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Increasing psychological flexibility regarding interpersonal conflict between religious beliefs and attitudes towards sexual minorities: An Acceptance and Commitment Therapy (ACT) intervention

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INCREASING PSYCHOLOGICAL FLEXIBILITY REGARDING INTERPERSONAL CONFLICT BETWEEN RELIGIOUS BELIEFS AND ATTITUDES TOWARDS SEXUAL MINORITIES: AN ACCEPTANCE AND COMMITMENT (ACT) INTERVENTION

by

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ABSTRACT

Increasing Psychological Flexibility Regarding Interpersonal Conflict Between Religious Beliefs and Attitudes Towards Sexual Minorities: An Acceptance and Commitment Therapy (ACT) Intervention

by

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This study was designed to test the clinical effectiveness of an Acceptance and Commitment Therapy (ACT) group intervention for individuals reporting distress related to conflict between sexual and religious identity. There were 24 participants in the study, 12 of whom took part in the therapy group, 12 of whom were in a comparison group and did not participate in the intervention. Outcome measures included the Acceptance and Action Questionnaire-2 (AAQ-2), Components of Attitudes Towards Homosexuality (CAH), Outcome Questionnaire-45 (OQ-45), the World Health Organization Quality of Life Questionnaire (WHO-QOL), Dimensions of Latter-Day Saint Religiosity (DLDSR), and the Three-Factor Scale of Authoritarianism (3-FSA). Participants from both the intervention and the comparison groups completed an initial battery of these self-report measures and an additional follow-up battery, given after the intervention group had

completed the six-session intervention and after a similar 6-week period had passed for the comparison group.

Repeated-measure ANOVA of the collected data indicates that, relative to the comparison group, the intervention group showed statistically significant ($p < .05$) changes in symptom distress (partial $\eta^2 = .36$), attitudes towards homosexuality (partial $\eta^2 = .461$), and quality of life (partial $\eta^2 = .85$). While preliminary, results of this study indicate that an ACT therapy group is an effective clinical intervention for individuals experiencing distress as a result of conflict between sexual and religious identity.

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PUBLIC ABSTRACT

Increasing Psychological Flexibility Regarding Interpersonal Conflict Between Religious Beliefs and Attitudes Towards Sexual Minorities: An Acceptance and Commitment Therapy (ACT) Intervention

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This study was designed to facilitate the development and assessment of a group therapeutic intervention for lesbian, gay, bisexual, and questioning individuals. Previous research has established that this population is particularly vulnerable to psychological distress and that religiosity contributes to this vulnerability, but there have been no interventions established specifically for the population of sexual minorities who are experiencing religious conflict. The components of Acceptance and Commitment Therapy were used to inform the development of a group intervention, which was then carried out. An assessment battery of numerous quantitative measures was given to participants before and after the intervention to assess the usefulness and effectiveness of the intervention. Participants reported increased quality of life and reduced psychological distress following the intervention, relative to a control group. Analysis of the collected data revealed additional information about the relationship between religiosity, authoritarianism, and attitudes towards sexual minorities. This information is presented as well as recommendations for future research in this area.

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Cory John Myler

CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The relationship between religious beliefs and attitudes toward sexual minorities is frequently observed, and documented, at the individual and community levels, higher religiosity tends to correlate with more negative attitudes (Rosik, Griffith, & Cruz, 2007). Recent research has indicated that there may be specific dimensions of religiosity that are particularly predictive of negative attitudes. Previous research conducted with an LDS college student population (Myler, 2008) has indicated that overall religiosity correlates positively with negative attitudes, but that the relationship is driven by one individual dimension of religiosity: church commitment. Church commitment is a dimension that deals largely with loyalty to The Church of Jesus Christ of Latter-day Saints' (LDS) organization, and not necessarily to the doctrine or even the religion. This dimension, upon closer examination, seems to bear some similarities to right-wing authoritarianism (Altemeyer, 1981)—a construct that itself has been demonstrated to correlate with cognitive rigidity, psychological inflexibility, and a propensity for certain mental pathology. In other words, it appears that it might not be religiosity per se that predicts homophobia, but rather a personality characteristic in a religious context, specifically, psychological inflexibility.

The current study builds on the identified relationship between religiosity and attitudes towards sexual minorities by considering the question of internalized homophobia (IH), especially among religious individuals. Individuals who are high on rigidity and also find themselves in the position of being a sexual minority may be at

particular risk for poor mental health outcomes. Distress as a result of perceived conflict between their religious and sexual identities is an experience that appears to be common in the mental health field (Morrow, Beckstead, Hayes, & Haldeman, 2004). The previously described research allows for the possibility that psychological inflexibility in a religious context could contribute to the distress of individuals that identify as LDS and as gay or lesbian.

The conflict between religious identity and sexual identity is complex in nature. Until recently, modern Christian religions have been nearly united in their opposition to homosexuality (Dynes & Donaldson, 1992). Within Christianity, homosexuality has been variously characterized as "unnatural" and "a sin against nature" by early leaders (Boswell, 1980) and as "objective disorder" and an "orientation to evil" by modern leadership (Ratzinger & Bovone, 1986). The Church of Jesus Christ of Latter-day Saints (also referred to as "the LDS Church" or "the Mormon Church") is a relatively young, but quickly growing denomination (Beckstead & Morrow, 2004) that has made many specific condemnatory statements regarding homosexuality; LDS leaders have characterized homosexuality as "wretched wickedness" (Kimball, 1969, p. 56), "sexual perversion" (Benson, 1986, p. 45), "an abuse of the sacred power to create life" (Kimball, 1982, p. 4), and as "the norm of life among the wicked and ungodly" (McConkie, 1980, p. 50). More recently, the LDS Church has taken pains to distinguish its condemnation of homosexual behavior from its "warmth and affection" for the "same-gender attracted" individual (Church of Jesus Christ of Latter-day Saints, 2007, p. 1). At the same time, the LDS church continues to be an outspoken opponent of any attempts to legalize same-sex

marriage and actively encourages members to contribute time and money to efforts to defeat the same attempts (Beckstead & Morrow, 2004). Additionally, a growing worldwide organization, Evergreen International, exists primarily to promote and provide "conversion" or "reparative" therapy, to convert gay LDS members to heterosexuality (Beckstead & Morrow, 2004).

One result of the LDS Church's policies and statements is distress for many church members who identify as lesbian, gay, bisexual, and transgender (LGBT), are related to or associate with LGBT individuals, or disagree with the Church's position on political or philosophical grounds. Conflict between religious beliefs and attitudes toward sexual orientation has received some scholarly attention and the variety of experiences that result from this conflict have been described by a number of researchers (Beckstead & Morrow, 2004; Haldeman, 2004; Szymanski, Kashubeck-West, & Meyer, 2008). This research has documented the complex nature of the relationship between sexual minorities and some religious organizations, and has identified several of the key therapeutic issues that may have a basis in this conflict, including identity integration, grieving, prioritizing, and behavior management. High levels of religious conflict when coming out have been shown to positively correlate with IH, the internalization of negative messages about homosexuality by LGBT people (Noffzinger-Frazier, 2003). IH, in turn, has been shown to affect sexual identity formation; mental, psychosocial, and physical health; substance use; sexual risk-taking behavior; intimate relationships; parenting and family issues; career issues, and counselor-client interactions (see Figure 1; Szymanski et al., 2008).

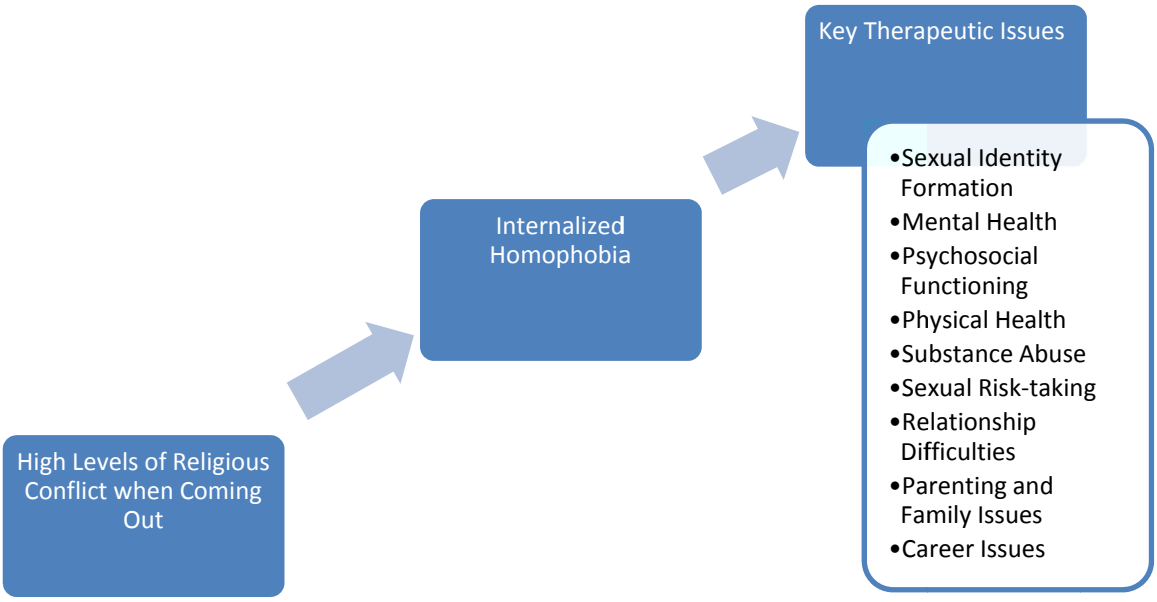


Figure 1. Relationship between religious conflict and therapeutic issues.

Adding to the complexities of addressing conflict between religious and sexual identities in therapy is the potential for conflicting values between client and therapist. A recent survey of university counseling centers found that "by far the most common dilemma" faced by counseling center directors was a therapist objecting to providing services to a LGBT client because of religious beliefs (Illfelder-Kaye, Lese-Fowler, Bursley, Reyes, & Bieschke, 2009, p. 723; see also Fischer & DeBord, 2007). Objections of this type apparently conflict with the ethical and professional expectation of "interpersonal expertise," defined as "the flexibility to be clinically effective with patients of diverse backgrounds" and identified as promoting positive therapeutic outcomes (APA Presidential Task Force on Evidence-Based Practice, 2006; American Psychological Association [APA], 2011). Maintaining and respecting personal religious beliefs while simultaneously committing to the professional responsibility of providing sensitive and

effective treatment to LGBT clients can be a difficult struggle for mental health providers, and one that, in some ways, can mirror the difficulties faced by clients looking to reconcile religious and sexual identity.

In sum, LGBT individuals with religious backgrounds are likely to experience psychological distress and there is a need to establish clinical interventions for dealing with this distress. Many religious institutions, and particularly the LDS church, explicitly condemn same-sex relationships. For LGBT individuals, and often their friends and families, this condemnation can result in internal conflict that results in personal distress that can, in turn, negatively affect quality of life. This sequence of events suggests that there is a need for the establishment of interventions for dealing with religious/sexual identity conflict. The research regarding the described conflict often refers to "resolution" or "reconciliation" (Beckstead & Morrow, 2004). Such language may give an inaccurate picture of likely outcomes of addressing this issue in therapy; for example, potential outcomes of "successful" resolution of religious and sexual identity conflict include the potential loss of family, community, belief system, and/or core identity. The nature of this conflict and potential outcomes indicates that traditional measures may not capture the complexity or full range of benefits and risks that go into judging beneficence/ nonmaleficence (APA, 2002); there is, in other words, no obvious solution to the problem.

Given the complicated nature of religious/sexual identity conflict and the identified inherent difficulties of therapeutic intervention, the proposed research was designed with an eye towards contributing to the scientific understanding of the conflict

and its therapeutic treatment. Participants in the study were Utah State University (USU) students who reported distress related to religious/sexual identity conflict. Participants needed not identify as LGBT to qualify for participation, eliminating the need for participants to "come out" or to apply to themselves a potentially inaccurate label, and allowing for the participation of individuals for whom the conflict has arisen indirectly, either through contact with sexual minority friends or family members, or simply through observation or media exposure.

Participants completed a number of measures intended to elucidate the relationship between religiosity, church commitment, right-wing authoritarianism, psychological inflexibility, attitudes towards sexual minorities, internalized homophobia, as a well as measures designed to assess functioning in a variety of domains. Participants took part in an Acceptance and Commitment Therapy (ACT) intervention specifically designed to target psychological inflexibility in persons struggling to reconcile their religiosity and issues with sexual identity (about self or other). After the intervention, participants completed the battery of measures. These data, along with data collected from a comparison group, were analyzed to determine the effectiveness of the intervention, as measured by change in reported quality of life, and the degree to which psychological inflexibility moderated the effects of the intervention.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature is divided into two main sections addressing the religious/sexual identity conflict: (a) an overview of theories and research regarding religiosity and its relationship with right-wing authoritarianism, attitudes towards sexual minorities, internalized homophobia, and psychological inflexibility, and (b) an overview on the theory and therapeutic techniques of Acceptance and Commitment Therapy, including a discussion of psychological flexibility, and its appropriateness for the proposed research.

Religiosity

The deceptively simple question of "How religious are you?" has undergone various incarnations as an empirical inquiry. This construct, known as religiosity (and less commonly, religiousness) refers to the various aspects of religious activity, dedication, and belief. Religiosity refers to *how* religious an individual is, rather than how that individual is religious (in terms of ritual or ceremony). The measurement of religiosity was initially unidimensional, focusing on the presence or absence of religiosity. The research has evolved toward dimensional examination of the construct. One of the early dimensional distinctions was between extrinsic vs. intrinsic religiosity, attending to the difference between the religious participation for the sake of protection and social status and for the sake of a more internalized motivation (Gorsuch & Venable, 1983). Most recently, researchers have begun to develop, use, and validate multi-

dimensional measures of religiosity (Hill & Hood, 1999) extending beyond the extrinsic/ intrinsic dichotomy and into much more nuanced measurement and conceptualization. Recent research by the author was conducted using the multidimensional measure of LDS religiosity in which three main areas, belief, commitment, and behavior are divided into six distinct dimensions (Cornwall, Albrecht, Cunningham, & Pitcher, 1986). Within the belief dimension are traditional orthodoxy, defined as "belief in traditional Christian doctrines such as the existence of God, the divinity of Jesus Christ, life after death, Satan, and the Bible ... beliefs that are not unique to Mormonism," and particularistic orthodoxy, which here refers to "acceptance or rejection of beliefs peculiar to a particular religious organization" (Cornwall et al., 1986, p. 230), in this case, the LDS Church. The commitment dimension is made up of spiritual commitment or "the personal faith relationship with the transcendental" and church commitment which "encompasses the attachment, identification, and loyalty of the individual toward the church organization or the religious community" (Cornwall et al., 1986, p. 231). Finally, the two dimensions of religiosity contained in the behavioral component are religious behavior, "the behaviors which are by nature religious, but do not require membership or participation in a religious group or community" (Cornwall et al., 1986, p. 232) and religious participation, which includes meeting attendance, financial contribution, and home religious observance. Research has confirmed that these are distinct, measurable constructs, and that certain dimensions of LDS religiosity are more predictive of attitudes than others (Cornwall et al., 1986; Myler, 2008).

In the context of this study, it is the finding that high religiosity correlates with negative attitudes towards sexual minorities that is particularly pertinent. While negative attitudes held by a heterosexual individual may or may not result in distress or reduced quality of life, negative attitudes held by an LGBT individual (internalized homophobia) are very likely to directly affect functioning, as will be detailed in the following sections.

Negative Attitudes Towards Sexual Minorities

Negative attitudes toward sexual minorities are marked by strong opposition to homosexual romantic relationships, and same-sex sexual behaviors, reluctance to come into contact with sexual minorities, and stereotypical beliefs about sexual minorities. The research focusing on the effects of these attitudes has made clear the damaging effects of prejudice and discrimination. Katherine O'Hanlan, an American physician who has conducted extensive research on the subject, has gone so far as to label homophobia "a health hazard" (O'Hanlan et al., 1997). She and other researchers have determined that gay and lesbian youth face increased rates of assault, suicide, substance abuse, and family discord (sometimes in the form of abuse) as a result of homophobia. Overall psychological distress, depression, somatic symptoms, poor self-esteem, loneliness, and distrust are also associated with high levels of homophobia (Shidlo, 1994).

There have been a large number of studies investigating correlates of negative attitudes towards sexual minorities, also often referred to as homophobia, heterosexism, or sexual prejudice (Finlay & Walther, 2003). One of the most reliable predictors of negative attitudes toward sexual minorities is religiosity. One of the first large-scale

studies of the question concluded that "religious beliefs are often the basis of opposition to homosexuality" (Pew Research Center for the People & the Press, 2006) and this finding has been borne out through years of replicated research (Myler, 2008).

There are some terminological and sampling inconsistencies that complicate the aggregation of the pertinent research on attitudes toward sexual minorities. Specifically, homophobia, while the preferred term, is not always used in research, making cross-study comparisons somewhat troubling when the constructs are slightly different, as might be the case when samples include or exclude bisexual individuals. Despite these challenges, overall, it is clear that individuals with high levels of religiosity are more likely to hold negative attitudes towards non-heterosexuals (Wilkinson, 2004).

There is an emergent field of research that has begun to use multidimensional measures of both religiosity and homophobia to further explicate the relationship between the two constructs. For example, one recent study found that high intrinsic religiosity is related to antipathy toward same-sex sexual behavior, but not towards gay or lesbian individuals (Mak & Tsang, 2008). Another study reported that an individual's acceptance of a person-behavior distinction (an accepted component of most conservative religious ideologies) was significantly predictive of attitudes towards gay men and lesbians, even after accounting for variance in religious commitment (Rosik et al., 2007). Research has also identified individual dimensions of religiosity that were more predictive of negative attitudes than overall religiosity (Myler, 2008). Outwards-directed negative attitudes are only one side of homophobia; these beliefs and attitudes can also have the self as target.

These inwards-directed negative attitudes are known as internalized homophobia (Shidlo, 1994).

Internalized Homophobia

There are several definitions of internalized homophobia. Two of the most widely used are: "the gay person's direction of a negative social attitude toward the self, leading to a devaluation of the self and resultant internal conflicts and poor self-regard" (Meyer & Dean, 1998), and "the self-hatred that occurs as a result of being a socially stigmatized person" (Locke, 1998). Internalized homophobia is often presented as a concept centrally related to mental health issues faced by sexual minorities (Williamson, 2000) and as a major precipitating factor in depression, anxiety, and other emotional disorders (Cody & Welch, 1997). Internalized homophobia is thought to be particularly impactful on sexual identity development; one researcher described this effect in the following terms: "the awareness of the stigma that surrounds homosexuality leads the experience to become an extremely negative one; shame and secrecy, silence and self-awareness, a strong sense of differentness—and of peculiarity—pervades the consciousness" (Plummer, 1995, p. 89).

A robust line of research has identified a number of life difficulties associated with internalized homophobia including suicide, depression, demoralization, anxiety, substance abuse, high-risk sexual behavior, conflicts in romantic relationships, and eating disorders (Kelley & Robertson, 2008). These experiential correlates of internalized homophobia provide some indication of both the seriousness of the issue and, more hopefully, appropriate directions for intervention.

Conflict Between Religious and Sexual Identity

Research into the experiences of LGBT individuals indicates that conflict between religion and sexual orientation is common (Schuck, 2001). LGBT individuals report that religious doctrine is often a source of this conflict; they may be exposed to teachings that indirectly condemn nonheterosexuality (e.g. premarital or postmarital sex is forbidden) or that directly condemn homosexuality (Garanzini, 1989). Scripture that censures homosexual behavior and prejudice from members of the congregation also contribute to the conflict, which, in turn, often results in guilt, shame, self-loathing, and a sense of exclusion and negative judgment. A frequent response to this experience is to abandon a faith or to leave a church (Ritter & O'Neill, 1989) While this often removes the source of conflict, it also results in the loss of any protective factors that religion may have provided (Dahl & Galliher, 2012). It has been suggested that integration of religion and sexuality may provide "a weapon against internalized homophobia" (Wagner, Serafini, Rabkin, Remien, & Williams, 1994, p. 91), it remains unclear, how frequently integration or resolution is an accessible option, how mental health providers can intervene to either facilitate integration or support in the absence thereof, and what options remain for those for whom integration is not possible.

Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT, pronounced "act," rather than "ay-see-tee) is an evidence-based psychological intervention that promotes acceptance, mindfulness, commitment, and behavior change with the aim of increasing psychological

flexibility and quality of life in those who undergo treatment (Hayes, Strosahl, & Wilson, 1999). ACT has its foundations in basic behavioral principles, and particularly in the application of those principles to language and cognition, as explained by relational frame theory (RFT). RFT explains that humans tend to follow a developmental path in which human experience moves from being defined by the non-arbitrary relationships that exist between objects (e.g., to a child, a bigger cookie is initially more desirable than a small one) to the more arbitrary (or ascribed) relationships allowed by language (e.g., to an adult, a smaller cookie with Macademia nuts may be preferable to a larger one without solely because of the linguistic relationships that exist between "Macademia nuts" and "value," "rarity," "desirability") Over time, these relationships or "relational networks" increase in breadth, depth, and complexity in a way that allows for abstract thought, indirect learning, planning, and so forth, and such that awareness of the disconnect between object relations and linguistic relations is often absent (e.g., the statement "Macademia nuts are better than chocolate chips" appears to be as "true" as "That cookie is bigger than the other"). Very often the linguistic networks allow for a satisfactory level of functioning and the behavior that results from adhering to these narratives is "workable" (i.e., allows for a satisfactory quality of life). Perhaps just as often, inflexible adherence to these "stories" can result in escape and avoidance behaviors that result in a rigid approach to experiences; such that quality of life diminishes. For example, a strong attachment to the words "Airplane flights are stressful," might result in avoidance of flying that becomes "unworkable" (i.e. an individual misses out on valued opportunities as a result). In this way, RFT provides a model for the development and maintenance of

psychopathology and human suffering; “an overextension of human language leads to a rigid, psychologically inflexible way of living” (Luoma, Hayes, & Walser, 2007, p. 11). Research regarding this psychological inflexibility has identified six different contributing processes: experiential avoidance, cognitive fusion, attachment to the conceptualized self, inaction, lack of values, and limited self-knowledge. Understanding of these processes can be gained by examining the therapeutic processes of ACT that have been established as targeting each.

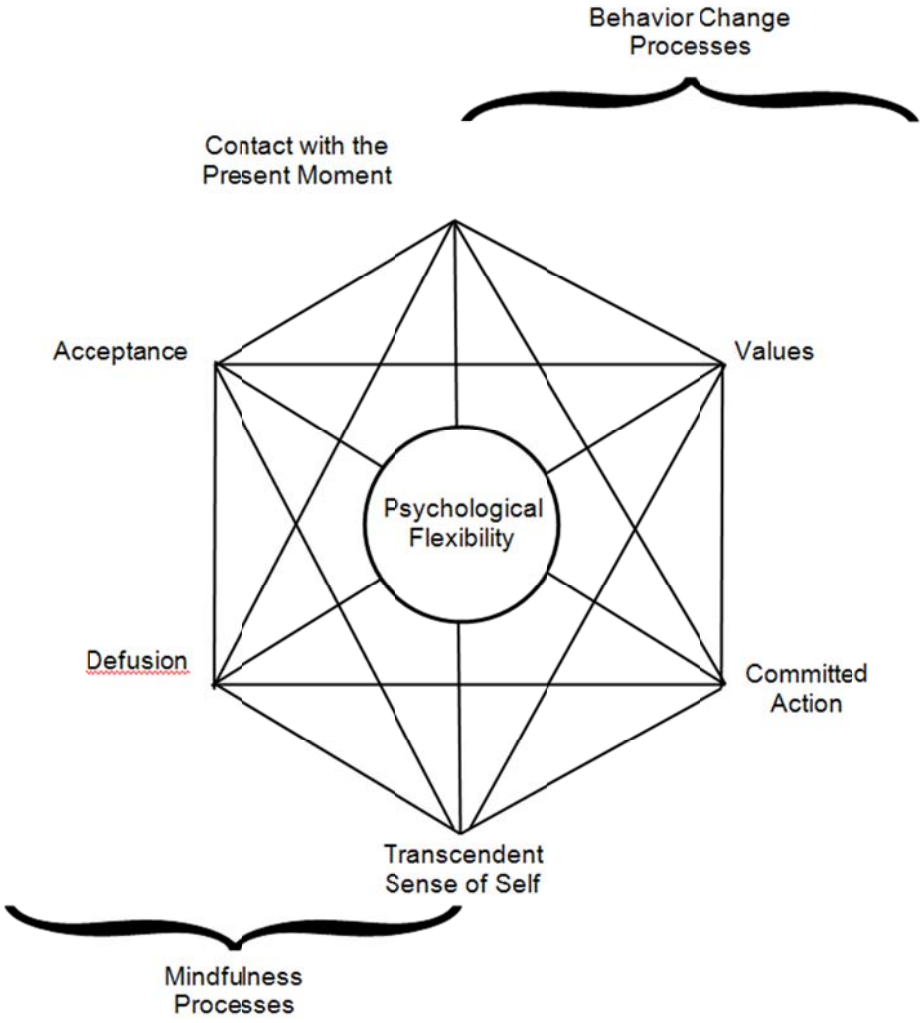
Core ACT Processes

There are six interrelated core processes within ACT, each of which supports the others and focuses on increasing psychological flexibility, defined as “the process of contacting the present moment fully as a conscious human being, and persisting or changing behavior in the service of chosen values” (Luoma et al., 2007, p. 22). The psychologically flexible person would be able to actively choose whether to persist in a behavior or change it based on the situation and their values while the inflexible person would persist in maladaptive behaviors or engage in escape/avoidance behaviors to avoid the distressing situation. For example, a gay male college student might have developed the coping behavior of not attending classes in which homophobic comments were made. While this strategy might have worked during his undergraduate career, it is unlikely that it would work well for graduate studies and it might be inconsistent with the student’s value of forming meaningful social relationships. Psychological inflexibility would consist of persisting in the maladaptive class avoidance behavior, while psychological flexibility would consist of changing behavior to meet the student’s values of education

and social relationships.

The six core processes are: contact with the present moment, or mindfulness, values, committed action, transcendent sense of self, defusion, and acceptance (Figure 2).

Mindfulness. Mindfulness, or contact with the present moment, is intended to help individuals experience the portions of their life that are happening right now, as



Adapted from *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists*, by Luoma, Hayes, & Walser (2007, p. 20).

Figure 2. Six core ACT processes.

opposed to in the past or future. Structured mindfulness exercises as described in Luoma and colleagues (2007, pp. 94-99) are used to increase recognition and observance of present moment events.

Values. Values work in ACT consists of defining the participants' valued directions with the aim of getting in touch with and elucidating the elements that give meaning and significance to their lives. Exercises described in Luoma and colleagues (2007, pp. 139-147) help participants distinguish values from goals, examine current life directions in relation to values, and take a stand for their values.

Committed action. The targets of committed action work are to help participants increase congruence between behavior and values, and to take responsibility for these behaviors. Exercises for this process include working to appreciate the qualities of committed action, keeping commitments in the presence of emotional barriers, developing an action plan, and dealing with relapse (Luoma et al., 2007, pp. 160-170)

Transcendent sense of self. The main task of this process is to help the client distinguish his or her conceptualized self, that is, the "continuous, safe, and consistent (self)…from which they can observe and accept all changing experiences" (Luoma et al., 2007, p. 109), from the context in which experience occurs. A combination of metaphors, brief interventions, and experiential exercises, as described in described in Luoma and colleagues (2007, pp. 113-120) assist the participant to identify a sense of self that can observe thoughts and emotions.

Defusion. Cognitive fusion is described as an individual's tendency to hold to the literal meaning of thoughts. Defusion, then, consists of helping participants to view

thoughts and emotions as ongoing behaviors, rather than hard and fast truths. Teaching the limits of language, creating distance between thought and thinker, and revealing the hidden properties of language are all exercises targeting this process (Luoma et al., 2007, pp. 62-69)

Acceptance. Acceptance, in ACT, is a concept closely tied to willingness, and involves helping clients give up the idea of being able to control thoughts and emotions. Exercises outlined in Luoma and colleagues (2007, pp. 28-37) help clients to examine the workability of a "control agenda" and to undermine control as ways of developing and practicing acceptance.

Many religious institutions repudiate homosexuality. Inevitably some religious individuals are also lesbian, gay, or bisexual (Morrow et al., 2004) and do not want to forsake their religious beliefs and practices as a result of a sexual minority identity and/or behavior (Haldeman, 2004). Theirs is an irresolvable conflict, which almost inevitably causes distress (Beckstead & Morrow, 2004) and results in escape/avoidance behavior. ACT interventions have shown repeatedly that individuals can make significant progress in addressing the behavioral consequences of their distress to move toward more "authentic living." This progress can be viewed in terms of "creative hopelessness," a concept used in ACT to describe the behavioral flexibility that can paradoxically arise from becoming "hopeless" about control. In this case, the attempt to control a private experience is closely related to incompatibility of external factors (religion and sexuality); and increasing intentionality about application of control strategies towards these external factors (e.g., a degree of "hopelessness" about changing either a religious

institution or one's sexuality") can parallel the development of a flexibility in attempts to control internal experiences.

Other Aspects of ACT

In addition to the core processes, the concepts of destructive normality and experiential avoidance are critical to ACT at theoretical and applied levels. Both of these constructs inform the goals of ACT treatment to normalize the experience of distress and promote an accepting or willing stance that allows an individual to engage in value-directed behavior even in the presence of the unwanted internal experience.

A fundamental concept in ACT is the assumption of destructive normality. This concept refers to the understanding that "ordinary human psychological processes can themselves lead to extremely destructive and dysfunctional results and can amplify or exacerbate unusual pathological processes" (Hayes et al., 1999, p. 6). The assumption of destructive normality, stated early on in the first comprehensive text on ACT (Hayes et al., 1999), lays the foundation for the theoretical appropriateness of an ACT intervention for religious/sexual identity conflict. The natural human problem-solving tendency, usually adaptive and effective, may contribute to distress and complexity when applied to emotional and cognitive experiences. The ability and motivation look for solutions, fixes, resolutions, etc. serves humans very well when repairing machinery, trouble-shooting software, or developing a business plan; attempting to apply the same set of "tools" to anxiety, depression, unwanted thoughts and their associated physiological experiences (sweating, shortness of breath, etc.) often results in disappointment and frustration.

ACT emphasizes the importance of verbal behavior in the human experiences.

Verbal constructions of events and experiences can result in "rule-governed behavior," that is, behavior that is determined by contingencies that are articulated rather than directly experienced. While this sort of behavior is largely adaptive, verbal rules can be relatively unyielding to environmental change and can produce rigid behavior that persists in the face of environmental contraindications. In regards to religious/identity conflict specifically, it is likely that verbal consideration of religion and sexuality leads to the establishment of rules about each of these areas (e.g., "If I'm going to be a good Latter-day Saint, then I must not even think about homosexual activity," "I must not have anything to do with the LDS Church if I am a lesbian"), and as the unlikelihood of perfect adherence to these rules becomes apparent, self-criticism and self-avoidance are likely to increase. This phenomenon is often referred to as experiential avoidance, and is characterized by a person's unwillingness to maintain contact with certain emotions, sensations, and thoughts, and the related to tendency to attempt to escape these experiences (Hayes et al., 1999, p. 58). A recent review of 28 studies of experiential avoidance concluded that experiential avoidance: "(a) influences the likelihood of substance use relapse, (b) mediates the relation between traumatic events and general psychological distress, (c) predicts severity of symptoms in some specific disorders such as GAD and trichotillomania, and (d) mediates the relationship between maladaptive coping and self-regulatory strategies, and psychological distress" (Chawla & Ostafin, 2007, p. 885). The review went on to state that interventions focused on reducing experiential avoidance can result in improvement for individuals with anxiety disorders. ACT is designed to encourage experiential acceptance rather than avoidance (Hayes et

al., 1999).

While much of the research into experiential avoidance looks specifically at clinical levels of psychopathology, there is some research dealing with subclinical distress similar to the conflict that is the focus of the proposed research. One study of an ACT intervention targeting math anxiety, for instance, found that the intervention reduced levels of math and test anxiety and levels of experiential avoidance (Zettle, 2003). Similarly, ACT-informed interventions have been shown to reduce mental health stigma (Masuda et al., 2007), and to improve coping with food cravings (Forman et al., 2007). Experiential avoidance itself has been found to correlate with lower quality of life among elderly individuals (Butler & Ciarrochi, 2007), and with dysfunctional pain coping strategies (Zettle et al., 2005). Specifically pertinent to the topic of this dissertation is the recent finding that an ACT intervention resulted in statistically significant reductions n internalized homophobia (Yadavaia & Hayes, 2012). The methods used by these researchers indicate that, consistent with ACT and RFT, there were greater reductions in *believability* of thoughts about same-sex attraction than in *frequency* of those thoughts.

An examination of the apparent mechanisms at work in these studies can clarify the appropriateness of ACT for the proposed study. ACT can be conceptualized as attempting to increase certain client behaviors: (a) identifying values and barriers to those values, (b) commitment to the actions necessary to move towards those values, (c) the evaluation of the "workability" of private events, that is, their usefulness in value-congruent movement, (d), psychological acceptance, or experiencing private events

without engaging in value-incongruent avoidance behavior. It should be noted that distress reduction, *per se*, is not a stated goal of ACT intervention. In Zettle's (2003) study on math anxiety, for example, the criteria used to determine whether the intervention was successful was "whether it can induce students who have avoided math to do what they need to do (i.e., enroll in and successfully complete a course in math) *and* be anxious about doing so" (Acceptance and commitment therapy [ACT] vs. systematic desensitization in treatment of mathematics anxiety; Zettle, 2003, p. 212). In other words, the focus of the intervention was not to reduce anxiety itself, but to encourage the participants to move towards their education-related values and goals. Indeed, this study actually compared ACT to systematic desensitization, and demonstrated that, while systematic desensitization did reduce math anxiety among participants with low pretreatment levels of experiential avoidance (a relatively small minority of the participants), clients with higher levels of experiential avoidance, experienced an increase in psychological acceptance and flexibility after the ACT intervention. It is anticipated that a similar process will take place in the proposed study; the goal of the intervention will not be to reduce the distress associated with what is essentially an irresolvable conflict, but rather to encourage movement in valued directions while simultaneously experiencing the pain associated with the disagreement in beliefs regarding religious and sexual identity.

Religiosity and Personality Traits

Previous research (Myler, 2008) identified church commitment as the single

individual dimension of LDS religiosity that significantly correlated with negative attitudes towards sexual minorities. An investigation of the literature reveals that church commitment, appears to be analogous to certain traits identified by personality psychology theorists, specifically right-wing authoritarianism (RWA) and social dominance orientation (SDO). Further, there has been a significant amount of research comparing RWA with SDO. Both of these personality constructs have been shown to correlate with prejudice, both generalized prejudice and specific prejudices such as racism or heterosexism.

When RWA was first identified, high-RWA individuals were described as favoring traditional values, as submissive to authority figures, as highly ethnocentric, and as likely to act aggressively toward outgroup members (Altemeyer, 1981). Research comparing RWA to the big five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism; Costa & McCrae, 1992) have demonstrated that RWA correlates negatively with openness to experience (inventive/curious vs. consistent/cautious), and positively with conscientiousness (efficient/organized vs. easy-going/careless) and extraversion (outgoing/energetic vs. solitary/reserved). RWA has also been shown to correlate with negative attitudes towards African Americans, gay men, women, Jews, and immigrants (Ekehammar, Akrami, Gylge, & Zakrisson, 2004).

SDO, on the other hand is defined as "a general attitudinal orientation toward intergroup relations, reflecting whether one generally prefers such relations to be equal, versus hierarchical" (Pratto, Sidanius, Stallworth, & Malle, 1994). SDO has been shown to correlate negatively with agreeableness and openness to experience. SDO has also

been found to correlate strongly with ethnic prejudice and negative attitudes toward gay men. While it may seem that SDO and RWA are interchangeable, the two have low to moderate correlations, and there are some significant differences. While SDO focuses on intergroup dominance, RWA is a within group phenomenon. High-RWA individuals are also more likely to be religious and to need structure. It has been suggested that certain Big Five orientations can lead to RWA, which in turn can cause SDO (Ekehammar et al., 2004). In spite of this apparently causal relationship, RWA continues to be a better predictor of anti-gay prejudice than SDO (Stones, 2006).

Of all of the dimensions identified in the multidimensional measure of LDS religiosity, church commitment seems to be the one that, theoretically, at least, is most analogous to RWA. Given the previously described data on RWA, it will be useful to demonstrate, through the proposed research, whether church commitment is directly related to RWA or whether, they are two separate constructs that are both predictive of prejudicial attitudes.

Research Questions

The principal research question addressed in the proposed study involves the effectiveness of the described intervention. Stated explicitly, the questions for this study were as follows.

RQ1: Does a group ACT intervention increase the psychological flexibility (as measured by the AAQ) in a group of individuals experiencing conflict between religious beliefs and beliefs regarding sexual identity?

It should be noted that there are no established measures of the conflict of interest, and thus the participants were self-selected individuals who responded to recruitment advertising the described conflict and individuals who have brought up the conflict in therapy or counseling.

RQ2: Does the intervention affect outcomes and functioning (as measured by the OQ-45, CAS, and QOL) for the participating individuals?

Although the aim of any ACT intervention is specifically to increase psychological flexibility and not to decrease distress or symptomology, improved outcomes, as traditionally conceptualized, may improve as a result of increased flexibility.

RQ3: Do religiosity and/or RWA affect the effectiveness of the intervention?

It may be that religiosity, or at least specific dimensions thereof, and RWA are themselves representative of psychological inflexibility and individuals that endorse high levels of either may respond differently to the intervention.

RQ4: Does the intervention change RWA for the participating individuals?

ACT is perhaps more specific in its stated aim to not change the values of the client. It is possible that individuals who strongly value conformity and obedience, for example, remain high on RWA, but still demonstrate increased psychological flexibility (as measured by the AAQ).

RQ5: Do attitudes toward sexual minorities change for participating individuals?

CHAPTER III

METHODS

Participants

Intervention participants for the study were drawn from the student population at USU; comparison group participants were drawn from the USU and University at Buffalo (UB) student populations. The researcher solicited participation through flyers, posters, and advertised the study to other University health providers and invited them to refer appropriate potential participants. A local newspaper (*The Herald Journal*) expressed interest in the group and published an interview with the researcher (Burgess, 2010); many of the participants in the first group indicated that they had heard of the study through this article.

In order to qualify for participation, individuals must have been age 18 or older and reported some distress as a result of religious/sexual identity conflict. This conflict may have been a related to the individual's personal sexual orientation and/or identity, or may have been related to conflict caused by relationships with friends, family members, or acquaintances (e.g., a friend "came out of the closet" and this precipitated a conflict).

There were two separate intervention groups; the first was made up of five male participants, the second, of six male and one female participant. The groups were facilitated by Ph.D. students in the psychology department at USU. The first intervention group was facilitated by one student, in the second group there were two students that worked as co-facilitators. Supervision was provided by a Ph.D. faculty member of the

psychology department. This supervisor, primary investigator and group facilitators met weekly as a way of ensuring that there was fidelity in adherence to the established protocol. In addition, there were two separate comparison groups, the first made up of individuals located in Utah that either could not participate in the group because of scheduling conflicts or declined to participate but were willing to complete the two sets of assessments. The second comparison group was made up of individuals in New York, where screenings were held for a group that, in the end, did not identify enough participants to run (see Figure 3).

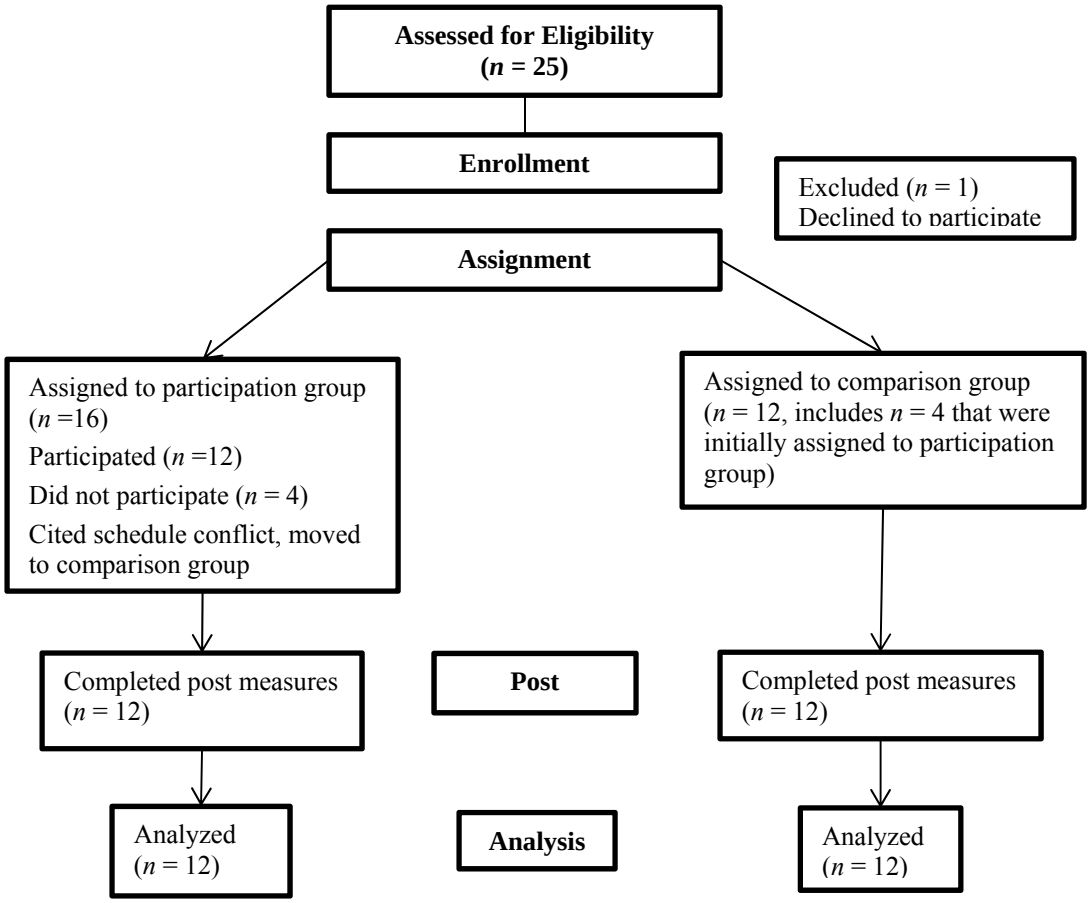


Figure 3. Participant flow.

The final research differed from the proposed research in that (a) the initial target for total participants was 30, (b) all participants were to be drawn from the Utah population, and (c) comparison groups were originally intended to be waitlist groups, that is, the individuals in the waitlist group would be "rolled over" into intervention groups. Two main factors influenced the changes in the research: (a) the time spent by the researcher in an attempt to balance the flexibility of ACT with the structure and replicability required of any research approved by an Institutional Review Board (IRB), and (b) unanticipated difficulty in identifying appropriate participants.

The first point can be viewed as similar to the "fit vs. fidelity" conflict that is often present in cultural adaptations of interventions; whether flexibly adapting an intervention to a particularly group unduly compromises the effectiveness, replicability, and generalizability of the intervention (Domenech Rodríguez & Bernal, 2012). When preparing the protocol for the group intervention, the researcher worked under the conception of ACT as a model in which "practitioners are free to create, modify, and innovate once they understand the processes they are targeting" (Twohig & Hayes, 2008, p. 2). It was anticipated that many of the metaphors and exercises used in the group would be developed during the course of the group, informed by the group leaders' understanding (intellectual and experiential) of core ACT processes and by group participants' experiences and backgrounds, and the initial protocol reflected this emphasis on flexibility. In accordance with their mandate to ensure the rights and welfare of research participants; the USU IRB asked for additional details and specifics to be included in the protocol. The process of interaction between researcher and IRB required

a significant amount of time and resulted in a document that allowed for group facilitator flexibility within the structure of a replicable group protocol. The amount of time spent in iterating the group protocol resulted in the start date of the group being pushed back several months. The researcher relocated from Utah to New York during the course of the research and worked for several months to identify enough participants to run the group in New York. As previously mentioned, several participants were identified, and participated in initial group screenings, but several identified participants dropped out shortly before the group was scheduled to begin, citing scheduling conflicts, resulting in an insufficient number of participants to run the group. It appears that two factors contributed to the recruitment difficulties. The strong, homogenous nature of the LDS religious culture is very distinct to Utah; it is possible that relative salience of religious affiliation in Utah contributes to the identity conflict of interest differently than in other regions. In addition, the researcher had spent several years in Utah and had developed relationships with both LDS and LGBT groups, individuals, and leaders. These relationships facilitated recruitment efforts and the lack of these established relationships in New York resulted in a "narrowing" of the visibility of recruitment efforts.

The final number of total participants (24) is nonetheless consistent with the sample size of other preliminary studies. Recent research into the effectiveness of ACT and ACT components with a variety of issues (including anxiety, epilepsy, marijuana use, and attitudes towards ethnic minorities) has had total *N*s ranging from 12 to 32 (Blackledge & Hayes, 2006; Dalrymple & Herbert, 2007; Flessner, Busch, Heideman, & Woods, 2008; Lillis & Hayes, 2007; Lundgren, Dahl, & Hayes, 2008; Lundgren, Dahl,

Yardi, & Melin, 2008; Petersen & Zettle, 2009; Twohig, Shoenberger, & Hayes, 2007). The demographics of participants across the groups are described in Tables 1 and 2.

Design

This study utilized a quasi-experimental pretest posttest design to examine the effects of an ACT intervention on religiosity, attitudes towards sexual minorities, acceptance, and quality of life. Approval to undertake this study was gained through USU's IRB (Protocol # 2459).

Table 1

Intervention (Treatment) Group Participant Demographic Characteristics

Variable	Participant group 1 (n = 5)	Participant group 2 (n = 7)
Average age	29	26
Race/ethnicity		
Caucasian	5	7
Gender		
Male	5	6
Female	0	1
Education		
High school/GED	1	0
Some college	3	6
4-yer degree	1	0
Master's degree	0	1
Relationship		
Single	3	7
Committed	2	0
Religion		
LDS	5	6
Other	0	1
Orientation		
Lesbian/gay	4	6
Questioning	1	1

Table 2

Comparison (Control) Group Participant Demographic Characteristics

Variable	Comparison group 1 (UT) (n = 6)	Comparison group 2 (NY) (n = 6)
Age		
Mean	29	26
SD	15.3	4.0
Race/ethnicity		
Caucasian	6	5
Latino/a	0	1
Gender		
Gender	5	4
Female	1	2
Education		
Some college	6	5
4-year degree	0	1
Relationship		
Single	1	5
Committed	5	1
Religion		
LDS	6	0
Protestant	0	3
Catholic	0	2
Other	0	1
Orientation		
Lesbian/gay	5	4
Bisexual	0	1
Questioning	1	1

Once identified as an appropriate potential participant (usually through a brief phone or e-mail interaction), participants scheduled a screening appointment with the group facilitators during which the intervention was explained in more detail, confidentiality and the limits thereof were reviewed, and informed consent was obtained. Consenting individuals then completed the entire battery of pre-intervention measures, detailed in the measures section of this chapter. The intervention itself consisted of six

90-minute weekly sessions, detailed in Appendix A. The groups were largely psychoeducational in nature, with the inclusion of experiential exercises led by the group leader(s). The schedule for the intervention was based on the six identified essential components of ACT (see Appendix A). After concluding the group intervention, participants were given an envelope containing the post-intervention assessment battery, along with a postage-paid envelope in which they could return the assessment to the researcher. Follow-up e-mails were sent as needed to secure the post-intervention data.

Measures

In addition to items about the participants' demographic and sexual behavior information (see Appendix B), the following established measures were used to compare pre- and postintervention information from the participants. Table 3 gives the name of each measure, and specifies the variable of interest.

Components of Attitudes Toward Homosexuality

The CAH scale (LaMar & Kite, 1998) assesses four components of attitudes

Table 3

Measures and Related Variables

Measure name	Variable
Components of attitudes toward homosexuality	Attitudes toward homosexuality
Dimensions of LDS Religiosity	Religiosity
Three-factor scale of authoritarianism	Right-wing authoritarianism
Acceptance and Action Questionnaire-II	Psychological flexibility
Outcome Questionnaire-45	Distress, Functioning
World Health Organization Quality of Life Questionnaire	Quality of Life

toward gay men and lesbians: condemnation/tolerance, morality, contact, and stereotypes. Two of the components, morality and contact, have neutral items, that is, they are not specific to gay men or lesbians. Participants answer using a 5-point Likert scale ranging from strongly disagree (1), to strongly agree (5). LaMar and Kite reported adequate alphas for all subscales, as calculated for gay male and lesbian targets, and ranged from .75 to .96. In a study similar to the one proposed here, scale alphas ranged from .90 to .97 (Myler, 2008). In the present study, the CATH had an internal consistency of .96 for the total scale, .74 for the condemnation/tolerance subscale, .96 for the morality subscale, .84 for the contact scale, and .73 for the stereotype subscale.

Dimensions of LDS Religiosity

The DLDSR (Cornwall et al., 1986) assesses six dimensions of LDS religiosity, traditional orthodoxy, particularistic orthodoxy, spiritual commitment, church commitment, religious behavior, and religious participation within three areas, belief commitment, and behavior. In previous research conducted at USU, scale alphas ranged from .90 to .98 (Myler, 2008). While many participants in this study had an LDS background, this measure also allowed for the measurement of general religiosity, Christian or otherwise. In accordance with procedures used in other studies, non-LDS participants completed only this general religiosity section of the DLDSR. The alpha for the total DLDSR for the present sample was .92.

Three-Factor Scale of Authoritarianism

Altemeyer's original unidimensional RWA scale was recently expanded into a

three-factor scale that better fit the accepted multidimensional model and theory. The 3-FSA consists of 21 items answered on a 5-point Likert scale that give scores on three constructs: authoritarian submission, authoritarian aggression, and conventionalism. Research with the RWA has yielded alphas that range from .77 to .95 (Dunwoody, Hsiung, & Funke, 2009). Internal consistency for the present sample for the FSA was .75.

Acceptance and Action Questionnaire

The AAQ-2 assesses individuals' willingness to accept their unwanted thoughts and feelings while acting congruently with their values and goals, and is considered to assess psychological flexibility (Bond & Bunce, 2003; Hayes et al., 2004). At the time this research was initiated, the AAQ-2 consisted of 10 items answered on a 7-point Likert scale and had been shown to have good psychometric properties, including good discriminant validity (Bond et al., 2007). Recently, the psychometric properties of the AAQ-2 were re-examined, and, through factor analysis, the scale was reduced to a 7-item, unidimensional scale (Bond et al., 2011). The authors noted that the 7-item and 10-item versions were strongly correlated (r = .96), so studies that used the 10-item version should not be considered invalid. For this study, the original 10-item AAQ-2 had an internal consistency below acceptable levels at .52 and the revised 7-item scale had an internal consistency of just less than .60. Whether this is related to the specific population of this study is unknown; it may also be a function of sample size. Factor analysis of the AAQ-2 data for this study (using a principal component analysis extraction method and Varimax rotation with Kaiser Normalization) revealed that 4 items loaded on a particular factor: (Item 1: It's OK if I remember something unpleasant. [R]; Item 2: My painful

experiences and memories make it difficult for me to live a life that I would value; Item 5: My painful memories prevent me from having a fulfilling life; and Item 7: Emotions cause problems in my life.) This 4-item scale has an alpha of .69, much higher than the 10- or 7-item, but it is not clear if the identified factor has a sound theoretical basis, particularly because other very similar items (e.g., Item 9: Worries get in the way of my success) were not shown to load on the factor. For this reason, analyses were conducted using both the original 10- and revised 4-item AAQ-2.

Outcome Questionnaire

The OQ-45 is a brief, self-report measure with a particular emphasis on depression and anxiety. The OQ-45 has been shown to have sound reliability and validity, and to be sensitive to changes in counseling center clients (Lambert et al., 1996; Vermeersch et al., 2004). The instrument consists of 45 items, each rated on a 0 ("Never") to 4 ("Almost Always") scale, yielding a possible range of 0 to 180. The measure yields a total score with a clinical cutoff of 64, and three subscale scores: symptom distress (SD), interpersonal relations (IR), and social role (SR), with clinical cutoff scores of 36, 15, and 12, respectively. A total score is also given. Psychometric properties of the OQ-45 are quite strong and alphas for the full scale have ranged from .89 to .94 (Lo Coco et al., 2008). Alphas for present sample are: .84 for the total scale, .74 for the SD subscale, .31 for the SR subscale, and .72 for the IR subscale.

WHO Quality of Life-BREF

The WHOQOL-BREF is an abbreviated version of the WHOQOL-100, a cross-

cultural quality of life assessment developed by the World Health Organization (2008). The measure consists of 26 items, each rated on a 5-point Likert scale measuring quality of life in four domains: physical health, psychological, social relationships, and environment. Cronbach alpha values for each of the four domain scores ranged from .66 to .84, demonstrating good internal consistency (World Health Organization, 2008). While the internal consistency for the present sample of the total WHOQOL was good at .81, subscale alphas were all below acceptable levels. .58 for the Physical subscale, .45 for the Psychological subscale, .63 for the Social subscale, and .56 for the Environment subscale.

CHAPTER IV

RESULTS

Data were analyzed using the Statistical Package for the Social Sciences (V17.0). The following hypotheses were derived from the noted research question and investigated in order using the indicated statistical procedures.

H1: Psychological flexibility (as measured by the acceptance and action questionnaire) will increase significantly for participation group vs. comparison.

H2: Functioning (as measured by OQ-45) will increase significantly for experimental group vs. comparison group.

H3: Attitudes towards homosexuality (as measured by Components of Attitudes Towards Homosexuals scale) will improve significantly for experimental group vs. comparison group.

H4: Right Wing Authoritarianism will remain the same for experimental group vs. comparison group.

H5: Religiosity and/or RWA will affect the effectiveness of the intervention.

Means and standard deviations for internally consistent variables are reported in Table 4). Groups were compared on each of the measures indicated; repeated measures ANOVA was used to test equality of the means of various measures and to determine whether the intervention group significantly differed in their scores relative to the comparison groups. Significance level was set at .05. A post-hoc power analysis (using G*Power 3.1.3) indicated that a sample of 24 participants would be necessary to detect significance at this level. See Table 5 for a correlation matrix for all study variables.

Table 4

Means and Standard Deviations on Outcome Measures at Pre- and Postintervention

	Intervention group				Comparison group			
	Pre		Post		Pre		Post	
Outcome measure	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Acceptance and Action Questionnaire								
10 item	42.92	6.59	47.83	7.56	41.25	3.38	45.33	3.47
4 item	18.00	2.83	20.58	3.55	15.25	3.79	17.25	3.80
Outcome questionnaire								
Symptom distress	61.66	3.55	50.66	5.26	59.08	10.74	54.00	11.67
Social role	23.50	3.18	21.25	4.29	22.42	3.42	21.42	2.75
Interpersonal relations	32.16	4.91	30.16	3.58	29.5	6.05	26.83	6.82
Total score	125.25	8.76	105.17	8.82	117.5	18.86	110.75	26.45
Components of Attitudes Towards Homosexuality								
Condemnation	32.33	4.14	51.33	10.95	29.58	7.40	33.92	10.95
Social norms	44.33	4.35	52.83	5.13	42.58	20.09	47.00	20.91
Contact	58.33	7.94	73.83	7.37	53.94	11.86	57.08	14.24
Stereotypes	30.67	4.67	31.42	4.31	34.08	8.90	30.50	7.40
Total Score	165.66	12.33	209.41	12.15	159.91	39.26	168.5	44.41
World Health Organization Quality of Life—BREF								
Total score	83.83	7.80	109.83	7.23	85.58	14.12	88.17	14.79

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The primary research question (from which H1 above is derived) was “Does psychological flexibility significantly increase after participation in an ACT group?” It was hypothesized that the intervention group participants would demonstrate significantly increased psychological flexibility relative to the comparison group. Additionally, it was hypothesized (H2 and H3) that group participants would experience an increase in functioning and quality of life, and more positive attitudes towards

Table 5

Correlation Matrix of Study Variables

Study variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 FSA - Authoritarianism		.61**	.45*	.62**	.41*	.50*	.42*	.38	.55**	.43*	-.07	-.06	-.13	-.10	-.25	-.64**	-.44*	.37
2 CAH - Components of Attitudes towards Homosexuality	.14		.89**	.85**	.82**	.54**	.43*	.41*	.54**	.64**	-.45*	-.41*	-.20	-.36	-0.33	-.50*	-.37	.22
3 CAH - Condemnation/Tolerance	.08	.66**		.64**	.80**	.23	.21	.19	.44*	.56**	-.61**	-.59**	-.26	-.48*	-.46*	-0.1	-.38	.10
4 CAH - Morality	.23	.89**	.57**		.45*	.62**	.53**	.47*	.59**	.46*	-.21	-.08	-.11	-.10	-.22	-.49*	-.28	.16
5 CAH - Contact	-.18	.67**	.40*	.35		.19	.24	.26	.30	.62**	-.46*	-.50*	-.17	-.39	-.23	-.32	-.27	.12
6 CAH - Stereotypes	.27	.62**	.05	.54**	.23		.46*	.46*	.39	.35	-.11	-.04	-.08	-.14	-.08	-.49*	-.29	.51*
7 OQ45 - Outcome Questionnaire	.45*	.21	.15	.19	.07	.22		.88**	.65**	.70**	.05	.16	-.01	.10	-.02	-.69**	-.44*	.23
8 OQ - SD	.33	.23	.12	.19	.10	.27	.95**		.79**	.64**	-.01	.12	-.15	-.04	-.05	-.74**	-.54**	.29
9 OQ - SR	-.11	-.16	-.17	-.12	-.08	-.13	.50*	.49*		.51*	-.07	.03	-.01	-.11	-.14	-.58**	-.41*	.33
10 OQ - IR	.67**	.19	.21	.19	-.06	.25	.85**	.73**	.16		-.26	-.28	-.16	-0.2	-0.13	-.59**	-.43*	.14
11 WHOQOL - Quality of Life	-.19	-.03	-.07	.05	-.07	-.06	-.10	-.03	-.20	-.07		.90**	.75**	.82**	.88**	.23	.57**	-.15
12 WHOQOL - PHY	-.21	.12	.00	.21	-.02	.10	-.11	-.01	-.03	-.20	.78**		.58**	.77**	.68**	.10	.43*	-.21
13 WHOQOL - PSY	-.33	.05	.09	.12	.03	-.19	-.20	-.13	-.29	-.19	.83**	.60**		.49*	.66**	.23	.49*	-.27
14 WHOQOL - SOC	-.31	-.19	-.09	-.21	.14	-.43*	-.40*	-.41*	-.19	-.38	-.08	-.09	-.05		.63**	.16	.47*	-.08
15 WHOQOL - ENV	-.17	-.08	-.10	-.08	.01	-.06	-.12	-.11	-.32	.02	.78**	.35	.64**	.13		.32	.62**	-.13
16 AAQ-2 - Acceptance and Action	-.32	-.13	.05	-.17	.05	-.29	-.56**	-.57**	-.35	-.33	.16	-.01	.22	.26	.25		.83**	-.45*
17 AAQ-2 - 4-Item	-.16	-.08	-.01	-.04	-.06	-.14	-.37	-.35	-.22	-.19	.56**	.43*	.43*	-.05	.41*	.75**		-.27
18 DLDSR - General Religiosity	.21	.14	-.13	.20	-.09	.40	.15	.15	.13	.05	-.15	-.21	-.19	-.40	-.13	-.33	-.41*	

Note. Lower half = preintervention figures, upper half = post-intervention figures.

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

homosexuality. Table 4 shows the means and standard deviations on these outcome measures at pre- and postintervention; psychological flexibility and quality of life scores for participants increased, symptoms decreased, and negative attitudes towards homosexuality decreased (Table 6 shows the percentage change in these variables for intervention group participants.

For H1, a repeated measures ANOVA was conducted to determine the effects of group participation and time on psychological flexibility as measured by the AAQ-2. For the original 10-item AAQ-2, there was a significant effect of time, $F(1, 22) = 48.20$, $p < .001$. For the 4-item AAQ-2 (described in the Measures section), there was also a significant effect for time, $F(1, 22) = 34.27$, $p < .001$. These results indicate that there was a significant increase between pre- and post- psychological flexibility for all

Table 6

Percentage Change in Outcome Variables for Intervention Group Participants

Participant	AAQ-2	AAQ-2 (4-item)	OQ	CAH	QOL
1	-4.44	-5.88	0.00	21.71	23.64
2	7.69	16.67	-3.94	8.88	24.30
3	6.12	9.52	-3.51	33.17	26.00
4	9.30	15.79	-2.78	1.87	24.76
5	8.51	14.29	-0.87	11.37	25.24
6	0.00	5.88	16.22	1.29	23.64
7	11.76	4.55	-23.30	-14.62	23.64
8	10.17	25.93	-7.69	-14.29	23.85
9	10.17	7.69	-28.57	-26.03	21.67
10	6.82	-5.56	-0.74	-4.39	20.63
11	24.14	33.33	-16.28	16.99	25.74
12	27.91	17.65	-30.95	1.75	22.22
Mean	9.85	11.65	-8.53	3.14	23.78
Waitlist mean	9.00	11.59	-19.13	20.89	2.93

participants; there was not a significant difference for the interaction of time and intervention.

For H2, a repeated measures ANOVA was conducted to determine how time and group participation affected functioning, as measured by the OQ-45. For the symptom distress subscale of the OQ-45, the results were as follows: there was a significant effect for time, $F(1, 22) = 61.31$, $p < .001$, indicating a decrease in symptom distress. There was also a significant effect for time by treatment, $F(1, 22) = 8.30$, $p = .009$, with the intervention group experiencing a larger decrease in symptom distress. For the social role subscale there was a significant effect for time, $F(1, 22) = 4.98$, $p = .036$, indicating improved social role performance for all participants. For the interpersonal relations subscale there was also a significant effect for time, $F(1, 22) = 23.44$, $p < .001$; this is indicative of reduced difficulties in interpersonal relationships for all participants. For the OQ-45 itself, there was also a significant effect for time, $F(1, 22) = 35.32$, $p < .001$ (indicating improved functioning) as well as for time by treatment, $F(1, 22) = 8.72$, $p = .007$, with the intervention group reporting more improvement in functioning than the comparison group. These results suggest that for each of the subscales, participants' functioning increased significantly over time, and group participants' symptom distress changed significantly relative to the comparison group, the effect size for this last change was $\eta^2 = .36$ (see Figure 4). It is likely the change in the symptom distress subscale that accounts for the change noted in the OQ-45 overall.

For H3, the scores for the CATH and its subscales were analyzed using repeated measures ANOVA (see Figure 5). For the condemnation/tolerance subscale, there was a

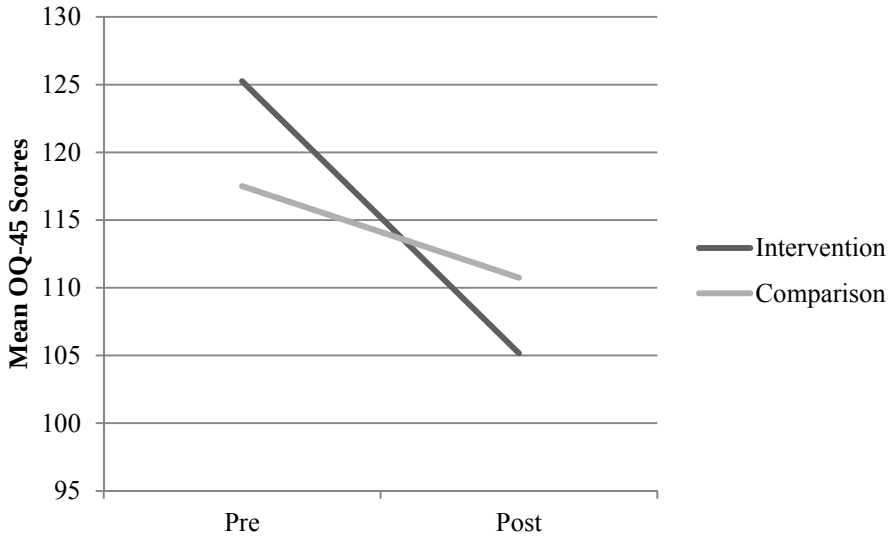

Figure 4. Group x time interaction for OQ-45.

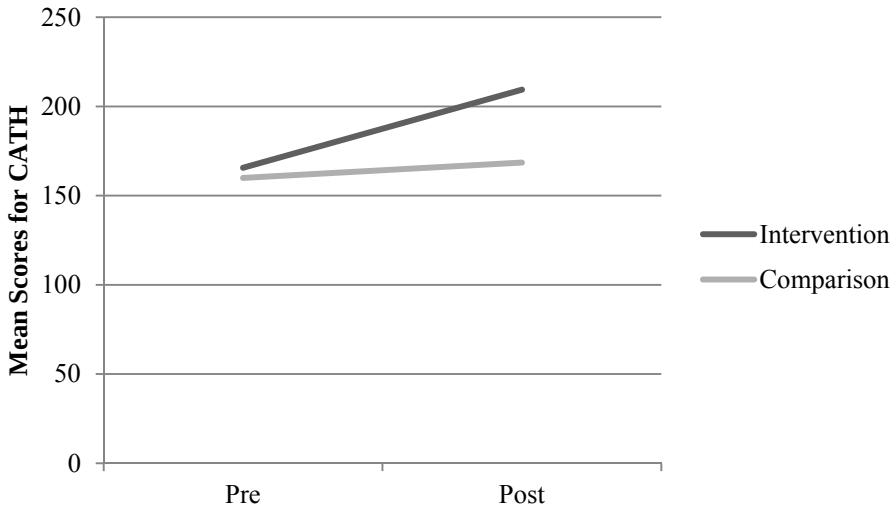

Figure 5. Group x time interaction for CATH.

significant effect for time, $F(1,22) = 53.85$, $p < .001$, and for time by treatment, $F(1,22) = 21.28$, $p < .001$; these results indicate that attitudes towards gay men and lesbians increased in tolerance, with the intervention group experiencing a larger increase than the comparison group. For the morality subscale there was a significant effect for time,

$F(1,22) = 14.96$, $p = .001$; this indicates that participants were less likely to evaluate gay men and lesbians as immoral. For the contact subscale there was a significant effect for time, $F(1,22) = 15.01$, p = .001, and for time by treatment, $F(1,22) = 6.12$, $p = .022$, suggesting that respondents would be less likely to avoid contact with gay men and lesbians, with the intervention group being less likely to avoid contact than the comparison group. There were no significant effects noted for the stereotypes subscale. The effect size for the observed change in intervention participants attitudes relative to those of comparison group participants was $\eta^2 = .46$.

For quality of life, as measured by the WHOQOL, there was a significant effect for both time, $F(1, 22) = 96.04$, $p < .001$, and time by treatment, $F(1, 22) = 64.46$, $p < .001$ (see Figure 6). It appears that quality of life improved for participants, with those who participated in the intervention group demonstrating a greater increase than those in the comparison group. The change in quality of life is notable for its magnitude, the

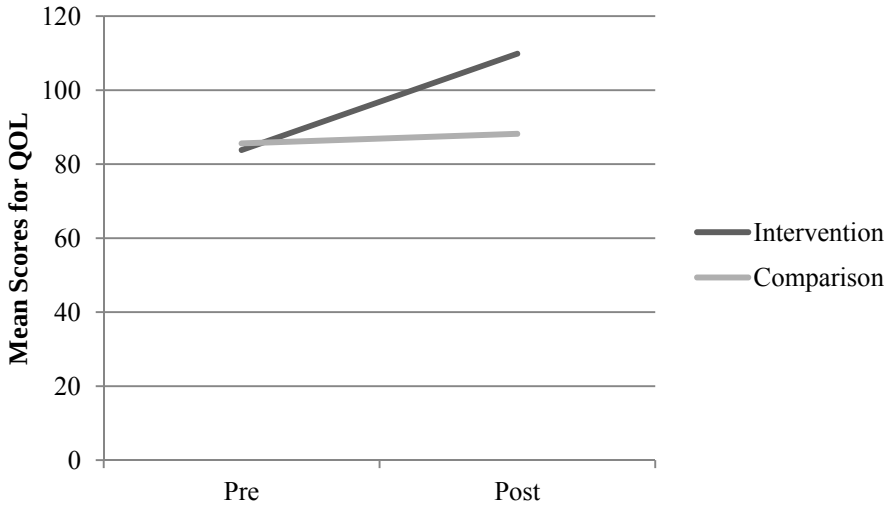

Figure 6. Group x time interaction for QOL.

effect size for the change in quality of life was $\eta^2_p = .854$.

A supplementary set of research questions (H4, H5) was informed by the author's previous research and sought to clarify the nature of a particular dimension of LDS religiosity, church commitment (Myler, 2008). High religiosity in this dimension was particularly predictive of negative attitudes towards homosexuality and it was hypothesized that there may be relationship between this dimension and right-wing authoritarianism, a personality construct that is also particularly predictive of negative attitudes towards homosexuality. Analysis of the data revealed a medium effect size for the relationship between correlation between pre intervention right-wing authoritarianism and LDS church commitment (Pearson's $r = .284$, $p = .25$). Additionally, right wing authoritarianism, as measured by the FSA was analyzed using repeated measure ANOVA; there was no significant effect for either time or time by treatment.

Regarding H5, a number of repeated measure ANCOVAs were run to determine whether the effects observed and reported for H1-H3 were better explained by either the covariate of Right-wing Authoritarianism (as measured by the FSA) or of Church Commitment (as measured by DLDSR). To determine the possible mitigating effects of Right-wing Authoritarianism, analyses were conducted comparing pre-and post- scores for the 4-item AAQ, the OQ-45 (total and subscales), the four subscales of the CAH, and the WHOQOL, using the FSA score as a covariate. Only one significant finding emerged for the 4-item AAQ. In the ANOVA model time was significant and remained so in the ANCOVA model. However, in the ANOVA there was no significant time x treatment interaction. The addition of the covariate uncovered a significant time x treatment

interaction, $F(1, 20) = 5.94$, $p = .024$, $\eta^2_p = .229$ and a significant time x treatment x covariate effect ($F(1, 20) = 5.14$, $p = .029$, $\eta^2_p = .216$, indicating that individual differences in Right-wing Authoritarianism across groups may account for some of the change in scores on the 4-item AAQ, but not for the change in any of the other listed variables. This was tested by graphing the interaction between time and treatment across different levels of FSA. FSA scores were divided using median split into "high" and "low" levels, and the repeated measures ANOVAS were run for each level.

The results suggest a greater time x treatment interaction for Low FSA participants than for High FSA participants, and provide additional information regarding the three-way time x treatment x covariate interaction previously described. In terms of prediction, it appears that individuals with lower baseline levels of right-wing authoritarianism would be more likely to experience greater increases in flexibility, as measured by the 4-item AAQ.

To determine the role of Church Commitment in the explaining the relationship between the predictor (i.e., treatment group) and outcomes, repeated measures ANCOVAS were conducted comparing pre and post scores for the following outcome variables of interest: 4-item AAQ, the symptom distress and interpersonal relations subscales of the OQ-45, the total OQ-45, the WHOQOL, and RWA; and using Church Commitment as a covariate. No significant ($p < .05$) time x treatment x covariate effects were found in the analysis, indicating that differing levels of the commitment dimension of LDS religiosity did not account for the change in the outcome variables.

CHAPTER V

DISCUSSION

This study examined the effectiveness of an ACT group intervention for the individuals experiencing distress as a result of conflict between sexual and religious identity. The hypothesis that participants would benefit from the interaction was partially supported; while participants did not demonstrate significantly higher psychological flexibility, relative to the comparison group, they did report increased quality of life, decreased psychological distress, and more positive attitudes towards homosexuality. Additionally, the hypothesis that authoritarianism may correlate with church commitment was not supported, nor did church commitment significantly affect the outcomes of the intervention. Baseline levels of authoritarianism, however, do appear to hold some predictive power While, overall, the current study supports the recommendation for an ACT group with the described population, there remain several questions about the mechanisms for the identified benefits and generalizability of the intervention to a wider population.

The study supports previous recommendations that ACT can be effective as a group intervention (Petersen & Zettle, 2009) and can be appropriate for individuals for whom the distress of concern does not necessarily meet criteria for a specific DSM diagnosis. While certainly preliminary in nature, the results of the current study indicate that there is probable utility in continued investigation of the described intervention and reason to believe that other practitioners may benefit from implementing similar interventions in their respective settings.

An interesting finding is that, while participants in the intervention did report a significant increase in psychological flexibility (as measured by the original 10-item AAQ-2), the change was not significant relative to the comparison group. A post-hoc power analysis (calculated using G*Power 3.1.3) indicates that a power value of .644 would be needed to detect a difference significant at the $p < .05$ level (the revised 4-item AAQ-2 did demonstrated a significant increase ($p < .05$), but at an observed power of .486). Given the consistency with which the other outcome measures demonstrated benefit for participants, the most likely explanation for this finding is that the low reliability figures for the AAQ-2 in this study make it difficult to draw any conclusions about the actual effect of the intervention on psychological flexibility (this explanation is supported by the more demonstrable change in the more reliable 4-item measure). Again, it is unknown whether there were specific characteristics of the study group that contributed to the low reliability figures for the AAQ, or if it is simply a function of the relatively small sample size. As noted in the results section, there is also some evidence that levels of Right-wing Authoritarianism accounted for some of the change observed in the revised 4-item AAQ-2It should also be noted that the AAQ has undergone recent revisions in attempts to improve its psychometric consistency; while recent analysis confirms "satisfactory structure, reliability, and validity" (Bond et al., 2011) of the most recent version, it remains a relatively young measure.

If the AAQ data were accepted at face value, there are several hypotheses for the lack of significant difference between intervention group and comparison group. One explanation may be that there was a testing effect, in which exposure to the language

used in the AAQ resulted in increased psychological flexibility across groups; that is, that completing the measure itself qualifies as intervention. Another explanation is that there may have been unidentified external factors that contributed to an increase in flexibility. For example, enrollment in the study could have increased salience of the conflict which led participants in the control group to consider the conflict and actively work on addressing it outside of a therapy context.

Analyses of the effects of participant authoritarianism indicated an interaction between time and treatment for individuals with low baseline levels of authoritarianism, specifically that intervention participants with low levels of authoritarianism can be predicted to report greater increases in psychological flexibility than those with high levels of authoritarianism. This finding is congruent with the conceptual underpinnings of this research; as mentioned in the literature review, RWA has been found to correlate negatively with the "openness" personality trait and positively with a need for structure. Two of the components of ACT included in this intervention, acceptance and defusion, are sometimes described as the "open" components (Lillis & Hayes, 2007), and the exercises conducted in the intervention were explicitly intended to reduce cognitive rigidity and reliance on the structure of symbolic language. Theory would suggest, then, that individuals with higher baseline levels of authoritarianism would not experience the same increase in flexibility as other individuals. The converse of this statement, that individuals with *lower* baseline levels of authoritarianism would experience greater increase in flexibility, is supported by the current findings.

While this study provides evidence to support the implementation of similar

groups at other counseling center settings, there remains the important question of whether the identified effects on outcome can be attributed to ACT processes, from the validation, support, and cohesion that might be found in a non-ACT group, or an interaction of the two. Further research could clarify this question by comparing data from individual ACT therapy with the described population, and from non-ACT groups, like the "Gay 101" group offered at Cornell University's Counseling and Psychological Services.

In addition to the lingering question of mechanism for change, there are additional reasons for caution in interpreting the results of this study. The main limitation of this study is the relatively small sample size. While the analyses had adequate power (the power analysis software mentioned above confirmed that an *N* of 24 was needed to detect statistical significance), repetition of the study is warranted to determine the robustness of the findings. Another complication of the study is the several threats to validity posed by the differences between the groups. It would have been preferable to have the same group facilitator(s) for both intervention groups, and to have all four groups originate from the same geographical location. While the fact that the Buffalo, NY group was not demonstrably different on any of the available measures provides some support for a significant "common experience" within the identified population, it would have been preferable to have another wait list group that more closely matched the religious characteristics of the other groups.

Also, the majority of the participants in this study were male (there was one woman in the intervention group and three women in the comparison group). It may be

that, because gay men are often considered more negatively than lesbian women (LaMar & Kite, 1998), the distress targeted by this research is experienced differently by men than women, in a way that contributes to their decision to participate. In any case, the high percentage of male participants limits the generalizability of the findings to women.

It should also be noted that one of the participants differed significantly from the rest in terms of age; relative to the other (mostly college-age) participants, this individual demonstrated higher levels of increased acceptance and lower symptom change. Subjectively, the older participant's interactions differed significantly from the younger participants in that he spoke of internal pain in terms of already having experienced it, rather than hoping to avoid it. He also articulated his sense that his current most significant challenge regarding experiential avoidance dealt with the significant regret he experiences about past decisions; he indicated that he viewed his opportunities to develop acceptance in terms of moving forward with relationships with his regret, and that he had already adopted a willing stance towards the powerlessness that many of the younger group members found distressing.

Another limitation to the generalizability of the data stems from the difficulty in replicating one group's experience to another. The flexibility of an ACT group, with an emphasis on using personally relevant examples and constructing metaphors "on-the-fly" based on group members' experiences, likely contributes to the sense of cohesion and community within a group, and therefore is likely clinically effective, but comes at the cost of developing a detailed, specific protocol that can be reliably, consistently implemented in the way that the strict empiricist might demand. In the case of this

research, the weekly fidelity checks that were carried out by primary investigator and the supervisor indicated that there was adherence to the established protocol and that, while the group processes and interactions varied somewhat, the consistency of the setting and structure in which these processes occurred and in the presentation of the psychoeducational portion justifies a degree of confidence in the generalizability of the findings.

Despite these limitations, the present study does contribute to fill current knowledge gaps by demonstrating the that clinical benefits of group therapy are observed when working with this specific population and that an Acceptance and Commitment Therapy-informed approach is theoretically sound and lends itself well to the development and execution of a group protocol. This study has demonstrated the viability and effectiveness of a group-ACT intervention for sexual minorities in a college counseling center setting, and a basic group protocol is now available for counseling centers to adopt and adapt.

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APPENDICES

Appendix A

Group Protocol

Group Protocol

Week 1 Welcome, review of confidentiality, schedule, and group policies-15 min
Creative Hopelessness—
Goals: validate participants' experience, determine effectiveness of old solutions, and begin to open up to new possibilities.
Activities: "Person in a Hole" metaphor (as described in pages 87-114 of *Acceptance and Commitment Therapy*. Hayes, Wilson, & Strosahl, 1999.)(25 min)
Mindfulness (as described in Chapter 4 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Goals: Increase contact with present moment, help participants discover that life is happening right now, help participants to notice what is happening in relationships at the moment
Activities:Mindful Raisin Eating (as described in *Wherever you go, there you are: Mindfulness meditations in everyday life.* Kabat-Zinn, J., 1994)(15 min)
Bus Metaphor (10 min)
Mindful Breathing (15 min)

Week 2 Review of Mindfulness (15 min)
Values (as described in Chapter 6 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Goals: contact and clarify values that give life meaning, help participants link behavior change to chosen values
Activities: Choice vs. Decision (15 min)
Process vs. Outcome (15 min)
Eulogy Exercise (15 min)
Tombstone Metaphor (15 min)
Values Identification Exercise (15 min)

Week 3 Review of Values (20 min)
Committed Action (as described in Chapter 7 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Goals: work for behavior change in the service of chosen values, while making room for automatic reactions and experiences, take responsibility for patterns of action, building them into larger units that support effective values-based living
Activities: Specific and Measurable Discussion (10 min)
Practical Discussion (10 min)
Dead Man's Goals Discussion (10 min)
Public Discussion (10 min)
Values Link Discussion (10 min)

Linked to Functional Needs Discussion (10 min)
Action Identification Exercise (10 min)

Week 4 Review of Committed Action (15 min)
Defusion (as described in Chapter 3 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Goals: see thoughts as what they are—thoughts—so those thoughts can be responded to in terms of workability given the clients values, rather than in terms of literal meaning, attend to thinking and experiencing as an ongoing behavioral process, and away from the literal meaning of the contents of the mind
Activities: Objectify Language (20 min)
Looking at Thoughts rather than from Thoughts (20 min)
Undermining Larger Sets of Verbal Relations (20 min)
Flexibility in applying defusion (15 min)

Week 5 Review of Defusion (15 min)
Acceptance (as described in Chapter 2 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Undermining Control (15 min)
Draw Out the System (15 min)
Examine Workability (15 min)
Control as the Problem (15 min)
Validate Experience (15 min)

Week 6 Review of Acceptance (15 min)
Self as Context (as described in Chapter 5 of *Learning ACT: An acceptance and commitment therapy skills-training manual for therapists.* Luoma, Hayes, & Walser, 2007)
Goals: let go of the agenda of control as applied to internal experience, help clients see experiential willingness as an alternative to experiential control, help clients come into contact with willingness as a choice, not a desire; help clients to understand willingness as a process, not an outcome.
Activities: House Metaphor (15 min)
Review of Bus Metaphor (15 min)
Observer Self-Exercise (30 min)
Conclusion (15 min)
Posttest scheduling

Appendix B

Data Collection Measures

Data Collection Measures

Demographic Items

Demographic Questions

1. Are you Male or Female?

   Male Female

2. What is your age?

   (Drop down menu with ages 18—99)

3. What is the highest level of education you have completed?

   Less than high school
   High School/G.E.D.
   Some College
   2-Year College Degree (Associates)
   4-Year College Degree (BA, BS)
   Master's Degree
   Doctoral Degree
   Professional Degree (MD, JD)

4. What is your own yearly income?

   0-5000$
   5000-10000$
   (Continues in 5000 dollar increments)

5. What is your total household income, including all earners in your household?

6. What is your current relationship status?

   Single, Never Married
   Long-Term Cohabitation
   Married
   Separated
   Divorced
   Widowed

7. With whom are you currently living?

   Family of Origin (Parents, siblings)
   Nuclear Family (Spouse/partner, children)
   Roommates
   Live Alone
   Other

8. What is your religious affiliation?

   LDS (Mormon)
   Protestant Christian
   Roman Catholic
   Evangelical Christian
   Jewish
   Muslim
   Hindu
   Buddhist
   Other

9. What is your race (ethnicity)?

   White
   White, Non-Hispanic
   African-American
   Hispanic
   Asian-American
   Native American

10. What is the highest level of education your mother has completed?

    Drop down, same as question 3

11. What is the highest level of education your father has completed?

    Drop down, same as question 3

If the participant indicates that they are LDS, they will be rerouted to the appropriate questions from the religiosity questionnaire as well as to the following questions.

12. Which statement best describes your relationship with the Church of Jesus Christ of Latter-day Saints?

    I was raised in an LDS household and I still participate.

    I was raised in an LDS household and I no longer participate.

    My family converted to the LDS religion when I lived at home and I still participate.

    My family converted to the LDS religion when I lived at home and I no longer participate.

    I converted to the LDS religion on my own and I still participate.

    I converted to the LDS participation on my own and I no longer participate.

13. Have you served an LDS mission?

    Yes
    No
    Not yet, but I plan to.

14. What is your sexual orientation?

    Heterosexual (straight)
    Homosexual (lesbian or gay)
    Bisexual
    Questioning
    Other (please specify)

Components of Attitudes toward Homosexuality (CAH).

Items marked with a * are reverse scored

Condemnation/Tolerance

1. Apartment complexes should not accept lesbians (gay men) as renters.
2. Lesbians (gay men) should be required to register with the police department where they live.

3. Lesbians (gay men) should not be allowed to hold responsible positions.

*4. Job discrimination against lesbians (gay men) is wrong.

5. Lesbians (gay men) are a danger to young people.

6. Lesbians (gay men) are more likely to commit deviant acts such as child molestation, rape, voyeurism (peeping Toms) than are heterosexuals.

7. Lesbians (gay men) dislike members of the opposite sex.

*8. Finding out an artist was a gay man (lesbian) would have no effect on my appreciation of her (his) work.

*9. Lesbians (gay men) should be allowed to serve in the military.

*10. Lesbians (gay men) should not be discriminated against because of their sexual preference.

11. Lesbians (gay men) should not be allowed to work with children.

Gay Male/Lesbian Social Norms/Morality

1. The increasing acceptance of gay men (lesbians) in our society is aiding in the deterioration of morals.

2. Gay men (lesbians) endanger the institution of the family.

*3. Many gay men (lesbians) are very moral and ethical people.

*4. Gay male (lesbian) couples should be able to adopt children the same as heterosexual couples.

5. The idea of marriages between gay men (lesbians) seems ridiculous to me.

*6. State laws regulating private, consenting behavior between gay men (lesbians) should

be loosened.

7. Gay men (lesbians) just can't fit into our society.

8. Gay men (lesbians) do need psychological treatment.

*9. Gay men (lesbians) are a viable part of our society.

10. Homosexual behavior between two men (women) is just plain wrong.

Neutral Morality

*1. Homosexuality, as far as I am concerned, is not sinful.

2. Homosexuality is a perversion.

3. I find the thought of homosexual acts disgusting.

Gay Male/Lesbian Contact

*1. I enjoy the company of gay men (lesbians).

2. It would be upsetting to me to find out I was alone with a gay man (lesbian).

3. I avoid gay men (lesbians) whenever possible.

4. I would feel nervous being in a group of gay men (lesbians).

5. I think gay men (lesbians) are disgusting.

*6. I would enjoy attending social functions at which gay men (lesbians) were present.

7. Bars that cater solely to gay men (lesbians) should be placed in a specific and known part of town.

*8. I would feel comfortable working closely with a gay man (lesbian).

9. If a gay man (lesbian) approached me in a public restroom, I would be disgusted.

10. I would not want a gay man (lesbian) to live in the house next to mine.

11. Two gay men (lesbians) holding hands or displaying affection in public is revolting.

12. I would be nervous if a gay man (lesbian) sat next to me on a bus.

13. I would decline membership in an organization if I found out it had gay male (lesbian) members.

*14. If I knew someone was a gay male (lesbian), I would go ahead and form a friendship with that individual.

Neutral Contact

1. If a member of my sex made advances toward me, I would feel angry.

*2. I would feel comfortable knowing I was attractive to members of my sex.

*3. I would be comfortable if I found myself attracted to a member of my sex.

4. I would feel uncomfortable if a member of my sex made an advance toward me.

Gay Male/Lesbian Stereotypes

1. Lesbians (gay men) prefer to take roles (passive or aggressive) in their sexual behavior.

2. The love between two lesbians (gay men) is quite different from the love between two persons of the opposite sex.

3. Lesbians (gay men) have weaker sex drives than heterosexuals.

4. A lesbian's (gay man's) mother is probably very domineering.

5. Most lesbians (gay men) have a life of one night stands.

6. Most lesbians (gay men) like to dress in opposite-sex clothing.

7. Most lesbians (gay men) have identifiable masculine (feminine) characteristics.

Dimensions of LDS Religiosity (DLDSR).

For the following items, participants are asked to "Please choose the option that best describes your beliefs." on a 5-point Likert Scale: "strongly disagree," "disagree," "neither agree nor disagree," "agree," "strongly agree."

Belief

Traditional Orthodoxy

a. There is life after death
b. Satan actually exists.
c. The Bible is the word of God.
d. I believe in the divinity of Jesus Christ.
e. I have no doubts that God lives and is real.

Particularistic Orthodoxy

a. The president of the LDS Church is a prophet of God.
b. The Book of Mormon is the word of God.
c. The Church of Jesus-Christ of Latter-Day Saints is the only true church on earth.
d. Joseph Smith actually saw God the Father and Jesus Christ.

Commitment

Spiritual Commitment

a. My relationship with the Lord is an important part of my life.
b. The Holy Ghost is an important influence in my life.
c. I love God with all my heart.
d. I am willing to do whatever the Lord wants me to do.
e. Without religious faith, the rest of my life would not have much meaning.

Church Commitment

a. Some doctrines of the LDS Church are hard for me to accept (-).
b. I don't really care about the LDS Church (-).
c. Church programs and activities are an important part of my life.
d. I do not accept some standards of the LDS Church. (-).
e. The LDS Church puts too many restrictions on its members (-).

Behavioral

Religious Behavior

a. I try hard to carry my religion over into all my other dealings in life.
b. I live a Christian life.
c. I share what I have with the poor.
d. I encourage others to believe in Jesus.
e. I seek God's guidance when making important decisions in my life.
f. I forgive others.
g. I admit my sins to God and pray for His forgiveness.
h. Frequency of personal prayer.

On the following items, the participant is asked to "Please indicate the frequency of your:" on a 7-point Likert scale: "never," "a few times a year," "monthly," "a few times a month," "weekly," "a few times a week," "daily"

Religious Participation

a. Frequency of attendance at Sacrament meeting.
b. Frequency of attendance at Relief Society/Priesthood meetings.
c. Frequency of family prayer (other than blessing the food).
d. Frequency of family religious discussions.
e. Frequency of Bible reading or reading of other scriptures.
f. Frequency of family discussions about what is right and wrong.

The final item is phrased as "What is the percentage of your income that you pay as tithing?" and is answered as "0%," "Greater than 0% but less than 10%," "10%," or "Greater than 10%."

Three-Factor Scale of Authoritarianism (3-FSA).

All items are answered on a 5-point Likert Scale: “strongly disagree,” “disagree,” “neither agree nor disagree,” “agree,” “strongly agree.” Items marked with asterisks are reverse-coded.

Authoritarian Submission

1. People should comply with instructions given by the proper authority figures.
2. Those in positions of authority know what is best for the people.
3. People in positions of authority don’t know any more than I know. *
4. People should be critical of statements made by those in positions of authority. *
5. Statements made by those in positions of authority should be accepted as true unless other evidence is presented.
6. People should be skeptical of all statements made by those in positions of authority. *
7. Directions given by the proper authorities should be followed closely.
8. Questioning the motives of those in power is healthy for society. *
9. People should disobey the proper authorities if they feel the authorities are wrong.*

Conventionalism

10. Challenging social rules is unhealthy for society.
11. Traditions are the foundation of a healthy society and should be respected.
12. It would be better for society if more people followed social norms.
13. Society is strengthened by those who challenge conventional wisdom. *
14. People should challenge social traditions in order to advance society. *
15. People should respect social norms.

Authoritarian Aggression

16.Those who break the law should receive the toughest penalties allowed.

17.It is necessary to use force against people who are a threat to authority.

18.Police should avoid using violence against suspects. *

19.People should avoid using violence against others even when ordered to do so by the proper authorities. *

20.Using force against people is wrong even if done so by those in authority. *

21.Those who challenge social conventions deserve to be punished.

Acceptance and Action Questionnaire (AAQ-2).

All items are answered on the following scale:

1–never true; 2–very seldom true; 3-seldom true; 4-sometimes true; 5-frequently true; 6-almost always true; 7-always true

1. It's OK if I remember something unpleasant.
2. My painful experiences and memories make it difficult for me to live a life that I would value.
3. I'm afraid of my feelings.
4. I worry about not being able to control my worries and feelings.
5. My painful memories prevent me from having a fulfilling life.
6. I am in control of my life.
7. Emotions cause problems in my life.
8. It seems like most people are handling their lives better than I am.
9. Worries get in the way of my success.
10. My thoughts and feelings do not get in the way of how I want to live my life.

Outcome Questionnaire (OQ45 TM)

All items are answered on a 5-point Likert scale: “Never,” “Rarely,” “Sometimes,” “Frequently,” “Almost Always”

1. I get along well with others.
2. I tire quickly.
3. I feel no interest in things.
4. I feel stressed at work/school.
5. I blame myself for things.
6. I fell irritated.
7. I feel unhappy in my marriage/significant relationship.
8. I have thoughts of ending my life.
9. I feel week.
10. I feel fearful.
11. After heavy drinking, I need a drink the next morning to get going.
12. I find my work/school satisfying.
13. I am a happy person.
14. I work/study too much.
15. I feel worthless.
16. I am concerned about family troubles.
17. I have an unfulfilling sex life.
18. I feel lonely.
19. I have frequent arguments.
20. I feel loved and wanted.
21. I enjoy my spare time.
22. I have difficulty concentrating.
23. I feel hopeless about the future.
24. I like myself.
25. Disturbing thoughts come into my mind that I cannot get rid of.
26. I feel annoyed by people who criticize my drinking (or drug use).
27. I have an upset stomach.
28. I am not working/studying as well as I used to.
29. My heart pounds too much.
30. I have trouble getting along with friends and close acquaintances.
31. I am satisfied with my life.
32. I have trouble at work/school because of drinking or drug use.
33. I feel that something bad is going to happen.
34. I have sore muscles.
35. I feel afraid of open spaces, or driving or going on buses, subways, and so forth.
36. I feel nervous.
37. I feel my love relationships are full and complete.
38. I feel that I am not doing well at work/school.
39. I have too many disagreements at work/school.

40. I feel something is wrong with my mind.
41. I have trouble falling asleep or staying asleep.
42. I fell blue.
43. I am satisfied with my relationships with others.
44. I feel angry enough at work/school to do something I may regret.
45. I have headaches.

CURRICULUM VITAE

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Education

Ph.D. 2013	Utah State University, Logan, UT Combined Clinical/Counseling/School Psychology Program (APA accredited) Dissertation: *An ACT group intervention for distress related to conflict between religiosity and sexuality.* Chair: Melanie Domenech Rodríguez, Ph.D.
M.S. 2009	Utah State University, Logan, UT Thesis: *LDS religiosity and attitudes towards sexual minorities*. Chair: Melanie Domenech Rodríguez, Ph.D.
B.S. 2003	Utah State University, Logan UT Psychology Minor: Sociology

Clinical Experience

August 2011 – Present	Cornell University Counseling and Psychological Services, Ithaca, NY Position: Counselor/Therapist Responsibilities: Conduct both individual and couples for college students. Co-facilitate interpersonal process groups, ACT groups. Supervisor: Gregory Eells, Ph.D.
August 2010 – August 2011	University at Buffalo Counseling Services (UBCS), Amherst, NY Position: Psychology Intern Responsibilities: Conducted both individual and couples for college students. Co-facilitated interpersonal process groups, ACT group. Participated in various outreach presentations. Member of UBCS professional development committee. Supervised master's level therapists-in-training. Supervisors: David Gilles-Thomas, Ph.D. Andrea Greenwood, Ph.D. Sung Kim-Kubiak, Ph.D. Amanda Tyson, Ph.D.
June 2007-Aug 2010	Family Institute of Northern Utah, Logan, UT Position: Student Therapist

Responsibilities: Conducted both individual and group therapy in Spanish. Clients consisted of Latino men court-ordered for domestic violence and substance abuse, Latina women who had experienced abuse and/or trauma, and Latino children with a variety of behavioral problems.
Supervisor: Carolyn Barcus, Ph.D.

August 2007- May 2008 — USU Counseling Center Assistantship, Logan, UT
Position: Graduate Assistant Therapist
Responsibilities: Conducted both individual and group therapy. Gained experience with assessment, diagnosis, and formulation and implementation of interventions with college students who presented with diverse concerns (e.g., depression, anxiety, relationship problems, sexual orientation concerns). Conducted therapy using a variety of theoretical orientations (e.g., CBT, DBT). Co-led a men's issues process group often focusing on issues of sexual orientation. Supervised and undergraduate peer social skills trainer.
Supervisors: David Bush, Ph.D.
Mark Nafziger, Ph.D.

August 2007 – Feb 2008 — Avalon Hills Eating Disorder Clinic, Paradise, UT
Position: Student Group Co-Facilitator
Responsibilities: Co-led body image process group for young women in a residential eating disorder clinic setting. Worked with mental health professionals and staff to coordinate treatment.
Supervisor: Mary Doty, Ph.D.

Practicum Experience

August 2009 – May 2010 — Brigham City Hospital Cardiac Rehabilitation Unit (Brigham City, UT)
Position: Practicum Student
Responsibilities: Provided individual therapy to cardiac rehabilitation patients, conducted risk assessments, worked with nutritionists and physical therapists to develop and implement exercise and diet behavior plans, developed and conducted stress reduction, relaxation and mindfulness workshops.
Supervisor: M. Scott DeBerard, Ph.D.

August 2006 – May 2007 — Utah State University Counseling Center (Logan, UT)
Position: Practicum Student
Responsibilities: Conducted both individual and group therapy. Gained experience with assessment, diagnosis, and formulation and implementation of interventions with college students who presented with diverse concerns (e.g., depression, anxiety, relationship problems, sexual orientation concerns). Conducted therapy using a variety of theoretical orientations (e.g., CBT, DBT)
Supervisor: Thomas Berry, Ph.D.

June 2005 – May 2006	Utah State University Psychology Community Clinic (Logan, UT) Position: Practicum Student Responsibilities: Assessment, diagnosis, and formulation and implementation of intervention services to children and adolescents with diverse psychological (identity development, anxiety, depression) and learning problems (e.g., learning disabilities, mental retardation). Supervisors: Gretchen Peacock, Ph.D.; Melanie Domenech Rodríguez, Ph.D.
January 2005 – May 2005	Utah State University Psychology Community Clinic (Logan, UT) Position: Practicum Student Responsibilities: Assessment, diagnosis, and formulation and implementation of intervention services to individuals with diverse psychological (anxiety, depression). Supervisor: Scott DeBerard, Ph.D.

Other Professional Positions

August 2008 – August 2010	USU Professional School Guidance Counselor Education Program, Logan, UT Position: Student Advisor Responsibilities: Assist applicants with preparation of materials for application process, assist graduate students with navigation of the program, preparation of accreditation materials. Supervisor: Camille Odell, M.S.
August 2003 – August 2009	Summit Counseling, Logan, UT Position: Psychosocial Rehabilitation Specialist Responsibilities: Conduct psychosocial skills training with children and adults with a range of disorders (ADHD, Bipolar, Asperger's, etc.) Work in home and school environments. Conduct parenting skills training. Supervisor: Michael Hinds, M.S., LMFT

Research Experience

June 2008 – June 2009	Research assistant: Stepfamily education Responsibilities: Manuscript development and literature review writing. Aided in data collection and statistical analysis. *Supervisor*: Brian Higginbotham, Ph.D.
June 2007 – June 2008	Research Assistant: Recruitment and hiring of minorities at USU Responsibilities: Development of instrument, data collection, and analysis. Supervisor: Christy Glass, Ph.D.

June 2005 – August 2006	Research Assistant: Bilingual Early Language and Literacy Support Responsibilities: Conducted interviews in English and Spanish, administered and reviewed measures of social skills and language development. Supervisor: Mark Innocenti, Ph.D.
June 2003 – August 2003	Research Assistant: Measuring acculturation of Latinos Responsibilities: Conducted interviews in Spanish Supervisor: Aaron Ahern, M.S.
October 2002 – May 2003	Research Assistant: Shame and asthma in adolescents Responsibilities: Development of instrument and grant proposal drafting Supervisor: Tamara Ferguson, Ph.D.
August 2002 – May 2003	Research Assistant: Emotion decoding abilities in children Responsibilities: Administration of instrument to children, data entry, aided in statistical analysis. Supervisor: Tamara Ferguson, Ph.D.

Publications

Higginbotham, B., & Myler, C. Do participants judge facilitators by their cover? The influence of facilitator and facilitation characteristics on participants' ratings of stepfamily education. *Journal of Family Practice*

Professional Presentations

Boone, M., Myler, C. (July, 2012). Mindfulness for Ten: New Group Strategies in Acceptance and Commitment Therapy. Workshop presentation at ACBS Annual World Conference, Washington, D.C.

Myler, C., Knoche, S. (June 2011). Finding Peace when there is None: An ACT Group Intervention. Presentation at New York Counseling Centers Conference, Ithaca, NY

Myler, C., Armstrong, A., Dehlin, J., Twohig, M., & Domenech Rodríguez, M. (October 2010). Addressing Conflict between Religious Beliefs and Attitudes Toward Sexual Minorities: An ACT-based Group Intervention. Poster presented at the Utah University and College Counseling Centers Conference, Park City, UT

Myler, C., DeBerard, S. (April 2010). Duke Health Profile (DUKE) Scores for Cardiac Rehabilitation Patients in Rural Utah: Evidence of Lower Perceived Mental and Physical Health Versus National Norms, Poster presented at the Annual Conference of the Society for Behavioral Medicine, Seattle, WA.

Myler, C. (August 2009). LDS Religiosity and Homophobia. Poster presented at the Annual Conference of the American Psychological Association, Toronto, CA.

Davis, M., Méndez, E., Myler, C., & Straits, K. (April 2005). Support for ethnic and sexual minorities: school clubs as social support for sexual minorities. Panel discussion presented at the annual Educators for Diversity conference of National Association of Multicultural Education, Logan, UT.

Teaching Experience

January 2011 – Present	Developmental Psychology (Psy 2100), Utah State University Instructor: 1 Online Section
August 2008 – Dec. 2008	Introduction to Psychology (Psy 1010), Utah State University Instructor: 1 Section
May 2008 – July 2008	Psychology of Human Adjustment (Psy 1210), Utah State University Instructor: 1 Online Section
January 2007 – May 2007	Psychology of Human Adjustment (Psy 1210), Utah State University Instructor: 1 Section Supervised 2 teaching assistants
January 2006 – May 2006	Cognitive Psychology (Psy 4420) Utah State University Graduate Teaching Assistant: 4 Sections
August 2005 – May 2007	Educational Psychology (Psy 3600), Utah State University Graduate Teaching Assistant: 8 Sections

Languages

English – native language; Spanish – speak, read, and write with high proficiency

Honors and Awards

August 2004	Utah State University Presidential Fellowship

Additional Professional Training

September 2010	QPR Suicide Prevention Instructor Training (certified), Self-Study Course
September 2010	Dialectical Behavior Therapy Skills Training, Online Training
April 2009	Acceptance and Commitment Therapy Workshop, Steven Hayes, Ph.D., Utah State University, Logan, UT
September 2007-2008	Utah Domestic Violence Council Conference, Salt Lake City, UT
March 2008	Mindfulness-based cognitive therapy, Mark Lau, Ph.D. USU Counseling Center Conference, Logan, UT
February 2008	Strategies for developing multicultural competence in mental health service delivery, Madonna G. Constantine, Ph.D. Workshop presented by the Utah Psychological Association, Salt Lake City, UT
November 2007	Predicting attendance and expectations for group therapy, Rebecca MacNair Semands, Ph.D. Workshop presented by the Brigham Young University Counseling Center
October 2007	Utah University and College Counseling Center Conference, Park City, UT
March 2007	Motivational Interviewing, Carolina Yahne, Ph.D. USU Counseling Center Conference, Logan, UT