. Additionally, as was expected, mean scores for social phobics were highest on all variables. The scale also showed sensitivity to treatment effects, with social phobics no longer scoring significantly differently than adults and adolescents post treatment in both somatic and cognitive anxiety, though they still differed significantly in behavioral anxiety.

The reliability of the subscales were determined using Chronbach alphas. Across the three samples, the somatic factor had alphas ranging from .87 to .92, the behavioral factor had alphas ranging from .81 to .88, and the cognitive factor had an alpha of .83 across all samples. The total scale reliability was not reported in this study but was reported to be .94 in a sample of undergraduate students by Cashwell, Glossoff, and Hammond (in press).

*Alexithymia- The Twenty-item Toronto Alexithymia Scale (TAS-20).* The Toronto Alexithymia Scale (TAS-20) is a self-report measure of alexithymia which was

developed by Bagby, Parker et al. (1994) based on a theoretical description of the construct by Nemiah, Freyberger, and Sifneos (1976). It is a 20-item scale with a five-point likert-type scale (1= never true for me to 5= always true for me) that participants rate according to what is typically true for them. The scale measures three factors of alexithymia: 1) difficulty identifying feelings (e.g., “When I am upset, I don’t know If I am sad, frightened or angry”); 2) difficulty describing feelings (e.g., “It is difficult for me to find the right words for my feelings”); and 3) externally-oriented thinking (e.g., “I prefer to just let things happen rather than to understand why they turned out that way”).

Measurement of the construct of alexithymia has been approached in several different manners including clinical ratings (e.g., the Beth Israel Hospital Psychosomatic Questionnaire, BIQ, Sifneos, 1973), projective ratings (e.g., the Archetypal Test with Nine Elements, AT9, Durand, 1970), and ratings from collaterals (e.g., Observer Alexithymia Scale, OAS, Lee, Rim, & Lee (1996). The TAS-20 was developed as a self-report measure of alexithymia. As it currently exists, the 20-item TAS has been subjected to extensive study including the original instrument development (Taylor, Ryan, & Bagby, 1986), revisions to become the TAS-R (Taylor, Bagby, & Parker, 1992), factor analysis to inform the current twenty item version (Bagby, Parker, et al., 1994), initial reliability and validity exploration (Bagby, Taylor, et al., 1994), several follow up factor analyses (Erni, Lotscher, & Modestin, 1997; Haviland & Reise, 1996; Kooiman, Spinhoven, & Trijsburg, 2002; Loas, Corcos, Stephan, Pellet, Bizouard, Venisse et al., 2001; Meganck, Vanheule, & Desmet, 2008; Ritz & Kannapin, 2000; Taylor et al., 2003),

a more recent study revisiting the reliability (Taylor, Bagby, & Parker, 2003), and explorations of cultural norms and differences (Taylor, Bagby, & Parker, 2003).

The 20 items that comprise the current version of the TAS are the result of exploratory factor analysis with a sample of 965 undergraduates in a Canadian university (Bagby, Parker, et al., 1994). The exploratory factor analysis revealed that a three factor solution was the best fit for the data, with the three factors accounting for 31% of the total variance. More recently, researchers have questioned the factor structure asserting that either a two factor solution (Erni, Lotsche, & Modestin, 1997; Kooiman et al., 2002; Loas, Otmani, Verrier, Fremaux, & Marchand, 1996) or a four factor solution (Haviland & Reise, 1996; Ritz & Kannapin, 2000) serves as a better fit for the data. Some of these studies have been criticized for not using confirmatory factor analysis or not attending to the practical and rational aspects of tapping the construct of alexithymia. Multiple confirmatory factor analysis studies have been conducted, however, in which researchers have found that the three factor structure is the best statistical and rational fit (Meganck, et al., 2008; Taylor et al., 2003). Because the TAS-20 total alexithymia score, a combination of all three aspects of alexithymia, will be the unit of analysis used in this study, arguments about the subscale factor structure are less germane.

Validity of the TAS-20 was established through administration of the alexithymia items along with four other assessments, including The Psychological Mindedness Scale (PMS, Conte, Plutchik, Jung, Picard, Karasu, & Lotterman, 1990), The Need for Cognition Scale (NCS, Cacioppo & Petty, 1982), the NEO Personality Inventory (NEO-

PI, Costa & McCrae, 1985), and the Beth Israel Hospital Psychosomatic Questionnaire (BIQ, Sifneos, 1973) to two Canadian college student samples ( $n = 85$ ,  $n = 83$ ), and a sample of patients at a metropolitan outpatient clinic ( $n = 39$ ) (Taylor et al., 1992). As anticipated, the TAS-20 correlated strongly and negatively with psychological mindedness (willingness to talk about ones' problems, access to feelings, capacity for behavioral change), need for cognition (tendency to engage in and enjoy effortful and analytical cognitive endeavors), assertiveness, and positive emotions, and all but one of the openness to experience subscales. The TAS-20 was found to correlate positively with anxiety, depression, self-consciousness (shame, embarrassment), and vulnerability. Evidence of concurrent validity also was found as scores on the TAS-20 correlated positively with the BIQ, an alexithymia scale involving the use of clinical raters.

The reliabilities of the TAS-20 full scale and subscales have been assessed across multiple samples, including three samples in Bagby, Parker, et al.'s, (1994) instrument development study and more recently by Parker et al. (2003) and Meganck et al. (2008). The total scale reliability has been reported to be between .78-.86 (median .81), the first factor (difficulty identifying feelings) reliability has ranged between .78-.81 (median .80), the second factor (difficulty describing feelings) reliability has ranged between .70-.76 (median .75), and the third factor (externally oriented thinking) reliability has ranged between .53-.71 (median .66). The test-retest reliability was tested in a sample of 72 students across three weeks and was reported to be .77 (Bagby, Parker et al., 1994).

It is noteworthy that men scored significantly higher than women on factors 2 and 3 and the full scale, and that there was a small but significant negative correlation between alexithymia and age. Additionally, cross-cultural explorations of the TAS-20 indicate that Asian, Polish, Peruvian, and Canadian students whose first language was Chinese consistently scored higher, while samples in Germany, the Netherlands, Israel, Finland, Norway and Sweden were lower than those found in the Canadian reference sample.

The TAS-20 has been criticized as not measuring something distinct from psychological-mindedness, a measure with which it correlated negatively (-.68), that it did not seem to discriminate from the existence of negative symptoms (Lumley, 2000) nor tap the high end of the alexithymia construct (Lumley, 2000). This may be due to the wording of the questions which could unintentionally communicate a correct or desirable answer, resulting in positivity bias (Fowler, 1995). Additionally, although poor fantasy life is described as a part of the construct of alexithymia, this aspect is not measured by the TAS-20.

*Mindfulness-The Five Facet Mindfulness Questionnaire (FFMQ).* The Five Facet Mindfulness Questionnaire (FFMQ, Baer et al. 2006) is a 39 item measure of mindfulness that respondents endorse on a 5-point likert-type scale ranging from 1 (never or very rarely true) to 5 (very often or always true). According to the authors, the scale measures five facets of mindfulness: *observing*, noticing internal and external sensory experiences (e.g., “I notice the smells and aromas of things”); *describing*, using words to

label internal experiences (e.g., “I am good at finding words to describe my feelings”); *acting with awareness*, having ones’ attention actively on one’s current experience rather than behaving mechanically or on auto pilot (e.g., “I find myself doing things without paying attention” (reverse scored); *nonjudging of inner experience*, not evaluating thoughts or feelings as negative or positive (e.g., “I think some of my emotions are bad or inappropriate and I should not feel them”( reverse scored); and *nonreactivity to inner experience*, allowing feelings to come and go rather than being carried away by them (e.g., “I perceive my feelings and emotions without having to react to them”). The total mindfulness score was used as the unit analysis for research questions one and four and the mindfulness subscales were used as the unit of analysis for research question three.

The FFMQ was developed in an effort to produce a mindfulness measure that is both psychometrically sound and provides adequately reliable subscales that encompass all of the theoretically posited elements of mindfulness (Baer & Huss, 2008). Baer and colleague asserted that such a measure would fill a needed gap in mindfulness measurement that would allow for more in-depth study of the process by which mindfulness produces desired outcomes. That is, by creating an instrument that reliably measures the broad construct of mindfulness, future researchers could utilize subscales to examine more closely the mechanisms of change associated with mindfulness as related to other variables. In order to allow for such a level of prediction, the scale needed to identify distinct aspects of the construct to serve as subscales and show that all of these

relate to the broader experience of mindfulness and yet account for unique aspects of the variance in mindfulness (Howell, 2002).

To account for the variety of different conceptualizations of mindfulness and obtain a representative exploration of the construct, the initial item pool for the FFMQ included all items from existing mindfulness measures including the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003), The Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman, & Walach, 2002), The Kentucky Inventory of Mindfulness Skills (KIMS; Baer et al. 2004), The Cognitive and Affective Mindfulness Scale (CAMS; Feldman, Hayes, Kumar, & Greeson, 2004; Hayes & Feldman, 2004) and The Mindfulness Questionnaire (MQ; Chadwick, Hember, Mead, Lilley, & Dagnan, 2005). The FFMQ was then subjected to an exploratory factor analysis during initial development (Baer et al. 2006) and again in a follow up study (Baer & Huss, 2008). In the initial study, a scree plot suggested a five factor solution which accounted for 33% of the variance after factor extraction. From this, a criteria was established for item inclusion and the 112 item combined measure was reduced to 64 items. The seven or eight items which loaded the strongest on their respective factors and not on other factors were then selected for the subscales and resulted in a 39-item instrument. A confirmatory factor analysis raised a question about the fit of the *observing* subscale with the overall instrument and the researchers postulated that observing (attending to one's experience) might actually be to the detriment of individuals who are not meditators, as their

increased self-focus could come without a detached awareness and allowing that is characteristic of mindfulness.

This question was addressed in a follow-up study that included meditators and non-meditators (Baer & Huss, 2008). In a confirmatory factor analysis, they found that the five-factor model was replicated in the sample of experienced meditators, and that the facets of mindfulness were all intercorrelated indicators of an overarching mindfulness construct and accounted for unique and substantial aspects of the variance.

To establish further evidence of construct validity, hypothesized relationships between the construct and other constructs were outlined and tested. Specifically, in two studies (Baer et al., 2006, Baer & Huss, 2008) researchers explored the FFMQ in relation to the Brief Symptom Inventory, (BSI; Derogatis, 1992), the Psychological Well-Being Scale, (PWB; Ryff, 1989), the NEO-Five Factor Inventory, (NEO-FFI; Costa & McCrae, 1992), the Trait Meta-Mood Scale, (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), the White Bear Suppression Inventory, (WBSI; Wegner & Zanakos, 1994), the Difficulties in Emotion Regulation Scale, (DERS; Gratz & Roemer, 2004), the Toronto Alexithymia Scale, (TAS-20; Bagby, Taylor et al. 1994), the Scale of Dissociative Activities, (SODAS; Mayer and Farmer, 2003), the Acceptance and Action Questionnaire, (AAQ; Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004) the Cognitive Failures Questionnaire, (CFQ; Broadbent, Cooper, Fitzgerald & Parks, 1982), and the Self-Compassion Scale, (SCS, Neff, 2003). Most of the mindfulness scales related in the expected directions and all but one were statistically significant. The observing facet was

unique in that it yielded different relationships depending on whether the sample consisted of experienced meditators or not. That is, amongst meditators the observing facet related in the expected direction with negative symptoms (negatively) and psychological well-being (positively), but this was not true among non-meditators. As predicted, meditators scored higher on all aspects of mindfulness than did non-meditators.

Reliability estimates of the FFMQ were most recently assessed by Baer & Huss (2008). Alpha coefficients in an undergraduate student sample ( $n = 613$ ) all demonstrated adequate internal consistency. Alpha coefficients were reported by subscale including nonreactivity (.75), observing (.83), acting with awareness (.87), describing (.91), and nonjudging (.87). The reliability information for the full scale was not reported in this study but was reported as .92 among a sample of 339 university students by Cashwell et al. (in press). Baer et al. found intercorrelations among subscales of mindfulness to be modest (.32-.56), suggesting that subscales relate to the broader construct of mindfulness while measuring unique facets of mindfulness.

*Demographic Questionnaire.* The author designed a questionnaire in order to obtain descriptive information about the age, gender, and race/ethnicity, and level of counseling experience. This questionnaire is included in Appendix B.

Table 1

*Instrumentation, Alpha Coefficients, Score Range*

<b>Instrument</b>	<b># of items</b>	<b>Subscales</b>	<b>Alphas</b>	<b>Range</b>
Twenty item Toronto Alexithymia Scale	20	Difficulty identifying feelings Difficulty describing feelings Externally oriented thinking Total	.76-.81 .70-.76 .53-.71 .78-.86	1-5
Counselor Activity Self-Efficacy Scales	41	Exploration skills Insight skills Action skills Session management Client distress Relationship conflict Total	.79 .85 .83 .94 .94 .92 .97	0-9
Trimodal Anxiety Questionnaire	36	Somatic anxiety Behavioral anxiety Cognitive anxiety Total	.85-.93 .81-.91 .83-.92 .94	0-8
Five Facet Mindfulness Questionnaire	39	Observing Describing Acting with awareness Non judging internal experience Non reacting to internal experience Total	.83 .91 .87 .87 .67-.75 .92	1-5

*Data Analysis*

The characteristics of the sample were obtained by calculating descriptive statistics on the demographic questionnaire as befits the response format. Also, Chronbach alphas were calculated to determine the reliabilities of each of the scales and subscales of interest with the current sample. There were three primary data analysis techniques used to test the stated hypotheses.

To test hypotheses 1a-c that anxiety is negatively related to counseling self-efficacy, mindfulness is positively related to counseling self-efficacy, and alexithymia is

negatively related to counseling self-efficacy, Pearson Product Moment Correlation Coefficients were used. To test hypotheses 2 and 3 which sought to highlight which aspects of anxiety and mindfulness accounted for the most variance in counseling self-efficacy, multiple regressions were used. To test the moderating effects of mindfulness (4a) and alexithymia (4b) on the relationship between anxiety and counseling self-efficacy, a multiple regression using centered interaction terms was used. See Table 2 for complete information about hypotheses, variables, and analyses.

Table 2

*Hypotheses, Variables of Interest, Data Analysis*

<b>Hypothesis</b>	<b>IV</b>	<b>DV</b>	<b>Analysis</b>
1a There will be a statistically significant negative relationship between alexithymia and counseling self-efficacy.	Anxiety (TAQ full scale)	Counseling Self-Efficacy (CASES full scale)	Pearson Product-Moment Correlation Coefficient
1b There will be a statistically significant positive relationship between mindfulness and counseling self-efficacy.	Mindfulness (FFMQ full scale)	Counseling Self-Efficacy (CASES full scale)	Pearson Product-Moment Correlation Coefficient
1c There will be a statistically significant negative relationship between alexithymia and counseling self-efficacy.	Alexithymia (TAS-20 full scale)	Counseling Self-Efficacy (CASES full scale)	Pearson Product-Moment Correlation Coefficient
2a All anxiety subscales will be significant predictors of counseling self-efficacy.	Cognitive, Somatic, Behavioral Anxiety (TAQ subscales)	Counseling Self-Efficacy (CASES full scale)	Multiple regression
2b Cognitive anxiety will account for the most variance in counseling self-efficacy.	Cognitive, Somatic, Behavioral Anxiety (TAQ subscales)	Counseling Self-Efficacy (CASES full scale)	Multiple regression
3a The five factors of mindfulness will account for a significant amount of the variance in counseling self-efficacy.	Mindful observing, describing, acting with awareness, nonjudging, nonreacting (FFMQ subscales)	Counseling Self-Efficacy (CASES full scale)	Multiple regression
3b The factors of <i>nonjudge</i> and <i>nonreact</i> will be the strongest predictors of counseling self-efficacy.	Mindful observing, describing, acting with awareness, nonjudging, nonreacting (FFMQ subscales)	Counseling Self-Efficacy (CASES full scale)	Multiple regression
4a Mindfulness will be a significant moderating variable between anxiety and counseling self-efficacy such that higher levels of mindfulness will significantly weaken the strength of the relationship between anxiety and counseling self-efficacy.	Anxiety (TAQ, full scale)  Mindfulness (FFMQ, full scale)  Anxiety X Mindfulness (TAQ full scale X FFMQ full scale)	Counseling Self-Efficacy (CASES full scale)	Multiple regression (with interaction terms)
4b Alexithymia will be a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of alexithymia will significantly strengthen the relationship between anxiety and self-efficacy.	Anxiety (TAQ, full scale)  Alexithymia (TAS-20, full scale)  Anxiety X Alexithymia (TAQ full scale X TAS-20 full scale)	Counseling Self-Efficacy (CASES full scale)	Multiple regression (with interaction terms)

### *Pilot Study*

A pilot study was conducted to field test the instrumentation instructions and data collection procedures. Specifically, the pilot study was used to determine if there were procedural adjustments (e.g., instruction clarity and instrument layout) that could be made to strengthen the full study. For the full methodology and results of the pilot study including descriptive and statistical analyses, refer to Appendix C. The following section provides an overview of the feedback provided by pilot study participants and how their suggestions have informed the larger study.

To determine whether the instructions in the assessment packet were clear, participants were invited to share written or verbal feedback about their experiences with the packet. Some of the feedback received was integrated into changes made for the full study and other feedback was not. A review of integrated and non-integrated feedback, as well as a rationale for which suggestions were incorporated is included below.

*Integrated feedback.* Several suggestions were made with regards to formatting the instruments that have been incorporated. These changes included:

- moving the response choices for TAQ question 23 to the next page
- adjusting the anchor on the bottom of page 3 of the TAQ to line up with the margin
- adding response anchors to page 2 of the TAS-20

- bolding and fixing layout of instructions on the CASES
- making it clear where “some confidence” lines up as an anchor for the CASES

Also, direction clarifications were requested for the TAQ. Specifically, several participants indicated they were unclear about the frame for the TAQ (i.e., were they supposed to be reporting on their anxiety experiences in general or specifically related to counseling? ). Since the intent is to measure a general propensity toward anxiety, a frame of reference has been added to the TAQ which reads, “Consider how often you experience the following in your general day to day life.”

Procedurally, two students failed to flip over the consent form to sign on the back, and instead signed on the front. Also, the researcher recognized that the inclusion criteria that students have less than 300 hours of internship was not included in the scripted invitation to participate. Consequently, the ‘Invitation to Participate’ has been modified to specifically reference the need for a printed name and signature on the consent form and to clarify inclusion criteria.

*Other feedback.* Two participants requested changes to the instruments including adding more anchors to the TAQ and CASES Likert scales. Also participants requested clarifying or re-wording the following items: TAQ item #4 (my heart pounds), TAQ item #5 (I picture some future misfortune), TAQ item #7 (my limbs tremble), TAQ item #9 (I avoid going into a room by where people are already gathered and talking), TAQ item #24 (I imagine myself appearing foolish with a person whose opinion of me is

important), FFMQ item #4 (I perceive my feelings and emotions without having to react to them), TAS-20 item #16 (I prefer to watch light entertainment shows rather than psychological dramas), TAS-20 item #18 (I can feel close to someone even in moments of silence), and TAS-20 item #20 (looking for hidden meaning in movies or plays distracts from their enjoyment). Also, three students indicated that they did not understand what being at an “impasse in therapy” meant (CASES question #14) and did not respond. Two students also reported that they found questions in the assessment packet “redundant.” Since the scales have been well-established in previous research no adjustments were made to the existing response anchors, nor were any of the instrument items reworded.

### *Summary*

Counselor educators need to know more about the internal skills of trainees that relate to their counseling self-efficacy, and specifically about skills such as alexithymia and mindfulness that may moderate anxiety. This study examines the relationships between anxiety and counseling self-efficacy and tests the moderating effects of mindfulness and alexithymia using a multiple regression with interaction terms. In this chapter the research questions and hypotheses were stated, a description of how participants will be obtained was offered, instrumentation and research procedures were described, and plan for data analysis was outlined. Also suggestions obtained during a pilot study were reviewed and adjustments to the full study were discussed.

## CHAPTER IV

### RESULTS

The purpose of this study was to explore the relationship between anxiety and counseling self-efficacy and to consider the potential moderating effects of mindfulness and alexithymia. In this chapter, the results of the study are presented. Results include the demographics of the study sample, reliability coefficients of measures used, and the results of analyses for each research hypothesis.

#### Description of the Sample

Participants were recruited by contacting counselor educators at CACREP accredited counseling programs and requesting their permission to distribute surveys to pre-internship Master's level students. Counselor educators were asked to distribute surveys during class time to maximize participation. A total of eight counselor education programs across the country agreed to participate and were mailed survey packets with return postage. A power analysis indicated that 114 participants were needed in order for a detectable beta of .25 and power of .8 to be attainable when using a multiple regression with 5 predictors. One hundred and fifty eight surveys were returned. Five were eliminated because they did not indicate their training level and it was not possible to determine if they met the criteria of being pre-internship. One additional respondent was not included in analyses because one entire page of the survey was skipped. Therefore, a

total of 152 surveys were used for data analyses. Prior to beginning analyses, the accuracy of the data was assessed. Descriptive statistics of the responses were examined in order to assure that values entered in each field were valid. When invalid values were encountered (e.g., an 11 when the scale goes from 0-9), the hard copy of the data was retrieved and values corrected. A total of twenty five missing values were found across the entire data set, and no one participant skipped more than two questions. Missing values were replaced with the average scores for that participant on the given scale. Following scale developer's instructions, certain TAS-20 items and FFMQ items were reverse coded. Total scale scores for each scale and subscale were then computed. Procedures for computing interaction terms needed for testing moderation affects are described under hypothesis 4 later in this chapter.

Demographic data were collected including the age, sex, ethnicity, number of credit hours completed and number of internship hours completed. Additionally, participants were asked if they had a personal mindfulness practice or exposure to mindfulness training in their counseling training and if so to briefly describe those experiences. Demographics were calculated for the full sample and are summarized in Table 3.

Table 3

*Demographic Description of the Full Study Sample (N=152)*

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>n</b>	<b>%</b>
<b>Age</b>	28.07	8.47	152	100
<b>Credit Hours</b>	20.29	13.91	143	94.08
<b>Sex</b>				
Female			130	85.5
Male			21	13.8
No response			1	.7
<b>Ethnicity</b>				
African American/Black			15	10.1
Asian or Pacific Islander			4	2.7
Caucasian/White			110	73.8
Hispanic/Latino/a			13	8.7
Native American/American Indian			1	.7
Biracial/Multiracial			5	3.4
Other, Please specify:			1	.7
No response			3	2
<b>Personal mindfulness Practice</b>				
Yes			36	23.7
No			110	72.4
<b>Program exposure to mindfulness</b>				
Yes			37	24.3
No			90	59.2
Unsure			10	6.6
<b>Level of training</b>				
Master's level student- no internships completed			152	100
Master's level student- 300 hours or less of counseling internship completed			0	0
Master's level student 301-600 hours of internship completed			0	0
Master's level student- over 600 hours on counseling internship completed			0	0

All of the 152 participants were from CACREP accredited programs because only such students were recruited. The average age of participants was 28.07 ( $SD = 8.47$ ) and the modal age was 23. The average number of credit hours completed was 20.29 ( $SD = 13.91$ ). Thirty-six participants (23.7%) indicated they had a personal mindfulness practice, and 37 (24.3%) reported they had been exposed to mindfulness training within their counseling programs. Interestingly, a small subset of the sample ( $n = 10$ , 6.6%) were unsure if they had received training in mindfulness, suggesting that they may not have been familiar enough with the construct to know if they had received training. All 152 participants (100%) reported having no internship hours completed, which was part of the inclusion criteria.

The majority of participants identified as Caucasian ( $n=110$ , 73.8%). Smaller percentages self-identified as African-American ( $n=15$ , 10.1%), Asian or Pacific Islander ( $n=4$ , 2.7%), Hispanic/Lationo/a ( $n=13$ , 8.7%), and Biracial/Multiracial ( $n=5$ , 3.4%). Of the 152 participants, 21(13.8%) were male and 130 (85.5%) were female.

#### Descriptive Statistics for Instrumentation

First, descriptive statistics were used to determine how much variance existed in participants responses to study instruments and to assess the skewness and kurtosis of the distributions. In Table 4, the possible ranges and sample ranges at the item and scale level for the Trimodal Anxiety Questionnaire (TAQ), the Counselor Activity Self Efficacy Scales (CASES), the Toronto Alexithymia Scale (TAS-20) and the Five-Factor

Mindfulness Questionnaire (FFMQ) for the current study are listed. Means and standard deviations for total scores and subscales scores also are included.

The distributions of scores on the Trimodal Anxiety Questionnaire were positively skewed, with few respondents endorsing the highest levels of cognitive, somatic or behavioral anxiety, and there was no obvious kurtosis. There was no evidence of kurtosis in the distribution of scores on the CASES measure of counseling self-efficacy. Responses on the CASES were negatively skewed, however, with few respondents endorsing the lowest levels of counseling-self-efficacy. The distributions on the FFMQ total mindfulness scale and a couple of subscales (describe, nonjudge) were slightly negatively skewed and the non-judge scale also was platykurtic. The distribution of scores on the TAS-20 measure of alexithymia was positively skewed with few respondents endorsing higher levels of alexithymia (i.e., reporting high levels of difficulty identifying and describing their own emotions). Implications of these findings will be discussed in Chapter V.

Table 4

*Sample Score Ranges, Means, Standard Deviations, & Norms (N=152)*

<b>Instrument</b>	<b>Possible Range</b>	<b>Sample Range</b>	<b>Scale Mean</b>	<b>Scale SD</b>
<b>Trimodal Anxiety Questionnaire</b>				
Cognitive	0-88	1-77	32.54	16.05
Behavioral	0-72	0-53	20.63	11.25
Somatic	0-128	0-79	27.74	16.01
<b>TOTAL</b>	0-288	4-186	80.91	37.8
<b>Counselor Activity Self-Efficacy Scales</b>	0-369	74-335	220.49	56.59
<b>TOTAL</b>				
<b>Five-Facet Mindfulness Questionnaire</b>				
Observe	8-40	9-36	24.87	5.19
Describe	8-40	13-40	29.09	6.04
Act with awareness	7-40	8-40	26.36	5.26
Non-judge	8-40	12-40	27.88	6.79
Non-react	7-35	9-33	21.39	3.92
<b>TOTAL</b>	39-195	62-174	129.59	18.37
<b>Toronto Alexithymia Scale</b>				
<b>TOTAL</b>	20-100	20-65	39.68	9.46

Cronbach's  $\alpha$  was computed for each instrument in this study in order to assess the internal consistency of total scales and subscales. Table 5 below compares the coefficients obtained in the current study with published coefficients. All scales and subscales reached or exceeded acceptable alpha levels for social science research.

Table 5

*Instrument Scale Reliabilities\**

Instrument	Subscales	# of items	$\alpha$ in previous studies	$\alpha$ in current study
Twenty item Toronto Alexithymia Scale	Difficulty identifying feelings	7	.76-.81	.83
	Difficulty describing feelings	5	.70-.76	.70
	Externally oriented thinking	8	.53-.71	.58
	<b>Total</b>	20	.78-.86	<b>.81</b>
Counselor Activity Self-Efficacy Scales	Exploration skills	5	.79	.85
	Insight skills	6	.85	.87
	Action skills	4	.83	.82
	Session management	10	.94	.96
	Client distress	6	.94	.94
	Relationship conflict	10	.92	.93
	<b>Total</b>	369	.97	<b>.98</b>
Trimodal Anxiety Questionnaire	Somatic anxiety	16	.85-.93	<b>.89</b>
	Behavioral anxiety	11	.81-.91	<b>.86</b>
	Cognitive anxiety	9	.83-.92	<b>.91</b>
	<b>Total</b>	36	.94	<b>.95</b>
Five Facet Mindfulness Questionnaire	Observing	8	.83	<b>.77</b>
	Describing	8	.91	<b>.92</b>
	Acting with awareness	8	.87	<b>.85</b>
	Non judging	8	.87	<b>.92</b>
	Non reacting	7	.67-.75	<b>.76</b>
	<b>Total</b>	39	.92	<b>.91</b>

\*Bold indicates a level of the scale used for study analyses

### Research Questions and Hypotheses

The intention of this study was to examine the relationship between anxiety and counseling self-efficacy and the impact of alexithymia and mindfulness on that relationship. Accordingly, four research questions and nine hypotheses were examined. Results are provided below.

#### *Research Question 1/ Hypothesis 1a-c*

Research question one regarded the strength and direction of the relationships between anxiety, alexithymia and mindfulness and counseling self-efficacy. Results of these bivariate correlations are provided in Table 6. Scatter plots of bivariate correlations

also were reviewed to determine if outliers existed that could skew results. No clear outliers were identified and therefore no participants were eliminated based on scatterplot findings.

Hypothesis 1a suggested that there would be a statistically significant negative relationship between anxiety and counseling self-efficacy. To test this hypothesis, a Pearson Product Moment Correlation was used and the correlation found between anxiety and counseling self-efficacy was significant and in the anticipated direction ( $r = -.18, p < .01$ ). The direction and statistical significance of this finding supports hypothesis 1a. It should be noted, however, that the correlation is modest and may have limited practical significance. Further, this finding has implications for testing for moderation effects in later hypotheses 4a and 4b given that these hypotheses rest upon the assumption of a strong relationship between anxiety and counseling self-efficacy.

Hypothesis 1b suggested there would be a statistically significant positive relationship between mindfulness and counseling self-efficacy. A Person Product Moment Correlation was used to test this hypothesis and mindfulness was found to correlate positively with counseling self-efficacy ( $r = .42, p < .01$ ). Therefore, hypothesis 1b was supported with mindfulness accounting for approximately 16% of the variance in counseling self-efficacy.

Hypothesis 1c suggested that there would be a statistically significant negative relationship between alexithymia and counseling self-efficacy. A Pearson Product Moment Correlation was used to test this hypothesis and alexithymia was found to

correlate negatively with counseling self-efficacy ( $r = -.28, p < .01$ ), supporting hypothesis 1c. Similar to the above finding related to anxiety, this correlation is modest and may lack practical significance. Additional analyses revealed that mindfulness correlated negatively with anxiety ( $r = -.56, p < .01$ ) and that anxiety and alexithymia correlated positively ( $r = .47, p < .01$ ). Correlations of subscales used in subsequent analyses also are provided in Table 6.

Table 6

*Pearson Product Moment Correlations (N = 152)*

	Somatic Anxiety	Cognitive Anxiety	Behavioral Anxiety	Anxiety Total	Mindful: Observe	Mindful: Describe	Mindful: Act with Awareness	Mindful: Non judge	Mindful: Non react	Mindfulness Total	Alexithymia Total	Counseling Self-efficacy Total
Somatic Anxiety	<b>.89</b>	.63**	.61**	.87**	.14	.23**	-.34**	-.39**	-.16	-.31**	-.31**	-.04
Cognitive Anxiety	.70 <sup>b</sup>	<b>.91</b>	.68**	.89**	-.01	-.45**	-.58**	-.67**	-.40**	-.65**	.47**	-.21*
Behavioral Anxiety	.70	.77	<b>.86</b>	.84**	.01	-.49**	-.40**	-.46**	-.28**	-.50**	.47**	-.24**
Anxiety Total	.95	.95	.93	<b>.95</b>	.06	-.43**	-.51**	-.59**	-.32**	-.56**	.47**	-.18*
Mindful: Observe	.17	-.01	.01	.07	<b>.77</b>	.36**	.07	.11	.18*	.50**	-.30**	.36**
Mindful: Describe	-.25	-.49	-.55	-.46	.43	<b>.92</b>	.38**	.45**	.33**	.78**	-.70**	.38**
Mindful: Act with Awareness	-.39	-.66	-.47	-.57	.09	.43	<b>.85</b>	.48**	.24**	.66**	-.52**	.16*
Mindful: Non judge	-.43	-.73	-.52	-.63	.13	.49	.54	<b>.92</b>	.43**	.78**	-.45**	.22**
Mindful: Non react	-.19	-.48	-.35	-.38	.24	.39	.30	.51	<b>.76</b>	.60**	-.32**	.29**
Mindfulness Total	-.34	-.71	-.57	-.60	.60	.85	.75	.85	.72	<b>.91</b>	-.70**	.42**
Alexithymia Total	.37	.55	.56	.54	-.38	-.81	-.63	-.52	-.41	-.82	<b>.81</b>	-.28**
Counseling Self-efficacy Total	-.04	-.22	-.26	-.19	.41	.40	.18	.23	.34	.44	-.31	<b>.98</b>

test reliabilities are placed along the diagonal

disattenuated correlations are above the diagonal

correlations corrected for attenuation are below the diagonal

\* significant at  $p < .05$

\*\*significant at  $p < .01$

*Research Question 2/ Hypothesis 2a and b*

Research question two regarded whether different subscales of anxiety differentially impacted counseling self-efficacy. Hypothesis 2a proposed that all anxiety subscales would significantly predict counseling self-efficacy and hypothesis 2b proposed that cognitive anxiety would account for the most variance in counseling self-efficacy. A linear regression was used to test hypothesis 2a with the three subscales of anxiety entered as predictor variables using the Enter method (See Table 7). When all three subscales of anxiety were entered into the prediction equation, cognitive anxiety did not account for a significant proportion of the variance in counseling self-efficacy and, thus, hypothesis 1a was not supported. Together the three factors accounted for 7% of the variance in counseling self-efficacy, with somatic anxiety and behavioral anxiety accounting for significant portions of the variance ( $\beta = .22, t = 2.06, p < .05$ ) and ( $\beta = -.26, t = -2.31, p < .05$ ), respectively, although the predictors account for a limited amount of the variance in the criterion variable. As such, hypothesis 2b was not supported since cognitive anxiety did not account for a significant amount of variance in counseling self-efficacy, and accounted for less than either somatic or behavioral anxiety. Additionally, even when considering the total variance (7%) accounted for by the anxiety subscales using the enter method, 93% of the variance in counseling self-efficacy remains unexplained, suggesting that other variables that impact counseling self-efficacy may be important to consider. In further analyses, the three subscales of anxiety were found to be highly intercorrelated ( $r > .6$ ) suggesting that multicollinearity of the predictors was an issue.

Table 7

*Multiple Regression of Anxiety Subscales as Predictors of Counseling Self-Efficacy (N=152)*

Variable	Adj. R <sup>2</sup>	Se	Stand. β	t
Model summary	.07			
Somatic Anxiety		.38	.22	2.06*
Cognitive Anxiety		.41	-.17	-1.46
Behavioral Anxiety		.57	-.26	-2.31*

\* significant at the  $p < .05$

*Research Question 3/ Hypothesis 3a and b*

Research question three examined whether different facets of mindfulness would differentially relate to counseling self-efficacy. Hypothesis 3a proposed the five factors of mindfulness would account for a significant amount of the variance in counseling self-efficacy. In a multiple regression analysis using the Enter method, the five facets of mindfulness taken together accounted for a significant amount of the variance in counseling self-efficacy (20%), so hypothesis 3a was supported. It is noteworthy that the *act with awareness* and *non-judge* subscales did not uniquely account for significant portions of the variance.

Hypothesis 3b predicted that the factors of *nonjudge* and *nonreact* would emerge as the strongest predictors of counseling self-efficacy. This hypothesis was not supported as the *observe* and *describe* subscales accounted for the most variance ( $\beta = .24$ ,  $t = 3.04$ ,  $p < .01$ ) and ( $\beta = .23$ ,  $t = 2.60$ ,  $p < .01$ ), respectively (see Table 8). Because there have been few empirical inquiries into mindfulness facets as they predict counseling self-efficacy, a stepwise regression also was run in order to determine if a more parsimonious

model of prediction may exist. In this analysis, the *act with awareness* and *nonjudge* facets did not account for enough variance to be entered and the remaining facets (observe, describe, nonreact) alone accounted for slightly more of the variance in counseling self-efficacy (21% compared to 20%), see Table 9. These findings suggest that in this sample the facets of *act with awareness* and *nonjudge* do not make significant contributions to predicting counseling self-efficacy.

Table 8

*Multiple Regression (Enter Method) of Mindfulness Subscales as Predictors of Counseling Self-Efficacy (N=152)*

Variable	Adj. R <sup>2</sup>	Se	Stand. β	t
Model summary	.20			
Mindful Observe		.86	.24	3.04**
Mindful Describe		.84	.23	2.60**
Mindful Act with Awareness		.91	.01	.16
Mindful Nonjudge		.78	.02	.17
Mindful Nonreact		1.2	.16	.16*

\* significant at the p<.05

\*\* significant at the p<.01

Table 9

*Stepwise Regression of Mindfulness Subscales as Predictors of Counseling Self-Efficacy (N=152)*

Variable	Adj. R <sup>2</sup>	se	Stand. β	t
Mindful Observe	.14	52.48	.25	3.17**
Mindful Describe	.19	50.96	.38	5.06**
Mindful Nonreact	.21	50.34	.17	2.17**

\*\* significant at the p<.01

*Research Question 4/ Hypothesis 4a and b*

Research question four concerned itself with whether the relationship between anxiety and counseling self-efficacy would be moderated by levels of mindfulness or alexithymia. Hypothesis 4a proposed that mindfulness would emerge as a significant moderating variable between anxiety and counseling self-efficacy such that higher levels of mindfulness would significantly weaken the strength of the negative relationship between anxiety and counseling self-efficacy. Hypothesis 4b proposed that alexithymia would be a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of alexithymia would significantly strengthen the relationship between anxiety and self-efficacy. One of the underlying assumptions for testing a moderating model in both hypotheses was that there would be a strong correlation between anxiety and counseling self-efficacy. The correlation was modest ( $r = -.18$ ), however, and may have limited practical significance. Further, mindfulness and alexithymia were stronger correlates of counseling self-efficacy than was anxiety, suggesting that they are more direct predictors than moderators.

Given the above discussion, it was anticipated that moderating effects would not exist; however, the analyses were still conducted to test hypotheses 4a and 4b. A standard procedure for testing moderation is to first compute interaction terms to enter in to the regression equation (in this case computing the products of the total anxiety and mindfulness scales to produce a new anxiety X mindfulness variable, and computing the products of the anxiety and alexithymia scales to produce a new anxiety X alexithymia variable). However, Todman and Dugard (2007) discussed two limitations of this

approach including that a) multicollinearity is risked when a new variable is created by multiplying together two existing variables and b) the effect of one variable on the other (e.g., anxiety on mindfulness) would be tested against the value of zero for the other variable (e.g., the effect of mindfulness on anxiety would be tested for the extreme case in which the participant had *no* anxiety).

To correct for these problems they suggest using centering. Following their recommendation the anxiety, mindfulness, and alexithymia total scores were converted to Z-scores using the *save as standardized values* command in SPSS creating new Zanxiety, Zmindfulness, and Zalexithymia variables. These z-score variables were then used to compute the interaction terms, creating a Zanxiety X Zmindfulness term and a Zanxiety X Zalexithymia term. In this way, levels of mindfulness were tested in relation to participants with an *average* level of anxiety, and levels of alexithymia were tested in relation to participants with an *average* level of anxiety. An advantage of this approach is that multicollinearity is reduced because the IV (anxiety) and moderator (mindfulness) will not correlate as highly with the new interaction term. The moderator analyses for mindfulness and alexithymia as moderators are reported in Table 10 and Table 11, respectively.

The moderation hypothesis 4a was not supported since the Zanxiety X Zmindfulness interaction term was not a significant predictor of counseling self-efficacy ( $\beta = -.11, t = -1.46, p >.05$ ). Similarly, the moderation hypothesis 4b was not supported because the Zanxiety X Zalexithymia interaction term was not a significant predictor of counseling self-efficacy ( $\beta = .03, t = .33, p >.05$ ).

Table 10

*Multiple Regression Analysis of Anxiety, Mindfulness and ZAnxietyXMindfulness Predicting Counseling Self-Efficacy (N=152)*

<b>Variable</b>	<b>Adj. R<sup>2</sup></b>	<b>se</b>	<b>Stand. β</b>	<b>t</b>
Model summary	.17			
Anxiety		.14	.06	.62
Mindfulness		.28	.45	5.07**
ZAnxietyXMindfulness		4.29	-.11	-1.46

\* significant at the p<.05

\*\* significant at the p<.01

Table 11

*Multiple Regression Analysis of Anxiety, Alexithymia, and ZAnxietyXZAlexithymia Predicting Counseling Self-Efficacy (N=152)*

<b>Variable</b>	<b>Adj. R<sup>2</sup></b>	<b>se</b>	<b>Stand. β</b>	<b>t</b>
Model summary	.06			
Anxiety		.14	-.07	-.73
Alexithymia		.54	-.25	-2.8**
ZAnxietyXAlexithymia		4.11	.03	.33

\* significant at the p<.05

\*\* significant at the p<.01

### Summary

In this chapter, the results of the study were provided. Descriptions of the study sample and procedures for arriving at a sample of 152 were given. Descriptive statistics for the instrumentation were offered including scale ranges and reliabilities for the current sample. It was determined that all instrumentation used was reliable. The data analysis used for each hypothesis was described and results presented. Anxiety, mindfulness and alexithymia all related to counseling self-efficacy significantly and in

the expected directions, with mindfulness having the strongest relationship. Anxiety was found to account for a modest amount of the variance in counseling self-efficacy and the somatic and behavioral subscales contributed significantly though modestly. Mindfulness was found to account for a significant portion of the variance in counseling self-efficacy, and its' observe, describe and non-react scales contributed significantly to this variance. Mindfulness and alexithymia were not found to moderate the relationship between trainee anxiety and counseling self-efficacy but instead served as more direct predictors. In Chapter V, a discussion of the results of each hypothesis is provided, limitations are described, implications for counselor education and supervision are offered and directions for future research are proposed.

## CHAPTER V

### DISCUSSION

In Chapter IV, the results of the study exploring the relationships between anxiety and counseling self-efficacy and the moderating effects of mindfulness and alexithymia were described. In this chapter, a discussion of the results is offered, limitations of the study are noted, and implications for counselor education and supervision are suggested.

#### Overview of the Study

Counseling self-efficacy has been identified as one characteristic that serves to support students and professionals in coping with and persisting through the challenges of learning how to counsel (Larson & Daniels, 1998; Lent et al., 2003). Ultimately, counseling self-efficacy has been identified as one of the elements that predicts better counseling skills (Daniels, 1997; Larson et al., 1992) and, consequently, counselor educators and researchers have looked at ways to support the development of counselor self-efficacy among trainees (Barbee et al., 2003; Cashwell & Dooley, 2001; Daniels & Larson, 2001).

Anxiety has been shown to relate consistently and negatively to trainees' counseling self-efficacy (Alvarez, 1995; Daniels, 1997; Larson et al., 1992) and result in students performing counseling tasks less effectively (Daniels, 1997; Larson et al., 1992).

Consequently, it was determined that the identification of factors that might *exacerbate* trainee anxiety (e.g., alexithymia) or *alleviate* trainee anxiety (e.g., mindfulness) could be informative to counselor educators. Thus, the purpose of this study was to contribute to a greater understanding of the anxiety and counseling self-efficacy relationship and explore factors that may play an amplifying or protective role in how trainees experience anxiety and how this anxiety influences counseling self-efficacy.

This study was designed to explore the relationship between trainee anxiety and counseling self-efficacy and the potential moderating roles of mindfulness and alexithymia. Master's-level counseling students from eight geographically diverse CACREP accredited programs filled out a survey packet consisting of the Trimodal Anxiety Questionnaire, (TAQ; Lehrer & Woolfolk, 1982), the Five-Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006), the Toronto Alexithymia Scale (TAS-20; Bagby, Parker, & Taylor, 1994a), the Counselor Activity Self-Efficacy Scales (CASES; Lent et al., 2003), and a demographic questionnaire. A total of 152 surveys were used for data analyses.

Overall, the results of the statistical analyses supported that relationships between anxiety, alexithymia, mindfulness and counseling self-efficacy existed in the directions expected. The amount of variance in counseling self-efficacy explained by anxiety was modest, however, and neither mindfulness nor alexithymia emerged as moderators in that relationship. Rather, mindfulness and, to a lesser extent, alexithymia emerged as more

direct predictors of counseling self-efficacy, and the strongest relationship found between study variables was between mindfulness and alexithymia. Contrary to the hypothesis, somatic and behavioral anxiety accounted for more of the variance in counseling self-efficacy than did cognitive anxiety, and the three subscales of anxiety together accounted for a proportion of the variance that had statistical significance, but arguably not practical significance. Facets of mindfulness did combine to account for nearly 20% of the variance in counseling self-efficacy. More specifically, however, the mindfulness facets of *observe*, *describe* and *nonreact* facets accounted for the most variance and *nonjudge* did not emerge as a significant predictor. The results for each hypothesis are discussed below.

## Discussion of Results

### *Hypothesis 1a-c*

Hypothesis 1a suggested that there would be a statistically significant negative relationship between anxiety and counseling self-efficacy. This hypothesis was supported by the results as participants with higher levels of anxiety reported lower levels of counseling self-efficacy, although the relationship was modest and may lack practical significance. There are several possible ways to contextualize this finding. Social Learning Theorists suggest that several things come together to determine an individual's self-efficacy, including mastery experiences, vicarious experiences, verbal persuasion and emotional arousal (Bandura, 1977). Experiences of mastery was offered as the single strongest predictor of self-efficacy (Bandura) and it would be consistent with theory if other factors, including emotional arousal (in this case anxiety), would not solely account

for large amounts of the variance. That being said, in previous studies, the strength of the relationship between anxiety and counseling self-efficacy has varied from similarly modest relationships (e.g., Alvarez, 1995; Barbee et al., 2003) to more substantial relationships (e.g., Daniels, 1997; Larson et al., 1992). It may be that some of the previously researched elements that contribute to trainee anxiety such as being observed (Ellis et al., 2002), fearing lack of experience is obvious to clients (Bischoff & Barton, 2002), fear of working with culturally dissimilar clients (Gunter, 2002), are less salient to pre-internship trainees who may not be faced with these sources of anxiety.

Alternatively, the results may be somewhat a function of a relatively homogenous sample which lacked variance on both the anxiety and counseling self-efficacy measures, with high levels of anxiety and low levels of counseling self-efficacy under-represented. One possibility for this homogeneity is the mono-method bias. Both anxiety and counseling self-efficacy were measured using self-report measures. It is possible that social desirability influenced respondents to truncate reports of anxiety and exaggerate their counseling self-efficacy.

Additionally, the modest relationship between anxiety and counseling self-efficacy found in this study could be an artifact of the method of assessing these variables. In previous studies, researchers have used the State-Trait Anxiety Inventory Scale and the strongest relationships found were between trait anxiety and counseling self-efficacy (Larson et al., 1992). Although the Trimodal Anxiety Questionnaire was highly reliable with the current sample, framed to assess for trait anxiety, and correlated

highly with the STAI in previous research, it has not previously been used with counseling students and it may not adequately capture characteristics of anxious trainees that impact counseling self-efficacy. Further, by assessing trainees who are pre-internship, there is the possibility that they have not begun practicum, and are not currently seeing any clients. Although the CASES has been used to assess entry level trainees self-efficacy, the participants lack of experience may render their responses to counseling self-efficacy questions less valid, as they are anticipatory rather than functions of their current experiences. For example, (Fowler, 1995) cautions against relying on the validity of hypothetical assessments (e.g., how efficacious I *might* feel if I was working with a challenging client), and suggests that results become more valid as the experience gains salience, in this case when the participant is about to go into a session with a challenging client. Further, some researchers have suggested that anxiety and self-efficacy may fluctuate widely for beginning trainees (Borders & Brown, 2005). This adds an additional measurement challenge with regards to the temporal stability of the construct. Although a myriad of possible explanations exist, anxiety accounted for little of the variance in counseling self-efficacy in the current study.

In conclusion, questions remain about the relationship between anxiety and counseling self-efficacy among pre-internship trainees. If the results are an accurate representation of the relationship between anxiety and self-efficacy among a sample of pre-internship counseling trainees, there are clearly other factors that are more salient to the development of counseling self-efficacy. Alternatively, if the findings are an artifact

of methodological limitations of the current study, more research is needed to further clarify the relationship.

Hypothesis 1b suggested there would be a statistically significant positive relationship between mindfulness and counseling self-efficacy. This hypothesis was supported as participants who scored higher on a measure of mindfulness also tended to score higher on a measure of counseling self-efficacy. Mindfulness actually emerged as a stronger predictor of counseling self-efficacy than did anxiety, suggesting that mindfulness is more of a direct predictor of counseling self-efficacy than originally posited. The contribution of mindfulness to counseling self-efficacy is an important finding as this relationship has only been explored in one previous study to date (Bentley, 2008). The current findings support those of Bentley (2008) who also found mindfulness to account for a significant proportion of the variance in counseling self-efficacy. In fact, the results of the current study suggest that the relationship between mindfulness and counseling self-efficacy may even be stronger than suggested by Bentley (with mindfulness accounting for as much as 20% of the variance in the current study, compared to 12% in the previous study). Rather than moderating the relationship between anxiety and self-efficacy as hypothesized, it appears that elements of mindfulness may more directly contribute to self-efficacy. The elements that contribute the most strongly and how those are understood relative to counselor trainee self-efficacy are presented below in the discussion of hypothesis 3a and b. Additionally, the finding that mindfulness correlated negatively with anxiety in a sample of counseling trainees lays groundwork for

further exploration of whether mindfulness tools or training could reduce anxiety in trainees,.

Hypothesis 1c suggested that there would be a statistically significant negative relationship between alexithymia and counseling self-efficacy. This hypothesis was supported with participants who reported higher levels of alexithymia also reporting lower levels of counseling self-efficacy. Although this correlation was significant and in the direction expected, it was a modest correlation, suggesting that alexithymia does not account for much of the variance in counseling self-efficacy. One interpretation of this finding is that this is an accurate representation of the alexithymia/counseling self-efficacy relationship among pre-internship counselor trainees, and that not being able to identify and describe one's feelings does not strongly impede trainee's counseling self-efficacy. It may also be that individuals who self-select to pursue a counseling degree will naturally fall within a more truncated range on a scale of alexithymia (e.g., in this case producing a positively skewed distribution). Alternately, a scale of alexithymia may be subject to positivity bias in a sample of counselor trainees with respondents endorsing socially desirable responses.

It may be of value, however, to consider the relative, albeit modest, contribution of alexithymia to self-efficacy in this sample. That is, this finding is important in part because little empirical literature exists that explores the contributions of emotion-related factors and trainee self-efficacy. The current findings may contradict Wester's (2001) findings that restricted emotionality does not relate to lower self-efficacy, but it is

difficult to compare these findings because alexithymia was not the construct identified or measured in that study. The current findings seem to be more modest than Martin et al.'s (2004) findings related to the role of emotional factors on counseling self-efficacy. Martin et al. found that emotional intelligence subscales of *using emotions in problem solving*, and *identifying one's own emotions*, accounted for 36% of the variance in counseling self-efficacy, but again these results are difficult to compare to the current study due to differences in how constructs were defined and measured.

Further, as would be expected, skill-related variables (e.g., how well a trainee has mastered how to conduct an intake or manage client resistance) are clear and large contributors to how efficacious trainees are in executing those skills. What is less known, and one of the gaps the current study sought to fill was in what *additional and internal* skills (or in this case skills deficits) also relate to self-efficacy.

In fact, the literature has not pointed to emotional development being the sole or even the largest contributor to self-efficacy, but an important and less explored factor nonetheless. For example, qualitative research on *Master Therapists* (Jennings & Skovolt, 1999; Skovolt & Jennings, 2004) outlined a three-pronged stool of skills needed by counselors including cognitive, relational, and emotive skills suggesting that it would be expected that emotional skills are only one part of the picture. They highlighted that *Master Therapists* are able to remain steady amidst client's range of emotions, manage their own emotions, and make appropriate therapeutic decisions unimpeded by their own emotional needs. Being able to identify and describe one's own feelings (i.e., low

alexithymia) is arguably only one aspect of a larger set of emotional skills. For example, being able to identify and describe one's own feelings does not necessarily translate into empathic concern or ability to affirm or be comfortable with a client's strong feelings. That being said, alexithymia accounted for approximately 8% of the variance in counseling self-efficacy and warrants additional empirical attention, perhaps within the context of a broader set of emotional skills.

A repertoire in emotional skills may be more or less relevant contingent on the theoretical orientation of the counselor. Further, it may be tempting to dismiss emotional skills training within counselor education as something better relegated to the trainee's personal counseling, particularly when educators lack guidance with regards to *how* to address skills deficits. The strength of using existing constructs like alexithymia that have been extensively discussed with other populations, however, is that some of the groundwork of this "*how*" has already been articulated. For example, alexithymia researchers have already outlined ways to support individuals with emotional deficits including training in recognizing and labeling feelings, working to develop language of emotion (Taylor, 1987), targeting defenses against emotions (Hogan, 1995), and increasing tolerance of affect (Krystal, 1979) . Consequently, if a student scores high on alexithymia, the existing knowledge base can be used to inform educators how to address it in practice.

### *Hypothesis 2a and b*

Research question two regarded whether different subscales of anxiety differentially impacted counseling self-efficacy. Hypothesis 2a proposed that all anxiety subscales would significantly predict counseling self-efficacy and hypothesis 2b proposed that cognitive anxiety would account for the most variance in counseling self-efficacy. Neither hypothesis was supported. Cognitive anxiety did not account for a significant portion of the variance, let alone the largest portion of the variance. Instead, somatic and behavioral anxiety accounted for a modest but significant amount of the variance.

This finding was inconsistent with what was expected based on existing theory and research. Cognitive experiences such as focusing on negative aspects of performance and self-defeating thoughts have been associated with heightened anxiety and low estimates of personal efficacy (Bandura, 1977; Bandura, 1986a). In qualitative research, internal dialogues of trainees have been highlighted for their role in anxiety. For example, trainees' anxiety has been associated with their beliefs that they will do clients a disservice, that they are ill-equipped to help clients (Bischoff, 1997), that they will be perceived negatively by clients and that mistakes will meet disastrous outcomes (Bischoff & Barton, 2002). Previous quantitative studies have looked at negative thoughts as predictors of *anxiety* (e.g., Fuqua et al., 1986; Hiebert et al., 1998) rather than looking at cognitive anxiety as a predictor of *self-efficacy*. Additionally, there is no existing basis of comparison for assessing the viability of current findings related to the relative

contributions of the somatic, behavioral, and cognitive aspects of anxiety, as a trimodal measure of anxiety has not been previously used in predicting counseling self-efficacy.

Also, as was previously discussed in relation to hypothesis 1a, anxiety as an overall construct accounted for little of the variance in counseling self-efficacy. Together accounting for approximately 7% of the variance in counseling self-efficacy, the differential contributions of each of the subscales separately were even more modest and arguably lack practical significance. Several reasons for the low correlation between total anxiety and counseling self-efficacy have been discussed earlier in this chapter. Even if the overall relationship had been more robust, the separate subscales of anxiety were found to be highly intercorrelated ( $r > .6$ ), raising the specter of multicollinearity in the regression equations. It was also observed that the somatic subscale had a positive beta when entered into the regression equation, although it had a negative correlation with self-efficacy, suggesting it is a suppressor variable that correlates more highly with the residual variance left over from behavioral and cognitive anxiety facets than to the unexplained variance.

#### *Hypothesis 3a and b*

Hypothesis 3a suggested the five factors of mindfulness would account for a significant amount of the variance in counseling self-efficacy. This hypothesis was supported. This is consistent with previous theory (e.g., Fulton, 2005; Karash & Schaul, 2006; Mace, 2008) and research (e.g., Christopher & Christopher, 2008; Rothaupt & Morgan, 2007) that has pointed to the potential for mindfulness to be useful for

counselors. These findings support most directly the findings of Bentley (2008) who also found mindfulness to emerge as a predictor of counseling self-efficacy.

Hypothesis 3b predicted the factors of *nonjudge* and *nonreact* would emerge as the strongest predictors of counseling self-efficacy, but this hypothesis was not supported. The *observe* and *describe* factors were the strongest predictors followed by *nonreact*, all of which loaded into the stepwise equation as significant predictors of self-efficacy. *Act with awareness* and *nonjudge* did not contribute uniquely to participants counseling self-efficacy.

One way to consider these findings is to think about how the factors that emerged could be particularly salient for pre-internship counselor trainees. For example, *observe* emerged as the strongest predictor. The *observe* subscale includes items which assess individual's attention to or noticing of elements in their physical environment and internal experience (e.g., "*I pay attention to sensations, such as the wind in my hair or sun on my face,*" "*I pay attention to how my emotions affect my thoughts and behavior,*" "*I notice how foods and drinks affect my thoughts, bodily sensations, and emotions*"). Perhaps observing or noticing predicts higher self-efficacy because a level of observation or noticing underlies or precludes many of the other helping skills assessed on the CASES (i.e., in order to use immediacy, the trainee must first observe what is occurring in their relationship with the client, in order to listen to what the client is communicating the trainee must be observant of client non-verbals and tone in addition to the words he or she uses).

The describe subscale accounted for the next largest portion of the variance in counseling self-efficacy. Items in this subscale focus solely on assessing the individual's ability to translate internal experiences into words (e.g., "*My natural tendency is to put my experiences into words*", "*I can usually describe how I feel at the moment in considerable detail*", "*I am good at finding words to describe my feelings.*"). It is noteworthy that although this subscale is affectively oriented it still accounts for a significant portion of the variance on the CASES which is a more behaviorally and relationally oriented measure of counseling self-efficacy (i.e., it assesses confidence in executing skills and managing issues that emerge in the counseling relationship). This finding suggests that an ability to describe one's own emotional experiences contributes to confidence in executing skills and tasks that may not appear at face value to be dependent on an ability to describe one's feelings.

The *nonreact* subscale accounted for the next largest portion of the variance in counseling self-efficacy. *Nonreact* items assess whether individuals are able to notice experiences they are having without getting caught up in or reacting to them (e.g., "*I perceive my feelings and emotions without having to react to them*", "*in difficult situations, I can pause without immediately reacting*", "*when I have distressing thoughts of images, I just notice them and let them go*"). The importance of being non-reactive seems to support Jennings and Skovolt's (1999) and Skovolt and Jennings's (2004) findings with respect to *Master Therapists*. For example, they suggest *Master Therapists* are those who are able to remain steady amidst client's range of emotions, and be someone the client can steadily push against and still be accepted.

Contrary to expectations, the *nonjudge* subscale did not emerge as a significant predictor of counseling self-efficacy. This is inconsistent with what was theoretically expected. Self-efficacy expectations are described as our cognitive appraisal of our capabilities to perform a behavior (Bandura, 1977). It was hypothesized that, consistent with theory, if one's self-appraisals were judgmental or non-affirming, self-efficacy would also be lower. Further, given the some of the earlier research has focused on the role of negative self-talk on trainees self-efficacy (e.g., Bischoff, 1997; Bischoff & Barton, 2002; Fuqua et al., 1986; Hiebert et al., 1998), this factor was proposed to play an important role in predicting self-efficacy.

Alternatively, there may be measurement considerations. The items on the non-judge scale combine to assess one's self-judgment and are all reverse scored (e.g., "*I tell myself that I shouldn't be thinking the way I'm thinking*", "*I think some of my emotions are bad or inappropriate and I shouldn't feel them*"). The modest positive correlation with counseling self-efficacy may be in part because its distribution was negatively skewed (i.e., most participants reported high levels of nonjudgment) and platykurtic. Perhaps this is due to a bit of positivity bias since all items are reverse coded, a phenomenon which has been suggested to be undesirable in survey construction (Fowler, 1995). Although some limitations exist, these findings add some depth to the current literature base by beginning to point to elements of mindfulness that seem most salient to counseling self-efficacy.

*Hypothesis 4a and b*

Hypothesis 4a proposed that mindfulness would emerge as a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of mindfulness would significantly weaken the strength of the relationship between anxiety and counseling self-efficacy. Hypothesis 4b proposed that alexithymia would be a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of alexithymia would significantly strengthen the relationship between anxiety and self-efficacy. Neither hypothesis was supported by the results. Instead, results suggested that the relationships between both proposed moderators were stronger than the relationship between anxiety and counseling self-efficacy. This suggests that mindfulness may contribute to counseling self-efficacy in a more direct way than was originally hypothesized. That is, rather than serving a protective function to support self-efficacy through reducing the negative impact of trainee anxiety, mindfulness itself relates directly to counseling self-efficacy. Similarly, these results suggest that alexithymia may contribute directly to counseling self-efficacy rather than serving primarily a moderating function. This finding is important because it provides empirical evidence that can guide future research on the mechanisms of change at work in the relationships between anxiety, mindfulness, alexithymia, and counseling self-efficacy.

Overall, the results of this study raise questions about the relative impact of anxiety on counseling self-efficacy, and point to the need for more research to clarify why such a range of findings has been reported. Mindfulness and alexithymia related to self-efficacy in the expected directions and several mindfulness subscales emerged as

significant predictors of counseling self-efficacy. Somatic and behavioral anxiety accounted for variance in counseling self-efficacy, although cognitive anxiety did not. The hypotheses that mindfulness and alexithymia served as moderators in the anxiety, counseling self-efficacy relationship were not supported, but instead mindfulness, and to a lesser extent alexithymia may be more direct predictors of counseling self-efficacy. All of these results should be reviewed within the context of the limitations of the study.

### Limitations

The results of the current study can provide some insight into the relationships between anxiety, alexithymia, mindfulness and counseling self-efficacy. As with any study, these results need to be reviewed with respect to the limitations of its design and sample.

The sample obtained for this study came from CACREP accredited counseling programs across the country. Although geographically diverse, these programs were nonetheless a convenience sample rather than a randomized sample. Collecting data from a randomized sample is strongly preferred to convenience sampling in order to assure maximum variance across scales and to support generalizing claims to the broader target population. Students in programs selected may be in some ways different from students in non-selected programs, and results from a CACREP accredited programs can not be assumed to be applicable to other programs. The sample consisted of primarily female, Caucasian, traditionally-aged students and may not generalize to all students. Another limitation of the sample is that although all participants met study criteria by indicating

that they had the same level of training (<300 hours of internship completed), the range of credit hours completed was much wider than anticipated, suggesting that the training level or credit hour question may have been unclear and that a wider range of experience was included than initially intended. This limits the ability to generalize results of this study.

The study used survey methodology which has inherent limitations. Surveys rely on self-report, which in turn relies upon participant awareness and accurate reporting of experiences. In this study, surveys were distributed during counseling classes. Given this context, students may have assumed that study variables being assessed were related in some way to their skills as counselors. This frame may have occasioned positivity bias, with students responding in ways that they deemed to be socially acceptable, or desirable as counselors rather than reflecting their true experiences, and contributed to some of the truncated scale ranges that emerged.

Additionally, some have criticized the validity of using self-reports to assess something we lack (Waller & Scheidt, 2004). This becomes a limitation in the current study as participants were asked to self-report their lack of awareness of feelings on the alexithymia measure. Also, individuals' self-assessment of their levels of mindfulness and counseling self-efficacy have both been suggested to change over time and with experience which limits the temporal stability of these findings. For example, it has been suggested that the observe facet of mindfulness may be different for novice versus experienced mediators (Baer et al., 2006; 2008). Also, it has been suggested that trainee's

anxiety fluctuates across sessions, semesters, developmental levels and in relation to client difficulty (Borders & Brown, 2005). Further, there are limitations of requesting a self-report on counseling self-efficacy among pre-internship trainees who may or may not be seeing clients. That is, if students are not yet seeing clients or dealing with issues assessed by the CASES, they are reporting *how confident they anticipate they will be*, which could differ from their true experience if faced with that situation.

An additional limitation in the current study is the approach used to measure emotional skills deficits. Although a rationale was presented as to why alexithymic characteristics could exacerbate anxiety and interfere with counseling self-efficacy, it could rightly be argued that having lower alexithymic tendencies does not directly translate into having a solid emotional repertoire, or one robust enough to support being a strong counselor. This possibility is discussed in more detail in the *Recommendations for Future Research* section below.

### Implications

The anxiety and counseling self-efficacy relationship was weaker in this study than reported in previous studies. Somatic and behavioral anxiety subscales contributed significantly, but modestly to the prediction of self-efficacy. Mindfulness and alexithymia did not emerge as moderators in the relationship between anxiety and counseling self-efficacy relationship, but both had a more direct relationship with counseling self-efficacy. Several of the facets of mindfulness did emerge as notable contributors to

counseling self-efficacy. Results also point to the role of awareness and expression of emotions on counseling self-efficacy.

### *Counselor Education and Supervision*

It has been suggested that certain *supervisor behaviors*, such as the nature of the feedback given (Clarke, 2006; Daniels, 1997; Daniels & Larson, 2001), the type of supervision intervention used (Crutchfield & Borders, 1997), as well as efforts to induct supervisees into their roles (Shanklin, 1995) and match their developmental needs (Murray et al., 2003; Stoltenberg, 2008), can support supervisee counseling self-efficacy, but less guidance has been provided with regard to what internal supervisee skills could support their development as counselors and their self-efficacy. Further, it has been well documented that execution of skills and theory contribute less to the effectiveness of therapy than the *person of the therapist*. So although it is clear there is more to being an effective counselor than skills, little guidance has been offered to help educators and supervisors know how to support this development in trainees. Although, more research is needed, the findings of this study do offer some preliminary guidance in this area.

First, mindfulness emerged as a predictor of counseling self-efficacy. The facets of mindfulness that emerged as predictors of self-efficacy encompass some of the more abstract skill sets that are desirable for counselor trainee's to develop, namely an ability to be observant, an ability to describe internal experiences in words, and an ability to be non-reactive. These elements taken together seem to speak to *being present*, or *holding space*, abstract qualities that contribute to the therapeutic environment. Since mindfulness is developable, mindfulness training is one avenue that could support the development of

these skills in trainees. Mindfulness programs and training curriculums already exist, further supporting the inclusion of mindfulness within counselor training. For example, mindfulness training could be incorporated within skills or techniques courses, or within practicum or internship supervision. In the event that resources within a counseling department limit the inclusion of mindfulness (e.g., current faculty unfamiliar with mindfulness practices, curricular time constraints), university or community resources may also be available to support these efforts such as staff of campus wellness centers, or partnerships with local yoga instructors or meditators.

Second, alexithymia related modestly but negatively with counseling self-efficacy. Being able to name and describe feelings and to rely more on internal than external sources of feedback is one piece of a larger emotional skills repertoire that could support trainees. Counselor educators could look to approaches within the alexithymia literature that have been effective in supporting these skills including; training in recognizing and labeling feelings and working to develop language of emotion (Taylor, 1987), targeting defenses against emotions (Hogan, 1995), and increasing tolerance of affect (Krystal, 1979) and incorporate this kind of skills training alongside microskills training to support the overall repertoire of trainees.

#### Future Research

One use of the current findings is to look to how they may provide guidance future research. Possible research directions to follow up on finding are offered below.

First, anxiety and counseling self-efficacy were found to be more modestly related than in previous studies. Future studies may wish to re-examine this relationship using multiple measures of anxiety (e.g., the TAQ with the STAI) and counseling self-efficacy (e.g., the CASES and the COSE) to determine if differences found were attributable to the use of slightly different constructs and measurement. Also, it may be useful to choose to administer the instruments during a more salient experience that could increase anxiety and challenge self-efficacy (e.g., right before the trainee is to see a practicum client), and thereby remove some of the anticipatory or hypothetical reporting and more accurately assess how these variables interact. It is possible that if more variance is captured, earlier findings could be replicated, and that enough variance would be present to make more meaningful interpretations of findings on anxiety subscales. Also a multi-method of assessment may be necessary to account for social desirability bias. That is, in addition to using self-report, studies which involve outside raters assessments of trainees could enrich the knowledge base in this area. Alternatively, a self-report measure of counseling self-efficacy that is non-Likert based (e.g., situational judgment based), could better assure students are responding to the same response frame.

Secondly, mindfulness emerged as a predictor of counseling self-efficacy. While this provides some initial evidence of the potential contribution of mindfulness to counseling training, ultimately one desired outcome is to improve both trainees ability to navigate the changing conditions that are present in training and practice. A more direct exploration of how mindfulness relates to such variables could add to the literature. This

could take the form of an intervention study in which some trainees are trained in mindfulness and some are not and then both groups are exposed to a “challenging” condition (e.g., supervisor direct observation, supervisor negative feedback, role play with a challenging client), and then assessed with regards to if the condition differentially impacted their efficacy (i.e., would the students trained in mindfulness recover better?), and in their in-session performance (i.e., would the mindful students be more receptive to feedback or less reactive to a client?).

Third, alexithymia related negatively to counseling self-efficacy, and a mindfulness subscale related to describing ones emotions related positively to counseling self-efficacy. Together these findings suggest that further exploration of the impact of trainee’s emotional skills as it impacts them as developing counselors is warranted. Since this is a new construct to explore within counselor education and supervision, replication of the current findings might be the first step. If grounded in findings, intervention studies could be developed wherein some trainees receive training specifically focused on development of their emotional vocabulary and expression, and the impact of this explored with relation to their anxiety and counseling self-efficacy.

Fourth, research on *Master Therapists* outlines emotional skill as one of the three cornerstones of counseling, but how to prepare trainees to be adept in this area is still unclear, as does how to measure this type of competence. Although measures of emotional skills exist, such as those that measure emotional intelligence, this construct is not grounded in this *Master Therapist* research, nor does it necessarily outline the unique

set of skills that is necessary in the counseling relationship. Future research could seek to create a measure that more clearly assesses counseling emotional competence.

Development of such a measure could further concretize the construct and provide a useful tool for future research on whether certain personal characteristics, educational or supervision experiences best support its development.

Finally, mindfulness correlated negatively with both anxiety and alexithymia. These findings are purely correlational, but may point to future research on whether mindfulness is one tool that could be supportive of trainees who present as anxious in class, practicum or internship, or with trainees who present as alexithymic. A qualitative study on the experiences of trainees undergoing mindfulness practice while also experiencing practicum or internship could inform how mindfulness is working and ground further study.

### Conclusion

The current study provided an exploration of the anxiety and counseling self-efficacy relationship with attention to the potential moderating effects of mindfulness and alexithymia. Survey methodology was used and a sample of one hundred and fifty two pre-internship counseling trainees was obtained. Data were analyzed and results for each hypothesis presented. A smaller relationship than expected was found between anxiety and counseling self-efficacy and this was discussed as it related to existing literature, theory and within the measurement and other limitations of the current study. Somatic and behavioral subscales of anxiety emerged as significant although modest predictors.

This finding also was discussed within the context of the small overall anxiety, counseling self-efficacy relationship.

Mindfulness and alexithymia were found to relate to counseling self-efficacy in expected directions, and these findings were discussed. Although non-react and non-judge were predicted to be the strongest predictors of counseling self-efficacy, the mindfulness factors of observe and describe emerged as the two strongest factors. These findings were discussed in the context of the existing body of theory and research. Mindfulness and alexithymia did not emerge as moderators of counseling self-efficacy but appear to have more of a direct effect on counseling self-efficacy, although this moderating model was also subject to the confines of a relatively weak anxiety, counseling self-efficacy relationship. The limitations of the study were discussed as were implications for counselor education and supervision.

This study points to the need for more research on the anxiety counseling self-efficacy relationship. It also highlights the contributions of an observant, descriptive, non-reactive stance on counseling self-efficacy. This study also points to the need for more exploration of emotionally-oriented constructs as they impact trainee self-efficacy. Qualitative inquiries that capture trainees' experiences of mindful training on their experiences as developing counselors and intervention studies that isolate the impact of mindfulness and alexithymia on both trainee efficacy and other performance-related efficacy variables are needed to enrich understanding of these constructs. Although many questions remain unanswered, it appears that mindfulness and emotional expressiveness are variables that may be important to consider in counselor education.

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APPENDIX A:  
INSTRUCTIONS AND CONSENT FORMS

	Page
Invitation to Participate .....	169
Consent to Act as a Human Participant (Long Form).....	170

*Invitation to Participate*

Oral recruitment script:

You are invited to participate in a study conducted by Craig S. Cashwell and Karen E. Hall from the University of North Carolina at Greensboro. This study constitutes research and is being conducted in order to learn more about Master's Students in Counseling. In order to participate you need to be 18yrs. or older and enrolled in a Master's program in Counseling. If you are interested in participating you will be given a consent form to read which includes more information about the study. If you choose to give consent you will be given a packet of paper and pencil measures that will take approximately 20 minutes to complete. You may choose not to participate without penalty and will be given a break from class. No compensation will be given for participation in this study, but you are invited to participate in a drawing for a \$10 gift certificate to Target if you choose. If you have questions now or any time during the study you can contact Karen Hall at (336) 334-5112 or Craig S. Cashwell at [cscashwe@uncg.edu](mailto:cscashwe@uncg.edu) or (336) 334-3427. The consent forms will now be distributed. **BE SURE TO PRINT YOUR NAME ON THE FIRST PAGE AND SIGN IT ON THE SECOND PAGE IF YOU CHOOSE TO PARTICIPATE.**

**UNIVERSITY OF NORTH CAROLINA AT GREENSBORO**  
**CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM**

Project Title: Anxiety and counseling self-efficacy among counseling students: The Moderating role of mindfulness and alexithymia.

Project Director: Craig S. Cashwell, Ph.D., LPC, NCC, ACS

Participant's Printed Name:

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**DESCRIPTION AND EXPLANATION OF PROCEDURES**

The purpose of this study is to examine the experiences of Master's students enrolled in CACREP accredited counseling programs. You are being invited to participate because you are a master's student enrolled in a CACREP accredited counselor preparation program.

If you agree to be in this study you will be asked to complete a packet of paper and pencil measures. Data will be collected during class time and will take approximately 20 minutes.

**RISKS AND DISCOMFORTS:**

There are no known risks associated with participating in this study, however, some questions on the surveys are personal in nature. You are invited to ask questions of the researcher after reading this consent form. Should any of these questions raise personal concerns that you would like to discuss further, you can contact your university's counseling center.

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect your in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state.

If you have any concerns about your rights or how you are being treated please contact Eric Allen in the Office of Research and Compliance at UNCG at (336) 256-1482. Questions about this project or your benefits or risks associated with being in this study can be answered by Craig S. Cashwell by calling (336) 334-3427.

**POTENTIAL BENEFITS:**

Completing these forms may help you reflect and may increase your self-awareness about your internal experiences as they relate to your confidence in executing counseling skills. Further, information gained from this study may inform changes to counselor preparation.

There are no costs to you or payments made for participating in this study. You may choose to have your name entered into a drawing for a \$10 Target gift card.

**CONFIDENTIALITY:**

All information obtained in this study is strictly confidential unless disclosure is required by law. The information packet will be coded so that no information will be on the survey that identifies you as a participant in this study.

The data from your survey will be stored by the student researcher in a locked file cabinet. Initially the locked file will be stored in her on-campus office and moved to her off-campus office after graduation. The data will be kept for 5 years after the data collection is complete. After this time the survey packets will be shredded and any hard archived data will be deleted from computer systems and flash disks.

**CHANGES IN THE STUDY**

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

**VOLUNTARY CONSENT:**

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, or have the individual specified above as a participant participate, in this study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

APPENDIX B:  
INSTRUMENT PERMISSIONS, DEMOGRAPHIC FORM

	Page
Permission to use Trimodal Anxiety Questionnaire .....	173
Permission to use Toronto Alexithymia Scale.....	174
Permission to use Five Facet Mindfulness Questionnaire .....	175
Permission to use Counselor Activity Self Efficacy Scale .....	176
Demographic Questionnaire .....	177

### Permission to use- TAQ- Anxiety Measure

---

Karen Hall-Renn <khallrenn@gmail.com>

Sun, Nov 9, 2008 at 6:34 PM

To: lehrer@umdnj.edu

Dr. Lehrer,

I am writing to request permission to use the Trimodal Anxiety Questionnaire in my dissertation study related to counseling students anxiety and counseling self-efficacy. Please advise me if I have your permission and if there are any costs related to using the measure.

Thank you,

Karen Hall-Renn, MS, LPC

Doctoral Student

UNC-Greensboro

---

Paul Lehrer <lehrer@umdnj.edu>

Sun, Nov 9, 2008 at 8:36 PM

To: Karen Hall-Renn <khallrenn@gmail.com>

You have permission. No costs are involved

Please reply to: [lehrer@umdnj.edu](mailto:lehrer@umdnj.edu)

Paul Lehrer, PhD

Professor of Psychiatry

UMDNJ -- Robert Wood Johnson Medical School

Piscataway, NJ USA

## Permission to use- TAS-20 Alexithymia Measure

---

Graeme Taylor <[graeme.taylor@utoronto.ca](mailto:graeme.taylor@utoronto.ca)>

Fri, Sep 19, 2008 at 7:50 PM

To: kehall3@uncg.edu

Dear Karen:

Thank you for payment of the copyright fee of US\$40. for the TAS-20. The package is attached in a Word file.

Best regards,

Graeme J. Taylor, MD  
Professor of Psychiatry  
University of Toronto  
email: [graeme.taylor@utoronto.ca](mailto:graeme.taylor@utoronto.ca)  
[www.gtaylorpsychiatry.org](http://www.gtaylorpsychiatry.org)

## Permission to use FFMQ - Mindfulness Measure

---

Karen Hall <kehall3@uncg.edu>

Wed, Sep 3, 2008 at 2:18 PM

To: rbaer@email.uky.edu

Dr. Baer,

I am writing to request permission to use your FFMQ in my dissertation research on counseling student anxiety, mindfulness and counseling self-efficacy. Thank you in advance for considering my request and for your work in this area of research.

Sincerely,

Karen Hall-Renn

--

Karen E. Hall-Renn, MS, NCC, Board Eligible  
Doctoral Student  
Department of Counseling and Educational Development  
The University of North Carolina at Greensboro  
228 Curry Building, PO Box 26170  
Greensboro, NC 27402-6170

---

Baer, Ruth <rbaer@email.uky.edu>

Thu, Sep 4, 2008 at 9:52 AM

To: Karen Hall <kehall3@uncg.edu>

Dear Karen,

You're welcome to use the FFMQ and I've attached some materials and papers that may be helpful.

Ruth

Ruth A. Baer, PhD

Professor of Psychology

Department of Psychology

115 Kastle Hall

University of Kentucky

Lexington, KY 40506-0044

phone: 859-257-6841

fax: 859-323-1979

email: [rbaer@email.uky.edu](mailto:rbaer@email.uky.edu)

## Permission to use CASES- Counseling Self-Efficacy Measure

Dear Colleague:

Thanks for your interest in the CASES scales, a copy of which can be found on the following pages. Part I are the Helping Skills self-efficacy scales; Part II = Session Management self-efficacy; Part III = Counseling Challenges self-efficacy. Item content for specific scales and scoring information can be found in Lent, Hill, and Hoffman (2003, *Journal of Counseling Psychology*, 50, 97-108).

You are welcomed to use the CASES. If you do so, we would appreciate hearing about your research findings or clinical/supervision experiences with them. They were designed primarily for research purposes, but they may prove useful in the supervision context as well. Bear in mind that they should still be considered as “under construction,” psychometrically speaking. While our initial findings were promising, further study of the factor structure, reliability, and validity of the scales is certainly warranted.

If you intend to use them in a training or supervision context, please remember that their intent is to tap students’ perceptions of their own counseling capabilities – they should not be seen as objective measures of how well students are functioning in counseling. As self-report measures, they could also be affected by self-presentation biases, especially if students feel that their self-efficacy ratings could influence their supervisor’s or course instructor’s evaluations of them (e.g., in determining course grades).

With these important caveats in mind, we think the CASES could be used profitably in a collaborative, developmental way with students – for instance, in helping them to think about their current strengths and growing edges, and in focusing them (and supervisors) on particular skill areas that warrant further development. A comparison of student’s self-ratings with the supervisor’s ratings could be a very useful discussion tool, as could a pre-post assessment of the student’s self-ratings (but, once again, not for evaluative purposes).

One last thing: the rating scale for the CASES uses a scannable font type called “OMR bubbles.” To use this font, you will need to load the attached font file onto your computer. Otherwise, you can convert the current rating format into a more conventional option (e.g., “circle the number that best reflects your response to each question”).

Good luck in your research and supervision work!

Bob Lent

### Demographic Questionnaire

Directions: Please circle or fill in the appropriate information for each question. The information collected on this questionnaire is for data analysis purposes only. Your responses will in no way be used to identify you as an individual.

Age: \_\_\_\_\_

Number of credit hours *completed* in your program to date: \_\_\_\_\_

Sex: \_\_\_\_\_ Male \_\_\_\_\_ Female

Ethnicity: \_\_\_\_\_ African American/Black  
 \_\_\_\_\_ Asian or Pacific Islander  
 \_\_\_\_\_ Caucasian/White  
 \_\_\_\_\_ Hispanic/Latino/a  
 \_\_\_\_\_ Native American/American Indian  
 \_\_\_\_\_ Biracial/Multiracial  
 \_\_\_\_\_ Other, Please specify: \_\_\_\_\_

Do you currently have a mindfulness practice?

Yes \_\_\_\_\_ NO \_\_\_\_\_

If yes please specify the type of practice and frequency of your practice:

\_\_\_\_\_

\_\_\_\_\_

Does your counseling program include mindfulness training?

Yes \_\_\_\_\_ NO \_\_\_\_\_

If yes please describe how mindfulness is incorporated:

\_\_\_\_\_

\_\_\_\_\_

Level of training:

\_\_\_\_\_ Master's level student- no internships completed

\_\_\_\_\_ Master's level student- 300 hours or less of counseling internship completed

\_\_\_\_\_ Master's level student- 301-600 hours of internship completed

\_\_\_\_\_ Master's level student- over 600 hours of counseling internship completed

APPENDIX C:  
PILOT STUDY METHOD AND RESULTS

	Page
Pilot Study .....	179
Research Questions and Hypotheses .....	179
Participants.....	181
Instrumentation .....	181
Procedures.....	181
Data Analysis and Overview of Results .....	182
Table 12- Demographic Description of the Pilot Study Sample.....	184
Table 13- Pilot Study Instrument Descriptive Statistics.....	185
Table 14- Pilot Study Pearson Product-Moment Correlations .....	185
Table 14- Pilot Study Pearson Product-Moment Correlations .....	185
Table 15- Multiple Regression of Anxiety Subscales as Predictors of Counseling Self-Efficacy .....	186
Table 16- Multiple Regression of Mindfulness Subscales as Predictors of Counseling Self-Efficacy .....	186

## Pilot Study

### *Research Questions and Hypotheses*

The primary purpose of the pilot study was to test procedures and instructions for clarity. Additionally, the research questions articulated for the full study were analyzed using pilot data. The intention was to analyze pilot data by research question in order to test data analysis procedures, and to create and test a database intended to be used for the full study. Although the sample size is inadequate to draw conclusions from this data, the research questions and results are offered below.

Research Question 1: What are the bivariate relationships between anxiety, mindfulness, alexithymia and counseling self-efficacy?

Hypothesis 1a: There will be a statistically significant negative relationship between anxiety and counseling self-efficacy.

Hypothesis 1b: There will be a statistically significant positive relationship between mindfulness and counseling self-efficacy.

Hypothesis 1c: There will be a statistically significant negative relationship between alexithymia and counseling self-efficacy.

Research Question 2: Which of the three anxiety subscales (cognitive, behavioral, and somatic) will be the best predictor of counseling self-efficacy?

Hypothesis 2a: All anxiety subscales will be significant predictors of counseling self-efficacy.

Hypothesis 2b: Cognitive anxiety will account for the most variance in counseling self-efficacy.

Research Question 3: What proportion of the variance in counseling self-efficacy can be accounted for by the five facets of mindfulness (observe, describe, act with awareness, nonjudge, nonreact) in a multiple regression analysis?

Hypothesis 3a: The five factors of mindfulness will account for a significant amount of the variance in counseling self-efficacy.

Hypothesis 3b: The factors of *nonjudge* and *nonreact* will be the strongest predictors of counseling self-efficacy.

Research Question 4: What are the relationships between anxiety, mindfulness, alexithymia and counseling self-efficacy within a path model that specifies a relationship between anxiety and self-efficacy moderated by mindfulness and alexithymia?

Hypothesis 4a: Mindfulness will be a significant moderating variable between anxiety and counseling self-efficacy such that higher levels of mindfulness will significantly weaken the strength of the relationship between anxiety and counseling self-efficacy.

Hypothesis 4b: Alexithymia will be a significant moderating variable between anxiety and counseling self-efficacy, such that higher levels of alexithymia will significantly strengthen the relationship between anxiety and self-efficacy.

### *Participants*

Participants were 12 master's-level counseling students with no internship experience at a medium-size public university in the Southeast. Class time was allotted for participants to complete the assessments. All participants were female. Additional demographic information is located in Table 3.

### *Instrumentation*

Participants completed a packet of assessments including the Trimodal Anxiety Questionnaire (TAQ), the Five Facet Mindfulness Questionnaire (FFMQ), the Toronto Alexithymia Scale twenty item version (TAS-20), and the Counselor Activity Self-Efficacy Scales (CASES). Additionally, participants responded to a demographic questionnaire and two questions requesting feedback about their experiences with filling out the assessment packet.

### *Procedures*

A request to complete the study was submitted to and approved by the University of North Carolina at Greensboro's Human Subjects Review Board. After approval was secured, two professors within a counseling department were contacted and times were secured to distribute surveys during class time. The researcher read the approved "Invitation to Participate" script including participation criteria to students and distributed consent forms and assessment packets to interested participants. The assessment packets were completed in 15-20 minutes.

### *Data Analysis and Overview of Results*

Frequencies were computed for demographic questions. The results of these preliminary analyses are presented in Table 3. Chronbach's  $\alpha$  were computed to assess the reliability of each of the instruments and subscales when applicable and this information is provided in Table 4. Qualitative feedback on the procedures and instructions was solicited and is summarized in Chapter III. Each hypothesis and results are outlined below.

*Hypothesis 1a-c.* To test hypotheses 1a-c regarding the strength and direction of the relationships between anxiety, alexithymia and mindfulness and counseling self-efficacy, Pearson Product-Moment Correlation Coefficients were computed and the results are reported in Table 5. None of the correlations were significant, likely due to the small sample size.

*Hypothesis 2a and 2b.* To test hypothesis 2a and 2b, that all anxiety subscales will be significant predictors of counseling self-efficacy and cognitive anxiety will account for the most variance in counseling self-efficacy, a multiple regression was used. None of the anxiety subscales were significant predictors of counseling self-efficacy, perhaps due to the small sample size for the pilot study. Results are presented in Table 6.

*Hypothesis 3a and 3b.* To test hypothesis 3a, b, that the five factors of mindfulness will account for a significant amount of the variance in counseling

self-efficacy and that *nonjudge* and *nonreact* would account for the most variance a multiple regression was used. None of the mindfulness subscales were significant predictors of counseling self-efficacy, again likely an artifact of the small sample. Results of this regression analysis are presented in Table 7.

*Hypothesis 4a and 4b.* In order to test for the moderating effects of alexithymia and mindfulness on the anxiety/counseling self-efficacy relationship, a significant relationship first needs to exist between anxiety and counseling self-efficacy. Since a significant relationship was not present the moderating effects were not tested.

Table 12

*Demographic Description of the Pilot Study Sample (N=12)*

<b>Variable</b>	<b>Mean/Mode</b>	<b>n</b>	<b>%</b>
<b>Age</b>	M=25.33; Mode=22	12	100
<b>Sex</b>			
Female		12	100
Male		0	0
No response		0	0
<b>Race</b>			
African American/Black		2	16.7
Asian or Pacific Islander		1	8.3
Caucasian/White		9	75
Hispanic/Latino/a		0	0
Native American/American Indian		0	0
Biracial/Multiracial		0	0
Other, Please specify:		0	0
No response		0	0
<b>Level of training</b>			
Master's level student- no internships completed		12	100
Master's level student- 300 hours or less of counseling internship completed		0	0
Master's level student 301-600 hours of internship completed		0	0
Master's level student- over 600 hours on counseling internship completed		0	0

Table 13

*Pilot Study Instrument Descriptive Statistics (N=12)*

<b>Instrument</b>	<b>M</b>	<b>SD</b>	<b><math>\alpha</math></b>	<b># of Items</b>
Trimodal Anxiety Questionnaire	91.42	36.27	.96	36
Somatic anxiety subscale	29.33	15.19	.93	16
Cognitive anxiety subscale	38.17	16.22	.95	11
Behavioral anxiety subscale	23.92	10.65	.90	9
Five Facet Mindfulness Questionnaire				
Observe	122.67	9.63	.69	39
Describe	26.33	2.81	.30	8
Act with awareness	24.75	4.03	.78	8
Non judge	26.58	4.10	.78	8
Non react	25.33	6.21	.92	8
	19.67	3.65	.74	7
Toronto Alexithymia Scale	43.59	7.88	.74	20
Counselor Activity Self-Efficacy Scale	191.20	42.84	.95	41

Table 14

*Pilot Study Pearson Product-Moment Correlations (N=12)*

<b>Variable</b>	<b>Anxiety</b>	<b>Mindfulness</b>	<b>Alexithymia</b>	<b>Counseling Self Efficacy</b>
Anxiety	-			
Mindfulness	-.26	-		
Alexithymia	.57	-.02	-	
Counseling Self Efficacy	-.06	.08	.29	-

\* significant at the  $p < .01$

Table 15

*Multiple Regression of Anxiety Subscales as Predictors of Counseling Self-Efficacy (N=12)*

<b>Variable</b>	<b>Adj. R<sup>2</sup></b>	<b>se</b>	<b>Stand. β</b>	<b>t</b>
Model summary	.103			
Somatic Anxiety		1.174	.583	1.399
Cognitive Anxiety		1.172	-.153	-.344
Behavioral Anxiety		1.406	-.581	-1.663

\* significant at the p<.01

Table 16

*Multiple Regression of Mindfulness Subscales as Predictors of Counseling Self-Efficacy (N=12)*

<b>Variable</b>	<b>Adj. R<sup>2</sup></b>	<b>se</b>	<b>Stand. β</b>	<b>t</b>
Model summary	-.114			
Mindful Observe		7.377	-.172	-.356
Mindful Describe		6.919	-.174	-.268
Mindful Act with Awareness		4.411	-.182	-.432
Mindful Nonjudge		3.059	.524	1.181
Mindful Nonreact		7.303	-.171	-.274

\* significant at the p<.01