A Structural Model Examining Predictors of Lesbian, Gay, and Bisexual Counseling Self-Efficacy Beliefs

A Dissertation Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

By

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Abstract

Counselors and counselors-in-training are expected to provide affirmative and competent counseling services to lesbian, gay, and bisexual (LGB) clients. Counseling self-efficacy, a construct based on the tenets of social cognitive theory, is a useful framework to assess counselors’ perceptions regarding their competencies in providing such services. To date, little is known about factors that may either enhance or inhibit counselors’ LGB counseling self-efficacy beliefs.

In the present investigation, structural equation modeling (SEM) was employed to test two conceptually derived models consisting of predictors of counselor trainees’ LGB counseling self-efficacy beliefs. For the first model, trainees’ LGB focused personal, clinical, and training experiences, sexual identity exploration and commitment, attitudes towards LGB persons, and levels of lesbian and gay (LG) threat were examined in order to determine their levels of influence on counselor trainees’ LGB counseling self-efficacy. The second model was a mimic model that tested whether counselor trainees’ sexual orientation identities moderated the other variables’ influences on LGB counseling self-efficacy. The second model also examined differences in self-efficacy beliefs between heterosexual and non-heterosexual participants.

These models were tested on 406 counselors-in-training who were recruited via the Internet. Using Structural Equation Modeling analyses it was found that LGB attitudes and LG threat both significantly and partially mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy such that, for trainees’ with positive attitudes and lower LG threat, more experiences predicted higher LGB
counseling self-efficacy. Sexual identity exploration and commitment, however, did not predict LGB counseling self-efficacy.

The mimic model indicated that counselor trainees’ sexual orientation identities were a significant predictor of LGB counseling self-efficacy. It was also discovered that trainees’ experiences and LG threat remained significant predictors of self-efficacy while LGB attitudes did not. Finally, it was found that non-heterosexual trainees endorsed higher efficacy as compared to heterosexual trainees. A post-hoc analysis was conducted to determine whether sexual identity exploration and sexual identity commitment differentially impacted LGB counseling self-efficacy. Results suggested that sexual identity exploration fully mediated the relationship between counselor trainees’ experiences and self-efficacy. Yet, sexual identity commitment did not significantly impact self-efficacy.

The findings from this investigation reveal the importance of counselor training and clinical experience on LGB counseling self-efficacy, as well as the importance of exploring barriers on LGB counseling self-efficacy. This study’s strengths, limitations, contribution to research, training, and practice are discussed, as are suggestions for future research.
Chapter I

Introduction

Counselors-in-training have an ethical obligation to maintain competence in their work with their clients. Both the American Psychological Association’s (APA, 2010) *Ethical Principles and Code of Conduct* and the American Counseling Association’s (ACA, 2005) *Code of Ethics* require counselors and trainees to work within their boundaries of competence and to maintain competence by seeking opportunities for continued education and training. Given the crucial role that competence plays in the professional lives of counselor trainees, it is important to understand how such competences develop. It, therefore, remains important to enquire about how trainees become competent in providing counseling services to their clients, and about what factors play a crucial role in predicting these competencies. Social cognitive theory (SCT, Bandura, 1977, 1986, 1989, 1997), with its emphasis on self-efficacy, provides a clear theoretical rationale for how professional counseling competencies develop. The purpose of the present study was to examine two competing structural models of predictors and mediators of counselor trainees’ affirmative lesbian, gay, and bisexual (LGB) counseling self-efficacy beliefs. The models investigated were a fully mediated model and a mimic model. Predictors included in the model were, counseling related LGB training experience, experience with LGB persons, and sexual identity
exploration and commitment; mediators included attitudes towards LGB persons and lesbian/gay (LG) threat and counselors’ sexual orientation (i.e., for the mimic model only). Structural equation modeling was used to examine these relationships.

In this chapter, a rationale is offered for why it is necessary to prepare counselor trainees to work competently and affirmatively with LGB identifying clients. First, reasons for why LGB clients, in particular, are in need of affirmative counseling services is provided followed by an argument for how these needs differ from the needs of heterosexual clients. Second, a review of the literature that has beckoned the need for counselor training programs to adequately prepare trainees to work with LGB clients is given. Next, the concepts of social cognitive theory and self-efficacy are introduced, along with a rationale for why self-efficacy is an important variable to evaluate in order to understand LGB counseling competences. Following this discussion, additional variables that are purported to predict LGB counseling self-efficacy are introduced. Finally, explanations for why this study is important and how it will provide an important contribution to the counseling field is provided.

**Clarification of Terms**

Participants in the present study were trainees’ pursuing either masters or doctoral level degrees in community counseling, clinical mental health counseling, school counseling, rehabilitation counseling, couple and family counseling, counselor education, counseling psychology, clinical psychology, school psychology and social work. For the sake of brevity, the term counselor trainees will be used to address the present study’s participants. In addition, the terms LGB, sexual minorities, and non-heterosexuals will be used interchangeably when referring to persons who identify as LGB.
LGB Mental Health Needs

In order to recognize the need for increased attention towards training competent and affirmative counselor trainees’ working with LGB clients, it is important to understand why the LGB community is in particular need of counseling services. LGB clients present to counseling with concerns that often differ from those of their heterosexual counterparts. For instance, numerous studies have indicated that social stigma, anti-LGB discrimination, and lack of social support places LGB persons at risk for certain types of psychological disorders (Bradford, Ryan, & Rothblum, 1994; Cochran, 2001; Cochran, Keenan, Schober, & Mays, 2000; Cochran & Mays, 2000; Cochran, Sullivan, & Mays, 2003; Gilman, et al., 2001; Hershberger & D’Augelli, 1995; Mays, & Cochran, 2001; Meyer, 2003). For example, LGB persons are at higher risk than heterosexual persons for substance abuse disorders, anxiety disorders, depressive disorders and suicide (Cochran, et al., 2000; Cochran & Mays, 2000; Gilman et al., 2001). In addition, LGB persons often face a number of other unique concerns. These include issues with “coming out”, identity concerns, and relationship difficulties that may differ from those of their heterosexual counterparts (Perez, DeBord, & Bieschke, 2000).

A further indication of the different counseling needs of LGB clients, as opposed to heterosexual clients, is demonstrated in Meyer’s (2003) meta-analysis of the prevalence rates of mental disorders between LGB people and heterosexual people. In his analysis, Meyer reviewed 35 studies that compared the prevalence rates of overall distress, depressive disorders, anxiety disorders, and/or substance use disorders between LGB and heterosexual participants. His results indicated that LGB participants were about two and a half times more likely to have had a mental disorder over their lifetime,
experiencing higher lifetime prevalence rates of mood disorders, anxiety disorders, and substance use disorders compared to heterosexual participants. These results indicate that the LGB population is in need of affirmative and competent counseling services to help them work through their psychological concerns.

It is important to have a conceptual understanding of Meyer’s (2003) findings regarding the higher prevalence rates of mental disorders among LGB people. Consistent with APA’s position that, “Homosexuality, per se, implies no impairment in judgment, stability, reliability, or general social or vocational capabilities” (Conger, 1975; p. 633), and empirical evidence showing that LGB people are as psychologically well adjusted as heterosexuals (Hooker, 1957), Meyer made it clear that his findings regarding higher prevalence rates of mental disorders among LGB people did not imply that being LGB in itself was indicative of having a mental disorder. Instead, Meyer provided a conceptual framework describing the impact minority stress has on LGB people and how it leads to higher prevalence rates. Meyer defined minority stress as, “the excess stress to which individuals from stigmatized social categories are exposed as a result of their social, often a minority, position” (p. 675). He explained that LGB people experience minority stress because of the existence of institutional intolerance perpetuated by a heterosexist society. For instance, Meyer explained that LGB peoples’ experiences with stigma (i.e., the extent to which they experience discrimination and rejection), level of concealment (i.e., not disclosing to others that one is LGB due to fear of discrimination and rejection), and level of internalized homophobia (i.e., homophobic social attitudes that LGB people internalize) largely contribute to the existence of minority stress, which then causes higher prevalence rates of psychological disorders among LGB people.
Several researchers have supported Meyer’s assertions. For example, a recent study by Rostosky, Riggle, Horne, and Miller (2009) indicated that LGB participants who lived in States that, in 2006, passed legislation prohibiting same-sex couples from entering into legal marriages, experienced higher levels of depressive symptoms, higher levels of negative affect, and higher levels of stress, compared to LGB people who lived in States where such legislation did not pass, and in States where same-sex marriages were legalized.

Moradi (2009) investigated the impact of the recently repealed (Stolberg, 2010) U.S. Military’s Don’t Ask, Don’t Tell, Don’t Pursue Policy (i.e., a federal policy that prohibited LGB military service members from disclosing their sexual orientations) on LGB military veterans. She (2009) discovered that higher levels of sexual orientation concealment and higher levels of sexual orientation based harassment towards LGB military veterans predicted lower levels of social-cohesion and task-cohesion in their professional military based relationships, thus illustrating the potentially caustic effects of this legislation on LGB military personnel’s professional and social relationships.

The role of parental acceptance towards a child’s LGB identity may lead to the experience of minority stressors in adulthood. Mohr and Fassinger (2003) discovered that LGB participants who reported having negative representations of childhood attachment experiences with parents, and who did not receive parental support for their LGB orientations, were more prone to have anxious and avoidant attachment styles. These avoidant attachment styles negatively affected their perceptions of their sexual orientation identities and increased their levels of identity concealment.
Also, minority stress factors have been found to negatively impact LGB people’s quality of partner relationships. For instance, Frost and Meyer (2009) found that for LGB participants, internalized homophobia was associated with greater relationship dissatisfaction, and this association was mediated by increased levels of depression. Furthermore, Frost and Meyer found that the presence of internalized homophobia predicted a decrease in perceived LGB community connectedness and an increase in levels of concealment.

Finally, minority stress factors may have even more deleterious effects on LGB racial/ethnic minorities. In a study on the impact of African American LGB people’s levels of internalized racism and internalized homophobia on self-esteem and levels of psychological distress, Szymanski and Gupta (2009) found that both internalized racism and internalized homophobia negatively impacted self-esteem, and internalized homophobia predicted greater levels of psychological distress.

Taken together, these studies suggest that hostile sociopolitical environments, institutional discrimination, and a non-accepting family and peer environment can cause greater levels of distress among LGB people. It stands to reason, therefore, that LGB people are in dire need of resources and services that will help them to (a) cope with minority stressors and (b) reduce their levels of psychological distress. Preparing counselors-in-training to provide such resources and services may help alleviate these problems.

The Need for Affirmative Training and Practice

Nearly all psychotherapists and counselors will see at least one LGB client during their professional careers (Garnets, Hancock, Cochran, Goodchilds, & Peplau, 1991). In
addition, several researchers have indicated that LGB persons seek counseling services in greater numbers than heterosexual people (Cochran et al., 2000; Cochran & Mays, 2000; Cochran, et al., 2003; Liddle, 1997; Morgan, 1992). Yet, for the past several years, reports have concluded that counselor trainees are not adequately prepared to work with LGB clients (Buhrke & Douce, 1991; Phillips & Fischer, 1998), and in some cases, counselor trainees were found to exhibit negative attitudes towards LGB clients (Barrett & McWhirter, 2002). This is despite the fact that for several decades APA has encouraged, “all mental health professionals to take the lead in removing the stigma of mental illness that has long been associated with homosexual orientations” (Conger, 1975, p. 633).

Several authors have argued for the need to increase attention towards LGB issues in counseling training programs (Bieschke, Eberz, Bard, & Croteau, 1998; Buhrke, 1989a; Buhrke, 1989b; Buhrke & Douce, 1991; Croteau, Bieschke, Phillips, & Lark, 1998; Phillips & Fischer, 1998). In response to this need, the APA Division 44/Joint Task Force on Guidelines for Psychotherapy with Lesbian, Gay, and Bisexual Clients published a list of sixteen guidelines to inform psychologists and psychologists-in-training on ways to provide competent psychotherapeutic services to LGB clients (APA, 2000). These guidelines were divided into four sections; (a) Attitudes Towards Homosexuality and Bisexuality; (b) Relationships and Family; (c) Issues of Diversity; and (d) Education. The last section encouraged psychologists and psychologists-in-training to obtain accurate and updated information on LGB issues in psychotherapy. Furthermore, faculty members, supervisors, and consultants were strongly encouraged to train their students in these areas. Another guideline, pertaining to education, encouraged
psychologists to further their education and training in LGB issues beyond their graduate school education. The taskforce members cited the APA Ethical Principles and Code of Conduct in regards to psychologists’ need to maintain competence as a supporting argument for this guideline. Also in regards to education, psychologists and psychologists-in-training were encouraged to become knowledgeable about LGB related community resources as a means of helping LGB clients and their families to gain social support.

Despite the educational guidelines, only a handful of research studies have pointed to several pitfalls in regards to training programs preparing counselor trainees to work with LGB clients. Pilkington and Cantor (1996) surveyed graduate student members of APA’s Division 44 (Society for the Psychological Study of Lesbian, Gay, and Bisexual Issues) regarding their perceptions of heterosexual bias in professional psychology programs. They found that 53% of students identified heterosexually biased passages in college textbooks and 58% of respondents reported that an instructor made a heterosexually biased or offensive statement during class. They also found that 31% of students reported that they were discouraged from pursuing LGB related research topics.

While Pilkington and Cantor (1996) only surveyed student members of APA’s Division 44, other studies have relied on a more representative sample of counseling graduate students when examining perceptions regarding LGB training issues. Phillips and Fischer (1998) randomly selected 25 counseling psychology and 25 clinical psychology doctoral training programs and requested the chairs of these programs to select 6 graduate students, in their final year of training, to participate in their study which investigated the students’ experiences with LGB issues in their training programs.
The authors received responses from 108 students. Phillips and Fischer found that a majority of doctoral students believed that they were not adequately trained to work with LGB clients prior to internship, and that they felt least prepared to work with bisexual clients as compared to lesbian and gay clients. Their findings also indicated that, while roughly one-half of the students reported that LGB issues were often integrated into one or more of their courses, only 15% of students’ programs offered special courses on LGB issues in counseling and psychotherapy.

Since the publication of Phillips and Fischer’s (1998) study, a more recent study by Sherry, Whilde, and Patton (2005) shows a few optimistic trends in counseling and clinical psychology programs’ commitment to LGB training. Their findings indicated that the majority of programs covered LGB issues in their multicultural courses (71.4%), addressed LGB issues in practicum and supervision experiences (94.3%), and had graduate students’ exposed to LGB clients during their practicum experiences (89.5%). However, Sherry et al. (2005) reported that only 25% of academic programs had at least one faculty member interested in LGB related issues. Furthermore, only 17% of training directors indicated that their programs assessed for students’ LGB counseling competencies by the end of their training experiences, and only 3% used reliable and valid assessments to measure students’ LGB counseling competencies.

In summary, LGB persons may be at higher risk for certain psychological disorders than heterosexual persons because of stigmatization they experience in relation to their minority statuses. Therefore, affirmative counselor trainees who are knowledgeable about the needs of LGB clients are crucial assets to the counseling profession. Nevertheless, many counselors-in-training may not be adequately prepared to
meet the clinical needs of LGB clients, and training programs do not seem to be doing enough to ensure trainees’ preparation for this. The next section will introduce the concepts of social cognitive theory and counseling self-efficacy (counseling self-efficacy) in some detail, and illustrate their importance for assessing counseling graduate students’ affirmative LGB-counseling self-efficacy.

**Social Cognitive Theory and Self-Efficacy**

Developing LGB affirmative counseling competencies should be informed by theory and research (Bieschke, Eberz, Bard & Croteau, 1998; Dillon & Worthington, 2003). Bandura’s (1986, 1989, 1997) social cognitive theory along with its corresponding concept, self-efficacy, provides a parsimonious foundation for understanding how counselors’ increase their skills and competencies. Bandura explained that social cognitive theory conceptualizes individuals as both active agents who use their cognitive, emotive, and motivational processes to produce actions and control their environment, and as recipients of influences impacted by actions and the environment.

Bandura (1986) defined self-efficacy as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (p. 391). Bandura argued that knowledge alone is not sufficient to help an individual successfully execute a particular task. Individuals must also believe in their capabilities to successfully execute such tasks. The development of self-efficacy beliefs is contingent upon four sources: performance accomplishments (e.g., demonstrating success at a specific task), vicarious modeling (e.g., observing someone else successfully complete a specific task), verbal persuasion (e.g., constructive feedback on a specific task,
from a supervisor), and affective arousal (e.g., feeling anxious before completing a specific task). Any of these sources may serve to increase or decrease self-efficacy. For example, if an individual failed at a specific task in the past, this will likely decrease her or his self-efficacy in that given task and in turn may negatively impact her or his future performance of that task. The remainder of this section will describe the application of social cognitive theory and self-efficacy to counselors.

**The Social Cognitive Model of Counselor Training**

Larson (1998) provided a conceptual framework that applied several of the tenets of social cognitive theory to counselors’ skills development. In doing so, she developed what she termed the Social Cognitive Model of Counselor Training (SCMCT), which described how counseling skills developed with the presence of self-efficacy beliefs, in addition to the contributions of a complex range of cognitive, affective, motivational, and contextual factors. In her model, Larson applied Bandura’s (1986) concept of triadic reciprocal causation; a concept which explains how personal agency, actions, and the environment have bidirectional influence over each other. In doing so, she illustrated how counselors’ behaviors, personal characteristics, and their learning environments impacted professional development. She explained that seven counseling related personal agency variables (i.e., counseling-related skills and knowledge, counseling self-efficacy, outcome expectations, supervision and counseling goals and plans, cognitive processes, affective processing, and self-evaluation), and two counseling related actions (i.e., effective actions in supervision, and effective actions in counseling) interact with each other to determine successful counseling related outcomes (e.g., a session where a client has increased insight).
Of the personal agency variables listed above, Larson (1998) wrote most extensively about counseling self-efficacy, which she defined as “one’s beliefs or judgments about one’s capabilities to effectively counsel a client in the near future” (p. 231). Larson indicated that counseling self-efficacy is an important predictor of future successful counseling actions. Furthermore, Larson stated that counseling self-efficacy is impacted by the four sources of self-efficacy described above. In the current study, counseling self-efficacy, as it relates to counselor trainees’ beliefs in successfully and affirmatively counseling LGB clients, will be the primary personal agency variable of interest.

Larson (1998) explained that contextual variables, such as the environmental climate in which counseling and supervision take place and the stable characteristics (e.g., race, gender, sexual orientation, aptitude, personality, attitudes) of the counselor, supervisor, and client all impact both personal agency and actions. She explained that contextual variables and stable characteristics may sometimes act as barriers to self-agency and action. For example, a novice counselor trainee is seeing her first gay (i.e., stable client characteristic) client, and while she feels confident (i.e., counseling self-efficacy) counseling (i.e., action) many clients, she has never worked with a client who openly identified as gay. Furthermore, she has never received any training related to LGB issues in counseling (i.e., contextual variables) and none of her supervisors have expressed interests in LGB related issues in counseling (i.e., actions). Furthermore, this counselor holds some negative attitudes (i.e., counselor trainee characteristic) towards LGB persons. Given all of these factors, the counselor does not feel prepared to effectively work with this client (i.e., counseling self-efficacy) and does not have high
expectations for positive therapeutic outcome when working with this client (i.e., outcome expectations). As one can see from this example, there are a number of variables that can impact both a counselor trainees’ counseling self-efficacy and her or his performance.

In conclusion, the principles of counseling self-efficacy can provide a theoretically based, parsimonious way to study LGB counseling competencies. Larson’s SCMCT provides a sound theoretical framework for understanding how personal agency, actions, and the environment interact in a way to create conditions for counselor trainees’ development. Furthermore, she describes how barriers serve to impede counselor’s self-efficacy and diminish their skills development. In the sections that follow, potential barriers of counseling self-efficacy when working with LGB clients will be introduced.

**Attitudes**

Attitudes are defined as “a general and enduring positive or negative feeling about some person, object, or issue” (Petty & Cacioppo, 1996, p. 7). Researchers have typically consented that attitudes are generally stable and difficult to change (c.f., Augoustina, Walker, & Donaghue, 2006). The stability of attitudes fits with Larson’s (1998) conceptualization of how a counselor trainees’ stable characteristics might impact her or his counseling self-efficacy beliefs and her or his counseling performance when working with a particular client. Consistent with this premise, research has shown that counselors’ attitudes towards LGB persons impact both clinical judgments and the outcome of counseling sessions (Mohr, Israel, & Sedlacek, 2001). Furthermore, to date, only one study shows that attitudes towards LGB persons impact LGB counseling self-
efficacy (Dillon & Worthington, 2003). This study will add further support for Larson’s
SCMCT in addition to Dillon & Worthington’s research findings.

**Sexual Identity Exploration and Commitment**

Worthington, Navarro, Savoy, and Hampton (2008) introduced the concept of
sexual identity exploration and commitment, broadly defining it as a person’s exploration
of her or his core values, beliefs, needs, and roles in regards to her or his sexual identity.
Worthington et al. developed a model of sexual identity exploration and commitment
informed by the literature on ego-identity (Erikson, 1956; Marcia, 1966), lesbian and gay
identity (Cass, 1979; Fassinger & Miller, 1996; McCarn & Fassinger, 1996; Troiden
1989), bisexual identity (Klein, 1993; Weinrich & Klein, 2003; Weinberg, Williams, &
Pryor, 1994), and heterosexual identity (Worthington, Savoy, Dillon, & Vernaglia, 2002).
A factor analysis on response to a self-report instrument measuring sexual identity
exploration and commitment revealed four distinct factors: Exploration, which is a
process whereby individuals actively seek out their sexual values and needs, and are
willing to experiment with new sexual activities; Commitment, which is the extent to
which a person has a clear sense of her or his sexual values, and needs; Sexual
Orientation Identity Uncertainty, which relates to an individual having either a clear or an
unclear sense of her or his sexual orientation identity (e.g., identifying as lesbian, gay,
heterosexual, bisexual etc.); and Synthesis/Integration, which is the process whereby an
individual experiences congruence between her or his sexual values, needs, activities,
modes of sexual expression, and sexual orientation.

Previous findings have indicated that counselors’ sexual identity exploration and
commitment significantly predicted LGB-counseling self-efficacy (Dillon, Worthington,
Soth-McNett, & Schwartz, 2008). Furthermore, based on concepts from Larson’s SCMCT model, it stands to reason that counselor trainees in training environments whose instructors and supervisors do not encourage exploration of self-awareness around a trainee’s sexual values and needs will be less aware of how these factors impact their clinical work. Similarly, multicultural counseling scholars have stressed the importance of a counselor’s self-awareness regarding her or his own cultural identity and the impact this has on working with a client who represents a culture that differs from that of the counselor (c.f., Sue, Arredondo, & McDavis, 1992). The same can be said for exploring one’s sexual identity. Also, it seems likely that a counselors’ lack of exploration of issues concerning her or his own sexual identity will increase anxiety levels when issues of sexuality arise with clients in counseling sessions, and this anxiety will likely lead to a decrease in overall LGB-counseling self-efficacy.

Lesbian and Gay Threat

The concept of threat, as it will be described in this study, is conceptualized from Kelly’s (1955a, 1955b) theory of personal constructs. LG threat can broadly be defined as the extent to which a person feels threatened by the notion of being LG. Research has indicated that higher levels of LG threat is associated with higher levels negative attitudes towards LG persons (Moradi, van den Berg, & Epting, 2006). LG threat is another concept that seems to fit well into the SCMCT model. Similar to attitudes, the experience of LG threat may be conceptualized as a relatively stable construct that will have a negative impact on LGB-counseling self-efficacy. Furthermore, the experience of threat, in general, is an affective one, similar to the experience of anxiety (Kelly, 1955).
As mentioned above, affective arousal is a major source of self-efficacy, and in regards to negative affect, will decrease self-efficacy beliefs.

**Sexual Orientation**

Sexual orientation is defined as, “an enduring pattern of attraction, behavior, emotion, identity, and social contacts” (APA, 2010, p. 74). Previous research findings have indicated that LGB identifying counselors’ and counselor trainees’ score higher on LGB-counseling self-efficacy than heterosexually identifying counselors and counselor trainees’ (Dillon & Worthington, 2003; Dillon, et al., 2008). This in part may be due to heterosexually identifying counselors and counselor trainees generally not thinking about their sexual orientation and not considering it an important relevant part of their identity, and that being heterosexual is simply a universally accepted societal norm (Eliason, 1995; Worthington, Savoy, Dillon, & Vernaglia, 2002). Based on the tenets of the SCMCT (Larson, 1998) model, a counselor trainee’s sexual orientation is a stable characteristic that will likely have an influence on her or his levels of LGB-counseling self-efficacy.

**LGB Related Experiences**

Research suggests that counseling focused LGB training experiences predicts higher LGB-counseling self-efficacy (Dillon & Worthington, 2003; Dillon et al., 2008; Haag, 2008; Korfhage, 2008). In addition, counseling LGB clients has been associated with greater counseling self-efficacy. Similarly, this study seeks to support these previous findings by examining the relationships between previous LGB counseling experiences, LGB training experiences, the number of LGB identifying friends, family and counselors’ levels of LGB-counseling self-efficacy. From the SCMCT framework,
these experiences can be conceptualized as contextual factors that influence counseling self-efficacy levels.

In summary, a variety of variables may act as catalysts and barriers to counseling self-efficacy. Counselor trainees who express negative attitudes towards LGB persons will likely experience greater difficulty providing affirmative counseling services. In addition, trainees who have a clearer self-awareness of their sexual needs and values will likely have greater counseling self-efficacy than counselors who do not possess this self-awareness. Counselors’ who experience LG threat may also experience deficiencies in their counseling self-efficacy.

**Importance of the Study**

In the current study, SEM was employed to examine a model of the interrelationship of counselors’ sexual orientations, LGB related clinical experience, counseling related LGB training experience, sexual identity exploration and commitment, attitudes towards LGB persons, and LG threat and their effect on LGB-counseling self-efficacy. Examining the influence of these variables on LGB affirmative counseling self-efficacy is important for several reasons. First, several studies suggest that counseling self-efficacy, in general, is an important predictor of counselor performance (c.f., Larson & Daniels, 1998). Thus, increasing counselors’ counseling self-efficacy is necessary to ensure competent practices. Second, more research on LGB-counseling self-efficacy will have important implications for training and supervision. For instance, understanding predictors of LGB-counseling self-efficacy beliefs can inform clinical supervisors about issues on which to focus in supervision. For example, if greater sexual identity exploration and commitment is associated with higher LGB-counseling self-efficacy,
supervisors may find it beneficial to encourage supervisees to explore their own sexual needs and values as a means of increasing the impact that this has on their counseling self-efficacy. Similarly, if negative LGB attitudes lead to lower LGB-counseling self-efficacy, then it will be beneficial for supervisors to challenge such attitudes in an effective manner in order to change them.

This study has research implications as well. A better understanding of the impact attitudes, LG threat, and sexual identity exploration and commitment have on LGB-counseling self-efficacy beliefs may stimulate further research on these barriers, the relative influence they have on LGB-counseling self-efficacy, and how to reduce them. Thus, researchers may benefit from understanding ways of manipulating attitudes towards LGB persons in order to decrease anti-LGB attitudes that act as a barrier to LGB-counseling self-efficacy.

Summary

Given the mental health service needs of sexual minority clients, it is crucial for counselor trainees to be knowledgeable and competent in affirmative LGB counseling practices. Larson’s SCMCT model, which is derived from Bandura’s (1977, 1986, 1989, 1997) social cognitive theory, provides a parsimonious theoretical framework to study counselor-trainees’ affirmative counseling competencies. Understanding barriers that could impede counselor trainee development is a key component to this theory. The purpose of this study was to examine the impact these barriers have on LGB-counseling self-efficacy. Specifically, the interrelationship between LGB specific training experience and counseling experience, anti-LGB attitudes, LG threat, and sexual identity
exploration and commitment and LGB-counseling self-efficacy were examined using SEM relying on Larson’s SCMCT model of counselor training.
Chapter II

Review of the Literature

The purpose of this chapter is to review the literature on the primary variables in the study. This chapter includes a review of the empirical and conceptual literature on counseling self-efficacy, including the literature on counseling self-efficacy and its relation to LGB counseling competencies. Also included is a summary of the research literature regarding this study’s predictor variables and their relationship to counseling self-efficacy. Following the review will be a critical examination of a select group of studies that closely relate to the focus of the current study. In addition, a discussion of how the current study contributes to the research, training, and practice of will be presented. Finally, the theoretical foundation of the study and its research hypotheses will be provided.

Self-Efficacy

Bandura (1977, 1986, 1989, 1997) introduced the concept of self-efficacy, which he upheld as a major component to his social cognitive theory. Bandura defined self-efficacy as “a judgment of one’s ability to organize and execute given types of performances” (Bandura, 1997, p. 21). Bandura indicated that four causal sources determined the strength of a person’s self-efficacy beliefs. These four sources were performance accomplishments, vicarious learning experiences, verbal persuasion, and affective arousal.
Bandura (1997) regarded performance accomplishments as the most important predictor of self-efficacy, “because they provide the most authentic evidence of whether one can muster whatever it takes to succeed” (p. 80). Thus, past successes or failures will likely influence individuals’ appraisal of future performances. Performance accomplishments are a person’s sense of honing resources that will help her or him succeed in a particular task. Such resources may include preexisting knowledge regarding previous successes or failures, understanding ways of overcoming obstacles in the face of a difficult task, and the level of effort one is able to expend to successfully complete a task.

While important, Bandura (1997) indicated that people did not rely on performance accomplishments as their sole source of self-efficacy beliefs. He also regarded vicarious learning experiences as important. Vicarious learning experiences are situations where self-efficacy beliefs are impacted by persons observing other individuals successfully performing a specific and usually difficult task. In this instance, the person performing the task acts as a model for the observer. Bandura argued that vicarious learning is most influential when the observers perceive the model as being similar to them in terms of skill level or status.

While verbal persuasion alone may not greatly make enduring changes to self-efficacy, its role is no less important (Bandura, 1997). Verbal persuasion is the act of a significant person, such as a coach or a supervisor, influencing self-efficacy beliefs by providing encouragement or constructive feedback. Bandura warned that verbal persuasion is only helpful in enhancing self-efficacy and performance when the task at hand is deemed realistic and manageable. Therefore, feedback from a supervisor should
not be exaggerated because such feedback would likely inflate self-efficacy beliefs beyond skill sets that are realistically obtainable.

Finally, affective arousal which is the internal physiological arousal, fear, anxiety, or excitement an individual experiences before performing a task can negatively or positively impact self-efficacy beliefs depending on how that arousal state is interpreted by the individual (Bandura, 1997). For instance, if a student experienced an increase in heart rate before giving a class presentation and attributed this increased heart rate to a fear of saying something foolish, then her or his self-efficacy beliefs would be lowered. On the other hand, if that student interpreted her or his arousal state as a motivating factor, this may enhance self-efficacy, as well as performance.

Counseling Self-Efficacy

Larson (1998) incorporated several of Bandura’s (1977, 1986, 1989, 1997) social cognitive theory concepts to counselor trainees’ training and development in what she termed the SCMCT (see Chapter 1 for a summary of the theory). In addition, she applied the four sources of self-efficacy to counseling practice and regarded them as both necessary and sufficient for enhancing counselor trainees’ skills and performance levels. She recommended that both counselor trainees and counselor educators address these sources as a way of enhancing counseling self-efficacy. The sections that follow will provide a review of the empirical literature that supports the four self-efficacy sources as they relate to counseling self-efficacy.

Performance Accomplishments

Performance accomplishments are an essential source of counseling self-efficacy and there is a wealth of research in support of the relationship between performance and
counseling self-efficacy (Larson, 1998; Larson & Daniels, 1998). In counseling, a prime example of a performance accomplishment is a counselor having a successful session with a client. The relationship between counseling self-efficacy and performance is bidirectional. In other words, past successful performances in counseling sessions increase counseling self-efficacy and increases in counseling self-efficacy enhance future performances. Research has indicated that counselors’ with higher counseling self-efficacy generally have increased counseling microskills. For instance, Larson et al. (1992) found that counselor trainees’ counseling self-efficacy and trait anxiety levels significantly and strongly predicted counseling microskills performed by graduate level prepracticum students. Counseling self-efficacy has also been linked to counseling performance through evidence of successful session outcomes. For example, Heppner, Multon, Gysbers, Ellis, and Zook (1998) discovered that counselor trainees whose career counseling self-efficacy beliefs increased after taking a career counseling practicum course, had clients who also significantly improved on a career decision making outcome measure. Other authors have found similar results. For instance, Lent et al. (2006) reported that counselor trainees’ counseling self-efficacy levels for working with a specific client positively predicted client rated session quality. Thus, counseling self-efficacy appears to predict client’s perceptions of counselors’ performances in addition to contribute to better counseling outcome and increased client satisfaction.

While counseling self-efficacy is an important construct for increasing counselor performance, the relationship between counseling self-efficacy and better performance is bi-directional, as past performance accomplishments also increase counseling self-efficacy. Several studies support the relationship between performance accomplishments
and counseling self-efficacy. For instance Johnson, Baker, Kopala, Kiselica, and Thompson (1989) found that counselor trainees’ enrolled in a pre-practicum course, where the trainees’ were required to perform weekly counseling role plays, endorsed higher counseling self-efficacy scores at the end of their pre-practicum experience than at the beginning. This finding suggests that the trainees’ success in performing role plays (i.e., performance accomplishments) over the course of a semester increased counseling self-efficacy. Research has also indicated that counselor trainees’ counseling self-efficacy increased as a result of performing in a single counseling role play session when they perceived their performances as successful (Larson et al., 1999).

Research examining the relationship between performance and counseling self-efficacy has not been limited to role plays; similar findings have been found with trainees counseling actual clients. For example, studies have found that counselor trainees counseling self-efficacy beliefs increased over the course of a semester of practicum (Bin Sheu & Lent, 2007; Heppner, et al., 1998; Kozina, Grabovari, De Stefano, & Drapeau, 2010; Larson et al., 1992; Lent, Hill, & Hoffman, 2003) and over the course of a series of counseling sessions (Lent, et al., 2006). Thus, successful performance accomplishments, along with other influences during the course of a practicum, seem to have a positive impact on counseling self-efficacy.

The studies cited above suggest that trainees’ counseling self-efficacy scores increase after successful performance accomplishments with clients (Larson et al., 1992). However, other researchers have suggested a curvilinear relationship between performance accomplishments and counseling self-efficacy. Sipps, Sugden, and Faiver (1987) compared counseling self-efficacy levels of counselor trainees who were in their
1st, 2nd, 3rd, and 4th years of graduate training. As one might expect, trainees in their 3rd and 4th years of training endorsed the highest counseling self-efficacy levels, with 4th-year trainees having slightly higher counseling self-efficacy scores ($M = 86.59$) than 3rd-year trainees ($M = 85.46$). Yet, 2nd-year trainees endorsed the lowest counseling self-efficacy scores ($M = 81.80$) and endorsed lower scores than 1st-year trainees ($M = 77.34$). These results seemed to suggest that 1st-year trainees, who were the least experienced, might have underestimated the complexities of the counseling process, thereby falsely believing that engaging in the counseling process was easier to learn and perform than it actually was. In addition, 2nd-year students, who likely underestimated the complexities of the counseling process, may have experienced perceived performance failures (e.g., having a client terminate prematurely) during their first year of training. Thus, 1st-year students’ counseling self-efficacy beliefs seemed to diminish slightly by the 2nd year of training. Nevertheless, counseling self-efficacy increased by the 3rd year and beyond, which suggested that counselors’ performances improved over the course of the 2nd year.

Despite Sipps et al.’s. (1987) results, studies investigating the impact of training level and/or years of clinical experience on counseling self-efficacy have generally found that with increased years of experience and training, the stronger the counselors’ counseling self-efficacy beliefs become (Dillon & Worthington, 2003; Dillon, Worthington, Soth-McNett, & Schwartz, 2008; Haag, 2008; Korfhage, 2005; Larson et al., 1992; Leach, Stoltenberg, McNeill, & Eichenfield, 1997; Melchert, Hays, Wiljanen, & Kolocek, 1996; Murdock, Wendler, & Nilsson, 2005; O’Brien, Heppner, Flores, & Bikos, 1997; Tang, et al. 2004). In most studies, this relationship was both statistically significant and strong. For example, Larson et al. found statistically significant large
differences in counseling self-efficacy scores between counselors who had a bachelor’s degree \((M = 121.70)\) and counselors who had either a master’s degree \((M = 141.35)\) or doctorate \((M = 146.40)\). In addition, they found that counselor trainees who had no counseling experience had significantly lower counseling self-efficacy scores \((M = 121.70)\) than counselors who had two to eight years of experience \((M = 145.24)\).

In the current study, the impact of LGB specific training experience and the number of months of counseling experience on LGB counseling self-efficacy beliefs was examined to further substantiate the relationship between performance accomplishment and counseling self-efficacy. That is, if LGB specific training experiences and clinical experience significantly predict LGB counseling self-efficacy beliefs, it will provide evidence for the impact of past performance accomplishments on LGB counseling self-efficacy.

**Vicarious Learning**

Whereas performance accomplishments are a strong source of counseling self-efficacy, studies have shown that vicarious learning plays at least a minimal to moderate role in affecting counseling self-efficacy. To date it appears that only one study has been published examining the relationship between vicarious learning and counseling self-efficacy. Larson et al. (1999) examined the differential effects of viewing a videotape versus engaging in a mock counseling session role play on counseling self-efficacy. Specifically, they hypothesized that a videotape or role-play, “would differentially increase counseling self-efficacy depending on how the trainees rated the success of the intervention” (p. 239). The results of their study, which included 67 graduate level counseling pre-practicum students, indicated that on average, viewing a videotape
increased counseling self-efficacy scores about 1/6 of a standard deviation. Although the increases in counseling self-efficacy were modest, Larson et al. did provide evidence supporting the success of vicarious learning as a catalyst for increasing counseling self-efficacy.

Vicarious learning will not be directly investigated in the current study, yet its relevance for increasing LGB counseling self-efficacy cannot be ignored. In line with Larson et al.’s (1999) study, viewing a videotape of a counseling session with an LGB identifying client could have a positive impact on LGB counseling self-efficacy. Extrapolating from Larson et al., in the current study, therefore, it is assumed that counselor trainees who have had more hours of LGB training have also had more vicarious learning experiences either in the form of observing videos, role plays, or live sessions with a counselor counseling an LGB identifying client. Thus, the relationship between vicarious learning will be indirectly assessed via training experiences.

**Verbal Persuasion**

Like performance accomplishments, verbal persuasion has also received considerable attention in the literature. An example of verbal persuasion in the context of counseling self-efficacy would be the supportive and constructive feedback that a counselor or counselor-trainee has received from a clinical supervisor. Supervision, in general, plays a crucial role in increasing counseling self-efficacy. For instance, trainees who received supervision endorsed higher counseling self-efficacy than trainees who did not (Cashwell & Dooley, 2001). In addition, specialized counselor education training programs have been demonstrated to increase trainees’ counseling self-efficacy beliefs. For instance, Urbani et al. (2002) found that counselor trainees assigned to a skilled
A counseling training model (SCTM) program endorsed higher counseling self-efficacy than trainees assigned to an introduction to counseling course. The SCTM was an intensive training experience that used “mastery, modeling, persuasion, and arousal as key elements to promote acquisition of skills, self-appraisal of counseling skills, and counseling self-efficacy” (p. 93).

Only a few studies have looked more directly at the use of verbal persuasion and supervisor feedback as a method to enhance counseling self-efficacy. Lane, Daugherty and Nyman (1998) found that undergraduate college students who received negative feedback on a fictional test that they were told measured “innate counseling ability” (p. 1113) had significantly lower counseling self-efficacy scores than students who received positive feedback. The study used a sample of undergraduate college students so the results could not be generalized to counselor trainees. In addition, participants were merely told that the test they completed measured “innate counseling ability”. Thus, the participants were not evaluating their own performances. In response to the key limitations in Lane et al’s. study, Daniels and Larson (2001) investigated the impact of feedback on counseling self-efficacy beliefs of graduate level counselor trainees, hypothesizing that trainees receiving positive feedback about a mock counseling session would show increased counseling self-efficacy from pre-test to post-test, and trainees receiving negative feedback would show decreased counseling self-efficacy from pre-test to post-test. Their study included 45 counselor trainees’ from four Midwestern universities. Participants were randomly assigned to either the positive or negative feedback condition. The trainees were asked to conduct a 10 minute counseling session with a mock client, after which they completed the pre-test instruments, including a
counseling self-efficacy measure. The experimenter then gave the trainees either positive or negative feedback regarding their performance. After receiving feedback, the trainees completed the posttest measures. The results supported the hypothesis that trainees receiving positive feedback experienced an increase in counseling self-efficacy while trainees receiving negative feedback experienced a decrease in counseling self-efficacy.

Studies examining the relationship between feedback and counseling self-efficacy have not been limited to supervisory feedback. Reese et al. (2009) investigated the influence of client feedback on counselors’ counseling self-efficacy. The authors hypothesized that counselors’ eliciting feedback from clients and supervisors, through the use of an outcome assessment measure, would have higher counseling self-efficacy, as well as better session outcomes and more satisfactory supervisory alliances, than trainees not eliciting such feedback. Results indicated that client feedback predicted better therapeutic outcome, such that counselors eliciting feedback from their clients had better outcomes than counselors who did not elicit such feedback. Similarly, counseling self-efficacy positively correlated with therapeutic outcome in the feedback condition, while it negatively correlated with outcome in the no feedback condition. Nevertheless, counseling self-efficacy scores for counselors in both conditions increased over the course of the practicum year and these gains were statistically significant. However, it should be noted that counselors in the no-feedback condition had similar counseling self-efficacy beliefs to counselors in the feedback condition despite having poorer clinical outcomes. Reese et al. suggested that counselors in the no feedback condition may have assumed that they were as efficacious as counselors in the feedback condition because they had not received any feedback causing them to question their effectiveness with
their clients. At any rate, increases in counseling self-efficacy over the course of the practicum year provided further evidence for the impact of past performance accomplishments on counseling self-efficacy.

Based on the research reviewed in this section, it appears that the quality of supervision and the content of feedback provided to a trainee is, under most circumstances, an important predictor of counseling self-efficacy. Whereas the relationship between feedback or verbal persuasion on counseling self-efficacy will not be directly examined in the current study, the relationship between LGB specific training experience and LGB counseling self-efficacy will be investigated. It is anticipated that such training experiences will increase the knowledge base of counselors in the area of LGB affirmative counseling, therefore increasing their efficaciousness in counseling LGB clients.

**Affective Arousal**

A number of studies have investigated the relationship between affective arousal and counseling self-efficacy. Affective arousal might consist of experiencing anxiety before meeting with a new client. In most studies examining the impact of arousal on counseling self-efficacy, affective arousal has been operationalized as a form of state or trait anxiety (Spielberger, 1983). Numerous studies have indicated that anxiety is a significant predictor of counseling self-efficacy (c.f., Barbee, Scherer, & Combs, 2003; Larson et al. 1992). These studies have typically found an inverse relationship between counseling self-efficacy and anxiety such that higher anxiety correlated with lower counseling self-efficacy. For example, Larson et al. (1992) found that “Counselor trainees who reported higher counseling self-efficacies also reported less state and trait
anxiety” (p. 112). In another study, Friedlander et al. (1986) discovered that counselor trainees reporting lower levels of state anxiety reported both higher counseling self-efficacy and better counseling performance.

Similar to how the amount of supervision and training serve to increase counseling self-efficacy, they also serve to decrease anxiety. A study by Daniels and Larson (2001) indicated that trainees receiving negative feedback from pre-test to post-test experienced increased state anxiety and decreased counseling self-efficacy, while trainees receiving positive feedback from pretest to posttest experiences decreased state anxiety and increased counseling self-efficacy. Al-Darmaki (2004), who investigated the influence of practicum training on state/trait anxiety and counseling self-efficacy on a sample of 73 counselor trainees in the United Arab Emirates (UAE), found that trainees enrolled in a practicum course had decreased state/trait anxiety and increased counseling self-efficacy from pretest to posttest, as compared to trainees’ who were only enrolled in a pre-practicum course. This study provided further support for the impact of direct clinical experience on anxiety and counseling self-efficacy. It should be duly noted that this study, which was conducted on counselor-trainees living in the UAE, supported the generalizability of counseling self-efficacy in another culture.

Anxiety is an important construct to study in relation to counseling self-efficacy because it has consistently been demonstrated as a barrier to counseling self-efficacy (Larson & Daniels, 1998). Larson (1998) explained that barriers to counseling self-efficacy can detrimentally impact counselor trainees’ performances. While anxiety is one important barrier to counseling self-efficacy, several other barriers have been identified as counseling self-efficacy barriers. The barriers investigated in this study were lesbian
and gay (LG) threat, anti-LGB attitudes; lack of LGB related training and clinical experience. In the next section, I discuss the impact and consequences of these barriers.

This section provided a review of the extant literature published on counseling self-efficacy. In addition, social cognitive theory and self-efficacy were discussed, providing a framework and rationale for applying social cognitive theory and self-efficacy to counselor training. Research has indicated that counseling self-efficacy is an important predictor of performance (Larson & Daniels, 1998). In addition, research on past performance accomplishments in the form of past clinical experience reveals that the more clinical experience counselors have, the more efficacious they are (Larson et al., 1992). Also, there is a modest amount of evidence supporting the impact of vicarious learning on counseling self-efficacy. Vicarious learning through viewing a videotape of a counseling session was found less effective than participating in a mock interview (Larson, et al., 1999). Studies on verbal persuasion and counseling self-efficacy have revealed that the quality of supervisor feedback may either enhance or impede counseling self-efficacy (Daniels & Larson, 2001). Finally, studies examining the relationship between anxiety and counseling self-efficacy have indicated that higher anxiety reduces counseling self-efficacy (Al-Darmaki, 2004; Daniels & Larson, 2001).

**Barriers to Counseling Self-Efficacy**

According to Larson (1998), several salient factors, situations, and actions may act as barriers to counselor development. Among the factors that may stifle development are contextual barriers, characteristics of counselors (e.g., sex, age, personality, attitudes), a lack of support or feedback from clinical supervisors, ambiguity of counseling actions, low outcome expectations, unrealistic goals, inaccurate cognitive processing, affective
arousal, and inaccurate self-evaluations. Larson explained that in ideal situations, a successful supervisor will intervene to decrease or minimize barriers. If barriers are not adequately confronted or minimized they could have potential consequences for counselors’ counseling self-efficacy and performance. According to Larson, “barriers will impede the counselor’s learning effective counseling actions and may cause the trainee to deteriorate” (p. 258). Several barriers to counseling self-efficacy described previously were lack of clinical experience, negative supervisor feedback, past performance failures, and anxiety. Lack of staff support and administrative support may also act as barriers to counselor counseling self-efficacy. For instance Sutton Jr. and Fall (2001) found that staff support and administrative support were significant predictors of school counselors’ counseling self-efficacy, such that the less support they experienced the lower their counseling self-efficacy. In addition Nilsson and Anderson (2004) found that a weaker supervisory working alliance predicted lower counseling self-efficacy. Other investigations have indicated a strong link between counselors’ counseling self-efficacy and counselor’s perceived quality of supervision (Cashwell & Dooley, 2001; Daniels & Larson, 2001).

While the supervisory relationship is important in either enhancing or hindering counseling self-efficacy, other characteristics may also act as barriers to counseling self-efficacy (Larson, 1998). Examples of such characteristics are attitudes, self-esteem, identity, and intelligence. Larson et al. (1992) discovered that counseling self-efficacy correlated positively with counselors’ self-concepts and problem solving abilities. Furthermore, Martin Jr., Easton, Wilson, Takemoto, and Sullivan (2004) found that professional counselors and counselor trainees with higher levels of emotional
intelligence had higher levels of counseling self-efficacy. Specifically they found that counselors and counselor trainees who were better able to identify their own and others’ emotions endorsed higher counseling self-efficacy.

Acculturation is another unique barrier that can detrimentally impact counseling self-efficacy, especially for international students in counselor training programs. Nilsson and Anderson (2004) found that higher levels of acculturation, more frequent discussions about multicultural issues in supervision, and a stronger supervisory working alliance, predicted higher levels of counseling self-efficacy for international counseling graduate students. These findings suggested that if international counselor trainees do not feel connected to the U.S. culture, do not feel supported by people living in the U.S., and are not able to develop a supportive relationship with their supervisors, their counseling self-efficacy will not develop as strongly as international trainees who do have these resources.

Barriers to counseling self-efficacy are particularly important to study in relation to LGB counseling self-efficacy. Research has indicated that training programs are not adequately preparing trainees to counsel LGB clients (Anhalt, et al. 2003; Rock, Stone Carlson, & McGeorge, 2010; Phillips & Fischer, 1998; Sherry, Whilde, & Patton, 2005). This lack of environmental and social support may thwart trainees’ LGB counseling self-efficacy. For example negative attitudes towards LGB persons might have a detrimental impact on LGB counseling self-efficacy. In the next section, I will review the empirical literature on LGB counseling self-efficacy. In doing so, I will elaborate on the variables that might act as either potential enhancers of or barriers to LGB counseling self-efficacy.
Lesbian, Gay, and Bisexual Counseling Self-Efficacy

The research on counseling self-efficacy has diversified over the past two decades. In addition to examining counselors’ and counselor trainees’ general counseling self-efficacy beliefs, researchers have also examined counseling self-efficacy in relation to career counseling (Heppner, et al., 1998; O’Brien, Heppner, Flores, & Heim Bikos, 1997), addictions counseling (Murdock, Wendler, & Nilsson, 2005), and multicultural counseling (Bin-Sheu & Lent, 2007; Constantine, 2001a, 2001b).

Bieschke, Eberz, Bard, and Croteau (1998) were among first authors to apply the tenets of social cognitive theory to LGB affirmative counselor training. Bieschke et al. developed a conceptual model that examined social cognitive factors that could help increase LGB affirmative competencies. Even though their article focused primarily on developing affirmative research environments in counseling and counseling psychology programs, several of their ideas and recommendations could also apply to LGB affirmative counselor training. Similar to Larson’s (1998) SCMCT model, Bieschke et al. described specific barriers that could negatively impact LGB research self-efficacy and interests. They explained that environmental factors, such as the degree of support among departments’ faculty, staff, and administrators to encourage students to conduct LGB research might act as a barrier if that support is not present. In addition, they suggested that heterosexual students may feel less efficacious in pursuing LGB related research topics because of believing that they are not qualified to conduct such research.

Bieschke et al. explored four sources of research self-efficacy (i.e., performance accomplishments, vicarious learning, verbal persuasion, and affective arousal) and their impact on trainees’ LGB research self-efficacy. They recommended that in order to
increase self-efficacy by the way of performance accomplishments, that trainees be granted opportunities to assist faculty on LGB related research projects.

A number of elements of Bieschke et al.’s (1998) model apply to LGB counseling self-efficacy. As mentioned previously, the four sources of self-efficacy are an integral part of increasing counselors’ and counselor trainees’ counseling self-efficacy beliefs (Larson, 1998; Larson & Daniels, 1998) and likely impact LGB counseling self-efficacy. Also barriers to LGB counseling self-efficacy likely have an impact on counselor trainees’ abilities to develop LGB affirmative counseling competencies. For example, if clinical supervisors do not possess knowledge related to LGB clients, or if faculty do not integrate LGB related topics into their courses, trainees may not learn the appropriate skills to enhance LGB counseling self-efficacy. In addition, if heterosexual counselors actively avoid seeing LGB clients in their practicums, either because they do not feel qualified to counsel them or because of negative attitudes that they hold towards LGB people, they may not develop competency in this area. In the following section, I will introduce the constructs that may either enhance or impede LGB counseling self-efficacy and counselor development. In doing so, I will also critically review the current literature on LGB counseling self-efficacy.

**Training Level, Counseling Experience, and Contact**

As indicated previously, performance accomplishments are a source of strength for counseling self-efficacy. Counselors with more hours of training and with more years of clinical experience, have higher counseling self-efficacy than counselors with fewer hours of training and with fewer years of clinical experience. While studies show that performance accomplishments enhance general counseling self-efficacy (e.g., Larson, et
al. 1992), studies also reveal that counselors’ training and clinical experience predict LGB counseling self-efficacy. For instance, Dillon and Worthington (2003) and Korfhage (2005) found that counselors who worked with more LGB clients, and who had more LGB related training experiences, endorsed higher LGB counseling self-efficacy. Dillon and Worthington (2003) also discovered that counselors who reported having more LGB identifying friends and family members also had higher LGB counseling self-efficacy scores. Finally, after comparing LGB counseling self-efficacy scores between professional mental health clinicians and counselors-in-training, Dillon and Worthington (2003) found that scores were significantly higher for the former rather than the latter. In other words, because of more experience in the form of performance accomplishments, the professional mental health clinicians reported being more efficacious than counselor trainees.

In sum, overall training and clinical experience has a moderate to strong impact on LGB counseling self-efficacy. Empirical findings on LGB counseling self-efficacy seem congruent with findings suggesting that past performance accomplishments have a positive impact on general counseling self-efficacy (e.g., Larson et al., 1992). In the present study, the relationship between LGB related training and clinical experience and LGB counseling self-efficacy was examined.

Sexual Orientation

Counselors’ sexual orientation identities are an important variable to investigate in relation to LGB counseling self-efficacy. Consistent with Larson’s SCMCT model, which regarded counselor characteristics such as race/ethnicity and gender as important indicators of counseling self-efficacy, sexual orientation is an important characteristic to
investigate when studying LGB counseling self-efficacy because sexual minority
counselors endorse higher LGB counseling self-efficacy than heterosexual counselors
(Haag, 2008; Korfhage, 2005). In fact, every study that was reviewed on LGB
counseling self-efficacy confirmed that counselors’ sexual orientation significantly
predicted counseling self-efficacy for working with sexual minority clients (Dillon &
Worthington, 2003; Dillon et al., 2008; Korfhage, 2005; Haag, 2008). As expected,
sexual minority counselors held more efficacious beliefs than heterosexually identifying
counselors. Dillon et al. (2008) laid out several reasons for why sexual minority
counselors endorse higher efficacy than heterosexuals. Dillon et al. stated:

In contrast to heterosexual psychotherapists, LGB psychotherapists, on average, are
more likely to (a) possess greater knowledge regarding LGB issues, (b) engage in
LGB-affirmative counseling-related professional activities, and (c) learn from and be
supported by LGB-affirmative colleagues who share knowledge and encourage LGB-
affirmative psychotherapy behaviors (p. 358).

Thus, because of their higher motivation to become knowledgeable about
affirmative counseling practices, LGB counselor trainees’ are more prone to endorse
higher efficacy than heterosexual counselor trainees’. However, it is important to
remember that counselor trainees’ sexual orientations alone do not account for all of the
variance in predicting LGB counseling self-efficacy. Thus, it is possible that
heterosexual counselors who consider themselves allies to the LGB community, who
have had LGB, focused training experiences, and who have LGB related clinical
experience, will endorse high LGB counseling self-efficacy. Nevertheless, it is important
to be aware of factors that hinder LGB counseling self-efficacy, particularly among
heterosexual counselors and psychotherapists who are known to endorse negative attitudes towards sexual minorities (Korfhage, 2006). Also, it is possible that heterosexual counselors’ lack of exposure to LGB clients and LGB persons in general might impede their competence in working with LGB clients.

In summary, empirical investigations have found counselors’ sexual orientation to be a significant predictor of LGB counseling self-efficacy. In particular, sexual minority counselors have reported being more efficacious than heterosexual counselors. Because of the consistent evidence indicating that sexual orientation is a predictor of LGB counseling self-efficacy, this study seeks to further examine this relationship.

Counselor Trainees’ Attitudes Towards Sexual Minorities

Attitudes serve the purpose of helping individuals categorize, evaluate, and make meaning of experiences in their environment (Herek, 1987). Herek conducted a study identifying the different functions that attitudes towards sexual minorities serve. Using a content analysis to determine themes of undergraduate students’ essays regarding their attitudes towards lesbians and gay men, Herek discovered these attitudes served three primary functions. First, attitudes served an experiential-schematic function. In other words, persons’ past experiences shaped their attitudes towards sexual minorities. These experiences formed the cognitive schemas that persons developed regarding sexual orientation. Herek stated that, “attitudes are part of a knowledge structure, or schema that organizes past experiences and provides guidelines for future interactions with lesbians and gay men” (p. 288). Such experiences can shape positive or negative attitudes depending on the persons’ evaluation of their past experiences with LGB persons. Second, Herek found that attitudes served a defensive function. Herek indicated that
heterosexual persons who are insecure about their own sexual identity and/or gender identity, feel more threatened by LGB persons and that persons who are most intolerant and fearful of LGB persons have developed negative attitudes as a defense mechanism. Defensive attitudes are considered a “projection of unacceptable motives onto homosexual persons” (p. 288). Thus, heterosexual persons who are having trouble accepting parts of their own sexuality transfer their negative attitudes away from themselves and towards others, namely sexual minorities. Third, Herek discovered that attitudes served a self-expressive function. Attitudes operating under this function were formed by personal values and convictions such as religious or political beliefs. Similar to the experiential schematic function, the self-expressive function can also elicit positive or negative attitudes depending on how one’s value system shapes their attitudes. For example, some persons may hold negative attitudes towards LGB persons because their religious beliefs condemn homosexuality.

For several decades, researchers have investigated mental health professionals’ attitudes towards sexual minorities. Results from these studies have varied. Whereas several mental health professionals endorsed positive attitudes towards LGB persons, many also expressed negative or ambivalent attitudes (Bieschke & Matthews, 1996; Bowers & Bieschke, 2005; Crawford, McLeod, Zamboni, & Jordan, 1999; Davison & Wilson, 1973; Fort, Steiner, & Florence Conrad, 1971; Gartrell, Kraemer, & Brodie, 1974; Hayes & Erkis, 2000;; Kilgore, Sideman, Amin, Baca, & Bohanske, 2005; Korfhage, 2006; Mohr, Israel, & Sedlacek, 2001; Newman, Dannenfelser, & Benishek, 2002; Thompson & Fishburn, 1977; Savage, Prout, & Chard, 2004). Yet, a recent trend seems to indicate that counselors’ and psychologists’ attitudes are more positive now than
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in they were in decades past. Kilgore et al. (2005) reported that 92.4% of professional psychologists viewed an active LGB lifestyle as “acceptable”; 81% indicated that an LGB identity was not a psychological disorder; and 96% did not support any type of aversion therapy (i.e., therapies purported to change sexual orientation). On the other hand, they found that 4% of psychologists viewed an active LGB lifestyle as either, “less acceptable than a heterosexual lifestyle” or “unacceptable”; 6% viewed it as either a psychosexual disorder, personality disorder, or mental disorder; and 4% supported some type of aversion therapy. Thus, Kilgore’s et al.’s study did indicate that some psychotherapists continued to have negative attitudes towards sexual minority persons.

Ten years prior to Kilgore et al.’s study, an identical survey by Jordan and Deluty (1995) revealed that 79.1% of psychologists viewed an active LGB lifestyle as “acceptably” and 25.9% saw it as “no problem whatsoever” (i.e., a psychological problem). However, nearly 6% supported the use of aversion therapy and 11% supported the use of an alternative method to change sexual orientation. In addition, Jordan and Deluty found that psychotherapists receiving their doctorates prior to 1970 were more likely to view an LGB lifestyle as indicative of a psychological disorder than psychotherapists who received their degrees after 1978. Overall, these findings suggest a trend toward psychologists’ becoming more tolerant and positive in their attitudes towards sexual minorities over time. Nevertheless, a small percentage of psychologists continue to hold negative attitudes.

While proportionally a greater number of counselors and psychotherapists are expressing more tolerant and more affirming attitudes towards LGB clients, studies have indicated that non-affirming attitudes among counselors continue to negatively impact the
therapeutic process. For instance, studies have shown that counselors experience more personal discomfort with LGB clients than they do when working with heterosexual clients (e.g., Hayes & Gelso, 1993), and they have greater difficulty recalling accurate information about LGB clients than they do about heterosexual clients (Gelso, Fassinger, Gomez, & Latts, 1995). That is, counselors’ negative attitudes often skew clinical judgment. For instance, Mohr, et al. (2001), employing a vignette (analogue) design, reported that counselors who exhibited negative attitudes towards bisexuals were more likely to attribute a fictitious bisexual female client’s presenting problem to her sexual orientation than a fictitious heterosexual female client who presented with the same problem.

In another vignette study, Hayes and Erkis (2000) found that homophobic counselors were also more likely than non-homophobic counselors to attribute blame to an HIV infected client when the client was infected through sex or intravenous drug use rather than when the client was infected by a blood transfusion. They also found that homophobic counselors were less empathic towards and less likely to work with an HIV infected client when the client was gay as compared to counselors who were less homophobic. Furthermore, in their study on psychologists’ attitudes toward same sex adoption, Crawford et al. found that psychologists who believed sexual orientation was a choice found it more likely that a male child raised by a lesbian couple would experience physical abuse and not be taught appropriate values compared to psychologists who did not believe sexual orientation was a choice. Crawford et al. (1999) also discovered that the majority of psychologists in their study held supportive attitudes towards same sex
adoption; thus, their findings were congruent with Kilgore et al.’s (2005) findings that psychologists’ attitudes toward LGB persons are becoming more positive.

Bowers and Bieschke (2005) found that heterosexual male counselors were more likely than female counselors to rate a lesbian, gay, or a bisexual client as more likely than a heterosexual client to physically harm another person during the course of therapy. Also, female counselors’ were more likely than the male counselors to believe that a bisexual client’s depressive symptoms were likely to improve as a result of counseling. These findings are consistent with several other empirical findings that have indicated that female mental health professionals generally endorse more positive attitudes towards sexual minorities than male mental health professionals (Barrett & McWhirter, 2002; Korfhage, 2006; Newman Dannenfelser & Benishek, 2002).

Gender alone does not entirely account for why men and women express different attitudes towards sexual minorities. For instance Korfhage (2006), who examined the impact of traditional gender role beliefs on psychology graduate students’ attitudes towards LGB persons revealed that participants’ gender was not a significant predictor of attitudes when gender role attitudes were entered into the final step of a hierarchical regression model. This finding is consistent with Herek’s (1987) theory regarding the functionality of attitudes in that traditional gender role beliefs (i.e., the belief that there are socially sanctioned differences regarding the way men and women should behave) seem to function as a self-expressive value that impact attitudes towards LGB persons.

Other studies on counselors’ and counselor trainees’ attitudes have also supported components of Herek’s (1987) functionality theory of attitudes. In particular, these findings have provided evidence for the experiential schematic function of attitudes, such
that counselors reporting more positive contact with LGB persons endorse more positive attitudes. For example, Barrett and McWhirter (2002) found that the more LGB friends counselors had the lower their homophobia. In another study, Eliason and Hughes (2004) reported that for substance abuse treatment counselors, the more training in LGB related issues and more discomfort with LGB people, the greater their negative attitudes towards LGB persons. Thus, similar to studies that have indicated that LGB specific training predicted higher LGB counseling self-efficacy, such training also appears to be predictive of positive attitudes.

**Counseling Self-Efficacy and Attitudes**

A handful of studies have examined the relationship between counselors’ attitudes towards LGB persons and LGB counseling self-efficacy. While not a direct study of counseling self-efficacy and attitudes, Bieschke and Matthews (1996) investigated the relationship between counselors’ self-reported affirmative counseling behaviors and their attitudes towards sexual minorities. While they did not find a significant relationship between attitudes and self-reported behaviors, Bieschke and Matthews did discover that counselors’ sexual orientation was a significant predictor of both attitudes and affirmative behaviors. They also found that a non-heterosexist work environment was a significant indicator of affirmative attitudes.

It also seems that increased contact with sexual minorities and more positive attitudes are essential for increasing counselors’ LGB counseling self-efficacy. A study by Dillon and Worthington (2003) found that counselors who had more LGB identifying friends and family members and who also endorsed more positive attitudes towards LGB people had greater LGB counseling self-efficacy than those who did not. Other studies
have yielded similar results, suggesting that attitudes are at least one important indicator of LGB counseling self-efficacy (Bidell, 2005; Burkard, Pruitt, Medler, & Stark-Booth, 2009; Haag, 2008).

In summary, the literature on counselors’ and counselor trainees’ attitudes towards LGB persons has been reviewed. Herek’s (1987) findings regarding the functionality of attitudes towards LGB persons were also discussed. Herek identified three functions of these attitudes: experiential schematic, defensive, and self-expressive. Although Herek’s findings were based on a sample of undergraduate students, counselors’ attitudes may serve identical functions. In fact, several research findings support this assertion as counselors who have had positive experiences with LGB persons in the past, endorse more positive attitudes towards LGB persons (e.g., Dillon & Worthington, 2003). Furthermore, studies have found that counselors’ and counselor trainees’ attitudes toward LGB clients are becoming more tolerant over time. Yet, some counselors and counselor trainees’ continue to express negative attitudes towards LGB clients. In the next section, the concept of LG threat will be introduced and its relationship with anti-LGB attitudes. LG threat may serve as a defensive function for counselors’ attitudes towards LGB clients.

**Lesbian and Gay (LG) Threat**

Similar to negative attitudes towards LGB persons, LG threat may be a barrier to LGB counseling self-efficacy. LG threat is defined as “the extent to which the notion of being LG is perceived as incompatible with one’s existing construal of the self such that integrating the notion of being LG with the existing self-concept is experienced as intolerable” (Moradi, van den Berg, & Epting, 2006; p. 58). Kelly’s (1955a, 1955b)
personal construct theory provided the theoretical framework for LG threat. According to Kelly (1955a, 1955b), people construe meanings about themselves, others, and the world based on their thoughts, feelings, behaviors, and experiences. Constructs are a key component of Kelly’s theory. In many ways, a construct is similar to a template or a schema that people use to comprehend their realities. Kelly (1955a) defined a construct as follows:

In its minimum context a construct is a way in which at least two elements are similar and contrast with a third. There must therefore be at least three elements in the context. There may, of course, be many more (p. 61).

Kelly (1955a) explained that constructs are dichotomous and contain two poles: a similarity pole and a contrast pole. In order for a construct to exist, a person must see how two things are similar to but in contrast with a third. For example, a construct may contain the elements “moral” on one end of the pole and “immoral” on the opposite end of the pole. That is, a devoutly religious person may perceive her or himself as moral. She or he may perceive her or his devoutly religious sibling as also moral. Thus, they are on the same end of the pole (i.e., the similarity pole). However, she or he may perceive her or his non-religious sibling as immoral; thus placing this sibling on the opposite end of the pole (i.e., the contrast pole). In a similar manner, a person may perceive LG people as similar to or opposite from her or himself. This would depend on how that person construes LG within her or his construct system. Thus, a woman who construes herself as “moral” and construes LG as “moral” would see LG as similar to herself on that particular construct.
Individuals do not perceive the world one construct at a time, but through a multiple network of constructs (Kelly, 1955a, 1955b). This network is called the construct system. Construct systems assist people in viewing reality in a consistent and predictable manner. However, in many cases persons are faced with situations or examples that challenge their construct system. Typically when individuals are faced with such inconsistencies, they grasp onto their core constructs and avoid the content that is inconsistent with their experience. From a personal construct theory perspective, this is how people develop stereotypes that they have trouble challenging. For example, a woman who assumes that all “men are unemotional” might struggle to make accommodations when she meets a man who is emotionally expressive. Thus, she may struggle to change her core constructs concerning men despite coming in contact with a contradictory example.

Kelly (1955a) described the self as a core construct. Persons have a self because they perceive an opposite (i.e., other people). Again, individuals’ construct systems cause them to understand the self in a stable manner. Persons may define themselves as likeable, intelligent, talented, and energetic. In doing so, they will not describe themselves as unlikeable, unintelligent, untalented, and lazy. Of course, people are faced with the prospect of having their construct system challenged. For instance, while a person perceives herself or himself as nice, another person may find her or his self-perceived niceness as passive.

Often when persons’ self-constructs are challenged, they will seek evidence to disconfirm the evidence that challenged their core constructs. Moreover, when individuals feel that there is an imminent possibility that their core structures will change,
they will experience threat (Kelly, 1955). Thus, threat is a change to one’s core identity or sense of self. Kelly gives the example of death being the ultimate threat to people’s core constructs. Death is threatening to many people because it brings forth permanent changes to a person’s core constructs, especially when they only see those core constructs as compatible with living. Thus, at death those core constructs cease to exist. However, not all individuals may see death as threatening. Moreover, if persons see death and life as being one in the same, or as not being an imminent change to one’s core structure (e.g., the idea that persons continue to exist in an afterlife) it is not threatening. Of course, threat is not limited to the concept of death. Transitions in life may be perceived as threats to the self. For instance, some persons in their late 20’s may perceive the age 30 as a threat, especially if the act of turning 30-years-old symbolizes an imminent change to one’s core structures.

When LG is construed as a threat, it is due to incompatibilities between the core constructs of how a person perceives her or himself and how she or he would perceive her or himself if she or he were LG (Moradi et al., 2006). These incompatibilities may also exist between how a person would ideally perceive her or himself and how she or he would perceive her or himself if she or he were LG (Burke, 1998). In other words, when the “self” and the “ideal-self” are discrepant from the “self as LG”, then that individual is experiencing threat to one or more of her or his core constructs. For example, if a person rated her or himself as “likable” and rated her or his ideal self as “likable”, but rated her or himself as “unlikable” if she or he were LG, that individual would be experiencing threat on that particular construct.
Individuals reduce threat in order to preserve their self-constructs (Kelly, 1955a). Persons whose core constructs are incompatible with the idea of being LG will likely try to find ways to reduce feelings of threat associated with such incompatibilities. In such cases, reducing threat and preserving the self may be facilitated through expressing negative attitudes towards sexual minorities (Moradi et al., 2006). Thus by denigrating sexual minorities, these individuals will reduce threat and maintain a stable perception of the self.

**LG Threat and Attitudes**

In many ways, LG threat shares similarities with Herek’s (1987) findings regarding the functionality of anti-LGB attitudes. In particular, LG threat poses similarities to the defensive function of attitudes where an individual projects unaccepted motives or feelings onto LGB persons and expresses hostile feelings towards them. Expressing such attitudes reduces anxiety when in the presence of sexual minority persons. Herek reported that for those respondents whose essays were categorized as defensive, expressed great discomfort about being perceived as LG. Thus, such persons would assert their heterosexuality by expressing more negative attitudes toward LG persons.

**Empirical Findings on LG Threat**

A handful of research studies have explored the relationship between LG threat and attitudes. No study to date has investigated the relationship between LG threat and counselor trainee’s LGB counseling self-efficacy beliefs, and most of the studies have only examined LG threat among undergraduate student populations. Nonetheless, such studies have indicated that higher levels of LG threat predict higher anti-LG attitudes
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(Burke, 1997; Leitner & Cado, 1982; Moradi et al., 2006), and one study indicated that LG participants experiencing higher LG threat also endorsed higher levels of internalized homophobia (Moradi, van den Berg, & Epting, 2009). In addition to these findings, Leitner and Cado found that participants who had high LG threat and self-meaningfulness (i.e., the extent to which a person rates particular core constructs as important) scores had more negative attitudes towards LG persons than participants who had low LG threat and self-meaningfulness scores. They also found that male participants who experienced higher levels of LG threat, found homosexuality to be a more personally meaningful issue than male participants who experienced low levels of threat. In other words, these male participants believed that homosexuality was a greater personal threat to the core constructs they found to be most meaningful.

Burke (1998) also examined LG threat, anti-LGB attitudes and self-meaningfulness, and reported similar results to Leitner and Cado (1983). In addition, Burke discovered that LG threat significantly predicted participants’ levels of right wing authoritarianism, such that participants who experienced higher LG threat endorsed higher levels of authoritarianism. Finally, Moradi et al. (2006) investigated the impact of attitudes and threat on participants’ self-perceptions and self-presentations, finding that LG threat moderated the relationship between attitudes, self-presentation, and self-preservation. In other words, participants who experienced LG threat expressed negative attitudes in order to maintain self-presentation and preservation.

In summary, personal construct theory (Kelly, 1955a, 1955b) provides a theoretical framework for LG threat as an important variable to examine in relation to LGB counseling self-efficacy beliefs. Studies have shown that LG threat is significantly
linked with negative attitudes towards LGB persons and may be used as a way to maintain self-presentation and self-preservation (Moradi et al., 2006). Thus far, no studies have examined the impact LG threat has on counselors’ or counselor-trainees’ attitudes or on their LGB counseling self-efficacy beliefs. Therefore, the present study will be the first one to examine the influence LG threat has on counselors-in-training.

**Sexual Identity Exploration and Commitment**

In addition to the influences of demographic variables, contact experiences, training experiences, attitudes, and threat on LGB counseling self-efficacy beliefs, recent findings have indicated that sexual identity exploration and commitment play an important role in predicting counseling self-efficacy (Dillon et al., 2008). The constructs identity exploration and commitment were first introduced by Marcia (1966, 1980). Marcia reported that during adolescence, and throughout adulthood, persons move through a process of identity exploration, where they redefine themselves in regards to their values, goals, and beliefs. Moreover, Marcia argued that persons weigh the expectations of themselves, regarding their values, goals, and beliefs, with the expectations of external influences (e.g., parents, teachers, etc.). According to Marcia, identity commitment occurs when a person has actively chosen values, goals, and beliefs that are mostly independent of the expectations of parents or authority figures.

Worthington, Navarro, Savoy, and Hampton (2008) adapted Marcia’s model of identity exploration and commitment to sexual identity. In doing so, they explained that sexual identity exploration and commitment was broader than exploring and committing to a sexual orientation. Sexual identity also consisted of persons’ sexual needs, sexual values, sexual activities, and modes of sexual expression. Worthington et al. developed
the Measure of Sexual Identity Exploration and Commitment (MoSIEC), which is a self-report instrument measuring sexual identity exploration and commitment and is divided into four independent dimensions: commitment, exploration, sexual orientation identity uncertainty, and synthesis/integration. Worthington et al. defined sexual identity exploration as a concept in which persons undergo a process of defining and refining their sexual needs, values, activities, modes of sexual expression, and sexual orientation. Sexual identity commitment is the degree to which persons have integrated their sexual needs, values, activities, modes of sexual expression, and sexual orientation into their self-concept or identity. Sexual orientation identity uncertainty refers to persons’ uncertainty about their sexual orientation. Synthesis and integration is the process where persons’ sexual orientation, values, needs, activities, modes of sexual expression, and sexual orientation are all compatible with the individual’s self-concept.

**Empirical Support for Sexual Identity Exploration and Commitment**

A few empirical investigations have been conducted on sexual identity exploration and commitment; the majority have included participants who were college undergraduates or volunteers from the general community. One study revealed between-group-differences in persons’ levels of sexual identity exploration. Worthington et al. (2008) found that participants identifying as heterosexual endorsed lower levels of identity exploration than LGB participants. In addition, they found that bisexual men scored the highest on exploration and sexual identity uncertainty. Thompson and Morgan (2008) discovered that female college students who identified as mostly-heterosexual scored higher on exploration than exclusively heterosexual women, and similar to bisexual and lesbian women. Thompson and Morgan also found that mostly
heterosexual, bisexual, and lesbian women were less certain and less integrated in their identities than exclusively heterosexual women. The authors indicated that non-heterosexuals’ higher levels of uncertainty and exploration were likely due to their perceiving sexual identity as a fluid construct, whereas many exclusively heterosexual participants perceive it as a stable construct that does not change throughout the lifespan.

One study has examined the relationship between sexual identity exploration and commitment and attitudes. Worthington, Dillon, and Becker-Schutte (2005) found that heterosexual participants who endorsed higher levels of sexual identity exploration held more LGB affirmative attitudes than heterosexual persons endorsing lower levels of sexual identity exploration. It should be noted that this study was conducted with undergraduate students and not counselors. Nevertheless, the findings are promising in that they revealed a relationship between sexual identity exploration and commitment and attitudes.

**Sexual Identity Exploration and Commitment and LGB Counseling Self-Efficacy**

Currently, only one study has been published that investigated the relationship between psychologists’ and psychologist-trainee’s LGB counseling self-efficacy and sexual identity exploration and commitment. This study indicated that psychologists endorsing higher levels of sexual identity commitment also endorsed higher levels of LGB counseling self-efficacy (Dillon et al., 2008). Yet, sexual identity exploration did not predict LGB counseling self-efficacy. In line with previous findings (i.e., Dillon & Worthington, 2003), Dillon et al. also found that LGB counselors endorsed higher counseling self-efficacy beliefs than heterosexual counselors.
In this section a summary of the literature regarding sexual identity exploration and commitment was provided. Marcia’s theory on adolescent identity exploration and commitment was introduced, which provides a theoretical foundation for the sexual identity exploration and commitment model. Empirical investigations supporting the validity of the model were discussed, which revealed that for college students sexual identity exploration and commitment varies by sexual orientation. Furthermore, higher sexual identity commitment among counselors has been shown to significantly predict LGB counseling self-efficacy.

**Critique of Theory and Selected Studies**

This chapter has provided a review of the literature on counseling self-efficacy, LGB counseling self-efficacy, LGB relevant training and clinical experience, anti-LGB attitudes, LG threat, and sexual identity exploration and commitment. In this section, I will critically review a select group of studies that are closely related to the primary focus of the present study (i.e., LGB counseling self-efficacy). Before doing so, I will begin by discussing the strengths and limitations of the theoretical model on which this study is based, namely Larson’s (1998) SCMCT model, which was introduced in Chapter 1.

**Theory**

The SCMCT model introduced by Larson (1998) provided a conceptual framework borrowing several key concepts from Bandura’s (1977, 1987, 1997) social cognitive theory. At the forefront of the SCMCT model was counseling self-efficacy, which played the most important role in producing effective counselor behavior. Larson also described other personal variables such as counseling related knowledge, outcome expectations, supervision goals, cognitive processes, affective processes and self-
evaluation as being integral to successful counselor behavior and therapeutic outcome. In addition to these variables, Larson explained that environmental variables impacted successful counselor performance. While personal and environmental variables could potentially bolster counselor performance, they also may act as barriers to such performance. For example, a counselor trainee may hold negative attitudes towards a particular client or group of clients or a trainee may be enrolled in a practicum course where very few clients have sought help. Larson recommended that supervisors and counselor-educators strive to minimize barriers as much as possible in order help counselors to enhance their potentials.

One of the model’s most salient strengths was that it incorporated elements of an existing psychological theory (i.e. social cognitive theory), which has been amenable to rigorous empirical investigations. Applying Bandura’s triadic reciprocal causal model to the SCMCT model, Larson also clearly explained how counselors’ personal agency variables (e.g., self-efficacy, outcome expectations, cognitive processes, etc.), actions (e.g., counseling), and counselor characteristics (e.g., personality, gender, sexual orientation) impacted and are influenced by various environmental forces (e.g. supervision, counseling sessions). Larson also elaborated on Bandura’s theory by incorporating demographic and environmental factors into the model, that were often not explored in Bandura’s theory. In this regard, Larson emphasized the influence of sexual orientation, race, gender and other characteristics on counselor development. She also explored the role of broader social factors, such as social oppression and discrimination, and noted how these factors influenced counselors’ personal agency variables (i.e., counseling self-efficacy, outcome expectations, performance, etc.). In doing so, she
placed considerable emphasis on the impact and consequences of a number of barriers that could potentially impede counselor development. Finally, Larson’s attention to the four sources of counseling self-efficacy provided supervisors and counselor educators with appropriate tools for tuning into the factors that could clearly help counselors-in-training enhancing their counseling self-efficacy and performance.

Nevertheless, Larson’s model has some notable limitations. First, Larson indicated that she borrowed ideas from other psychological theories to develop her SCMCT model. For example she reported that Kelly’s (1955a, 1955b) personal construct theory served as an influence to her model. However, she did not explicitly explain what tenets of this theory were integrated into the SCMCT model. All the same, given that Kelly’s and Bandura’s (1986) theories share some basic tenets (e.g., human beings are active and goal driven agents), one can imply how elements of Kelly’s theory fit with the SCMCT model and social cognitive theory in general. Specifically Kelly’s conceptualization of threat could be conceptualized as a barrier to counseling self-efficacy. As mentioned previously, Kelly asserted that persons feel threatened when they are faced with an imminent change in their core constructs. Bandura (1997) also wrote extensively about threat in the context of how it adversely impacted self-efficacy, and that individuals avoid situations in which they do not believe they will perform adequately. In the context of counseling and psychotherapy, it stands to reason that LG threat experienced by counselors will decrease their self-efficacy beliefs about working with sexual minority clients. Counselors’ threatened by the prospect of being LG may inadvertently or actively not attend to clinically relevant information, especially when that information is related to a client’s sexual orientation. In the most extreme cases, they
may even conceive of a lesbian or gay lifestyle as something that needs to be changed or eradicated, thus pushing these values onto their clients. In addition, counselor trainees who experience more threat may be less likely to undergo the process of self-exploration of clearly defining their own sexual values, needs, activities, modes of sexual expression, or sexual orientation identity. Such trainees may actively avoid LGB affirmative training opportunities and avoid working with LGB clients.

Returning to Larson’s (1998) SCMCT model, Lent, Hackett, and Brown (1998) described another limitation. They indicated that self-efficacy, as it is explained by Bandura (1997), is often a domain specific construct. In other words, persons’ self-efficacy beliefs are specific to a particular situation at a particular time. In the context of counseling self-efficacy, this would translate to a counselor trainees’ estimation about working with a specific client on a specific problem or concern. Larson defined counseling self-efficacy broadly, describing it as a general construct in which a counselor trainee feels competent working with clients in general. While the current study narrows down counseling self-efficacy to counseling situations with LGB identifying clients, it should be noted that there is a tremendous amount of diversity amongst LGB identifying clients; therefore, counseling self-efficacy as conceptualized in the current study is not domain specific. Whereas this could be a limitation of this study, it has been suggested that counseling self-efficacy does not necessarily need to be domain specific in every instance. For example, Bandura (1997) maintained that self-efficacy assessments exist on three levels. In doing so, he proclaimed the following:

Self-efficacy is commonly misconstrued as being concerned solely with “specific behaviors in specific situations.” This is an erroneous characterization. Domain
particularity does not necessarily mean behavioral specificity. One can distinguish among three levels of generality of assessment. The most specific level measures perceived self-efficacy for particular performance under a specific set of conditions. The intermediate level measures perceived self-efficacy for a class of performances with the same activity domain under a class of conditions sharing common properties. And finally, the most general and global level measures belief in personal efficacy without specifying the activities or the conditions under which they must be performed (p. 49).

A global conceptualization and assessment of self-efficacy is, of course, of no less importance in the context of counseling. In many cases, it is beneficial for counselors to think about their overall efficacy for working with clients. This is especially the case when counselors assess their abilities to apply counseling strategies and skills that are often global or universal. For example, in most counseling situations, it is crucial for counselor trainees to form a strong therapeutic alliance with their clients. In the context of LGB counseling self-efficacy, the counselor trainee’s perceived ability to effectively address ways of dealing with heterosexism and homophobia will apply to a broad range of clinical situations with LGB clients. In addition, the counselor trainee’s own awareness about her or his heterosexist biases or level of heterosexist privilege when working with LGB clients is going to be important under almost any clinical circumstance.

One other critique of Larson’s (1998) model deserves mentioning. Overall, Larson adequately integrated the four sources of self-efficacy into her SCMCT model. However, when describing affective arousal as a counseling self-efficacy source, she
focused primarily on how anxiety decreases counseling self-efficacy. This limitation has also been indicated by Lent et al. (1998), who argued that other affective experiences (e.g. anger, sadness) could also negatively impact self-efficacy. Most studies examining the impact of anxiety on counseling self-efficacy have only looked at state and trait anxiety (e.g., Larson et al., 1992). In the present study, other forms of affective arousal that may be specific to LGB counseling self-efficacy were examined. In particular, LG threat was considered particularly relevant as it relates to the level of intrapersonal emotional discomfort one experiences when faced with the prospect of being LG. In addition, anti-LGB attitudes were examined as they are emotionally loaded and, therefore, another affective barrier potentially reducing LGB counseling self-efficacy.

**Relevant Research**

In this section, a critical examination of research relevant to the current study is presented. Several of these studies examined counseling self-efficacy in relation to working with sexual minority clients. In addition, each of these studies examined one or more of the variables that were selected as predictors of LGB counseling self-efficacy in the current study. While not all of the current study’s predictor variables have been investigated in relation to LGB counseling self-efficacy, these variables nonetheless are expected to have an impact on counseling self-efficacy as it relates to counseling sexual minority clients.

**LGB counseling self-efficacy, clinical experience, and training.** The first major investigation of LGB counseling self-efficacy was conducted by Dillon and Worthington (2003). They developed the Lesbian, Gay, and Bisexual Counseling Self-Efficacy Inventory (LGB-CSI); this a 32-item, factor analyzed, five-factor self-report
inventory that measured counselors’ estimations of their counseling self-efficacy as it related to counseling LGB clients. While it is beyond the scope of this critique to extensively review the five independent studies supporting the initial reliability and validity of Dillon and Worthington’s inventory, this section will provide a critique of studies closely linked to the current study’s hypotheses.

In a study determining the initial validity of the LGB-CSI, Dillon and Worthington (2003) examined correlations between counselors’ years of therapy experience, instruction in LGB issues, number of LGB clients, and number of LGB family and friends. The participants were 310 (245 women, 64 men) professional psychologists and counselors/psychologists-in-training. Results indicated that years of therapy experience, participants’ hours of instruction in LGB issues, number of LGB clients, and number of LGB family and friends positively and significantly correlated with their LGB counseling self-efficacy estimates. These findings were an important stepping-stone for understanding the variables that relate to LGB counseling self-efficacy. In addition, they provided further evidence supporting the role of performance accomplishments on counseling self-efficacy in the form of clinical experience and training. Yet, a limitation of these findings is that the correlational nature of this study and the statistical procedures they used did not constrain the direction of the relationship between number of years of therapeutic experience, training in LGB issues, number of LGB clients, and number of LGB family and friends and LGB counseling self-efficacy. In the current study, structural equation modeling (SEM) will be used to examine the relationship between number of years of therapeutic experience, training in LGB issues, number of LGB clients, and number of LGB family and friends and LGB counseling self-
efficacy, such that higher amounts of counseling experience, hours of LGB related training, number of LGB clients, and the number of LGB family and friends will positively predict higher LGB counseling self-efficacy. That is, even though the current study does not examine cause-effect relationships, the model is constructed so that directionality is implied where the predictors are hypothesized to affect the criterion variable (i.e., LGB counseling self-efficacy).

Another limitation to Dillon and Worthington’s study was that it did not examine the correlations between hours of therapy experience, hours of instruction in LGB issues, number of LGB clients, and number of LGB family and friends. These variables seem to share some commonalities. In particular, they are all experientially based variables indicative of counselors’ personal and professional contact experiences. Thus, it is expected that these variables together represent a broader theoretical construct. According to Larson (1998), counseling self-efficacy does not increase as a result of the execution of one specific action. Instead, an integration of multiple actions and experiences play a role in increasing counseling self-efficacy. The current study will expand upon Dillon and Worthington’s (2003) initial findings by using SEM to examine hours of therapy experience, hours of instruction in LGB issues, number of LGB clients, and number of LGB family and friends as observed variables loading onto a theoretical latent variable representing clinical, training, and personal experiences that impact LGB counseling self-efficacy. An advantage that SEM has over most other statistical research methods is that it allows researchers to examine correlations between observed variables that represent a latent variable (i.e., measurement model) in addition to examining the relationship between one or more latent variables (i.e., path model) where the
directionality of the relationship between numerous latent variables is implied. Therefore, in this study the relationship between a wider range of variables was examined than has been done in previous investigations (e.g., Dillon & Worthington, 2003).

**LGB counseling self-efficacy, sexual orientation, and training.** An unpublished doctoral dissertation by Korfhage (2005) examined the relationship between training in LGB issues and LGB counseling self-efficacy. Korfhage extended Dillon and Worthington’s (2003) findings suggesting a significant correlation between training in LGB issues and LGB counseling self-efficacy by using hierarchical multiple regression with gender and sexual identity of the participants’ entered into the first step and training and experience entered into the second step. Participants were 283 professional psychologists and psychologists-in-training. Results indicated that sexual identity of participant, training, and experience significantly predicted LGB counseling self-efficacy, while the relationship between gender and LGB counseling self-efficacy was non-significant. Yet, the relationship between participants’ sexual orientations and LGB counseling self-efficacy was greatly reduced in the second step of the regression model as compared to the first step ($\beta = -0.40$ at step one, $\beta = -0.18$ at step two), thus suggesting that participants’ sexual orientation had less of an impact on LGB counseling self-efficacy when training and experience were taken into account. Furthermore, training prevailed as the strongest predictor of LGB counseling self-efficacy ($\beta = 0.44$). These findings provided further support for the impact of training on LGB counseling self-efficacy and training. In addition, these results indicated that participants’ sexual orientation was an important variable to consider when examining LGB counseling self-efficacy, but that it may be less important than training. However, these findings did have some limitations.
While the hierarchical regression analysis used in this study was a more complex and superior statistical method than Pearson’s correlation coefficients used in Dillon and Worthington’s (2003) study, it did not determine the direction of the relationship between variables of interest. Again, having a theoretically informed model that examines the relationship between sexual orientation and LGB counseling self-efficacy in which the direction of the relationship is implied will provide a better understanding of the relationship between sexual orientation and counseling self-efficacy. Furthermore, testing such a theoretical model can facilitate a clearer understanding of the impact sexual orientation has on LGB counseling self-efficacy compared to training experiences, clinical experiences, sexual identity exploration and commitment, LGB attitudes, and LG threat.

Another limitation in Korfhage’s (2005) study had to do with her operationalization of sexual orientation. Korfhage's participants were categorized as exclusively heterosexual and non-heterosexual; no differentiations were made among other sexual identity groups. Research has suggested that women who identify as mostly heterosexual may differ from individuals who identify as exclusively heterosexual, such that they have had significantly more past, present, and ideal same sex sexual attractions, fantasies, and relationships than exclusively heterosexual women (Thompson & Morgan, 2008). Furthermore, Korfhage’s study indicated that mostly heterosexual women expressed significantly higher levels of sexual identity exploration than exclusively heterosexual women, yet were equal to bisexual and lesbian women in sexual identity exploration (Morgan et al., 2008). While the current study will not explicitly compare and contrast levels of LGB counseling self-efficacy amongst counselors based on their
sexual orientation identity, sexual orientation will be examined in relation to LGB counseling self-efficacy, such that mostly heterosexual counselors will be coded in the same group as LGB counselors.

**Anti-LGB attitudes and LGB counseling self-efficacy.** In a dissertation incorporating variables in line with variables in the current study, Haag (2008) investigated the influence of LGB specific training, gender, sexual orientation, anti-LGB attitudes, gender role adherence, and religiosity on counselor-trainees’ LGB counseling self-efficacy. Haag predicted that trainees with higher amounts of specific training in working with LGB clients, female trainees, LGB trainees, and trainees with lower levels of sexual prejudice, gender-role adherence, and religiosity would report higher levels of LGB counseling self-efficacy than those with lower amounts of training. One hundred and fifteen counselor trainees participated in this study. The sample was predominately female (75.7%) and heterosexual (82.6%). Consistent with Dillon & Worthington (2003) and Korfhage’s (2005) findings, Haag’s results indicated that LGB specific training experience, and counselors’ sexual orientation significantly predicted LGB counseling self-efficacy. In addition, anti-LGB attitudes significantly predicted LGB counseling self-efficacy; however, gender, gender role adherence, and religiosity did not.

Haag’s (2008) study has some limitations. First, and similar to Korfhage (2006), Haag used hierarchical regression analysis to determine predictors of LGB counseling self-efficacy; therefore, it is difficult to understand the a priori relationship between variables in her study. In addition, Haag only used one measure to assess attitudes towards lesbians and gays, and she did not investigate attitudes towards lesbians separate from attitudes towards gay men. In addition, she did not measure respondents’ attitudes...
towards bisexual persons. Using SEM, the current study will examine multiple factors that are representative of attitudes towards LGB persons in order to create a theoretically based latent attitudinal variable. This latent variable will include observed variables representing a range of attitudes towards lesbians, gay men, and bisexual men and women.

Another limitation to both Haag’s (2008) study, and Korfhage’s (2005) study, reviewed above, is that neither one used multiple measures (subscales) of LGB counseling self-efficacy. Instead they only used the total scale score of the LGB-CSI. As mentioned previously, the LGB-CSI has 5 distinct subscales that represent different components of LGB counseling self-efficacy. Thus, a multivariate statistical analysis, such as SEM, can provide a more complex understanding of how each subscale, as an observed variable, represents LGB counseling self-efficacy as a theoretical construct.

It should be noted that Haag did not find a significant relationship between gender, gender-role adherence, and religiosity and LGB counseling self-efficacy in her study, and while she found a statistically significant relationship between attitudes towards lesbians and gays and LGB counseling self-efficacy, the correlation was small. The lack of significance and small correlations might have been due to the relatively small sample size in her study, which might have contributed to low statistical power. The present investigation, in contrast, used a larger sample size in order to reduce the chances of Type II error.

Sexual identity exploration and commitment and LGB counseling self-efficacy. Dillon et al. (2008) examined the relationship between sexual identity exploration and commitment and LGB counseling self-efficacy. Their study included
178 (135 women, 43 men) psychotherapists and psychotherapists-in-training. Results indicated that sexual identity commitment significantly predicted LGB counseling self-efficacy; however, sexual identity exploration did not.

Similar to other studies reviewed in this section, a limitation to Dillon et al.’s study was the use of hierarchical regression analysis, which did not allow for an examination of the relationship between predictor variables and the five subscales of the LGB counseling self-efficacy. Also, and similar to Haag’s (2008) study, lack of significance for sexual identity commitment may have been a result of low power due to a small sample size. Again, the current study has sought to yield a larger sample size in order to decrease chances of type II error. Another limitation of Dillon et al.’s study was that they only investigated two out of four subscales of the MoSIEC. Dillon et al. (2008) examined the Exploration and Commitment subscales and their relationship with LGB counseling self-efficacy, but failed to examine the relationship between the Sexual Orientation Identity Uncertainty and Synthesis/Integration subscales and LGB counseling self-efficacy. Furthermore, the authors did not provide a rationale for why these subscales were omitted from their study. This is a major limitation, as past research has indicated that the MoSIEC consists of 4 factors with each factor carrying its own unique variance (Worthington et al., 2008) indicating that sexual identity exploration and commitment, as a theoretical construct, is best represented by four factors rather than two. This was accomplished in the current study.

In addition, including Sexual Identity Uncertainty and Synthesis/Integration may yield new research findings not discovered by Dillon et al. (2008). Because the relationship between commitment and LGB counseling self-efficacy in Dillon et al.’s
(2008) study was non-significant, it is possible that being uncertain about, as opposed to committed to a sexual orientation identity, will yield a significant relationship between sexual identity uncertainty and LGB counseling self-efficacy. Worthington et al. discovered that greater uncertainty regarding sexual orientation identity was also indicative of greater willingness to explore various aspects of sexual identity, including sexual orientation. In addition, it is possible that some persons commit to a sexual orientation identity without undergoing a process of exploration. For instance, Eliason (1995) noted that many heterosexual persons experience identity foreclosure, a process in which they accept being heterosexual without critically examining how they came to identify as heterosexual. Conversely, she noted that few heterosexuals, especially men, experience moratorium or the process whereby they are in an active process of exploring identity without making a commitment. Studies have suggested that sexual minorities are more likely to experience moratorium than heterosexuals (c.f., Thompson & Morgan, 2008). For instance, while studies have shown that sexual minority persons, particularly bisexual persons, report higher levels of uncertainty regarding their sexual orientation identities than heterosexual persons, sexual minority persons also report higher levels of sexual identity exploration than heterosexual persons (Dillon et al.; Worthington et al., Thompson & Morgan, 2008). As mentioned previously, counselors who identify as LGB endorse higher LGB counseling self-efficacy. It is possible that, because they are more likely to undergo a process of moratorium, LGB counselors are more invested than heterosexual counselors to investigate and obtain knowledge about issues of sexual orientation and sexual identity. Therefore, it seems important to include Sexual Identity Uncertainty in relation to LGB counseling self-efficacy. It also seems important to
investigate the impact of Synthesis/Integration on LGB counseling self-efficacy. As mentioned previously, Synthesis/Integration is the process in which a person has acknowledged compatibilities of all aspects of her or his sexual identity including values, needs, modes of sexual expression, preferred sexual activities, and orientation. This integration of multiple aspects of sexual orientation may be important, especially for counselor trainees who must recognize a complex range of factors that make-up their clients’ sexual identities. In the present investigation, all four subscales will be investigated, as observed variables correlating with a latent variable representing sexual identity exploration and commitment.

**Gender imbalance.** It should be noted that several of the studies on LGB counseling self-efficacy, including the studies reviewed in this section, have included predominately female samples; thus, male participants have been highly underrepresented (c.f., Haag, 2008). Such an imbalance has likely impacted the results of previous research on LGB counseling self-efficacy. Because past research studies have often concluded that women, in general, hold more positive attitudes towards LGB persons than do men (e.g., LaMar & Kite, 1998), it is possible that these studies are not giving an entirely representative account of counselors’ attitudes and self-efficacy beliefs for counseling sexual minority clients. In other words, the inventories used to measure LGB counseling self-efficacy and anti-LGB attitudes may produce inflated scores because of female respondents reporting higher self-efficacy and more positive attitudes towards LGB persons than male respondents. In the current study, attempts were made to elicit more responses from male participants in order to include a more gender-balanced sample.
LG threat. To date, no study has examined the relationship between LG threat and LGB counseling self-efficacy. However, Moradi et al. (2006) examined the relationship between LG threat and attitudes. Their sample consisted of 175 (75% women and 25% men) undergraduate psychology students. Their results indicated that LG threat positively correlated with anti-LG attitudes. In addition, they found that LG threat moderated the relationship between positive self-perception and positive self-presentation, such that higher LG threat scores for persons with higher anti-LGB attitudes increased positive self-perception and self-presentation. This second finding suggested that higher levels of anti-LG attitudes served the function of decreasing threat in order to increase positive self-perception and self-presentation.

While Moradi et al.’s (2006) findings are promising in that they suggest that attitudes serve a function in reducing threat and increasing self-perception and self-presentation, their research methodology, which consisted of univariate correlational analyses, was limited in determining whether threat predicted anti-LG attitudes. Again, SEM will be used in the current study to determine the directionality of the relationship between LG threat, anti-LGB attitudes, and LGB counseling self-efficacy. Also, nearly all studies that have examined the construct of LG threat have only tested it on undergraduate student populations. Thus, there is no evidence to verify the existence of LG threat among other populations. Examining LG threat among non-undergraduate student populations is important for the sake of increasing the external validity of the construct. This study will examine LG threat among counselors-in-training. Similar to the studies reviewed above that examined various predictors of LGB counseling self-efficacy, Moradi et al.’s. sample was predominately female. Again, the current
investigation seeks to obtain a more gender-balanced sample than what previous studies have yielded.

Summary, Current Research, and Hypotheses

Overall, counseling self-efficacy is an important construct to study because it provides a foundation for counselor trainees’ to develop competent counseling skills. According to Bandura (1986), knowledge alone is not sufficient to master a skill; an individual must also exert confidence in her or his ability to master that skill effectively. Furthermore, it is necessary for counselor trainees to be proficient in their work with specific clients seeking specific needs or services. LGB clients in particular are in need of counselors who are knowledgeable about and sensitive to LGB related issues. In addition, counselor trainees need to develop skills relevant to their competently working with LGB clients.

Counseling self-efficacy and self-efficacy in general rely on four key sources (i.e., performance accomplishments, vicarious learning, verbal persuasion, and affective arousal) to determine its strength and salience. There is substantial empirical evidence indicating that these four sources impact counseling self-efficacy. Performance accomplishments seemed to have the greatest influence on counseling self-efficacy strength while vicarious learning seemed to have the least (Daniels & Larson, 2001).

Barriers have been identified that adversely impact LGB counseling self-efficacy. Based on published research, it appears that the most prevalent barriers impacting LGB counseling self-efficacy are counselor trainees’ sexual orientations, anti-LGB attitudes, and lack of LGB relevant training or clinical experience. In particular, counselor trainees’ sexual orientation has been found to impact LGB counseling self-efficacy in that
LGB counselors endorse higher counseling self-efficacy compared to heterosexual counselors. Research has also indicated that LGB specific training experience and clinical experience have a moderate to high influence on LGB counseling self-efficacy (Dillon & Worthington, 2003; Dillon et al., 2008; Haag, 2008; Korfhage, 2005).

Numerous empirical studies have been performed on counselors’ and counselor trainees’ attitudes towards sexual minority clients. While some studies suggest a trend in counselors’ and counselor trainees’ becoming more tolerant towards LGB clients, other studies have indicated that some counselors make biased clinical judgments when working with LGB clients. Research investigating the impact of attitudes on LGB counseling self-efficacy has revealed a positive relationship between counselors’ expressing tolerant attitudes towards LGB persons and counselors’ LGB counseling self-efficacy.

This chapter also examined the literature on LG threat. LG threat is based on the idea that an individual perceives being LG as incompatible with how she or he sees her or himself. While LG threat has been studied in relation to attitudes, studies have yet to examine the impact of LG threat on LGB counseling self-efficacy. Based on the SCMCT model, negative affective experiences decrease self-efficacy estimates. Such experiences may be conceptualized as barriers to counseling self-efficacy. Thus, higher levels of LG threat may reduce LGB counseling self-efficacy. Because LG threat is a process where an individual perceives being LG as an imminent change to her or his core constructs, it is expected that this experience will likely cause this individual considerable anxiety. In order to reduce this anxiety, a person may express negative or non-affirming attitudes towards sexual minorities. Expressing such attitudes would likely help the person
separate her or himself from the threat of being LG, thereby reconfirming her or his core constructs. However, if counselors endorse negative attitudes to reduce threat, such attitudes would adversely impact their competence in affirmatively working with LGB clients. Therefore, attitudes may, at least partially, mediate the relationship between threat and LGB counseling self-efficacy.

Finally, this chapter introduced the concept of sexual identity exploration and commitment. Research has indicated that sexual identity exploration and commitment varies by participants’ sexual orientation, such that sexual minorities endorse higher exploration and commitment than do heterosexuals. In addition, sexual identity commitment was demonstrated to predict LGB counseling self-efficacy. To date no study has examined the relationship between sexual identity exploration and commitment and LG threat.

The purpose of the current study will be to investigate the potential mediating role of LG threat and anti-LGB attitudes on the relationship between a range of experiential variables (i.e., amount of LGB related training, amount of LGB related clinical experience, number of LGB friends and family), sexual identity exploration and commitment, and LGB counseling self-efficacy. Currently studies have indicated sexual identity predicts sexual identity commitment and LGB counseling self-efficacy (Dillon et al., 2008). In addition, LGB attitudes have been found to correlate with LGB counseling self-efficacy (Dillon & Worthington, 2003). Finally, previous studies have indicated a direct relationship between sexual identity exploration and commitment and anti-LGB attitudes (Worthington et al., 2005). So far, all published studies on LGB counseling self-efficacy have been correlational in nature. Thus, no inferences have yet been made
about the direction of the relationship between LGB counseling self-efficacy, attitudes, and identity exploration and commitment and LG threat based on assumptions of a theoretical model. In fact, no published or unpublished studies were located testing a structural model of LGB counseling self-efficacy beliefs.

In the current study, therefore, SEM will be used to test a causal model of counselor trainees’ LGB counseling self-efficacy. The model will be based primarily on the tenets of social cognitive theory (Bandura 1986) and Larson’s (1998) SCMCT model. In addition, the model is informed by theory and research regarding Kelly’s formulation of threat and Marcia’s (1967, 1980) theory of identity exploration and commitment. The latter theory will be examined in reference to identity exploration and commitment of sexual identity (Worthington et al., 2008). By integrating the tenets of these theories, it stands to reason that counselors’ who are lacking in an active exploration of their sexual identities may experience increased LG threat. That is, when counselor trainees have not undergone the process of exploring their sexual needs, sexual values, preferred sexual activities, modes of sexual expression and sexual orientation they will be more prone to perceive the idea of being LGB as incompatible with their current view of their self.

Furthermore, as a means of reducing LG threat, counselor trainees may express anti-LGB attitudes in order to separate themselves from the perceived threat of being LG. Thus, based on the SCMCT model, threat may be perceived as a barrier to counseling self-efficacy.

The present study has several implications for research, training, and practice. This study builds on previous research findings by examining a theoretically constructed model to determine the influence of counselor trainees’ experiences, sexual identity
exploration and commitment, LGB attitudes, LG threat, and sexual orientation on LGB counseling self-efficacy. In doing so, the present investigation allows for an examination of both manifest variables (i.e., the directly measured variables) and latent variables (i.e., the underlying theoretical variable). This differs from previous LGB counseling self-efficacy studies, which have only investigated observed variables’ influences on LGB counseling self-efficacy. This can be particularly problematic when investigating constructs that are complex and better represented by multiple measures. For example, only examining one aspect of counselor trainees’ experiences (e.g., number of LGB clients) does not entirely represent the range of experiences that influence counselors’ LGB counseling self-efficacy. Therefore, a latent theoretical construct assessing for multiple kinds of experiences may provide a more complex understanding of the types of experiences that influence LGB counseling self-efficacy.

The current investigation also improves upon previous research findings by being the first to test mediating effects of variables that influence LGB counseling self-efficacy. In this study sexual identity exploration and commitment, LGB attitudes, and LG threat are expected to mediate the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. Also, LG threat and LGB attitudes are expected to mediate the relationship between sexual identity exploration and commitment and LGB counseling self-efficacy. It is believed that counselor trainees’ experiences are partially mediated by LGB attitudes and LG threat because counselor trainees’ previous contact with LGB persons (i.e., family, friends, and clients), in addition to the amount of training received in LGB related issues, will influence both attitudes and threat, which will then influence LGB counseling self-efficacy levels.
This investigation will extend findings from previous investigations that have indicated an influence of counselor trainees’ sexual orientations on LGB counseling self-efficacy. It is therefore expected that counselor trainees’ sexual orientations will significantly predict LGB counseling self-efficacy. Also, it is expected that mostly heterosexual and sexual minority counselor trainees will be more efficacious than heterosexually identifying counselor trainees. Counselor trainees’ sexual orientations will be examined in a second structural model to determine whether the other variables in the model remain significant predictors of LGB counseling self-efficacy after sexual orientation is added. While it is expected that other variables will remain significant predictors of LGB counseling self-efficacy, the addition of sexual orientation will likely lessen the influence of these variables on LGB counseling self-efficacy.

Identifying predictors of LGB counseling self-efficacy beliefs may provide important information on how to best inform training directors in preparing counselor trainees for providing counseling services to LGB clients. This may be especially important for heterosexual counselor trainees, who tend to endorse lower LGB counseling self-efficacy beliefs as compared to LGB counselor trainees (Dillon & Worthington, 2003). According to Eliason (1995), heterosexual people in general treat heterosexuality as a compulsory construct. In other words, because heterosexuality is considered normative in society, most people do not question how they became heterosexual. According to Worthington, et al. (2002), counselor-trainees’ deeper introspections of their sexual identities may, “reduce the tendency of trainees to dichotomize sexual orientation along heterosexual-homosexual lines of distinction and help to eliminate notions of normality regarding heterosexuality” (p. 523). Thus, such
introspection may help heterosexual trainees understand that sexuality is a complex and multidimensional construct that cannot be simplified into dichotomies of “heterosexual” and “gay.” Furthermore, counselor trainees’ self-awareness of their sexual identities may increase their comfort level working with LGB clients while helping these trainees to become aware of “erotic transference and countertransference in the context of counseling” (Worthington et al., 2002; p. 523). In addition, it may provide training directors with an understanding of how to best design training environments for developing counselor trainees’ gay affirming attitudes (Mohr, 2002).

Finally, understanding the relationship between LG threat and LGB counseling self-efficacy may have important implications for training. It has been suggested that reducing counselor trainees’ LG threat may help counselors endorse affirmative LGB attitudes (Moradi et al., 2006). Reducing such threat may be contingent upon increasing positive contact experiences with LGB persons. Thus, heterosexual counselor trainees exposure to LGB clients and LGB persons, in general, may be ideal in reducing threat and increasing LGB affirmative attitudes.

In the current study, two competing models of LGB counseling self-efficacy were examined. In Model 1 (see Figure 1) LG threat and LGB attitudes were hypothesized to partially mediate the relationship between counselor trainees’ experiences, sexual identity exploration and commitment, and LGB counseling self-efficacy (see Hypotheses 1, 2, and 3).

The relationship between latent variables in Model 1, were drawn from the empirical and theoretical literature. Research has indicated that LGB related training and clinical experiences predict LGB counseling self-efficacy (e.g., Korfhage, 2005).
Furthermore, research has shown that counselors’ positive LGB attitudes predict LGB counseling self-efficacy. With regard to counselor trainees’ experiences and LGB attitudes, it is believed that counselor trainees LGB related clinical and training experiences, in addition to the number of counselor trainees LGB family members and friends, will be predictive of positive LGB attitudes. This expected finding is based on past research evidence in support of the contact hypothesis, which indicated that meaningful interactions with LGB persons improve LGB attitudes (e.g., Liang, Alimo, & Liang, 2005). The anticipation that experience will be a predictor of LGB attitudes is also based on Herek’s (1987) research findings, which indicated that heterosexual persons’ past experiences with LGB persons acted as a function of LGB attitudes. Similarly, and based on Herek’s (1987) findings regarding the defensive function of negative LGB attitudes, it is believed that LG threat may serve a defensive function for counselor trainees’ negative LGB attitudes. Based on the tenets of Larson’s (1998) SCMCT, it is believed that negative LGB attitudes and LG threat will both act as barriers to LGB counseling self-efficacy. Therefore, it is expected that negative attitudes and high LG threat will predict lower LGB counseling self-efficacy. Finally, sexual identity exploration and commitment seems conceptually related to the other main variables in a number of ways. First, it is expected that counselor trainees who have undergone LGB related clinical and training experiences would have been encouraged to reflect on their sexual identities/orientations. It also stands to reason that reflecting on one’s own sexual identity values, needs, modes of sexual expression and orientation would increase positive attitudes and decrease levels of LG threat because such a reflective process would encourage someone to introspectively reflect on their own biases and attitudes.
Finally, this process of exploring or committing to a sexual identity may play a role in helping counselor trainees be more knowledgeable about and sensitive to their LGB competent counseling behaviors and self-efficacy beliefs. Consistent with this premise, past research has shown that sexual identity commitment predicted LGB counseling self-efficacy (Dillon et al., 2008).

Model 2 is identical to Model 1 with one exception. It is a mimic model examining the relationship between counselor trainees’ sexual orientations and LGB counseling self-efficacy. Past research has indicated that counselors’ and counselor trainees’ sexual orientation significantly predicts LGB counseling self-efficacy and that sexual minority counselors and counselor trainees tend to be more efficacious than heterosexual counselors and counselor trainees in working with LGB clients (Dillon et al., 2008; Korfhage, 2005). Consistent with these findings, Model 2 examined if the relationship between the main predictor (i.e., counselors’ experiences and sexual identity exploration and commitment and mediating variables (i.e., LGB attitudes and threat) decreased when counselors’ sexual orientation were included in the model. Based on the rationale devised in this section, the following hypotheses were tested:

1. Attitudes towards LGB persons, LG threat, and sexual identity exploration and commitment will partially mediate the relationship between counselor trainees’ experiences and LGB counseling self-efficacy such that, for trainees endorsing high levels of experience, high levels of positive LGB attitudes, low levels of LG threat and high levels of sexual identity exploration and commitment will predict high levels of LGB counseling self-efficacy (see Figure 1, Paths a, b, c, h, and f).
2. Attitudes towards LGB persons and LG threat will partially mediate the relationship between sexual identity exploration and commitment and LGB counseling self-efficacy such that, for counselor trainees endorsing high levels of sexual identity exploration and commitment, positive LGB attitudes and lower levels of LG threat will predict high levels of LGB counseling self-efficacy (see Figure 1, Paths c, d, e, f, and i).

3. Attitudes towards LGB persons will partially mediate the relationship between LG threat and LGB counseling self-efficacy such that, for counselor trainees endorsing more positive attitudes towards LGB persons, lower levels of LG threat will predict higher levels of LGB counseling self-efficacy (see Figure 1, Paths c, f, and j).

4. Counselor trainees’ sexual orientation identities will predict LGB counseling self-efficacy and non-heterosexual trainees will endorse higher self-efficacy than heterosexual trainees (see Figure 1, Path k).

5. Counselor trainees’ sexual orientation identities are expected to partially moderate the influence of counselors’ experiences, LGB attitudes, LG threat, and sexual identity exploration and commitment on LGB counseling self-efficacy (see Figure 1, Path k).
Figure 1: Theoretical model examining predictors of lesbian, gay, and bisexual counseling self-efficacy. Trainees’ experiences = months of clinical experience, number of LGB clients, number of LGB family and friends, and hours of LGB related counselor training experiences. SIEC = Sexual Identity Exploration and Commitment. LG threat = Lesbian and Gay Threat. LGB Attitudes = Lesbian, Gay, and Bisexual Attitudes. LGB-CSE = Lesbian, Gay, and Bisexual Counseling Self-Efficacy.
Chapter III

Method

This chapter describes the research methodology of the present study. It includes information about participants, instruments, data collection procedures and statistical procedures used to test hypotheses.

Participants

Participants were 447 counselors-in-training. Selection criteria mandated that participants needed to be trainees pursuing either a master’s degree in counseling or a doctorate in counseling psychology or counselor education. Of the 447 original participants, 36 were excluded from the analysis for failing to respond to 3 or more items on any of the surveys’ instruments. Five additional participants were considered outliers and their responses were excluded from the analysis. In sum, 406 participants responses were maintained for the analyses.

Given that responses from 41 participants were not considered usable, Kline’s (2005) recommendations for adequate statistical power in SEM studies were consulted. According to Kline, obtaining the appropriate sample size in an SEM study is determined by calculating the ratio between the number of participants and the number of observed indicators. Accordingly, number of participants should be 20 times greater than the total number of observed indicators. Nineteen parameters were examined in the present study.
Based on this assumption, 380 participants were needed for adequate statistical power. Therefore, the present study’s sample was considered of adequate size.

Participants’ ages ranged from 22 to 62 years and the sample’s mean age was 30.26 years ($SD = 8.43$). Participants’ years in their respective training programs ranged from 1 to 9 years ($M = 2.27, SD = 1.36$) and their years of clinical experience ranged from 0 to 360 months ($M = 24.98, SD = 34.93$). Other demographic information about the participants is presented in Table 1.

**Instruments**

**Demographic questionnaire.** A demographic questionnaire was developed for the current investigation to determine counselor trainees’ age, gender, race/ethnicity, and sexual orientation. In addition, trainees were asked about their year of study (e.g., 3rd year PhD, 2nd year masters’), number of years and/or months of clinical experience, approximate number of lesbian, gay, and bisexual (LGB) clients seen in their counseling practice, approximate number of LGB friends and family members, and amount of counseling/psychology focused LGB training experience (see Appendix A). Questions regarding clinical experience, LGB specific clinical experience, and LGB specific training experience were adapted from a demographic questionnaire developed by F. R. Dillon (personal communication, September 24, 2010). See Appendix A for a copy of the demographic questionnaire.

**LGB counseling self-efficacy.** The LGB-CSI (Dillon & Worthington, 2003) was used to measure counselor trainees’ self-efficacy beliefs for working with sexual minority clients. The LGB-CSI is a 32-item self-report measure that uses a 6-point Likert-
Table 1

**Demographic Characteristics for Participants**

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*Note. N = 406*
type rating scale ranging from 1 (not at all confident) to 6 (highly confident) (see Appendix B). Scoring of the LGB-CSI consisted of obtaining the sum total of each of the instruments five factors or the sum total of the entire instrument. Higher scores on a factor or the entire scale reflected higher self-efficacy beliefs.

An exploratory factor analysis (EFA) indicated that the LGB-CSI consisted of five factors that were used to construct subscales. The first factor was titled Application of Knowledge and consisted of 13 items (eigenvalue = 16.14) accounting for 47.89% of the variance. This factor measured counselor trainees’ confidence in performing “counseling behaviors reliant on a priori knowledge of an LGB issue in psychology” (Dillon & Worthington, 2003; p. 238). A sample item is, “How confident am I in my ability to directly apply my knowledge of the coming out process with LGB clients?”

The second factor called Advocacy Skills included 7 items (eigenvalue = 4.09) that accounted for 6.40% of the variance. This factor tapped counselor trainees’ confidence in acquiring appropriate community resources for LGB clients (e.g., “How confident am I in my ability to refer a LGB client to affirmative legal and social supports?”). The third factor was Awareness and contained 5 items (eigenvalue = 3.52) accounting for 5.51% of the variance. Questions on this factor inquired about counselor trainees’ confidence in introspectively investigating their own heterosexist biases (e.g. “How confident am I in my ability to examine my own sexual orientation/identity development process?”). The fourth factor was titled Assessment and consisted of 4 items (eigenvalue = 1.91), which accounted for 2.99% of the variance. This factor examined counselor trainees’ confidence in applying appropriate diagnostic interventions for sexual minority clients. A sample item was, “How confident am I in my ability to assess for post-traumatic stress...
felt by LGB victims of hate crimes based on their sexual orientations/identities?” The fifth factor was titled *Relationship* and has 3 items (eigenvalue = 1.39) that made up 2.18% of the variance. This factor measured counselor trainees’ confidence in developing a therapeutic alliance with an LGB client (e.g., “How confident am I in my ability to normalize a LGB client’s feelings during different points of the coming out process?”). Dillon and Worthington (2003) reported Cronbach’s alpha reliabilities of .96, .93, .87, .88, .86 for the Knowledge, Advocacy, Awareness, Assessment, and Relationship factors/subscales, respectively. For the entire measure it was .97. Dillon and Worthington (2003) reported moderate to low 2-week test-retest reliability for the LGB-CSI. Test-retest reliability estimates for the Application of Knowledge, Advocacy Skills, Awareness, Assessment, and Relationship factors were .57, .48, .45, .38, and .37 respectively. For the total LGB-CSI it was .51. Dillon and Worthington attributed low test-retest reliabilities to potential history effects and testing effects and recommended that future researchers investigate potential causes of low test-retest reliability coefficients. In the present study, Cronbach’s alpha reliabilities were in line with those reported by Dillon and Worthington (2003). For the subscales Cronbach’s alphas were .95, .94, .84, .91, .82 for Knowledge, Advocacy, Awareness, Assessment, and Relationship, respectively. For the entire scale Cronbach’s alpha was .96.

Dillon and Worthington (2003) assessed for the factor structure reliability of the LGB-CSI by conducting a confirmatory factor analysis (CFA) to determine whether the 1st order 5-factor model obtained in the EFA was a better fit for the data compared to a 2nd order 5-factor model, a 4-factor model, a 3-factor model, and an independence model.
CFA results indicated that the first order 5-factor oblique model was the best fit for the data. These results supported the factorial validity of the LGB-CSI.

Additional investigations of the LGB-CSI’s (Dillon & Worthington, 2003) validity indicated that counselors’ and counselor trainees’ number of years of clinical experience was positively and significantly related to 4 of the 5 LGB-CSI factor scores (r = .15-.30, p ≤ .001). All but the Awareness factor correlated with years of clinical experience. Psychology and counseling related instruction in LGB issues positively and significantly correlated with all 5 factors (r = .21-.45, p ≤ .01). In addition, counselors’ and counselor trainees’ number of LGB clients (r = .15-.28, p ≤ .01) and number of LGB family and friends (r = .19-.37, p ≤ .01) were positively and significantly related to the 5 LGB-CSI factor scores. Finally, additional tests have indicated that professional psychologists have statistically significantly higher LGB-CSI scores than counselor trainees. All these studies taken together provide support for the instrument’s concurrent validity.

Convergent validity estimates of the LGB-CSI revealed that the five factors positively and significantly correlated with measures of attitudes towards LGB persons ($r^2 = .23-.59$, $p ≤ .05$), indicating that more tolerant attitudes were positively correlated with LGB-CSI scores. In addition, the LGB-CSI’s Application of Knowledge, Awareness, Relationship, and Assessment factors positively and significantly correlated with a general self-efficacy measure ($r = .19-.66; p ≤ .05$), thus indicating that counseling self-efficacy, specific to counseling LGB clients, was positively related to general counseling self-efficacy.
Divergent validity estimates indicated that the LGB-CSI Application of Knowledge, Awareness, Assessment, and Relationship factors did not significantly correlate with a measure of socially desirable responding, thus indicating that respondents were not providing exaggerated or socially desirable impressions of their self-efficacy. However, the Awareness factor was positively and significantly related to the total score of a measure of socially desirable responding ($r^2 = .37; p \leq .05$). This suggested that respondents may provide truthful yet exaggerated claims regarding their self-awareness of their heterosexist biases.

In summary, the LGB-CSI seems to have strong reliability and validity; yet, low test-retest reliability estimates may be a concern. Low test-retest reliability may be indicative of respondents’ scores increasing as a result of taking the LGB-CSI multiple times. Also, Awareness factor responses may be vulnerable to respondents providing exaggerated responses. These limitations will be discussed further in Chapter 5. In this study, the LGB-CSI factor scores will be used to measure counseling self-efficacy, such that the five factor scores will constitute the measured indicators of the latent variable LGB-CSI. Please refer to Appendix B for a copy of the LGB-CSI.

**Sexual identity exploration and commitment.** Sexual identity exploration and commitment was assessed using the Measure of Sexual Identity Exploration and Commitment (MoSIEC; Worthington, et al. 2008). The MoSIEC is a 22-item self-report of individuals’ level of sexual identity exploration (i.e., the process of defining and refining one’s sexual needs, values, activities, modes of sexual expression, and sexual orientation) and commitment (i.e., the integration of one’s sexual needs, values, activities, modes of sexual expression, and sexual orientation). Responses are rated on a
6-point Likert type scale ranging from 1 (very uncharacteristic of me) to 6 (not characteristic of me). Scoring of the MoSIEC consists of obtaining the average score of each of the instrument’s four factors. Items 1, 15, 16, and 18 are reverse scored.

An exploratory factor analysis (EFA) yielded a 4-factor solution for the MoSIEC (Worthington et al., 2008). The first factor, titled *Exploration*, accounted for 22.25% of the variance. This factor represents items that assess person’s exploration of sexual needs, values, and modes of sexual expression. A sample item on the Exploration factor is, “I am actively experimenting with sexual activities that are new to me.” The second factor was called *Commitment* and accounted for 18.64% of the variance. This factor measures a person’s sense of knowing her or his sexual needs and values (e.g., “I have a firm sense of what my sexual needs are”). The third factor, *Sexual Identity Uncertainty* accounted for 5.73% of the variance. This factor measures the degree of uncertainty about one’s sexual orientation identity. A sample item is, “My sexual orientation is not clear to me”. The fourth factor was titled *Synthesis/Integration*; it accounted for 3.48% of the variance. This factor taps a person’s sense of integrating multiple aspects of her or his sexual identity. A sample item is, “The ways I express myself sexually are consistent with all of the other aspects of my sexuality.” Worthington et al. (2008) reported Cronbach’s alpha reliabilities for the four factors as .87, .83, .87, .76 for the Exploration, Commitment, Sexual Identity Uncertainty, and Synthesis/Integration factors respectively. A total score for this measure is not calculated as the factors are considered independent of each other. Test-retest reliabilities over a 2-week period ranged from .71 to .90 (Worthington et al., 2008). In the present study, Cronbach’s alpha was .87, .82, .83, .80
for Exploration, Commitment, Sexual Identity Uncertainty, and Synthesis/Integration respectively.

MoSIEC’s factor structure was confirmed using CFA. The four factor model obtained from the initial EFA produced the best goodness of fit indices when compared to a revised four factor model, a first order three factor model, and a second order three factor model.

Support has been found for the MoSIEC convergent validity. The MoSIEC Commitment factor positively and significantly correlated with respondents’ age ($r^2 = .25, p \leq .05$). In addition, this factor significantly and negatively correlated with sexual conservatism ($r^2 = -.09, p \leq .05$), while it significantly and positively correlated with sexual self-consciousness ($r = .45, p \leq .05$), sexual assertiveness ($r = .40, p \leq .05$), and sexual appeal awareness ($r = .14, p < .05$). The Exploration factor significantly and negatively correlated with participants’ religiosity ($r^2 = -.25, p \leq .05$) and sexual conservatism ($r^2 = -.36, p = .05$); it positively correlated with sexual self-consciousness ($r^2 = .33, p \leq .05$), sexual self-monitoring ($r^2 = .30, p \leq .05$), and sexual assertiveness ($r^2 = .21, p \leq .05$). The Sexual Orientation Identity Uncertainty factor negatively and significantly correlated with gender ($r = -.09, p \leq .05$), religiosity ($r^2 = -.12, p \leq .05$) sexual conservatism ($r^2 = -.09, p \leq .05$), sexual self-consciousness ($r^2 = -.08, p \leq .05$), sexual assertiveness ($r^2 = -.06, p \leq .05$); it correlated positively and significantly with self-monitoring ($r^2 = .11, p \leq .05$). Finally, the Synthesis/Integration factor significantly and positively correlated with age ($r^2 = .19, p \leq .05$), sexual self-consciousness ($r^2 = .41, p \leq .05$), and sexual assertiveness ($r^2 = .28, p \leq .05$), while it negatively and significantly
correlated with sexual conservatism \((r^2 = -0.10, p \leq 0.05)\) and sexual self-monitoring \((r^2 = -0.01, p \leq 0.05)\).

In summary, the MoSIEC has good reliability and validity. Although some convergent validity estimates were low to moderate, results indicated that the MoSIEC factors significantly correlated with several demographic and sexuality based variables in line with predictions based on theory and past research. In the present study, the four factors of the MoSIEC (Worthington, et al., 2008) were used to measure the indicators of the latent variable sexual identity exploration and commitment. Please see Appendix C for a copy of the MoSIEC.

LG threat. The Lesbian and Gay Threat Scale (LGTS; Moradi, et al., 2006) was used to measure LG threat. LG threat is defined as “the extent to which the notion of being LG is perceived as incompatible with one’s existing construal of the self such that integrating the notion of being LG with the existing self-concept is experienced as intolerable” (Moradi, et al., 2006; p. 58). In particular, such incompatibilities exist between the way a person sees her or himself, the way that she or he would prefer to see her or himself, and the way she or he would see her or himself if she or he were LG. The LGTS is a self-report measure consisting of 30 bipolar constructs with of 2 elements on each side of the pole (e.g., happy or sad, successful or unsuccessful, and serious or carefree). Respondents are asked to select the element that most closely represents how they see themselves. The respondents complete the scale three consecutive times. First, the respondents rate how they currently see themselves under different conditions. Second they rate how they would prefer to see themselves. Third, the respondents rate how they would see themselves if they were LG. Moradi et al. explained that, “Preferred
self responses provide the valence of each construct for each participant (i.e., which pole is viewed as positive)” (p. 60). For example, if a respondent rates the preferred self as carefree, that construct is considered to be desirable for that person. In order to compute LG threat scores, Moradi et al. (2006) indicated that respondents receive 1 point, “for each construct pole that is circled for both the self and the preferred self, but not for the self as LG” (p. 60). Thus, when the self and preferred self are congruent with each other, but are both discrepant from the LG self, LG threat is present. For example, if a respondent circles the construct *carefree* for the self and preferred self but circles the opposite construct *serious* for the self as LG, then 1 point is calculated for that respondent’s LG threat score. The more points a respondent receives, the higher LG threat score. Respondents may receive up to 30 possible points. For instance, respondents receiving zero-points endorse no level of LG threat, while respondents receiving 30-points endorse the maximum level of LG threat possible.

Moradi et al. (2006) measured the test-retest reliability for the LGTS on a sample of 36 participants. A 2-month test-retest reliability coefficient was .72 ($p < .001$). Moradi et al. deemed internal consistency reliability to be an inappropriate measure of the LG Threat Scale because the “scores do not reflect ratings of a set of unidimensional-internally consistent items and are computed on the basis of discrepancies across ratings of self, preferred self, and LG self” (p. 60). Thus, they did not report internal consistency reliability in their study. Nevertheless, it is possible to obtain an internal consistency reliability coefficient for the total LGTS score. For the present study, Cronbach’s alpha reliability for the entire LG threat scale was .75. This suggested that there were moderate inter-correlations between items on this scale.
To evaluate the scale’s construct validity, Moradi et al. (2006) analyzed the relationship between participants’ “reports of past, recent, and desired future socialization with exclusively heterosexual social groups” (p. 60) and their LG threat scores. Desired exclusively heterosexual interactions were indicative of respondents wanting to avoid threatening experiences. The respondents’ past \( r = .22, p < .01 \) recent \( r = .28, p < .001 \), and desired \( r = .41, p < .001 \) socialization significantly correlated with their LG threat scores.

Reliability and validity results for the LG threat scale seem promising. Whereas internal consistency of the measure was not established by Moradi et al. (2006), they did report test-retest reliability estimates for the scale; these estimates were moderate and statistically significant. In addition, findings regarding the scale’s construct validity indicated that respondents desiring only heterosexual social interactions endorsed higher levels of LG threat. In the present study, the LGTS will be used to represent respondents’ level of LG threat. The LG threat scale will be represented as an observed variable in the study, because it consists of one factor. While attempts were made to parcel the items so that they would represent different factors loading onto a single latent threat variable, the items did not successfully load onto different factors. Please see Appendix D for a copy of the LGTS.

Anti-LGB attitudes.

*The ATLG.* The Attitudes Towards Lesbians and Gay Men Scale (ATLG; Herek, 1984, 1987, 1998) was used to assess attitudes towards lesbians and gay men. The ATLG is a 20-item self-report measure consisting of 10 items assessing attitudes towards lesbians and 10 items assessing attitudes towards gay men on a single continuous scale.
entitled *condemnation-tolerance*. ATLG items are rated on a 5-point Likert-type scale ranging from 1 (disagree strongly) to 5 (agree strongly). Sample items of the ATLG are “Female homosexuality is a sin” and “Male homosexuals should not be allowed to teach school”. The ATLG scores were obtained by calculating the total scores for each of the two factors: Attitudes Toward Lesbians (ATL) and Attitudes Toward Gays (ATG). Higher scores indicate more negative attitudes towards lesbians and gay men. Reverse scoring is performed for items 2, 4, 7, 11, 15, and 17. However, in the current study, reverse scoring was performed for items 1, 3, 5, 6, 8, 9, 10, 13, 14, 16, 18, and 19 so that higher scores would represent more tolerant attitudes. This was done so that item scores would positively correlate with the Attitudes Towards Bisexuality Scale reviewed below.

Herek (1984, 1988) reported Cronbach alpha internal consistency reliabilities of .85, .89, .93 for ATL, ATG, and ATLG total scores, respectively. In the current study, Cronbach’s alpha reliabilities were .82, .89, .92 ATL, ATG, and ATLG respectively. Convergent validity has been established for the ATLG. Scores of the ATLG correlated with traditional religious ideology ($r = .56, p < .001$), religious attendance ($r = .46, p < .001$), traditional family ideology ($r = .63, p < .001$) and traditional sex role attitudes ($r = .48, p < .001$) suggesting that the higher scores on these variables the more negative were attitudes toward lesbians and gay men. Furthermore positive contact with gay men ($r = -.45, p < .001$), positive contact with lesbians ($r = -.36, p < .001$), number of gay friends ($r = -.25, p < .001$), and number of lesbian friends ($r = -.24, p < .001$) were linked with positive attitudes toward lesbian women and gay men. These results taken together suggest that adherence to traditional religious ideologies, which often endorse condemnation of sexual minority persons, were linked to negative attitudes towards
lesbians and gay men. The results also indicated that there was a relationship between
gender role attitudes and attitudes towards lesbian and gay persons, such that respondents
who held more traditional gender role attitudes were more likely to hold negative
attitudes towards lesbians and gay men than respondents who had less traditional gender
role attitudes. Overall, ATLG scores do not significantly correlate with a scale of
socially desirable responding, thus supporting the discriminant validity of the scale.

The ARBS. The Attitudes Regarding Bisexuality Scale (ARBS; Mohr & Rochlen,
1999) was used to measure attitudes towards bisexual persons. The ARBS is an 18-item
self-report scale containing 10 items focusing on a female target and 8 items focusing on
a male target. Items on the ARBS are rated on a 5-point Likert-type scale ranging from 1
(strongly disagree) to 5 (strongly agree). EFA analysis indicated a two factor solution for
the ARBS. The first factor accounted for 39% of the variance and was titled Tolerance
because the items seemed to measure for the extent to which persons perceive bisexuality
as a moral and tolerable sexual orientation. A sample item from the Tolerance factor is
“The growing acceptance of female bisexuality indicates a decline in American values”.
The second factor accounted for 17% of the variance and was named Stability. This
factor measures the extent to which persons perceive bisexuality as a stable and
legitimate sexual orientation. A sample item for this factor is “Male bisexuality is not
usually a phase, but rather a stable sexual orientation”. ARBS scores were obtained by
calculating the mean item score of each factor. The following items are reverse scored:
1, 2, 3, 4, 5, 8, 9, 10, 12, 13, 14, 15, and 18. Higher scores indicate more positive
attitudes towards bisexual persons.
The two-factor structure of the ARBS was supported in a CFA. The two factor model was tested against a one factor model. Results, which consisted of multiple fit indices, indicated that the two factor model better fitted the data than a one factor model. Thus support has been established for the factorial validity of the measure. Mohr and Rochlen (1999) reported Cronbach’s alpha reliabilities of .91 and .92 for the Stability and Tolerance factors, respectively. Test-retest reliability over a 3-week period was .85 for Stability and .91 for Tolerance. In the current study, Cronbach’s alpha was .89 for Tolerance and .90 for Stability.

Two separate tests of convergent validity were conducted on the ARBS; one on a heterosexual sample of participants and another on a lesbian and gay sample of participants (Mohr & Rochlen, 1999). The authors’ rationale for testing convergent validity on these two samples was based on the assertion that heterosexuals, as well as lesbians and gays, hold negative attitudes towards bisexuals. Relying on the heterosexual sample it was found that the ARBS (Mohr & Rochlen, 1999) tolerance scores significantly differed by participants’ race $F(1, 239) = 14.96, p < .004$, religious attendance $F(3, 301) = 24.04, p < .004$, political ideology $F(2, 302) = 40.92, p < .004$, personal contact with a bisexual person $F(1, 303) = 33.56, p < .004$, and sexual orientation identity $F(1, 303) = 29.38, p < .004$. Scores on the tolerance factor differed by participants’ religious attendance $F(1, 301) = 4.84, p < .004$, political ideology $F(1, 302) = 20.04$, personal contact with a bisexual person $F(1, 303) = 14.57 p < .004$, and sexual orientation identity $F(1, 303) = 13.35 p < .004$. These results supported the ARBS factors’ concurrent validity. In addition, and in support for the measure’s convergent validity, scores on the ATLG (Herek, 1984, 1988, 1998) measuring attitudes
toward lesbians and gays strongly and significantly correlated with the ARBS Stability \((r = .52, \ p < .004)\) and Tolerance \((r = .87, \ p < .004)\) factors. An indication of the ARBS’ divergent validity is its lack of relationship with a measure of socially desirable responding \((r = .07, \ p < .004; \ Mohr & Rochlen, 1999)\).

Support for the ARBS’ convergent validity for use on lesbian and gay participants indicated that the ARBS Tolerance factor significantly and positively correlated with participants’ having a bisexual best friend \((r = .19, \ p < .006)\), their willingness to date a bisexual person \((r = .25, \ p < .006)\), and engaging in exclusive same sex sexual behaviors \((r = .16, \ p < .006)\). For lesbian and gay respondents, the ARBS Stability factor positively correlated with personal contact experiences with bisexuals \((r = .22, \ p < .006)\), having a bisexual best friend \((r = .27, \ p < .006)\), and willingness to date a bisexual \((r = .45, \ p < .006)\).

In summary, the ATLG and the ARBS both seem to have good reliability and validity. While the ATLG can be used as a global measure of respondents’ level of condemnation-tolerance toward lesbians and gays, items tapping ATL and ATG can be analyzed separately (Herek, 1984, 1988, 1998). The ARBS consists of two factors; one assesses respondents’ perceptions regarding the stability of a bisexual identity, and the other assesses tolerant attitudes towards bisexual persons. In the present study, the ATLG and the ARBS will be simultaneously used to represent the latent variable anti-LGB attitudes, such that the ATL and the ATG factor scores and the two ARBS factor scores will constitute the measured indicators of the latent variable. Please see Appendix E for a copy of the ATLG and Appendix F for a copy of the ARBS.
Procedure

Participants were recruited via email. The recruitment email was forwarded to the email listservs of the following professional organizations: the Council of Counseling Psychology Training Programs (CCPTP), The Association of Counseling Center Training Agencies, the Counselor Educators and Supervisors Network (CES-NET), APA Division 17-Student Affiliate Association of the Society of Counseling Psychology, APA Division 44-Society for the Psychological Study of Lesbian, Gay, Bisexual, and Transgender Issues, APA Division 51-Society for the Psychological Study of Men and Masculinity, the ACA Association for Lesbian, Gay, Bisexual and Transgender Issues in Counseling, and The National Latina/o Psychological Association. In addition, individually addressed emails were sent to 79 training directors of APA accredited counseling psychology programs. The recruitment email message sent to the listservs included a message asking directors and training directors to forward their message to their graduate students and counselor trainees. In addition, participants were encouraged to forward the recruitment email to other counselor trainee colleagues.

The recruitment email message notified prospective participants that they would be participating in a study on counselor trainees’ thoughts about LGB clients. Individuals interested in participating in the study were directed to a website containing an online survey by a URL link embedded in the email. Participants were informed that their participation was completely voluntary and they could discontinue taking the survey at any time by exiting the survey website. They were also told that their responses were completely anonymous and that they would not be asked for their name or other identifying information; that the estimated time to complete the survey was
approximately 25 to 35 minutes; and that the study was approved by a relevant Institutional Review Board (IRB). Please see Appendix G for the email solicitation, Appendix H for the informed consent statement, and Appendix I for the IRB approval letter.

Participants were given the option to enter a drawing to randomly win 1 of 4 gift cards in the amount of $20, $50, $75, and $100. After submitting their survey responses, participants interested in entering the gift card drawing were directed to a webpage including instructions on how to enter the drawing. Participants were instructed to email the principal investigator and include their email address if they wished to enter the drawing. Participants’ email addresses were in not connected with their survey responses. In addition, after completing the study, participants were sent to a debriefing page that provided information regarding the purpose of the study. Finally, participants were given the principal investigator’s contact information and were encouraged to contact him if they had any questions or comments about the study. Please see Appendix J for a copy of the debriefing statement.

Schmidt (1997) reported that Internet based surveys may be problematic due to the same participant submitting the survey twice by accident. In order to prevent duplicate responses from the same participant, the date, time, and origin of submission for each survey was analyzed. In the case that two copies of a completed survey were sent at approximately the same time, only the first submission was included. However, after analyzing the times that responses were submitted, it did not appear that any of the surveys were duplicates.
Schmidt (1997) also indicated a potential problem for respondents to intentionally submit incorrect answers as a means to sabotage the research. This may especially be a problem in research on LGB related issues because of the prevalence rates of prejudice towards this group. Because of this threat, two strategies recommended by Dillon and Worthington (2003) were followed to reduce the risks of erroneously submitted responses. First, the study material was only submitted to professional psychology and counseling organizations as a means to reduce the likelihood of receiving malicious responses from outside participants. Second, two validity check items were included in the study. These items informed the respondent to not answer that particular question. These items served the purpose to identify participants who inattentively or randomly responded to items in the study. Information regarding the number of participants’ excluded for violating the validity check response will be provided in Chapter IV.

Research Design

SEM was employed to test two competing theoretical a-priori constructed models testing the relationship between independent/mediating variables (i.e., sexual identity, LG threat, and attitudes towards sexual minorities) and the criterion variable (i.e., LGB counseling self-efficacy). Unlike most other statistical techniques, SEM allows the researcher to test both latent variables and manifest variables (Martens, 2005; Weston & Gore, 2006). Latent variables are theoretical variables that cannot be directly observed. These variables are represented by two or more different measures, items, or factors that represent a theoretical concept. Latent dependent variables are often called endogenous variables and latent independent variables are called exogenous variables. Manifest
variables, on the other hand, are variables that are directly observed and collectively represent the latent variable (Martens, 2005; Weston & Gore, 2006).

In SEM the relationships between different latent variables as well as the relationship between manifest and latent variables is measured. In this study, SEM was used to examine the measurement model and structural model of LGB affirmative counseling self-efficacy beliefs. Measurement models test the relationship between observed items (scales, parcels) and a hypothesized construct. A structural model is a model that tests the relationship between different latent variables. In the current study the structural model and the measurement model were measured simultaneously. That is, a composite model or a full structural model (Weston & Gore, 2006) was assessed.

In this study, fit indices for the measurement and structural models were reported separately. The rationale for analyzing measurement models and structural models separately is because a path model that fits the data poorly may have a good fitting measurement model portion. Martens (2005) and McDonald and Ho (2002) have indicated that some studies have poor fitting path models but appear to fit the data well because of a good fitting measurement model.

Although SEM is a statistical technique used to study causal relationships between variables, it should be noted that the use of the term causal in SEM is often misleading. Unlike studies using experimental designs, SEM cannot be used to make causal inferences about the relationship between independent and dependent variables. Instead SEM’s causal function serves the purpose of testing specific directional hypotheses to confirm a theory or a previously established model. In this case,
theoretical models were tested that were derived from social cognitive theory, personal construct theory, attitudinal theories, and identity theories.

A number of steps were taken to control for threats to validity. A large sample size was used as a means to reject the null hypothesis and reduce risk of Type II error. To control for instrumentation threat, self-report measures with fixed items that were consistent for all participants were used. Since the questionnaires were administered at a single point in time, maturation, attrition, testing effects, and statistical regression as threats to the study’s internal validity were minimal. Furthermore, as anonymity was ensured, the likelihood of socially desirable responding was reduced. Despite these cautions, the use of self-report measures in the current study was a threat to construct validity because of potential mono-method bias. This was because using only one type of instrument (i.e., self-report instrument) may not have fully represented the constructs that were investigated. Also, relying on a convenience sample may have decreased the external validity of the study. Finally, the online survey website selected for the current investigation did not allow for counterbalancing the order of the surveys. Therefore, the order in which the surveys were presented may have caused unwanted testing effects. These limitations will be discussed further in Chapter V.
Chapter IV

Results

Data Preparation and Preliminary Analyses

**Missing values.** Missing values analysis revealed that 36 participants (< 10% of the entire sample) did not answer three or more items representing a single variable from the standardized measures. These participants’ responses were omitted from the final analysis. Mean replacement values were calculated to replace missing values for participants who were missing one or two items or fewer on a given variable. This procedure has been recommended on the grounds that it does not change the overall mean value of a given variable and therefore is a conservative method for replacing missing values (Tibachnick & Fidell, 2007). However, a noted undesirable effect of mean replacement is that it runs the risk of decreasing the variance of a variable. Yet, cases with few missing values are less prone to run such risks (Tibachnick & Fidell, 2007). The decision to only retain cases with two or fewer missing items on a given variable was made in order to reduce the risk of decreasing variance of variables with missing values.

The questionnaire item asking counselor trainees’ to report their number of years and/or months of clinical experience yielded several responses where participants provided a number without indicating whether that number was indicative of a year or a month (see Appendix D for a sample of the question). These responses were analyzed on
case-by-case basis to determine whether the number entered by the participant
represented a month or a year. Specifically, other demographic information such as the
participants’ age, year in graduate school, degree ranking (i.e., master’s or doctoral level
student), and number of LGB clients were used to estimate whether the number better
represented months or years of clinical experience. In addition, a few participants did not
respond to items regarding their number of lesbian, gay, or bisexual (LGB) clients. Three
separate questions were used to determine participants’ number of L, G, and B clients
respectively. Since these three separate items were recoded into a single collapsed
variable representing participants’ total number of LGB clients and since every
participant answered at least one of these three questions, missing values were accounted
for by only calculating the numbers entered by that respondent.

Univariate outliers. In the current study, tests of univariate normality were
conducted by examining histograms, QQ-tests, and skewness and kurtosis distributions.
Recommended cutoff values for skewness and kurtosis distributions are 2 and 7,
respectively (Curran, West, & Finch, 1996). Examination of skewness and kurtosis
values indicated that the Attitudes towards Lesbians subscale (ATL; skewness = -3.03,
kurtosis = 9.95), the Attitudes towards Gay Men subscale (ATG; skewness = -2.94,
kurtosis = 9.58), and the Attitudes Regarding Bisexuality Tolerance subscale (skewness =
-3.01, kurtosis = 9.58) exceeded recommended cutoff values. Examination of histograms
and QQ-tests indicated that the majority of participants expressed tolerant attitudes
towards LGB persons; therefore, the histogram and QQ-test distributions were negatively
skewed. These findings were not entirely unexpected. Other research studies have
indicated that counselors and psychotherapists often endorse tolerant attitudes towards
sexual minority persons (e.g., Haag, 2008). Counselor trainees’ endorsements of tolerant attitudes may be associated with a desire to emulate qualities that are often found in “good” counselors (Wheeler, 2000), such as openness, acceptance, and self-awareness (Wheeler, 2000). It is also possible that counselor trainees who express tolerant LGB attitudes are more motivated to participate in LGB related research studies as opposed to those who endorse negative attitudes. At any rate, the present investigation’s results provide an optimistic impression regarding the status of counselor trainees’ attitudes towards sexual minority persons. Given that the skeweness of the distribution on the attitudes scales were in line with what has been discovered in past research (e.g., Wheeler, 2000), it was decided to retain all cases and rely on multivariate outlier analyses to detect extreme cases for deletion.

**Multivariate outliers.** Examination of multivariate outliers was conducted using AMOS®. A Mahalanobis distance test indicated that the data did not demonstrate multivariate normality. The multivariate kurtosis value was 180.24 with a critical ratio of 68.09. This exceeded the cutoff value of 1.96 for multivariate normality. An investigation of individual cases farthest from the centroid revealed that five cases had large Mahalanobis distance squared values that were far from the centroid (i.e., the point of intersection for all variable means in an analysis (Tabachnick & Fidell, 2007) relative to the majority of cases in the analysis. It was determined that these values were too extreme to analyze and therefore were excluded from further examination. This decreased the sample size to 406 participants.

Multivariate non-normality in SEM is problematic for two major reasons. First, multivariate non-normality inflates chi-square values (Finney & DiStefano, 2006). This
increases the risk of committing Type I error through rejecting a correctly specified model. Second, non-normality may underestimate the variation of parameter estimates. Again, this increases the chance of Type I error by running the risk of assuming statistically significant parameters that are not different from zero.

In order to adjust for multivariate non-normality, a bootstrapping procedure (Bollen & Stine, 1992) was used to calculate (a) the adjusted estimated parameters and their associated standard errors and probability values and (b) the Bollen-Stine adjusted probability values of the chi-square test of model fit.\(^1\) Compared to the non-adjusted model, parameter estimates, standard errors, and probability values for the bootstrap adjusted model did not change substantially. Therefore, the non-adjusted and bootstrap model was almost identical. Also, both non-adjusted and Bollen-Stine probability values of the chi-square test were statistically significant. This indicated that the adjusted model did not adequately fit the data; however, chi-square tests of model fit are widely criticized on grounds that they are influenced by larger sample sizes (Martens, 2005). Therefore, it is recommended that additional measures of model fit are examined in addition to the chi-square test. As mentioned later in this chapter, the other goodness of fit measures indicated that the models fit the data reasonably well.

**Correlation Between Variables**

Pearson correlations were performed between the variables in the SEM models. Results of the correlations are reported in Table 2 and calculations of variable means, standard deviations, ranges, and Cronbach alpha reliability scores are reported in Table 3. As Table 2 reveals, all five LGB-CSI subscales positively and significantly correlated with each other. In addition, the LGB-CSI subscales significantly and moderately
Table 2

Correlations Among the Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>11</th>
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<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LGB-CSI Know.</td>
<td>-0.59</td>
<td>-0.53</td>
<td>-0.71</td>
<td>-0.65</td>
<td>-0.23</td>
<td>-0.27</td>
<td>-0.23</td>
<td>-0.24</td>
<td>-0.22</td>
<td>-0.30</td>
<td>-0.08</td>
<td>-0.04</td>
<td>-0.07</td>
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<td>0.46</td>
<td>0.24</td>
<td>0.37</td>
<td></td>
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<tr>
<td>2. LGB-CSI Ad.</td>
<td></td>
<td>-0.41</td>
<td>-0.55</td>
<td>-0.52</td>
<td>-0.16</td>
<td>-0.23</td>
<td>-0.17</td>
<td>-0.14</td>
<td>-0.26</td>
<td>-0.26</td>
<td>-0.12</td>
<td>-0.07</td>
<td>-0.10</td>
<td>-0.21</td>
<td>0.23</td>
<td>0.29</td>
<td>0.13</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>3. LGB-CSI Aw.</td>
<td></td>
<td></td>
<td>-0.47</td>
<td>-0.46</td>
<td>-0.10</td>
<td>-0.11</td>
<td>-0.07</td>
<td>-0.14</td>
<td>-0.07</td>
<td>-0.21</td>
<td>-0.23</td>
<td>-0.23</td>
<td>-0.06</td>
<td>-0.07</td>
<td>0.11</td>
<td>0.21</td>
<td>0.04</td>
<td>0.19</td>
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<tr>
<td>4. LGB-CSI As.</td>
<td></td>
<td></td>
<td></td>
<td>-0.65</td>
<td>-0.15</td>
<td>-0.13</td>
<td>-0.12</td>
<td>-0.15</td>
<td>-0.19</td>
<td>-0.19</td>
<td>-0.08</td>
<td>-0.02</td>
<td>-0.06</td>
<td>-0.23</td>
<td>0.13</td>
<td>0.32</td>
<td>0.26</td>
<td>0.19</td>
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</tr>
<tr>
<td>5. LGB-CSI Rel.</td>
<td></td>
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<td></td>
<td>-0.34</td>
<td>-0.33</td>
<td>-0.32</td>
<td>-0.26</td>
<td>-0.27</td>
<td>-0.24</td>
<td>-0.09</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.15</td>
<td>0.17</td>
<td>0.25</td>
<td>0.17</td>
<td>0.31</td>
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<tr>
<td>6. ATLG-L.</td>
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<td></td>
<td>-0.83</td>
<td>-0.85</td>
<td>-0.47</td>
<td>-0.43</td>
<td>-0.26</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.10</td>
<td>0.08</td>
<td>0.15</td>
<td>0.06</td>
<td>0.05</td>
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<td>7. ATLG-G.</td>
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<td>-0.88</td>
<td>-0.52</td>
<td>-0.47</td>
<td>-0.29</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.13</td>
<td>0.11</td>
<td>0.19</td>
<td>0.12</td>
<td>0.05</td>
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<tr>
<td>8. ARBS-T.</td>
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<td></td>
<td>-0.56</td>
<td>-0.47</td>
<td>-0.29</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.12</td>
<td>0.09</td>
<td>0.17</td>
<td>0.06</td>
<td>0.03</td>
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<td>9. ARBS-S.</td>
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<td>-0.33</td>
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<td>-0.04</td>
<td>0.05</td>
<td>0.13</td>
<td>0.13</td>
<td>0.13</td>
<td>0.16</td>
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<td>10. LG Threat</td>
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<td>-0.25</td>
<td>-0.02</td>
<td>-0.07</td>
<td>-0.08</td>
<td>-0.14</td>
<td>-0.09</td>
<td>-0.05</td>
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<td>11. MoSIEC Exp.</td>
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<td>-0.10</td>
<td>-0.01</td>
<td>0.18</td>
<td>0.20</td>
<td>0.25</td>
<td>0.11</td>
<td>0.05</td>
<td>0.44</td>
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<td>12. MoSIEC Co.</td>
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<td>-0.57</td>
<td>-0.37</td>
<td>-0.12</td>
<td>0.19</td>
<td>0.04</td>
<td>0.03</td>
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<td>13. MoSIEC S/I.</td>
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<td>-0.41</td>
<td>-0.09</td>
<td>0.16</td>
<td>0.07</td>
<td>0.01</td>
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<td>14. MoSIEC U.</td>
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<td>15. LGB Cts.</td>
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<td>16. LGB-ft.</td>
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<td>17. LGB training</td>
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<td>18. Clinical Exp.</td>
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<td>19. SOI</td>
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</tbody>
</table>

Note: LGB-CSI Know = Lesbian, Gay, and Bisexual (LGB) Counseling Self-Efficacy Inventory Knowledge subscale. LGB-CSI Ad. = LGB Counseling Self-Efficacy Inventory Advocacy subscale. LGB-CSI Aw = LGB Counseling Self-Efficacy Inventory Awareness subscale. LGB-CSI As. = LGB Counseling Self-Efficacy Inventory Assessment subscale. LGB-CSI Rel. = LGB Counseling Self-Efficacy Inventory Relationship subscale. ATLG-L = Attitudes Towards Lesbians and Gays Lesbian subscale. ATLG-G = Attitudes Towards Lesbians and Gays Gay Men subscale. ARBS-T = Attitudes Regarding Bisexual Scale Tolerance subscale. ARBS-S = Attitudes Regarding Bisexuality Scale Stability subscale. LGTS = Lesbian and Gay Threat Scale. MoSIEC Exp. = Measure of Sexual Identity Exploration and Commitment Exploration Subscale. MoSIEC Co. = Measure of Sexual Identity Exploration and Commitment Commitment Subscale. MoSIEC S/I = Measure of Sexual Identity Exploration and Commitment (MoSIEC) synthesis/integration subscale. MoSIEC-U = Measure of Sexual Identity Exploration and Commitment Uncertainty subscale. LGB Cts. = number of lesbian, gay, and bisexual clients. LGB-ft = number of lesbian, gay, and bisexual family and friends. LGB-training = Number of hours of LGB counseling related training experience. Clinical Exp. = trainees’ number of months of training experience. SOI = Trainees’ sexual orientation identities. *p < .05. **p < .01
Table 3

Means, Standard Deviations, Ranges, and Cronbach Alpha Reliabilities for the Primary Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LGB-CSI Know.</td>
<td>49.64</td>
<td>14.46</td>
<td>13.00-78.00</td>
<td>.95</td>
</tr>
<tr>
<td>2. LGB-CSI Ad.</td>
<td>25.43</td>
<td>9.18</td>
<td>7.00-42.00</td>
<td>.94</td>
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<tr>
<td>3. LGB-CSI Aw.</td>
<td>25.14</td>
<td>3.75</td>
<td>9.00-30.00</td>
<td>.84</td>
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<tr>
<td>4. LGB-CSI As.</td>
<td>16.45</td>
<td>4.93</td>
<td>4.00-24.00</td>
<td>.91</td>
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<td>5. LGB-CSI Rel.</td>
<td>14.67</td>
<td>3.11</td>
<td>3.00-22.00</td>
<td>.82</td>
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<tr>
<td>6. ATLG-L</td>
<td>47.41</td>
<td>4.83</td>
<td>22.00-55.00</td>
<td>.82</td>
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<td>7. ATLG-G</td>
<td>46.39</td>
<td>6.09</td>
<td>15.00-50.00</td>
<td>.89</td>
</tr>
<tr>
<td>8. ARBS-T</td>
<td>4.71</td>
<td>.60</td>
<td>14.00-40.00</td>
<td>.89</td>
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<tr>
<td>9. ARBS-S</td>
<td>4.20</td>
<td>.69</td>
<td>18.00-50.00</td>
<td>.90</td>
</tr>
<tr>
<td>10. LG Threat</td>
<td>1.64</td>
<td>2.32</td>
<td>0.00-15.00</td>
<td>.75</td>
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<td>11. MoSIEC Exp.</td>
<td>3.88</td>
<td>1.17</td>
<td>1.00-6.00</td>
<td>.87</td>
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<td>.78</td>
<td>2.00-6.00</td>
<td>.82</td>
</tr>
<tr>
<td>13. MoSIEC S/I.</td>
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<td>.76</td>
<td>2.40-6.00</td>
<td>.80</td>
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<td>14. MoSIEC U.</td>
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<td>.81</td>
<td>1.00-5.33</td>
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<td>16. LGB-ff.</td>
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<td>17. LGB training</td>
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<td>1.00-6.00</td>
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<td>18. Clinical Exp.</td>
<td>25.78</td>
<td>32.05</td>
<td>0.00-240.00</td>
<td>-</td>
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</tbody>
</table>

Note: LGB-CSI Know. = Lesbian, Gay, and Bisexual (LGB) Counseling Self-Efficacy Inventory Knowledge subscale. LGB-CSI Ad. = LGB Counseling Self-Efficacy Inventory Advocacy subscale. LGB-CSI Aw = LGB Counseling Self-Efficacy Inventory Awareness subscale. LGB-CSI As. = LGB Counseling Self-Efficacy Inventory Assessment subscale. LGB-CSI Rel. = LGB Counseling Self-Efficacy Inventory Relationship subscale. ATLG-L = Attitudes Towards Lesbians and Gays Lesbian subscale. ATLG-G = Attitudes Towards Lesbians and Gays Gay Men subscale. ARBS-T. = Attitudes Regarding Bisexual Scale Tolerance subscale. ARBS-S. = Attitudes Regarding Bisexuality Scale Stability subscale. LGTS = Lesbian and Gay Threat Scale. MoSIEC Exp. = Measure of Sexual Identity Exploration and Commitment Exploration subscale. MoSIEC Co. = Measure of Sexual Identity Exploration and Commitment Commitment subscale. MoSIEC S/I. = Measure of Sexual Identity Exploration and Commitment Synthesis/Integration subscale. MoSIEC-U = Measure of Sexual Identity Exploration and Commitment Uncertainty subscale. LGB Cts. = number of lesbian, gay, and bisexual clients. LGB-ff = number of lesbian, gay, and bisexual family and friends. LGB-training. = number of hours of LGB counseling related training experience. Clinical Exp. = trainees’ number of months of training experience. SOI = Trainees’ sexual orientation identities. α = Cronbach’s Alpha Reliability. Cronbach’s Alpha scores were only calculated for standardized variables. *p < .05. **p < .01
correlated with the ATLG, ARBS and the LGTS with the exception of the LGB-CSI’s awareness subscale, which did not significantly correlate with the ARBS tolerance subscale or the LGTS. Significant and strong correlations were found for the ATLG subscales, ARBS subscales, and LGTS scales. While the MoSIEC’s Exploration subscale significantly correlated with all of the LGB-CSI subscales, ATLG subscales, ARBS subscales, and the LGTS, the MoSIEC’s Commitment, Synthesis/Commitment, and Uncertainty subscales did not significantly correlated with the majority of the other subscales and variables.

Most LGB-CSI subscales significantly correlated with trainees’ number of LGB clients, number of LGB family and friends, number of hours of LGB related training experience, and hours of clinical experiences. However, the LGB-CSI’s Awareness subscale did not significantly correlate with number of LGB clients and hours of clinical experience. Finally, trainees’ sexual orientation identity significantly correlated with all five LGB-CSI subscales. As Table 3 reveals, all subscales/indicators had acceptable Cronbach’s alpha reliability.

**Main Analyses**

**Structural Equation Modeling**

**Measurement model.** Prior to testing the hypotheses, measurement model fit indices were analyzed to determine how well the model fit the data. Overall, the measurement model fit the data well, $\chi^2 = (126, N = 406) = 406.78, p < .05$ ($\chi^2/df = 3.23$; GFI = .898; CFI = .911; RMSEA = .074 (90% confidence interval [CI] = .066 - .082); ECVI = 1.23 (90% CI = 1.09 - 1.39). In addition to examining the measurement model’s fit indices, the factor loadings between observed variables and their corresponding latent
variables were examined to determine the degree to which the observed variables represented the theoretically determined latent constructs. Results are reported in Table 3.

All factor loadings for the observed indicators were statistically significant with the exception of the MoSIEC’s Exploration subscale. Furthermore, experience, attitudes, LG threat, and LGB counseling self-efficacy were significantly correlated with each other. Sexual identity exploration and commitment significantly and negatively correlated with experience; however, it did not significantly correlate with LGB counseling self-efficacy (see Table 3).

**Structural models.** Path models examining the relationship between latent variables were used to test the hypotheses of the study. Two competing models were tested to examine the relationship between predictors, mediators, and the criterion variable. The first model was a partial mediation model testing the primary variables of interest (i.e., LGB counseling self-efficacy, sexual identity exploration and commitment [sexual identity exploration and commitment], LGB attitudes, & LG threat) and the second model was a mimic model which examined the impact of counselors’ sexual orientations on LGB counseling self-efficacy and model fit. Fit indices for the two competing models are presented in Table 4.

Model 1 tested a partial mediation model of LGB counseling self-efficacy predictors (see Figure 4). This model corresponded with Hypotheses 1, 2, and 3. Model 1 and its corresponding parameter estimates are presented in Figure 4. Results of the fit indices revealed that the model fit the data reasonably well (see Table 4). According to
Table 4

*Factor Loadings and Correlations Among Latent Variables From the Hypothesized Measurement Models*

<table>
<thead>
<tr>
<th>Latent Factors and Observed Variables</th>
<th>Standardized Factor Loadings</th>
<th>Latent Factor Correlations</th>
</tr>
</thead>
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<tr>
<td>1. Experience</td>
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<td>Training</td>
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<td>2. LGB Attitudes</td>
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<td>4. LG Threat</td>
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<td>5. LGB Counseling Self-Efficacy</td>
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<td>Relationship</td>
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</tbody>
</table>

*Notes:* All values were calculated using bias-corrected percentile method bootstrapping with 250 samples. Clinical = Months of clinical experience. Training = Hours of LGB focused counselor training. LGB = Lesbian, Gay, Bisexual. ATL = Attitudes Towards Lesbians. ATG = Attitudes Towards Gay Men. ARBS-T = Attitudes Regarding Bisexuality-Tolerance. ARBS-S = Attitudes Regarding Bisexuality-Stability. LG Threat = Lesbian and Gay Threat. SIEC = Sexual Identity Exploration and Commitment. $p < .05^*$, $p < .01$
Table 5

*Fit Statistic for Structural Equation Modeling Predicting LGB counseling self-efficacy*

<table>
<thead>
<tr>
<th>Primary Outcome and Model</th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$P$</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>90% CI</th>
<th>ECVI</th>
<th>90% CI</th>
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</thead>
<tbody>
<tr>
<td>Model 1: Partial mediation model</td>
<td>406.78</td>
<td>126</td>
<td>.004</td>
<td>3.23</td>
<td>.898</td>
<td>.911</td>
<td>.074</td>
<td>.066-.082</td>
<td>1.23</td>
<td>1.08-1.39</td>
</tr>
<tr>
<td>Model 2: Mimic model</td>
<td>577.74</td>
<td>143</td>
<td>.004</td>
<td>4.04</td>
<td>.858</td>
<td>.870</td>
<td>.087</td>
<td>.079-.094</td>
<td>1.66</td>
<td>1.49-1.85</td>
</tr>
<tr>
<td>Model 3: Post-hoc model</td>
<td>347.73</td>
<td>127</td>
<td>.004</td>
<td>2.74</td>
<td>.912</td>
<td>.930</td>
<td>.066</td>
<td>.057-.074</td>
<td>1.07</td>
<td>.948-1.22</td>
</tr>
</tbody>
</table>

*Note:* Probability values are adjusted for multivariate non-normality using Bollen-Stine corrections from bootstrapping with 250 samples. GFI = Goodness of Fit Index; CFI = Comparative Fit Index; RMSEA = root-mean-square error of approximation; CI = confidence interval; ECVI = Expected cross-validated index.
Figure 2. Model 1: Partial mediation structural model examining predictors of LGB counseling self-efficacy. Note: Parameter estimates are based on a bias corrected bootstrapping procedure using 250 samples. Sexual identity exploration and commitment = Sexual Identity Exploration and Commitment. LG threat = Lesbian and Gay Threat. LGB Attitudes = Lesbian, Gay, and Bisexual Attitudes. LGB counseling self-efficacy = Lesbian, Gay, and Bisexual Counseling Self-Efficacy. *p < .05. **p < .01
Hypothesis 1, attitudes towards LGB persons, sexual identity exploration and commitment, and LG threat were expected to partially mediate the relationship between counselors’ experiences and LGB counseling self-efficacy such that for counselor trainees endorsing high levels of experience, high levels of sexual identity exploration and commitment, positive LGB attitudes, and low levels of LG threat would predict high levels of LGB counseling self-efficacy. The direct path between counselors’ experiences and LGB counseling self-efficacy was statistically significant ($\beta = .40, SE = .08, p < .01$). Also, the paths between attitudes and LGB counseling self-efficacy ($\beta = .15, SE = .07, p < .05$), LG threat and LGB attitudes ($\beta = -.14, SE = .06, p < .01$), counselor trainees’ experiences and LGB attitudes ($\beta = .11, SE = .04, p < .05$) and counselor trainees’ experiences and LG threat ($\beta = -.14, SE = .04, p < .01$) were all statistically significant. While the path between counselors’ experiences and sexual identity exploration and commitment was statistically significant, it was not significant in the expected direction ($\beta = -.19, SE = .06, p < .05$). Also, the path between sexual identity exploration and commitment and LGB counseling self-efficacy was non-significant ($\beta = -.01, SE = .06, p > .05$). Therefore, Hypothesis 1 was partially supported.

Hypothesis 2 suggested that attitudes towards LGB persons and LG threat would partially mediate the relationship between sexual identity exploration and commitment and LGB counseling self-efficacy such that for counselor trainees endorsing high levels of sexual identity exploration and commitment, more positive LGB attitudes and lower levels of LG threat would predict higher LGB counseling self-efficacy. The direct path between sexual identity exploration and commitment and LGB counseling self-efficacy was not statistically significant ($\beta = -.01, SE = .06, p > .05$). In addition, the paths
between sexual identity exploration and commitment and attitudes ($\beta = .04$, $SE = .06$, $p > .05$) and sexual identity exploration and commitment and LG threat ($\beta = .02$, $SE = .07$, $p > .05$) were not statistically significant. Thus, Hypothesis 2 was not supported.

According to Hypothesis 3, attitudes towards LGB persons were expected to partially mediate the relationship between LG threat and LGB counseling self-efficacy such that for counselor trainees endorsing more positive attitudes towards LGB persons, lower levels of LG threat would predict higher levels of LGB counseling self-efficacy. Results indicated a significant path between LG threat and LGB attitudes ($\beta = -.49$, $SE = .08$, $p < .01$), and as mentioned previously, paths between LG threat and LGB counseling self-efficacy and LGB attitudes and LGB counseling self-efficacy were also statistically significant. Hypothesis 3 was, therefore, supported.

Model 2 was a mimic model testing counselors’ sexual orientations as predictors of LGB counseling self-efficacy. Table 4 presents the fit indices for this model, which indicated a reasonably good fit to the data. Model 2 served to test Hypotheses 4, and 5, respectively. Hypothesis 4 stated that counselor trainees’ sexual orientation identities would predict LGB counseling self-efficacy and that non-heterosexual trainees would endorse higher LGB counseling self-efficacy than heterosexual trainees. The mimic model is presented in Figure 3. As expected, sexual orientation was a significant predictor of LGB counseling self-efficacy ($\beta = .28$, $SE = .05$, $p < .01$). Also the positive parameter coefficient between sexual orientation and LGB counseling self-efficacy indicated that non-heterosexual participants were more efficacious than heterosexual participants. According to Hypothesis 5 trainees’ sexual orientation identities would moderate the relationship between counselor trainees’ experiences, LGB attitudes, LG
threat, sexual identity exploration and commitment, and LGB counseling self-efficacy. When sexual orientation was added to the model, counselors’ experiences and LG threat remained statistically significant indicators of LGB counseling self-efficacy; however, parameter effect sizes decreased somewhat as a result of adding sexual orientation to the model. Also, LGB attitudes no longer impacted LGB counseling self-efficacy (see Figure 3). Hypotheses 4 and 5 were supported.

In summary, all predictor variables, with the exception of sexual identity exploration and commitment, were statistically significant predictors of LGB counseling self-efficacy. Counselor trainees’ experiences were consistently the strongest predictor of LGB counseling self-efficacy. Model 1, the partial mediation model, revealed that LG threat and LGB attitudes partially mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy (See Figure 2). In addition, this model indicated that LGB attitudes partially mediated the relationship between LG threat and LGB counseling self-efficacy. Model 2, the mimic model, revealed that counselors’ sexual orientations were statistically significant predictors of LGB counseling self-efficacy (See Figure 5). This model also indicated that non-heterosexual counselors endorsed higher levels of efficacy than heterosexual counselors. However, Model 2 revealed that LGB attitudes were no longer significant in predicting LGB counseling self-efficacy. Overall, examination of fit indices revealed that Model 1, the partial mediation model, was the better fitting model for the data (See Table 4). Counselors’ experiences and LG threat remained statistically significant predictors of LGB counseling self-efficacy after sexual orientation was added to the model. LGB attitudes, however, was non-significant after sexual orientation was included in the model.
Figure 3. Model 2: Mimic model examining predictors of LGB Counseling Self-Efficacy.

Notes: Parameter estimates are based on a bias corrected bootstrapping procedure. SIEC = Sexual Identity Exploration and Commitment. LG threat = Lesbian and Gay Threat. LGB Attitudes = Lesbian, Gay, and Bisexual Attitudes. Sexual Orientation was coded heterosexual = 0 and non-heterosexual = 1. $p < .05^*$, $p < .01^{**}$
Given the unexpected finding that sexual identity exploration and commitment was neither related to LGB attitudes nor LGB counseling self-efficacy and because the results of the measurement model revealed that the Exploration subscale failed to significantly load onto the sexual identity exploration and commitment latent variable, an alternative post-hoc model (i.e., Model 3) was developed to account for these findings. This new model was tested to determine if it (a) improved overall measurement model fit compared to the previously tested models, and if it (b) revealed stronger path model estimates as compared to the previously tested models. A rationale for developing and testing this model is presented in the next section.

Additional Analyses

Structural Equation Model Modifications

Rationale. Modifications made to construct Model 3 were based on both statistical and theoretical grounds. Similar to Models 1 and 2, Model 3 examined a partial mediation structural model testing the impact of predictors and mediators on LGB counseling self-efficacy. Model 1 was modified for the following reasons. First, while the Commitment, Integration, and Sexual Orientation Uncertainty subscales significantly loaded onto the sexual identity exploration and commitment latent variable as suggested by past research (Worthington, et al., 2008), the Exploration Subscale did not. That is, the Exploration Subscale of the MoSIEC did not adequately represent the sexual identity exploration and commitment latent construct. This may have resulted in lowered fit indices for Models 1 and 2. Second, whereas the Exploration subscale is considered a dimension of the sexual identity exploration and commitment construct, one may, based
on theoretical grounds, find reasons as to why the Exploration subscale may not load on the sexual identity exploration and commitment latent variable. A handful of authors have indicated that heterosexual identifying persons commit to a heterosexual identity without exploration (Eliason, 1995; Penelope, 1993; Worthington, et al., 2002); therefore, it is possible that sexual identity exploration and commitment to a sexual identity are not a part of one construct but need to be examined separately. According to Eliason (1995), several heterosexual persons accept their heterosexuality because it is imposed by societal norms and expectations and therefore do not critique or examine reasons why they identify as heterosexual. Because the majority of participants in the current investigation were heterosexual, it is likely that most participants endorsed high levels of sexual identity commitment while endorsing low levels of sexual identity exploration (Worthington, et al., 2008). This would be consistent with other findings that have revealed that while heterosexual persons endorse higher levels of sexual identity commitment than non-heterosexual persons, non-heterosexual persons endorse higher levels of sexual identity exploration as compared to heterosexual persons (Thompson & Morgan, 2008; Worthington, et al., 2008). Therefore, as results of the present study indicated that the Exploration subscale appeared to be conceptually different from the other three subscales (i.e., Commitment, Uncertainty, and Synthesis/Integration) of the MoSIEC measure, an alternative model was constructed where the Commitment, Synthesis/Integration, and Uncertainty subscales were examined together on a shared latent variable representing Sexual Identity Commitment and Integration thus excluding the Sexual Identity Exploration subscale.
Given the importance of sexual identity exploration in theories of sexual identity development (Wortington, et al., 2002) and in past research (Eliason, 1995; Thompson & Morgan, 2008) the Exploration subscale was retained in this alternative model but was hypothesized to load on a shared latent construct with the LG threat scale termed Self-Exploration. This decision was based on the following theoretical assumptions. First, and as explained in Chapter 2, threat is a process under which persons perceive imminent changes in their core self-constructs (Kelly, 1955). When self-constructs are threatened, persons will find ways to disconfirm the threatening information in order to preserve one’s construal of the self. Therefore if a person perceives being LG as a fundamental change to her or his construal of self, she or he will experience threat about being LG. Second, sexual identity exploration is the process by which persons are open to exploring various aspects of their sexual behavior and sexual identity. Such persons are willing to invite new experiences and make changes to their sexual values, needs, behaviors, modes of sexual expressions and sexual orientation identities. Because persons who experience threat are resistant to any perceived fundamental changes to their core self-constructs, it is believed that persons who believe that being LG would be a fundamental change to such constructs would be less open to exploring various aspects of their sexual identities including their orientations. On the other hand, persons who are willing to explore their sexual needs, values, activities, modes of expression, and orientations do not perceive this as fundamentally changing their core constructs. Therefore, threat would be antithesis to exploration. Both threat and exploration represent an intrapersonal process where persons evaluate the extent to which they are open to exploring new possibilities about the self. Sexual identity commitment, on the other hand, does not necessarily seem to be
related to exploration and threat because many persons commit to a sexual orientation identity without a process of self-exploration. It is also possible for persons with high commitment to experience high levels of threat, particularly if they assume that being heterosexual is the only socially acceptable sexual orientation. Therefore, in this new modified model, LG threat is expected to negatively correlate with the sexual identity exploration. This new latent construct was called Self-Exploration since it represents the extent to which individuals are open to or threatened by the prospect of being LG as incompatible with the self in addition to the extent to which they are either open to exploring other accounts of sexual identity. This model is presented in Figure 4.

Prior to testing Model 3 an independent samples t-test was conducted to determine whether the heterosexual trainees’ sexual identity exploration scores differed from non-heterosexual trainees scores. This step also served to validate the theoretical justifications described above. Results indicated that heterosexual trainees ($M = 3.45$, $SD = 1.10$) had significantly lower sexual identity exploration scores than non-heterosexual trainees ($M = 4.5$, $SD = .99$) $t(406) = -9.90$, $p = .00$. The magnitude of the mean differences was medium (eta squared = -.05). Consistent with previous findings (e.g., Thompson & Morgan, 2008; Worthington, Navarro, Bielstein Savoy, and Hampton, 2008), non-heterosexuals endorsed higher levels of sexual identity exploration than heterosexuals.

**Measurement model.** Examination of the measurement model indicated that the model provided a reasonably good fit to the data, $\chi^2 = (125, N = 406) = 364.74$, $p < .05$ ($\chi^2/df = 2.92$; GFI = .909; CFI = .923; RMSEA = .068, 90% [CI] = .060, .077; ECVI = 1.11, 90% [CI] = .98, 1.26.). All factor loadings for the observed indicators were
statistically significant (see Table 5). Several latent variable correlations were also statistically significant. Most notably, self-exploration significantly correlated with LGB counseling self-efficacy and LGB attitudes in the expected direction. In addition, the sexual identity commitment and integration latent variable also significantly and positively correlated with experience (See Table 5).

**Structural model.** The relationship between variables in the modified model is presented in Figure 4. Fit indices for the model (i.e., Model 3) are presented in Table 4. Results indicated that counselor trainees’ experiences significantly predicted self-exploration ($\beta = .35, p < .05^*, p < .01^{**} = .35, SE = .09, p < .01$) and self-exploration significantly predicted LGB counseling self-efficacy ($\beta = .76, SE = .79, p < .01$). Thus, a mediated relationship between counselor trainees’ experiences and LGB counseling self-efficacy by the way of self-exploration was found. However, the direct path between counselors’ experiences and LGB counseling self-efficacy was not statistically significant ($\beta = .24, SE = .27, p > .05$). This finding seemed to suggest that self-exploration fully mediated the relationship between counselor trainees’ experiences, and also, the path between self-exploration and LGB attitudes was statistically significant ($\beta = .86, SE = .09, p < .01$) and self-exploration fully mediated the relationship between counselor trainees’ experiences and attitudes. While a direct path between counselor trainees’ experiences and LGB attitudes was statistically significant, the path coefficient was in the unexpected direction ($\beta = -.13, SE = .10, p < .05$). Again, it appeared that the fully mediated relationship between counselor trainees’ experiences and attitudes by the way of self-exploration better represented the expected relationship of these variables as
Table 6

Factor Loadings and Correlations Among Latent Variables From the Hypothesized Measurement Models

<table>
<thead>
<tr>
<th>Latent Factors and Observed Variables</th>
<th>Standardized Factor Loadings</th>
<th>Latent Factor Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>1</td>
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<td>1. Experience</td>
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<td>LGB family and friends</td>
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Notes: All values were calculated using bias-corrected percentile method bootstrapping with 250 samples. LGB = Lesbian, Gay, Bisexual. ATL = Attitudes Towards Lesbians. ATG = Attitudes Towards Gay Men. ARBS-T = Attitudes Regarding Bisexuality-Tolerance. ARBS-S = Attitudes Regarding Bisexuality-Stability. LG Threat = Lesbian and Gay Threat. SICI = Sexual Identity Commitment and Integration. \( p < .05^* \), \( p < .01^{**} \).
Figure 4. Post-hoc model. Notes: Parameter estimates are based on a bias corrected bootstrapping procedure using 250 samples. SICI = Sexual Identity and Commitment and Integration. LGB = Lesbian, Gay, and Bisexual. $p < .05^*$, $p < .01^{**}$
Compared to the direct relationship between counselors’ experiences and LGB attitudes. In addition, LGB attitudes was not a statistically significant predictor of LGB counseling self-efficacy ($\beta = -.37$, $SE = .70$, $p < .05$). Finally, a statistically significant correlation between counselors’ experiences and sexual identity commitment and integration was found ($\beta = .19$, $SE = .06$, $p < .05$); however, sexual identity commitment and integration was not a significant predictor of LGB counseling self-efficacy ($\beta = .01$, $SE = .06$, $p > .05$). Scaled chi-square difference tests for nested models were conducted to determine whether Model 3 fit the data better than hypothesized Model 1 tested in the main analysis. As expected, the modified model was a better fit for the data ($p < .01$). In summary, Model 3 tested an alternative post-hoc model that was grounded in theory, research, and current data. Specifically, modifications were made to the sexual identity exploration and commitment latent variable so that only the significantly loaded observed variables were examined together. A new latent variable was renamed sexual identity commitment and integration. The Exploration subscale, which did not significantly load onto the sexual identity exploration and commitment in the main analysis, was examined together with the LG threat scale on a newly developed latent variable titled Self-Exploration. Model 3 revealed some findings distinct from the initial hypotheses tested in the main analysis. Most notably, while counselors’ experiences were predictive of LGB counseling self-efficacy by the way of self-exploration, the direct effect of experience on LGB counseling self-efficacy was no longer significant. Therefore, it appeared that self-exploration fully mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. Model 3 also revealed that self-exploration mediated the relationship between counselors’ experiences and LGB
attitudes, yet the direct path representing the relationship between counselors’ experiences and LGB attitudes was significant in the unexpected direction. In addition, while sexual identity commitment and integration failed to mediate the relationship between counselors’ experiences and LGB counseling self-efficacy, counselors’ experiences did significantly predict sexual identity commitment and integration. This finding provides partial support for the previously unsupported hypothesis (i.e., Hypothesis 2), which stated that sexual identity exploration and commitment would partially mediate the relationship between counselor trainees’ experiences and LGB counseling self-efficacy.

**Summary**

In this study, three competing structural models were tested to examine the relationship between counselor trainees’ experiences, LGB attitudes, LG threat, sexual identity exploration and commitment (sexual identity commitment and integration and self-exploration in Model 3) and their impact on LGB counseling self-efficacy. An examination of Model 1, which tested the initial hypotheses of the current investigation, revealed that LGB attitudes and LG threat partially mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. In addition, LGB attitudes were found to mediate the relationship between LG threat and LGB attitudes. Conversely, sexual identity exploration and commitment was not found to have any direct or indirect effects on LGB counseling self-efficacy. A test of Model 2 revealed that all paths, found in Model 1, with the exception of LGB attitudes, remained significant when counselor trainees’ sexual orientations were included in the model. However, the effect sizes of all paths decreased as a result of sexual orientation. This
suggested that participant sexual orientation, at least partially, moderated the relationship among counselor trainees’ experiences, LG Threat, and LGB counseling self-efficacy, as depicted in Model 1. Model 2 also revealed that non-heterosexual counselor trainees had higher efficacy scores than heterosexual counselors. However, an examination of fit indices indicated that Model 1 provided a better fit to the data than Model 2. Finally, an alternative model (i.e., Model 3) was developed and tested in which the Exploration subscale of the sexual identity exploration and commitment latent variable was examined together with the LG threat scale on a new latent variable titled Self-Exploration; the remaining three observed variables on the sexual identity exploration and commitment were examined together on a latent variable renamed sexual identity commitment and integration. Results indicated that self-exploration fully mediated the relationship between counselors’ experiences and LGB counseling self-efficacy. In addition self-exploration mediated the relationship between counselors’ experiences and LGB attitudes. While sexual identity commitment and integration did not predict LGB counseling self-efficacy, counselor trainees’ experiences did predict sexual identity commitment and integration.
Chapter V

Discussion

In this study two structural models were tested (i.e., Models 1 and 2) examining LGB affirmative counseling self-efficacy beliefs. In addition, a post-hoc alternative model was developed and tested (i.e., Model 3) to determine improvement of overall fit indices and parameter estimates when compared to the two models tested in the main analysis. In all five hypotheses were tested. In this chapter results of the model testing will be discussed, and models 1 and 2 and their fit indices will be compared and contrasted to the results of the post-hoc alternative model that was developed (Model 3). Implications for research, training, and practice will also be discussed as well as the study’s strengths and limitations.

The first hypothesis suggested that attitudes towards LGB persons, lesbian and gay (LG) threat, and sexual identity exploration and commitment would mediate the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. That is, high levels of experience, high levels of positive LGB attitudes, low levels of LG threat and high levels of sexual identity exploration and commitment would predict high levels of LGB counseling self-efficacy. As anticipated, LGB attitudes and LG threat partially mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. Specifically high levels of experience predicted positive
attitudes and lower threat, which in turn predicted higher LGB counseling self-efficacy. Furthermore, the direct path between counselor trainees’ experiences and LGB counseling self-efficacy indicated that experience had a stronger effect on LGB counseling self-efficacy compared to any of the indirect paths that were examined. Contrary to what was expected sexual identity exploration and commitment did not partially mediate the relationship between counselor trainees’ experiences and LGB counseling self-efficacy. Yet, an unanticipated finding revealed that counselor trainees’ experiences negatively predicted sexual identity exploration and commitment. In other words, higher levels of experience predicted lower levels of sexual identity exploration and commitment. Overall, these findings offered partial support for the first hypothesis.

The finding that counselor trainees’ experiences had a stronger direct impact on LGB counseling self-efficacy than did the mediating effects of LGB attitudes and LG threat, suggested that these experiences were the most crucial influences on increasing LGB counseling self-efficacy beliefs. This is line with past research indicating that higher levels of clinical experiences (i.e., both general and LGB specific), and more hours engaged in LGB related counselor training predicted higher levels of LGB counseling self-efficacy (Dillon et al., 2008; Haag, 2008; Korfhage, 2005). Previous studies have also revealed a positive correlation between counselors’ number of LGB family and friends and LGB counseling self-efficacy (Dillon & Worthington, 2003). In all, these findings suggest that trainees’ counseling, training, and personal experiences act as reliable predictors of LGB counseling self-efficacy. In addition to corresponding with past research, the current findings linking counselor trainee’s experiences with their LGB counseling self-efficacy support the theoretical tenets of Bandura’s (1977, 1986, 1989,
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1997) SCT, which indicates that performance accomplishments are the most powerful predictors of self-efficacy. Thus general and LGB focused clinical experiences, hours of LGB related counselor training experiences, and the number of LGB family and friends simultaneously represent performance accomplishments that serve to enhance LGB counseling self-efficacy beliefs.

The mediating effects between LGB attitudes and LG threat on LGB counseling self-efficacy indicated that counselor trainees’ experiences led to more positive attitudes and decreased levels of threat which in turn had a minimal yet significant effect on LGB counseling self-efficacy. These findings seemed to suggest that counselor trainees’ contact experiences with sexual minority persons and clients, in addition to LGB related training experiences, shaped their attitudes towards sexual minorities and reduced the prospect of feeling threatened by the idea of being lesbian or gay themselves. These findings also seemed to indicate that training opportunities that served to increase LGB counseling competencies encouraged counselor trainees to reflect on personal attitudes and biases regarding sexual orientation.

These findings are consistent with past studies that have found LGB attitudes to influence LGB counseling self-efficacy. For example, Haag (2008) found that attitudes towards lesbians and gays significantly predicted LGB counseling self-efficacy. Similarly, Dillon and Worthington (2003) reported that attitudes towards LGB persons significantly correlated with the LGB-CSI’s five subscales. However, in contrast to these two prior studies, the relationship between LGB attitudes and LGB counseling self-efficacy, while significant, yielded small effect sizes. An explanation for the smaller effect size was based on the possibility of other variables in the model moderating the
relationship between attitudes and self-efficacy. For instance the moderately strong effect between counselor trainees’ experiences and self-efficacy decreased the effect of attitudes on LGB counseling self-efficacy.

Nevertheless, the current findings seem consistent with existing conceptual accounts regarding the impact of attitudes on LGB counseling self-efficacy and suggest that positive attitudes are a result of trainees’ experiences and a catalyst towards increasing LGB counseling self-efficacy. Theoretically, these findings reflect components of Larson’s (1998) SCMCT model which described how negative attitudes may act as potential barriers to counselors’ self-efficacy beliefs. Therefore, trainees in the present study who expressed intolerant attitudes experienced trouble developing self-efficacy for counseling LGB clients.

In the second hypothesis it was proposed that attitudes towards LGB persons and LG threat would partially mediate the relationship between sexual identity exploration and commitment and LGB counseling self-efficacy. That is, it was expected that high levels of sexual identity exploration and commitment, positive LGB attitudes, and lower levels of LG threat would predict higher levels of LGB counseling self-efficacy for counselor trainees. This hypothesis was not supported. Sexual identity exploration and commitment failed to significantly relate to any of the variables in the model. These findings were surprising and are in contrast with Worthington, et al.’s (2005) findings of a positive correlation between sexual identity exploration and commitment and LGB attitudes. Specifically, Worthington et al. (2005) found that persons with lower levels of exploration, commitment, and synthesis expressed more intolerant attitudes toward LGB persons. A possible explanation for the discrepancy between the current findings and
those of Worthington et al. may be due to differences in the samples observed in these studies. While the current investigation examined counselor trainees’ attitudes and sexual identity exploration and commitment beliefs, Worthington et al. (2005) examined these same variables on undergraduate college students. It is possible that counselor trainees’ sexual identity and exploration and commitment levels are not relevant to determining their attitudes towards LGB persons. That is, it may be that trainees’ attitudes develop independent of their levels of sexual identity exploration and commitment because of their multicultural counseling training, whereas for undergraduate students, that do not go through such training, attitudes toward LGB persons and their sexual identity, exploration, and commitment develop in line with one another. If one explores one’s sexual identity, one’s attitudes toward LGB persons is affected. Another explanation for the discrepancy between current and past findings may be due to the Exploration subscale’s failure to significantly load on the sexual identity exploration and commitment latent construct in the proposed models 1 and 2. In order to adjust for this problem, conceptually based modifications to the sexual identity exploration and commitment latent construct were made, which was represented in Model 3. It was determined that sexual identity exploration was conceptually different from sexual identity commitment, sexual orientation uncertainty, and sexual identity synthesis/integration. This assumption was based on past research indicating that while some persons explored their sexual identity before committing to an identity, other persons experienced high levels of sexual identity commitment without moving through a process of exploration (e.g., Eliason, 1995). For example several persons, especially heterosexual identifying persons, believe that they are either born with a sexual
identity/orientation or that a sexual identity/orientation is imposed on them by societal expectations (e.g., family influence, religious influence, etc.). Therefore, these individuals have committed to a sexual identity/orientation without a process of exploration. Given this conceptual justification, the three subscales that significantly loaded onto the sexual identity exploration and commitment were examined together on a new latent variable named sexual identity commitment and integration. These alterations were made in order to test a post-hoc structural model (Model 3) described later in this chapter.

According to the third hypothesis, attitudes towards LGB persons were expected to partially mediate the relationship between LG threat and LGB counseling self-efficacy such that lower levels of threat, and positive LGB attitudes would predict higher LGB counseling self-efficacy. This hypothesis was supported. The path between threat and attitudes revealed a particularly strong negative effect suggesting that higher threat predicted more intolerant attitudes. It seemed that the internal experience of feeling threatened by the prospect of being lesbian or gay led trainees’ to express negative attitudes. It is possible that trainees who endorsed such attitudes did so as a way to minimize the level of threat they experienced. In this case, attitudes may have acted as a defense mechanism to counteract the intolerable effect of being identified as LG. According to Moradi et al. (2006) persons who experience high LG threat, express negative attitudes towards lesbians and gays to enhance their self-perception and self-presentation.

Although small, the mediating effect that LG threat had on LGB counseling self-efficacy by the way of attitudes was significant. Consistent with the tenets described in
Larson’s (1998) SCMCT model, threat and attitudes likely acted as barriers to LGB counseling self-efficacy. Furthermore, it is possible that LG threat was a specific form of anxiety related to fears about the possibly of being LG. Because anxiety has been known to negatively impact self-efficacy (Bandura 1986, 1997), it is possible that counselor trainees’ who experience LG threat will have low self-efficacy for working with sexual minority clients.

Hypothesis 4 indicated that counselor trainees’ sexual orientation identities would predict LGB counseling self-efficacy and sexual minority counselor trainees were expected to have higher LGB counseling self-efficacy than heterosexual counselor trainees. Results indicated that sexual orientation did predict LGB counseling self-efficacy and sexual minority trainees endorsed higher LGB counseling self-efficacy than did heterosexual trainees. Results also revealed that the effect size of the path connecting counselors’ experiences and LGB counseling self-efficacy decreased slightly as a result of the inclusion of sexual orientation to the structural model; nevertheless, this path remained statistically significant.

Consistent with these findings, previous studies have revealed that sexual orientation is a significant predictor of LGB counseling self-efficacy (Dillon, et al., 2008; Haag, 2008; Korfhage, 2005). These studies revealed that LGB counselors and counselor trainees endorsed higher levels of LGB counseling self-efficacy than heterosexual counselors and counselor trainees. That is sexual minority counselors see themselves as more competent in working with LGB clients compared to their heterosexual counterparts, which may be due to sexual minority counselors’ greater tendency to seek out LGB related training opportunities and more motivation to see LGB clients compared
to heterosexual counselors. It is highly likely that LGB trainees’ personal experiences impact their self-efficacy beliefs. For instance, LGB counselors’ who have sought counseling in the past may become aware of strategies that result in effective affirmative counseling practices because of their experience. Furthermore, LGB counselor trainees may also be more aware of community and advocacy resources (e.g., affirmative religious services) that target LGB communities, than their heterosexual counterparts, due in part to seeking these resources for themselves.

According to Hypothesis 5, sexual orientation was expected to moderate the relationship between LGB counseling self-efficacy and trainees’ experiences, LGB attitudes, LG threat, and sexual identity exploration and commitment beliefs. Decreases in effect sizes indicated that sexual orientation partially moderated the influence of experience on LGB counseling self-efficacy. Yet, LGB attitudes were no longer a significant predictor of LGB counseling self-efficacy when sexual orientation was added to the model. Therefore, sexual orientation seemed to fully moderate the relationship between attitudes and self-efficacy, thereby making it non-significant. Thus, Hypothesis 5 was partially supported.

An interesting finding was that while LG threat remained a statistically significant predictor of LGB counseling self-efficacy, the relationship between LGB attitudes and LGB counseling self-efficacy disappeared after sexual orientation was included in the model. A potential reason for this may be due to restricted range of scores of the LGB attitude variable. Majority of counselor trainees participating in this study expressed tolerant LGB attitudes, regardless of their sexual orientations. Therefore, when sexual orientation was added to the model, the relationship between LGB attitudes and LGB
counseling self-efficacy disappeared, due to sexual minority trainees expressing higher LGB counseling self-efficacy than heterosexuals. Thus, sexual orientation seemed to be more indicative of LGB counseling self-efficacy than attitudes. Also, the correlation between sexual orientation and the attitudinal measures (i.e., ATLG and ARBs) indicated that non-heterosexual trainees endorsed more positive attitudes than heterosexual trainees (See Table 2), which may indicate that non-heterosexual trainees’ attitudes were less relevant than heterosexual trainees’ attitudes in influencing LGB counseling self-efficacy. This interpretation makes sense given that attitudes tend to be less salient toward a group of which one is a member. For heterosexual counselors’, in contrast, negative attitudes towards sexual minority persons may interfere with LGB counseling self-efficacy.

According to past research, heterosexual clinicians’ negative attitudes lead them to make false and inaccurate clinical assessments of LGB clients and their presenting issues (Barrett, & WcWhirter, 2002; Mohr, Israel, & Seldlacek, 2001). Thus, LGB attitudes may influence heterosexual counselors’ LGB counseling self-efficacy beliefs, whereas for non-heterosexual counselors, attitudes do not play a significant role.

As stated previously, a post-hoc model (Model 3) was developed to account for the problems with measuring the sexual identity exploration and commitment latent variable in Models 1 and 2. In this new model, the Exploration subscale on the sexual identity exploration and commitment latent variable was removed and reexamined together with the LG threat scale on a new latent variable named self-exploration. The new self-exploration variable measured the extent to which an individual was open to exploring, or felt threatened by the act of exploring her or his sexual identity. The sexual identity exploration and commitment latent variable was renamed sexual identity
commitment and integration because the remaining observed variables of the MoSIEC scale were purported to measure one’s commitment or certainty about her or his sexual identity.

Analysis of this new model (i.e., Model 3) yielded results that mostly converged with the initial hypotheses described above; however, some discrepancies were found. First, self-exploration mediated the relationship between counselor trainees’ experiences and LGB counseling self-efficacy, such that for trainees endorsing higher levels of experiences, higher levels of self-exploration predicted higher levels of LGB counseling self-efficacy. However, unlike the initial hypotheses which indicated a partially mediated relationship between the predictor and criterion variables, self-exploration fully mediated the relationship between experience and LGB counseling self-efficacy and the direct path between counselors’ experiences and LGB counseling self-efficacy was no longer significant. Second, self-exploration fully mediated the relationship between counselors’ experiences and LGB attitudes such that for trainees reporting higher levels of experience, higher levels of self-exploration predicted more positive attitudes. Yet, unlike the findings from Models 1 and 2, attitudes failed to mediate the relationship between experiences and LGB counseling self-efficacy. Finally, sexual identity commitment and integration failed to mediate the path between counselors’ experiences and LGB counseling self-efficacy. Counselor trainees’ experiences were found to predict sexual identity commitment and integration in this model indicating that higher levels of experience predicted higher levels of sexual identity commitment and integration.

Taken together, findings indicated that LGB attitudes and LG threat significantly and partially mediated LGB counseling self-efficacy. While sexual identity exploration
and commitment was not a significant predictor of LGB counseling self-efficacy as conceptualized in Models 1 and 2, in the modified post-hoc model 3 when sexual identity exploration was conceptualized as sharing meaning with LG threat (i.e., Exploration and LG threat were indicators of the latent construct Self exploration) it significantly and positively mediated the relationship between counselors’ experiences and LGB counseling self-efficacy.

In sum, based on the tenets of SCT and self-efficacy theory, past performance accomplishments such as training and clinical experience are the most salient predictors of LGB counseling self-efficacy. Although the effect sizes were small, LGB attitudes and LG threat had some impact on LGB counseling self-efficacy and partially mediated that relationship between experiences and LGB counseling self-efficacy. Consistent with Larson’s (1998) SCMCT, it seemed that attitudes and LG threat may serve as barriers to developing higher LGB counseling self-efficacy. Furthermore, analyses of the post hoc alternative model revealed that sexual identity exploration and LG threat, as a shared theoretical construct, served as a powerful mediator to LGB counseling self-efficacy and LGB attitudes, indicating that higher training and contact experiences prompted counselors to explore their sexual identities which led to higher LGB counseling self-efficacy. In the next sections the present investigation’s strengths and limitations will be explored.

**Strengths**

The current investigation contributed to the LGB literature in a number of ways. First, the current study paved the way for providing a theoretical understanding of LGB counseling self-efficacy predictors. Employing SEM to examine LGB counseling self-
efficacy allowed for the examination of both predictors and mediators of LGB counseling self-efficacy simultaneously. It was discovered that while counselor trainees’ experiences including number of LGB clients, number of LGB family and friends, hours of LGB related counselor training experiences, and general clinical experiences were the strongest predictors of LGB counseling self-efficacy beliefs; attitudes towards LGB persons and LG threat partially mediated this relationship. This study also provided further support for SCT theory by revealing the impact of performance accomplishments on counselor trainees’ self-efficacy beliefs. In addition, empirical support was provided for Larson’s SCMCT theory by revealing barriers that negatively impact self-efficacy beliefs.

This study was also the first to examine counselor-trainees’ LG threat, thereby increasing the external validity of this construct. As mentioned previously, counselor trainees’ who perceive the idea of being LG as threatening may experience difficulties developing LGB counseling competencies. Because anxiety has been shown to negatively impact counselors’ general CSE beliefs, LG threat may be a specific form of anxiety negatively impacting counselors when working with sexual minority clients. Again, these findings provide support for existing theories on self-efficacy which conceptualized anxiety as having a negative impact on self-efficacy beliefs (Bandura 1977, 1986, 1989, 1997).

In addition to the impact of LG threat on LGB counseling self-efficacy, results of this study call to question whether sexual identity exploration versus sexual identity commitment differentially impact LGB counseling self-efficacy. In the present study,
post-hoc analyses indicated that exploration may be a more salient predictor of trainees’ LGB counseling self-efficacy beliefs over sexual identity commitment.

The current investigation also suggests a new conceptual understanding of the sexual identity exploration and LG threat constructs. Post-hoc analyses revealed that sexual identity exploration was conceptually related to LG threat in that they significantly loaded onto a shared latent variable titled self-exploration. Finding that LG threat negatively loaded onto a latent construct with sexual identity exploration suggests that experiencing LG threat decreased levels of sexual identity exploration. Furthermore, an examination of the paths of Model 3 revealed that sexual identity exploration fully mediated the relationship between counselors’ experiences and LGB counseling self-efficacy in addition to counselors’ experiences and LGB attitudes. These findings indicate that exploration of sexual identity needs, values, modes of sexual expression and orientation were a direct result of experiences and were crucial for predicting higher levels of LGB counseling self-efficacy. Given the exploratory nature of these findings, more research is needed to substantiate them.

**Limitations**

There were several limitations in the current investigation that need mentioning. First, there were a number of key limitations regarding the internal validity of this study. Because this study was correlational in nature, it is not possible to make causal inferences regarding the results of this study. Without manipulation of the independent and mediating variables and their impact on LGB counseling self-efficacy, it is not possible to determine the direction of causality between the constructs examined in the study.
There were a number of limitations regarding the methods for recruiting participants. In order to recruit participants, emails were sent to training directors of select group of counseling psychology training programs. Because of this, there was no way to guarantee that the training directors who received the email actually forwarded it to their students. In addition, it is not possible to know how many counseling trainees received the email but chose not to participate. Thus, it is difficult to determine how well the sample represented the population of interest. Similar to the previous limitation, this study did not request participants to indicate the name of their academic institution, thereby making it difficult to determine whether participants in the study represented a representative range of institutions. The sample was overwhelmingly female and Caucasian. Thus, the study did not provide a representative sample of male trainees and trainees of color. While attempts were made to increase the number of male participants by sending email to the American Psychological Association’s (APA) Society for the Psychological Study of Men and Masculinity email listserv, these attempts did not yield response rates that were higher than those collected in previous investigations (Haag, 2008; Korfhage, 2005). Finally, because the study only examined responses from counselor trainees, the results may not be generalizable to licensed counselors and counseling psychologists.

Another limitation was related to the statistical conclusions obtained in the current investigation. As noted in Chapter 4, Model 2 (i.e., the mimic model) yielded poorer fit to the data than Model 1 (i.e., the initial hypothesized model). Poorer fit estimates for Model 2 may have been a result of the inclusion of trainees’ sexual orientation which was a categorical/dichotomous variable. Authors have noted that inclusion of dichotomous
variables in SEM studies can be problematic because most estimation methods used in SEM, such as maximum likelihood (ML) analysis, assume that variables are continuous (Finney & Distefano, 2006).

Another limitation to this study was the implementation of a single item measuring for participants’ levels of counseling related LGB training experiences. The construct representing training experience may not have been fully captured by a single item. Additional limitation was the reliance on self-report measures. It is possible that participants may have provided biased responses in order to create a socially desirable impression of themselves, in part due to apprehensions of being evaluated harshly by the researcher. Yet, an effort to control for this threat to internal validity was to inform respondents that their responses would remain anonymous. Finally, due to the fact that the online survey program that was employed did not allow for counterbalancing of surveys, responses may have been biased because of the order in which the surveys were presented.

**Implications for Research, Practice, and Training**

The present investigation had several important implications for research. Because the current investigation was exploratory, future research is needed to provide evidence for causal inferences regarding the impact of training/clinical experiences, attitudes, LG threat, and sexual identity exploration and commitment on LGB counseling self-efficacy. For example, pretest/posttest research designs need to be implemented in order to verify whether seeing LGB clients over the course of a practicum increases LGB counseling self-efficacy. Also, it may be beneficial to investigate whether manipulating trainees’ LG threat levels or attitudes impacts their LGB counseling self-efficacy.
Ideally, future studies should include a control group in order to control for internal validity threats such as history and maturation. Because past research has shown the LGB-CSI to yield low test-retest reliability estimates, any study employing pretest/posttest designs should reexamine reliability estimates for this instrument.

While the current study’s models fit the data reasonably well, future investigations employing SEM to test predictors of LGB counseling self-efficacy should also seek out alternative statistical testing procedures to verify whether this will improve model fit and parameter estimates. This is especially a need for models testing dichotomous categorical variables. Authors have recommended that a robust weighted least squares estimation (WLS) method be used instead of ML when testing models that include both non-normal and categorical data (Finney & Distefano, 2006). Unfortunately, the robust WLS estimate is difficult to locate because it is not available on several SEM computer software programs. For example AMOS® and LISREL do not offer the WLS procedure. Currently, Mplus is the only published software program to offer this alternative procedure. Readers who are interested in alternative methods for addressing non-normal and categorical data in SEM are encouraged to refer to Finney and DiStefano’s (2006) book chapter on this subject.

Future investigations should examine alternative methods for determining counselor trainees’ LGB counseling competencies, as opposed to relying only on self-report measures. Thus, supervisors’ perceptions of counselors’ performances, clients’ perceptions of session quality, and counselors’ assessments of self-efficacy and performance, would provide a more reliable understanding of these competencies. In addition, future studies should examine multiple methods of operationalizing counselors’
attitudes towards LGB clients. Self-report attitudinal measures potentially yield biased responses that are amenable to socially desirable responding. Future studies may benefit from examining unconscious or automatic stereotypes and their impact on counselors’ affirmative counseling behaviors. Also, negative attitudes towards LGB clients may be operationalized through behavioral indicators such as social distancing or physiological arousal levels.

Future investigations should examine multiple indicators of LGB related training experiences. Such indicators should represent a range of modalities of training experiences. For example, in addition to a question that asks counselors’ to report the number of hours they have spent taking courses that address LGB counseling related concerns, questions should also assess the number of hours counselors’ had invested in reading LGB related articles and book chapters, attending LGB focused conferences and workshops, and participating in supervision sessions where LGB issues had been a focal subject. Furthermore, questions that assess for participants’ number of hours spent in counseling courses focusing solely on LGB issues versus hours spent discussing LGB issues in other courses (e.g. counseling theories courses) may also provide a more inclusive perspective of the types of training experiences related to LGB issues.

In the present study, counselor trainees’ levels of lesbian and gay threat were examined; however, levels of bisexual threat were not. Future studies need to determine whether bisexual threat differs from lesbian or gay threat. It is possible that counselor trainees experience higher levels of bisexual threat than lesbian and gay threat. Moreover, lesbian and gay trainees may experience high levels of bisexual threat based
on the prevalent cultural assumptions that bisexual persons experience difficulties committing to a sexual orientation (Mohr & Rachlen, 1999).

Future studies need to examine other potential self-exploration indicators. In the present study, sexual identity exploration and LG threat simultaneously represented a latent construct labeled self-exploration. Ideally, indicators representing a complex range of cognitive, affective, and behavioral aspects of self-exploration would create a complex latent variable of self-exploration. Klein’s (1978) sexual orientation grid, which measures respondents’ past, present, and ideal sexual attractions, behaviors, fantasies, and identities, may represent a complex range of self-exploration variables. Doing so may help to create a self-exploration variable with a range of indicators simultaneously predicting counselor trainees’ LGB counseling self-efficacy beliefs.

Finally, the LGBCSI (Dillon and Worthington’s 2003) self-report measure, does not assess for differences in respondents’ perceived self-efficacy for working with lesbians, gays, and bisexuals. Future studies should determine whether counselor trainees’ self-efficacy beliefs differ between these groups. For example it is possible that trainees espouse greater efficacy for working with lesbian clients than bisexual clients.

The present study also suggested that, after controlling for trainees’ sexual orientations, LGB attitudes was not a salient predictor of LGB counseling self-efficacy. Future studies need to determine whether attitudes differentially impact self-efficacy for heterosexual identifying counselor trainees versus LGB counselor trainees. Such research may determine whether attitudes are at least relevant for heterosexual counselors working with sexual minority clients.
The current investigation has important implications for training and practice as well. Given the impact that training experiences had on LGB counseling self-efficacy in the current study and previous studies (e.g., Haag, 2008), training programs should place a greater focus on incorporating LGB focused educational requirements in their curricula either by offering an entire course focusing on LGB counseling concerns or by encouraging counselor educators to integrate LGB issues to their current courses. Moreover, trainees may gain a broader perspective of LGB issues by enrolling in courses in other academic departments (e.g., sociology, political science) that focus on sexual orientation related issues. Finally, trainees should also be encouraged to enroll in heterosexual ally trainings if these trainings are offered at their academic institutions.

Incorporating LGB affirmative educational opportunities in counselor training programs elicits some potential ethical questions and concerns. Some counselor trainees may be explicitly opposed to LGB affirmative training on the grounds that such training violates these trainees’ personal values and moral/religious convictions. Thus, training programs mandating that all trainees participate in LGB affirmative experiences could face complaints. It is recommended that counselor educators who have trainees’ explicitly object to LGB affirmative training provide these trainees with a safe space to express their objections. At the same time, educators must be prepared to challenge these trainees’ assumptions, and help them to see how their values may detrimentally impact the wellbeing of LGB identifying clients. Furthermore, it is important to notify these trainees that if they are not able to provide competent and affirmative counseling services to LGB clients, they should refer these clients to counselors who do espouse these
competencies. Moreover, the ethical and professional consequences of not making such referrals should be clearly communicated to these trainees.

With regard to clinical work, it would be in the best interest of clinical supervisors to encourage trainees to add LGB clients to their caseloads. These experiences will help trainees increase their knowledge about LGB clients’ clinical needs. Also, because non-clinical LGB contact experiences have a positive influence on LGB counseling self-efficacy, supervisors should encourage trainees to seek out any experience that provides them with meaningful contact experiences with people in the LGB community. For example, counselor trainees may benefit from attending LGB student organization meetings at their academic institutions or Parents and Friends of Lesbians and Gays (PFLAG) meetings in their community. LGB affirming churches and other religious institutions can also be good places for trainees to increase contact experiences with the LGB community.

Because the results of the current investigation revealed that negative attitudes and LG threat served as potential barriers to LGB counseling self-efficacy, it may be of particular benefit for supervisors to encourage their trainees to critically examine and challenge biases regarding LGB persons. Also, given that LG threat is an experience where persons perceive being LG as a fundamental change to one’s core self, it seems likely the case that trainees who experience high levels of LG threat will avoid persons who they believe are LGB. Therefore, it may be beneficial for trainees who have had little contact with LGB identifying persons to initiate contact with LGB identifying colleagues when this is possible. In addition, experiential or visualization exercises that encourage trainees to “put themselves in the shoes” of LGB persons may help trainees
who experience high levels of LG threat and negative LGB attitudes to increase empathy and reduce irrational beliefs they have about LGB persons.

Results of the current investigation suggested that sexual identity exploration mediated the relationship between counselors’ experience and LGB counseling self-efficacy. Counselor educators should incorporate ways of helping counselor trainees to explore their sexual values, needs, modes of sexual expression, and orientations. This process may help trainees to understand the social and contextual factors that influenced the formation of their sexual identities. Class discussions around sexual identity exploration may help trainees to understand similarities and differences between themselves and their colleagues and appreciate a broader diversity regarding issues of sexual identity. Also, encouraging students to write essays that encourage them to critically examine their sexual identity development may help them to better understand the complexities of their sexual identities.

Finally, this study is expected to have several important implications for practice. It is expected that counselors’ homophobic attitudes and LG threat levels will adversely impact their clinical judgments and actions in sessions with LGB clients. Consistent with this notion, a recent study has indicated that heterosexual counselors’ often enact microaggressions against their LGB identifying clients (Shelton & Delgado-Romero, 2011). For example, homophobic counselors may inadvertently avoid discussing LGB topics or judge a client’s presenting problems as being caused by their sexual orientations. In addition counselors’ biased judgments and behaviors may negatively impact their clients. For example, biased judgments and behaviors will likely damage the working alliance between counselors’ and LGB clients. Moreover, LGB clients will
prematurely terminate from counseling and may assume that most counselors’ uphold homophobic attitudes or lack sensitive knowledge. Most importantly, lack of knowledge about how to effectively and affirmatively work with LGB clients could have negative ethical implications. For example, by avoiding important information regarding a clients’ identity or same sex relationships, a counselor may be doing harm by not focusing on what is clinically relevant or important.

**Conclusion**

Five hypotheses were examined in this investigation. Overall the findings extracted from these hypotheses supported tenets of social cognitive theory models, which have explained how training, prior clinical experiences, self-efficacy beliefs, and barriers differentially impact counselors’ abilities to develop competent counseling skills. It was discovered that LGB attitudes and LG threat mediated the relationship between counselors’ experiences and LGB counseling self-efficacy. It was found that counselors’ experiences had the strongest direct impact on LGB counseling self-efficacy. Consistent with previous research (Moradi, van den Berg, & Epting, 2006), the current investigation also revealed that LG threat was a strong predictor of LGB attitudes. Results also indicated that sexual minority counselors endorsed higher LGB counseling self-efficacy than heterosexual counselors, but counselors’ experiences remained the strongest predictor of LGB counseling self-efficacy after sexual orientation was accounted for. Although sexual identity exploration and commitment was not a significant predictor of LGB counseling self-efficacy in the main analysis, a post-hoc analysis revealed that a redeveloped sexual identity exploration latent variable fully mediated the relationship between counselors’ experiences and LGB counseling self-efficacy.
References


Dillon F. R., & Worthington, R. L. (2003). The lesbian, gay, and bisexual affirmative counseling self-efficacy Inventory (LGB-CSI): Development, validation, and


Footnotes

1. Bootstrapping is a resampling technique recommended for use with multivariate non-normal data. This procedure works by treating the observed sample as an estimate of the population and by pulling a large number of cases from the observed sample in order to create a bootstrap sample (Finney & DiStefano, 2006). This procedure is used to adjust standard errors and probability estimates for parameters, which are often underestimated by multivariate non-normality.
Appendix A

Demographic Items

1. How old were you on your last birthday? ______

2. What is your gender or gender identity? ________

3. Which best describes your racial and/or ethnic identity?
   ___African American or Black
   ___Asian American/Pacific Islander
   ___Biracial/Multiethnic
   ___Hispanic/Latino
   ___Native American
   ___White/European American
   Other (please specify) ____________________

4. Which of the following best describes your sexual orientation identity?
   ___Exclusively straight/heterosexual
   ___Mostly straight/heterosexual
   ___Bisexual
   ___Mostly lesbian
   ___Mostly gay
   ___Exclusively lesbian
   ___Exclusively gay
   ___Curious
   ___Questioning
   ___I prefer not to label myself
   Other (please specify) ____________________

5. Which best describes your degree specialization?
   ___Counseling psychology
   ___Clinical psychology
   ___School psychology
   ___Community counseling
   ___School counseling
Clinical mental health counseling
Vocational rehabilitation counseling
Career Counseling
Social work
Other (please specify) 

6. What is your Year of Study (e.g. (e.g. 3rd year PhD or 2nd year Master's student; if you are a student): 

7. What is your Number of Years of Therapy Experience: 

7. What is your approximate number of current and past lesbian clients: 

8. What is your approximate number of current and past gay male clients: 

9. What is your approximate number of current and past bisexual clients: 

10. What is your approximate number of current or past lesbian friends and/or family members: 

11. What is your approximate number of current or past gay male friends and/or family members: 

12. What is your approximate number of current or past bisexual friends and/or family members: 

13. Approximately how many hours of gay, lesbian, and/or bisexual issues in psychology focused instruction or training have you received (e.g., actual hours in a course, in-service training, workshop attended)?

none
1 = 1 to 5
6 = to 15
3 = 16 to 25
4 = 26 to 35
5 = more than 35 hours
Appendix B

Lesbian, Gay, and Bisexual Counseling Self-Efficacy Inventory (LGB-CSI; Dillon & Worthington, 2003)

Instructions: Below is a list of activities regarding counseling/psychotherapy. Indicate your confidence in your ability to perform each activity by marking the appropriate answer below each question ranging from NOT CONFIDENT TO EXTREMELY CONFIDENT. Please answer each item based on how you feel now, not on your anticipated (or previous) ability. I am interested in your actual judgments, so please be HONEST in your responses.

**HOW CONFIDENT AM I IN MY ABILITY TO…?**

1. Directly apply sexual orientation/identity development theory in my clinical interventions with lesbian, gay, and bisexual (LGB) clients.

   1. Not at all confident
   2. 3. 4. 5. 6. Extremely confident

2. Directly apply my knowledge of the coming out process with LGB clients.

   1. Not at all confident
   2. 3. 4. 5. 6. Extremely confident

3. Identify specific mental health issues associated with the coming out process.

   1. Not at all confident
   2. 3. 4. 5. 6. Extremely confident

4. Understand the socially constructed nature of categories and identities such as lesbian, bisexual, gay, and heterosexual.

   1. Not at all confident
   2. 3. 4. 5. 6. Extremely confident
5. Explain the impact of gender role socialization on a client’s sexual orientation/identity development.

1 2 3 4 5 6
Not at all confident Extremely confident

6. Apply existing American Psychological Association guidelines regarding LGB affirmative counseling practices.

1 2 3 4 5 6
Not at all confident Extremely confident

7. Use current research findings about LGB clients’ critical issues in the counseling process.

1 2 3 4 5 6
Not at all confident Extremely confident

8. Assist LGB clients to develop effective strategies to deal with heterosexism and homophobia.

1 2 3 4 5 6
Not at all confident Extremely confident

9. Evaluate counseling theories for appropriateness in working with a LGB client’s presenting concerns.

1 2 3 4 5 6
Not at all confident Extremely confident

10. Help a client identify sources of internalized homophobia and/or biphobia.

1 2 3 4 5 6
Not at all confident Extremely confident
11. Select affirmative counseling techniques and interventions when working with LGB clients.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident

12. Assist in the development of coping strategies to help same sex couples who experience different stages in their individual coming out process.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident

13. Facilitate a LGB affirmative counseling/support group.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident

14. Recognize when my own potential heterosexist biases may suggest the need to refer a LGB client to a LGB affirmative counselor.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident

15. Examine my own sexual orientation/identity development process.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident

16. Identify the specific areas in which I may need continuing education and supervision regarding LGB issues.

   1       2       3       4       5       6  
   Not at all confident  Extremely confident
17. Identify my own feelings about my own sexual orientation and how it may influence a client.

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<td>Extremely confident</td>
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18. Recognize my real feelings about my own sexual orientation and how it may influence a client.

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19. Provide a list of LGB affirmative community resources, support groups, and social networks to a client.

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20. Refer a LGB client to affirmative social services in cases of estrangement from their families of origin.

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<td>Extremely Confident</td>
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21. Refer LGB clients to LGB affirmative legal and social support.

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22. Provide a client with city, state, federal, and institutional ordinances and laws concerning civil rights of LGB individuals.

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</table>
23. Help a same-sex couple access local LGB affirmative resources and support.

1 2 3 4 5 6
Not at all confident Extremely confident

24. Refer a LGB elderly client to LGB affirmative living accommodations and other social services.

1 2 3 4 5 6
Not at all confident Extremely confident

25. Refer a LGB client with religious concerns to a LGB affirmative clergy member.

1 2 3 4 5 6
Not at all confident Extremely confident

26. Integrate clinical data (e.g., mental status exam, intake assessments, presenting concerns) of a LGB client.

1 2 3 4 5 6
Not at all confident Extremely confident

27. Complete an assessment for a potentially abusive same sex relationship in the LGB affirmative manner.

1 2 3 4 5 6
Not at all confident Extremely confident


1 2 3 4 5 6
Not at all confident Extremely confident
29. Assess the role of alcohol and drugs on LGB clients’, social, interpersonal, and intrapersonal functioning.

1
Not at all confident
2
3
4
5
6 Extremely confident

30. Establish an atmosphere of mutual trust and affirmation when working with LGB clients.

1
Not at all confident
2
3
4
5
6 Extremely confident

31. Normalize a LGB client’s feelings during different points of the coming out process.

1
Not at all confident
2
3
4
5
6 Extremely confident

32. Establish a safe space for LGB couples to explore parenting.

1
Not at all confident
2
3
4
5
6 Extremely confident

Notes: Scores are obtained by calculating the sum total for each subscale. Knowledge subscale = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13. Awareness subscale = 14, 15, 16, 17, and 18. Advocacy subscale = 19, 20, 21, 22, 23, 24, and 25. Assessment subscale = 26, 27, 28, and 29. Relationship subscale = 30, 31, and 32. See Chapter 3 for a discussion on scoring and interpreting the LGB-CSI.
Appendix C

Measure of Sexual Identity Exploration and Commitment (MoSIEC; Worthington, Navarro, Bielstein Savoy, & Hampton, 2008)

Please read the following definitions before completing the survey items:

Sexual needs are defined as an internal, subjective experience of instinct, desire, appetite, biological necessity, impulses, interest, and/or libido with respect to sex.

Sexual values are defined as moral evaluations, judgments and/or standards about what is appropriate, acceptable, desirable, and innate sexual behavior.

Sexual activities are defined as any behavior that a person might engage in relating to or based on sexual attraction, sexual arousal, sexual gratification, or reproduction (e.g., fantasy to holding hands to kissing to sexual intercourse).

Modes of sexual expression are defined as any form of communication (verbal or nonverbal) or direct and indirect signals that a person might use to convey her or his sexuality (e.g., flirting, eye contact, touching, vocal quality, compliments, suggestive body movements or postures).

Sexual orientation is defined as an enduring emotional, romantic, sexual or affectional attraction to other persons that ranges from exclusive heterosexuality to exclusive homosexuality and includes various forms of bisexuality.

1. My sexual orientation is clear to me. (Reverse scored)

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2. I went through a period in my life when I was trying to determine my sexual needs.

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3. I am actively trying to learn more about own sexual needs.

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4. My sexual values are consistent with all of the other aspects of my sexuality.

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5. I am open to experiment with new types of sexual activities in the future.

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6. I am actively trying new ways to express myself sexually.

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7. My understanding of my sexual needs coincides with my overall sense of sexual self.

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8. I went through a period in my life when I was trying different forms of sexual expression.

   1  2  3  4  5  6
   Very uncharacteristic of me

9. My sexual values will always be open to exploration.

   1  2  3  4  5  6
   Very uncharacteristic of me

10. I know what my preferences are for expression myself sexually.

    1  2  3  4  5  6
    Very uncharacteristic of me

11. I have a clear sense of the types of sexual activities I prefer.

    1  2  3  4  5  6
    Very uncharacteristic of me

12. I am actively experimenting with sexual activities that are new to me.

    1  2  3  4  5  6
    Very uncharacteristic of me
13. The ways I express myself sexually are consistent with all of the other aspects of my sexuality.

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15. I do not know how to express myself sexually. (Reverse scored)

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16. I have never clearly identified what my sexual values are. (Reverse scored)

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17. The sexual activities I prefer are compatible with all of the other aspects of my sexuality.

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18. I have never clearly identified what my sexual needs are. (Reverse scored)

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19. I can see myself trying new ways of expressing myself sexually in the future.

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20. I have a firm sense of what my sexual needs are.

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21. My sexual orientation is not clear to me.

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22. My sexual orientation is compatible with all of the other aspects of my sexuality.

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**Notes:** Scores are obtained by calculating the mean average of each subscale.

Uncertainty subscale = 1R, 14, and 21. *R = Reverse scored. See Chapter 3 for a discussion on scoring and interpreting the MoSIEC.
Appendix D

Lesbian and Gay Threat Measure (Moradi, van den Berg, & Epting, 2006)

DIRECTIONS: Below is a list of bipolar dimensions. For each dimension please select the term with which you see yourself more closely associated by clicking on the dot below that term.

For example, do you associate yourself more with the term "successful" or "unsuccessful"? If you associate yourself more with the term "successful", select that term by clicking on the dot below that term; however, if you associate yourself more with the term "unsuccessful", select that term by clicking the dot below that term.

<table>
<thead>
<tr>
<th>successful</th>
<th>Unsuccessful</th>
<th>Pleasant</th>
<th>Uptight</th>
</tr>
</thead>
<tbody>
<tr>
<td>selfish</td>
<td>Unselfish</td>
<td>Intelligent</td>
<td>Unintelligent</td>
</tr>
<tr>
<td>hard-working</td>
<td>Lazy</td>
<td>Mean</td>
<td>Nice</td>
</tr>
<tr>
<td>positive</td>
<td>Negative</td>
<td>Helpful</td>
<td>Unhelpful</td>
</tr>
<tr>
<td>unfriendly</td>
<td>Friendly</td>
<td>Conservative</td>
<td>Liberal</td>
</tr>
<tr>
<td>beautiful</td>
<td>Ugly</td>
<td>Religious</td>
<td>Nonreligious</td>
</tr>
<tr>
<td>open-minded</td>
<td>close-minded</td>
<td>Untrustworthy</td>
<td>Trustworthy</td>
</tr>
<tr>
<td>quiet</td>
<td>Talkative</td>
<td>Stubborn</td>
<td>Submission</td>
</tr>
<tr>
<td>fun</td>
<td>Goring</td>
<td>Motivated</td>
<td>Unmotivated</td>
</tr>
<tr>
<td>shy</td>
<td>Outgoing</td>
<td>Lazy</td>
<td>Energetic</td>
</tr>
<tr>
<td>aggressive</td>
<td>Calm</td>
<td>Generous</td>
<td>Not generous</td>
</tr>
<tr>
<td>happy</td>
<td>Unhappy</td>
<td>Warm</td>
<td>Cold</td>
</tr>
<tr>
<td>uncaring</td>
<td>Caring</td>
<td>Tense</td>
<td>Calm</td>
</tr>
<tr>
<td>serious</td>
<td>care-free</td>
<td>Educated</td>
<td>Educated</td>
</tr>
<tr>
<td>not understanding</td>
<td>understanding</td>
<td>Not confident</td>
<td>Confident</td>
</tr>
</tbody>
</table>

IMPORTANT!!!!

ONCE YOU’VE COMPLETED THIS PAGE, PLEASE DON’T TURN BACK TO THIS PAGE TO CHECK YOUR ANSWERS.
IMPORTANT!!!

Please read the directions below before answering the items on this page. The directions on this page are different from the directions on the previous page.

DIRECTIONS: For each dimension below please select the term with which you would prefer to see yourself more closely associated by clicking on the dot below that term.

For example, would you prefer to see yourself associated more with the term "successful" or "unsuccessful"? If you would prefer to see yourself associated more with the term "successful", select that term by clicking on the dot below that term; however, if you would prefer to see yourself associated more with the term "unsuccessful", select that term by clicking on the dot below that term.

<table>
<thead>
<tr>
<th>Successful</th>
<th>Unsuccessful</th>
<th>Pleasant</th>
<th>Unintelligent</th>
<th>Uptight</th>
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<tbody>
<tr>
<td>Selfish</td>
<td>Unselfish</td>
<td>Intelligent</td>
<td>Mean</td>
<td>Nice</td>
</tr>
<tr>
<td>Hard-working</td>
<td>Lazy</td>
<td>Helpfulness</td>
<td>Helpful</td>
<td>Unhelpful</td>
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<tr>
<td>Positive</td>
<td>Negative</td>
<td>Conservative</td>
<td>Religious</td>
<td>Liberal</td>
</tr>
<tr>
<td>Unfriendly</td>
<td>Friendly</td>
<td>Untrustworthy</td>
<td>Trustworthy</td>
<td>Nonreligious</td>
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<td>Beautiful</td>
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<td>Trustworthy</td>
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<td>Quiet</td>
<td>Talkative</td>
<td>Stubborn</td>
<td>Submission</td>
<td>Unmotivated</td>
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<tr>
<td>Fun</td>
<td>Boring</td>
<td>Motivated</td>
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<td>Shy</td>
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<td>Aggressive</td>
<td>Calm</td>
<td>Generous</td>
<td>Not Generous</td>
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<tr>
<td>Happy</td>
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<tr>
<td>Uncaring</td>
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<td>Tense</td>
<td>Calem</td>
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<tr>
<td>Serious</td>
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<td>Educated</td>
<td>Uneducated</td>
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<tr>
<td>Not understanding</td>
<td>Understanding</td>
<td>Not Confident</td>
<td>Confident</td>
<td>Unconfident</td>
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</table>
IMPORTANT!!!

Please read the directions on this page before answering the items below. The directions on this page are different from the directions on the previous pages.

DIRECTIONS: For each of the dimensions below please select the term on the side which most closely describes you if you were to realize that you are lesbian or gay by clicking on the dot below that term.

For example, if you were lesbian or gay, would you associate yourself more with the term "successful" or "unsuccessful"? If you would associate more with the term "successful", select that term by clicking on the dot below that term; however, if you would associate more with the term "unsuccessful", select that term by clicking on the dot below that term.

<table>
<thead>
<tr>
<th>successful</th>
<th>Unsuccessful</th>
<th>pleasant</th>
<th>Unintelligent</th>
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<tr>
<td>selfish</td>
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<td>hard-working</td>
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<td>positive</td>
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<td>not understanding</td>
<td>understanding</td>
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</table>

IMPORTANT!!!!

ONCE YOU’VE COMPLETED THIS PAGE, PLEASE DON’T TURN BACK TO THIS PAGE TO CHECK YOUR ANSWERS

Notes: One point is calculated for each item where the self and preferred self are the same but different from the self as lesbian or gay. Scores may range from 0 to 30. See Chapter 3 for a discussion on scoring and interpreting the LG Threat scale.
Appendix E

Attitudes Towards Lesbians and Gay Men Scale (ATLG; Herek, 1998)

Please read each of the following statements and rate them according to how accurately they describe your attitudes and beliefs. Please respond honestly and answer every question according to the ratings scale below.

1. Lesbians just can’t fit into our society. (Reverse scored)*

   1   2   3   4   5
   Strongly Disagree
   Strongly Agree

2. A woman’s homosexuality should not be a cause for job discrimination in any situation.

   1   2   3   4   5
   Strongly Disagree
   Strongly Agree

3. Female homosexuality is bad for society because it breaks down the natural divisions between the sexes. (Reverse scored)

   1   2   3   4   5
   Strongly Disagree
   Strongly Agree

4. State laws against private sexual behavior between consenting adult women should be abolished.

   1   2   3   4   5
   Strongly Disagree
   Strongly Agree

5. Female homosexuality is a sin. (Reverse scored)

   1   2   3   4   5
   Strongly Disagree
   Strongly Agree
6. The growing number of lesbians indicates a decline in American morals. (Reverse scored)

   1  2  3  4  5
   Strongly Disagree
   Strongly Agree

7. Female homosexuality in itself is no problem unless society makes it a problem. (Reverse scored)

   1  2  3  4  5
   Strongly Disagree
   Strongly Agree

8. Female homosexuality is a threat to many of our basic social institutions. (Reverse scored)

   1  2  3  4  5
   Strongly Disagree
   Strongly Agree

9. Female homosexuality is an inferior form of sexuality. (Reverse scored)

   1  2  3  4  5
   Strongly Disagree
   Strongly Agree

10. Lesbians are sick. (Reverse scored)

     1  2  3  4  5
     Strongly Disagree
     Strongly Agree

11. Male homosexual couples should be allowed to adopt children the same as heterosexual couples.

     1  2  3  4  5
     Strongly Disagree
     Strongly Agree
12. I think male homosexuals are disgusting. (Reverse scored)

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<tr>
<td></td>
<td>Strongly Disagree</td>
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13. Male homosexuality should not be allowed to teach school. (Reverse scored)

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<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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14. Male homosexuality is a perversion. (Reverse scored)

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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15. Male homosexuality is a natural expression of sexuality in men.

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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</table>

16. If a man has homosexual feelings, he should do everything he can to overcome them. (Reverse scored)

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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17. I would not be too upset if I learned that my son were a homosexual.

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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</table>
18. Sex between two men is just plain wrong. (Reverse scored)

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<tr>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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19. The idea of male homosexual marriages seems ridiculous to me. (Reverse scored)

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<td>Strongly Disagree</td>
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20. Male homosexuality is merely a different kind of lifestyle that should not be condemned.

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<tr>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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*Note: * In the present study negatively worded items were reverse scored so that higher scores reflected positive attitudes. Total scores are obtained by calculating the sum of each subscale. Attitudes towards Lesbians subscale = 1*R, 2, 3R, 4, 5R, 6R, 7R, 8R, 9R, 10R. Attitudes towards Gay Men subscale = 11, 12R, 13R, 14R, 15, 16R, 17, 18R, 19R, 20. *R = Reverse scored. See Chapter 3 for a discussion on scoring and interpreting the ATLG.
Appendix F

Attitudes Regarding Bisexuality Scale (ARBS; Mohr & Rochlen, 1999)

Please read each of the following statements and rate them according to how accurately they describe your attitudes and beliefs. Please respond honestly and answer every question according to the ratings scale below.

1. Most men who claim to be bisexual are in denial about their true sexual orientation. (Reverse scored)
   
   1 2 3 4 5
   Strongly Disagree
   Strongly Agree

2. The growing acceptance of female bisexuality indicates a decline in American values. (Reverse scored)
   
   1 2 3 4 5
   Strongly Disagree
   Strongly Agree

3. Most women who call themselves bisexual are temporarily experimenting with sexuality. (Reverse scored)
   
   1 2 3 4 5
   Strongly Disagree
   Strongly Agree

4. Bisexual men are sick. (Reverse scored)
   
   1 2 3 4 5
   Strongly Disagree
   Strongly Agree

5. Male bisexuals are afraid to commit to one lifestyle. (Reverse scored)
   
   1 2 3 4 5
   Strongly Disagree
   Strongly Agree
6. Bisexual women have a clear sense of their true sexual orientation.

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<td>Strongly Disagree</td>
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7. I would not be upset if my sister were bisexual.

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<tr>
<td>Strongly Disagree</td>
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8. Lesbians are less confused about their sexuality than bisexual women. (Reverse scored)

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<td>Strongly Disagree</td>
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9. Bisexual men should not be allowed to teach children in public schools. (Reverse scored)

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<td>Strongly Disagree</td>
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10. Female bisexuality is harmful to society because it breaks down the natural divisions between the sexes. (Reverse scored)

    | 1 | 2 | 3 | 4 | 5 |
    |---|---|---|---|---|
    | Strongly Disagree | Strongly Agree |

11. Male bisexuality is not usually a phase, but rather a stable sexual orientation.

    | 1 | 2 | 3 | 4 | 5 |
    |---|---|---|---|---|
    | Strongly Disagree | Strongly Agree |
12. Male bisexuals have a fear of committed intimate relationships. (Reverse scored)

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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13. Bisexuality in men is immoral. (Reverse scored)

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<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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14. The only true sexual orientations for women are homosexuality and heterosexuality.

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<td>Strongly Disagree</td>
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15. As far as I’m concerned, female bisexuality is unnatural. (Reverse scored)

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<td>Strongly Disagree</td>
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16. Just like homosexuality and heterosexuality, bisexuality is a stable sexual orientation for men.

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<td>Strongly Disagree</td>
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17. Male bisexuality is not a perversion.

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<tr>
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<td>Strongly Disagree</td>
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</table>
18. Most women who identify as bisexual have *not* yet discovered their actual sexual orientation. (Reverse scored)

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<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
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<td></td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

*Notes.* Total scores are obtained by calculating the mean average of each subscale. Stability subscale = 1*R, 3, 5R, 6, 8R 11, 12 R, 14R, 16, and 18R. Tolerance subscale = 2R, 4R, 7, 9R, 10R, 13R, 15R, and 17. *R = Reverse scoring. See Chapter 3 for a discussion on scoring and interpreting the ARBS.
Email Sent to Training Directors and Listservs

Thank you in advance for your assistance. Please forward this e-mail to anyone who is a doctoral or master’s level graduate student in counseling psychology, counselor education, community counseling, clinical mental health counseling, school counseling, rehabilitation counseling, or career counseling. My name is Michael O’Heron. I am a Ph.D. candidate from the Department of Counseling Psychology and Guidance Services at Ball State University. I am currently collecting data for my dissertation study, which is supervised by Dr. Stefania Æegisdóttir.

The purpose of this study is to understand graduate level counseling students’ thoughts about counseling lesbian, gay, and bisexual clients.

You are eligible to participate in this study because you are either a doctoral or master’s level graduate student majoring in counseling psychology, counselor education, community counseling, school counseling, clinical mental health counseling, rehabilitation counseling, or career counseling.

Your participation involves completing a set of questionnaires that will be accessed on a web based survey (See URL link below). Participation in this study will take about 25 to 35 minutes to complete. Your responses are anonymous and you will not be asked for your name in any part of the survey. Your participation in this study is completely voluntary and you are free to discontinue your participation at any time, without prejudice from the researcher, by exiting the survey website. Discontinuing participation in the survey will result in automatic deletion of any items you may have responded to prior to your decision to discontinue.

If you are interested, you may enter a drawing for a chance to win one of four Amazon.com® gift cards in the amount of $25, $50, $75, and $100, respectively. Winners will be selected randomly. In order to enter the drawing, you will be asked to send an e-mail message with your name and email address to an address that will be provided to you at the end of the survey. These emails will be stored separately and will not be connected with your survey responses. Please note that you must complete the entire survey to be considered for the gift card drawing.

This study has been approved by the BSU Institutional Review Board. If you have any questions about the study, please contact the principal investigator Michael O’Heron by email at mpoheron@bsu.edu, or by phone at (765) 285-8040. You may also contact my
facult sponsor, Dr. Stefania Aegisdottir, by email at steaegis@bsu.edu or by phone at (765) 285-8040.

Again thank you for your interest in this study. Your responses are greatly appreciated.

Please copy the following URL into your web browser or click on the link below:

http://inquisitor.bsu.edu/inqsit/inqsit.cgi/o’heron?+Thoughts+About+LGB+Clients

Please, feel free to forward this research study to any interested graduate student colleagues majoring in counseling or counseling psychology.

Michael P. O’Heron, M.A.
Ph.D. Candidate in Counseling Psychology
Counseling Psychology and Guidance Services
Ball State University
Teachers College
Muncie, Indiana 47306

Stefania Aegisdottir, Ph.D.
Associate Professor of Psychology-Counseling
Counseling Psychology and Guidance Services
Ball State University
Teachers College
Muncie, Indiana 47306
Informed Consent Form

Thank you for taking part in this study on counseling students’ thoughts about lesbian, gay, and bisexual clients. Your participation involves completing a set of questionnaires that will take about 25 to 35 minutes to complete. Your participation in this study is completely voluntary and you are free to discontinue your participation at any time without prejudice from the researcher. Your responses are anonymous and you will not be asked for your name in any part of the study.

There are no foreseeable risks for persons participating in this study. However, if you feel any discomfort about answering any of the items in the study, you may discontinue your participation at any time. Also, if you experience discomfort, you may wish to seek out counseling services through your university counseling center. You will be responsible for the cost of any services that are provided.

For questions about your rights as a research subject, please contact the Director, Office of Research Compliance, Ball State University, Muncie, IN 47306, (765) 285-5070.

If you have any questions about the study, please contact the principle investigator Michael O’Heron by email at mpoheron@bsu.edu, or by phone at (765) 285-8040. You may also contact his faculty sponsor, Dr. Stefania Aegisdottir, by email at stefaegis@bsu.edu or by phone at (765) 285-8040.

Again thank you for participating. Your responses are greatly appreciated.
Appendix I

IRB Approval Letter

Institutional Review Board

DATE: October 13, 2010

TO: Michael O’Heron, MA

FROM: Ball State University IRB

RE: IRB protocol # 193089-2

TITLE: Counselors’ Thoughts About Lesbian, Gay, and Bisexual Clients

SUBMISSION TYPE: Revision

ACTION: APPROVED

DECISION DATE: October 13, 2010

EXPIRATION DATE: October 12, 2011

REVIEW TYPE: Expedited Review

The Institutional Review Board has approved your Revision for the above protocol, effective October 13, 2010 through October 12, 2011. All research under this protocol must be conducted in accordance with the approved submission.

As a reminder, it is the responsibility of the P.I. and/or faculty sponsor to inform the IRB in a timely manner:

• when the project is completed,

• if the project is to be continued beyond the approved end date,

• if the project is to be modified,

• if the project encounters problems, or

• if the project is discontinued.
Any of the above notifications should be addressed in writing and submitted electronically to the IRB (http://www.bsu.edu/irb). Please reference the IRB protocol number given above in any communication to the IRB regarding this project. Be sure to allow sufficient time for review and approval of requests for modification or continuation. If you have questions, please contact Chris Mangelli at (765) 285-5070 or cmmangelli@bsu.edu
Appendix J

Debriefing Form

Thank you for participating in this study, which sought to understand how counselors’ attitudes towards lesbians, gays, and bisexuals, and their understanding of their own sexual identity affects their LGB counseling self-efficacy beliefs or confidence in working with LGB clients. If you have any questions regarding the research study or are interested in seeing the results of the study, please email Michael O’Heron at mpoheron@bsu.edu.

If you would like to participate in the drawing to win 1 of 4 Amazon® gift cards, please email the Michael O’Heron at mpoheron@bsu.edu and provide your email address along with your name.