Students' Perceptions of Same-Sex Attraction and Sexual Reorientation Therapy

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Abstract

Much current research has focused on Christian individuals' beliefs regarding the morality of homosexuality, and several studies have examined the efficacy of sexual reorientation therapy. The current study sought to explore the perceptions of students at a private Christian university regarding the morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy. An original survey was created for the data collection, and data analysis demonstrated a strong positive correlation between students' beliefs about the morality of same-sex attraction and behavior and their beliefs regarding the efficacy of sexual reorientation therapy. Implications for further research in this area were discussed.

Students' Perceptions of Same-Sex Attraction and Sexual Reorientation Therapy

The issue of same-sex attraction has spurred much debate and drawn much attention in recent years. Christians in particular have struggled to know how to respond to this issue, and their attitudes concerning same-sex attraction and behavior remain varied. Due to a growing interest and awareness of types of therapy designed to help those with same-sex attraction change their sexual orientation, known as sexual reorientation therapy or reparative therapy, much research has focused on evaluating this type of therapy. The topic of sexual reorientation therapy has caused much division among psychologists and Christians alike, and beliefs concerning this type of therapy differ greatly.

Christianity and Same-Sex Attraction

Traditionally, Christians have regarded same-sex attraction and homosexual behavior as immoral according to the Bible. Although homosexuality is mentioned only a handful of times in the Bible, each time it is mentioned it is also condemned (McDowell & Hostetler, 1996). In fact, the only type of sexual behavior permitted by the Bible, and thus by orthodox Christian doctrine, is between one male and one female within a heterosexual marriage (Malony, 2005). Although some Christians disagree and believe that the Bible does not prohibit the practice of homosexuality, most conservative Christians consider same-sex attraction and behavior immoral (Yarhouse & Burkett, 2002).

Compared to the views of the general population regarding the morality of same-sex attraction and behavior, religious individuals and Christians in particular hold radical beliefs (Rosik, Griffith, & Cruz, 2007). Previous research has demonstrated a significant

strong correlation between identification with Christian beliefs and the belief that individuals experiencing same-sex attraction and practicing homosexual behavior have chosen their sexual orientation (Blackwell, 2008). Additional research has indicated that Christians have often consciously differentiated between an individual and his or her behavior. Concerning the issue of same-sex attraction, for example, Christians have distinguished between the man or woman's experiencing same-sex attraction and his or her sexual behavior. An interesting study by Rosik et al. (2007) demonstrated that religious students who differentiated between an individual and his or her behavior reported significantly higher levels of rejection towards lesbian women than their religious peers who did not make this differentiation and reported acceptance of lesbian women. Similarly, one study found that Christian students rated individuals who practiced homosexual behavior more negatively than they rated individuals who experienced only same-sex attraction (Wilkinson & Roys, 2005).

Yarhouse, Stratton, Dean, and Brooke (2009) examined the campus environment for those struggling with same-sex attraction by studying students with same-sex attraction on Christian college campuses. As students at Christian colleges that support heterosexuality as the only acceptable form of sexuality, participants reported that the campus environment was largely negative in regard to homosexuality. However, the participants did differentiate between the climate of the campus regarding a homosexual orientation and homosexual behavior. The students noted that the campus environment was more negative in regards to homosexual behavior than in regards to homosexuality as a whole.

Christianity and Sexual Reorientation Therapy

The Christian belief that same-sex attraction and behavior are sinful has led many Christians to support therapy designed to change an individual's sexual orientation (Benoit, 2005). Thus, many Christians have endorsed sexual reorientation therapy. Malony (2005) examined the major differences between clinical psychology and pastoral counseling in regard to sexuality. Clinical psychologists have begun to evaluate same-sex attraction and behavior in regard to social norms and culture, while most evangelical Christian ministers, on the other hand, have viewed homosexual behavior as sinful and unacceptable. As a clinical psychologist and an ordained Christian minister, Malony contended that behavior based upon same-sex attraction is learned and thus that individuals can learn to decrease their homosexual behavior through sexual reorientation therapy. Moreover, he argued that all acts of sexual behavior are chosen and that for those with same-sex attraction, homosexual behavior has become a habit that can be un-learned. While the Bible does not mention the process of a change of sexual orientation, Malony argued that the major themes of the Bible, such as transformation, have provided support for the practice of sexual reorientation therapy.

Additionally, research has examined the relationship between religious convictions, specifically Christianity, and the type of therapy offered by therapists to clients with same-sex attraction or behavior. Liszcz and Yarhouse (2005) found that psychologists with religious affiliations reported much less support for therapy goals involving the client's affirmation of a homosexual orientation. Conversely, psychologists specializing in homosexual issues were much less supportive of therapy designed to

change the client's behavior or sexual orientation, such as through sexual reorientation therapy.

In addition to religious psychologists' support of sexual reorientation therapy, religious individuals who experience same-sex attraction have often supported sexual reorientation therapy (Throckmorton, 2002). Since their religious beliefs contradicted their behavior, individuals who experience and act on their same-sex attractions have often welcomed and supported sexual reorientation therapy. In a sample of 65 individuals experiencing same-sex attraction and practicing homosexual behavior, two-thirds of the participants experienced conflict between their religious beliefs and their same-sex attraction and behavior (Yarhouse & Tan, 2005). For these individuals, sexual reorientation therapy has provided a way in which to resolve the conflict between religious beliefs and a homosexual orientation and behavior.

Process of Sexual Reorientation Therapy

Most sexual reorientation therapy has been based on the belief that incidences of male homosexuality have resulted from an inability of the son to identify with his father and from an attachment of the son with his mother. This belief may have developed from psychoanalytic thought that suggests that fixation in the Oedipal stage of development leads to homosexuality (Blackwell, 2008). Sexual reorientation therapies often involve interventions and the use of psychoanalytic therapy techniques, such as transference (Bright, 2004). Treatment may also involve other techniques, such as long-term individual therapy, group therapy, aversion treatments, and training for celibacy, among others (Blackwell, 2008). Although sexual reorientation therapy has several uniform goals, such as change of sexual orientation and eradication of homosexual behavior,

individual therapy models may vary from program to program. Examples of paraprofessional organizations that provide sexual reorientation therapy are Exodus International and Love in Action (Christianson, 2005). Yarhouse, Burkett, and Kreeft (2002) examined the similarities and differences in the view of the causes of homosexuality, method of intervention, pattern of therapy, and definition of progress in therapy of several different paraprofessional services that offer types of sexual reorientation therapy. These paraprofessional organizations offer therapy in a couple of different forms, including small group therapy and a 12-step program. The researchers found that the goal of those organizations offering sexual reorientation therapy is a change of sexual orientation, and these organizations seek to achieve this goal through such varied means as seminars, residential programs, family support, worship, prayer, education, and discussion. Abstinence and celibacy training are key to sexual reorientation therapy, since the goal of sexual reorientation therapy is abstinence from all types of homosexual behavior (Bright, 2004) as a result of a change in sexual orientation (Yarhouse & Burkett, 2002).

Prevalence of Sexual Reorientation Therapy

In a recent study, Bartlett, Smith, and King (2009) surveyed 1328 British mental health professionals concerning their treatment of clients desiring to change their sexual orientation or same-sex behavior. From those surveyed, only 55 professionals responded that they would be willing to assist a client alter his or her sexual orientation or behavior through counseling, indicating a small percentage of professionals willing to offer some type of sexual reorientation therapy to their clients. However, 222 professionals indicated that they have helped clients change their same-sex attraction in the past, and

the data revealed no change in the number of occurrences of sexual reorientation therapy within recent years. One hundred fifty nine of these professionals also reported that individuals desiring to change their same-sex attraction should have access to sexual reorientation therapy. Although Bartlett et al. (2009) reported low prevalence rates of sexual reorientation therapy, Yarhouse et al. (2002) found that the number of Christian paraprofessional organizations devoted to same-sex identity and behavior concerns have increased.

Criticisms of Sexual Reorientation Therapy

Although a relatively small number of therapists have offered sexual reorientation therapy to clients, many therapists have criticized this type of therapy (Barlett et al., 2009; Shidlo & Schroder, 2002). For example, Bartlett et al. (2009) presented evidence that many therapists who have provided sexual reorientation therapy later regretted this decision. Additionally, they argued that many of those receiving sexual reorientation therapy originally sought therapy as a result of confusion rather than an expression of a desire to change sexual orientation. Thus, they believed that sexual reorientation therapy was unethical, since it did not align with the therapy desire of the client. Concerning the professional ethical response of therapists to those who experience same-sex attraction, Benoit (2005) presented arguments for and against sexual reorientation therapy by examining the helpfulness and harmfulness of this type of therapy in light of the professional ethical guidelines of the American Psychological Association (APA). Although Benoit acknowledged that both those in support of sexual reorientation therapy and those against sexual reorientation therapy viewed their own approach to therapy as the most beneficial to their clients, he also stated that some harm to clients has been

reported because of sexual reorientation therapy. Such harmful effects of therapy include depression, suicidal thinking, and suicide attempts (Blackwell, 2008), as well as disappointment, loss or religious faith, disappointment, and decreased self-esteem (Christianson, 2005). Other ill effects of therapy reported by those who received sexual reorientation therapy include internalized homophobia, loneliness, and impaired family relationships (Shidlo & Schroeder, 2002).

The greatest criticism of sexual reorientation therapy is the lack of research to demonstrate the efficacy of such therapy. In studies of individuals who had received sexual reorientation therapy, many participants reported harmful effects of therapy, including depression and suicidal thinking (Benoit, 2005; Shidlo & Schroeder, 2002). Additionally, although a few participants reported experiencing a change of sexual orientation through therapy, the majority of participants did not experience a change in sexual orientation as a result of therapy (Shidlo & Schroeder, 2002). Encouraging mental health professionals to deal with gay, lesbian, bisexual, and transgendered clients in an ethical manner, Blackwell (2008) clearly noted that the APA has reported no sound scientific evidence for the benefits or efficacy of such therapies designed to change a homosexual orientation into a heterosexual orientation. The APA, as well as many psychologists and professional therapists, have spoken against sexual reorientation therapy as unethical, due to the lack of research regarding its efficacy ("APA Discredits," 2009; Benoit, 2005; Christianson, 2005).

Arguments Supporting Sexual Reorientation Therapy

Others, however, have reported various benefits of sexual reorientation therapy. Such benefits include a sense of community and a greater commitment to heterosexual

marriage (Benoit, 2005). Even individuals who did not achieve a change of sexual orientation have reported benefits of sexual reorientation therapy (Shidlo & Schroeder, 2002; Yarhouse & Throckmorton, 2002). These positive aspects of therapy included coping strategies, increased hope, increased self-esteem, personal insight, improved family and friend relationships, and a greater sense of spiritual well being.

Additionally, several studies have examined the efficacy of sexual reorientation therapy, although the APA has discredited any evidence for the efficacy of sexual reorientation therapy (Blackwell, 2008). For example, Spitzer (2003) surveyed 200 individuals who reported at least a small change from homosexual orientation to heterosexual orientation lasting five years or more. The majority of the individuals involved in the study reported a change from a predominant homosexual orientation before therapy to a predominant heterosexual orientation after therapy, giving evidence that a change of sexual orientation can occur in some individuals through sexual reorientation therapy. Moreover, the majority of participants indicated a change from homosexual behavior and identity to heterosexual behavior and identity. These participants also indicated much higher levels of depression before entering therapy than after completing therapy and reported no harmful effects of therapy.

Similarly, Throckmorton and Welton (2005) asked 28 individuals who had been or were currently involved in sexual reorientation therapy to rate the helpfulness of their various therapists through a phone interview. Overall, the researchers found that the therapists' helpfulness was positive, and the participants of the study reported benefits from receiving sexual reorientation therapy. None of the participants indicated coercion from the therapists to receive sexual reorientation therapy. Rather, each of the

participants reported personal interest in receiving sexual reorientation therapy and believed that they had benefited from such therapy.

Although the APA does not endorse sexual reorientation therapy, a few organizations and professionals do support the practice of this type of therapy. Both Spitzer's study (2003) and Throckmorton and Welton's study (2005) provide evidence that sexual reorientation therapy may be beneficial for those specifically seeking this type of therapy. The National Association for Research and Therapy of Homosexuality (NARTH) seeks to protect the right of individuals to receive sexual reorientation therapy if they desire this type of therapy (Spitzer, 2003). Additionally, Yarhouse (1998) has argued that the act of refusing to offer sexual reorientation therapy to an individual experiencing same-sex attraction and desiring a change of sexual orientation is unethical. However, clients should be adequately informed concerning the scarce amount of research supporting the efficacy of such sexual reorientation approaches (Yarhouse & Throckmorton, 2002).

Other Types of Therapy

Sexual reorientation therapy differs markedly from other types of therapy for those experiencing same-sex attraction and behavior in regards to the issue of immutability of sexual orientation (Yarhouse & Burkett, 2002). Gay-integrative therapy, for example, provides the means by which an individual experiencing same-sex attraction can disassociate with a heterosexual identification and embrace a homosexual identity. Other types of therapy for individuals with same-sex attraction include sexual identity therapy and narrative sexual identity therapy. Sexual identity therapy does not focus on changing the sexual orientation of the client as sexual reorientation therapy does (Tan,

2008). Rather, sexual identity therapy seeks to help individuals experiencing same-sex attraction achieve greater congruence between their beliefs and their sexual identity. Sexual identity therapy allows the individual to choose his or her own sexual identity. Additionally, sexual reorientation therapy differs from narrative sexual identity therapy (Yarhouse, 2008). Like sexual identity therapy, narrative sexual identity therapy seeks to bring about greater congruence between an individual's private beliefs and public behavior. However, narrative sexual identity therapy encourages individuals to share their stories of same-sex attraction and behavior and to experience congruence between beliefs and behavior by continuing to write their stories. Both sexual identity therapy and narrative sexual identity therapy may result in either the client's identification as a homosexual or the client's rejection of a homosexual identity. Sexual reorientation therapy, however, does not provide the client with this choice. Rather, the inherent goal of sexual reorientation therapy is to help the client dis-identify with homosexuality and practice abstinence from homosexual behavior as a result of change in sexual orientation (Yarhouse & Burkett, 2002).

As evidenced by the reviewed research, attitudes concerning the efficacy of sexual reorientation therapy are varied. The current study sought to examine the perceptions of students regarding the morality of same-sex attraction and behavior and the helpfulness or harmfulness of sexual reorientation therapy. Thus, relevant to the discussion of attitudes toward same-sex attraction, homosexual behavior, and sexual reorientation therapy is research in the area of attitude development and maintenance.

Attitude Certainty

Attitude Accessibility

Much current research has focused on various factors affecting attitude certainty, such as attitude accessibility, social networks, and attitude clarity and correctness. A study conducted by Holland, Verplanken, and van Knippenberg (2003) examined the relationship between attitude accessibility and factors related to attitude commitment, including attitude certainty and likelihood of attitude change. After completing this study, the researchers found that participants who were repeatedly requested to give their opinions on an issue responded to the request more quickly than those who had not been before asked to give their opinion on the issue. Additionally, the results showed that attitudes expressed repeatedly were more highly correlated with attitude commitment than attitudes expressed only once. Thus, factors of attitude commitment, including attitude certainty, may be strengthened by attitude accessibility through the repetition of attitudes. This study provides evidence that repeatedly expressing one's beliefs may increase attitude certainty as a result of greater attitude accessibility.

Social Network

Another factor related to attitude certainty, the social network, was examined in a study conducted by Visser and Mirabile (2004). Social networks can be separated into two types of networks: attitudinally congruous networks and attitudinally heterogeneous networks. Attitudinally congruous networks are composed of individuals who share the same viewpoint on an issue. Attitudinally heterogeneous networks, on the other hand, are composed of individuals with varying opinions on an issue. In the current study, those in the homogeneous social networks showed less attitude change than those in the

heterogeneous social networks. Additionally, the results indicated that those in the heterogeneous groups experienced lower levels of attitude certainty and attitude importance compared to those in the homogeneous groups. From this study, it is evident that involvement in a homogeneous social network increases attitude strength for the attitudes important to that particular social network.

Attitude Clarity and Correctness

Concerning the issue of attitude certainty, Petrocelli, Tormala, and Rucker (2007) have proposed that attitude certainty is composed of two elements: attitude clarity and attitude correctness. Attitude clarity can be defined as an individual's knowledge of his or her opinion on a given issue, while attitude correctness is an individual's belief that his or her opinion is right. Similar to the results reported by Holland et al. (2003), the results revealed that participants who repeatedly expressed their opinions in the study indicated greater attitude clarity and greater attitude certainty than those who were only asked to give their opinions once. Not surprisingly, the results also supported the research conducted by Visser and Mirabile (2004). Participants in the high consensus or homogeneous group indicated greater attitude clarity and correctness than participants in the low consensus or heterogeneous group. The results of this research revealed that the factors of attitude clarity and attitude correctness were predictors of attitude certainty. Additionally, these experiments provided support for previous research, indicating that attitude accessibility and one's social network are also important factors related to attitude certainty.

Hypotheses

From these studies it is evident that the debate concerning the benefit or harm of sexual reorientation therapy has not been resolved. Additionally, it has been shown that religious convictions have strongly influenced the perceptions of Christians regarding the morality of same-sex attraction and behavior as well as the type of therapy offered to those struggling with same-sex attraction. This study sought to identify the perceptions of undergraduate students at a private Christian college concerning the morality of same-sex attraction and behavior, similar to the study of students' perceptions of same-sex attraction and behavior conducted by Yarhouse et al. (2009). Additionally, this study sought to explore these students' perceptions of the harm or benefits of sexual reorientation therapy. Based on the previous research regarding attitude certainty, the following hypotheses were made: First, students' views regarding the morality of same-sex attraction and behavior would be stronger and clearer than their views regarding sexual reorientation therapy. More specifically, it was predicted that most students would express a firm belief in the immorality of same-sex attraction and behavior. Second, it was predicted that students may vary in their views concerning sexual reorientation therapy due to a lack of information regarding this type of therapy.

Since students at a private Christian university are repeatedly instructed concerning the immorality of same-sex behavior resulting from same-sex attraction, it was predicted that students' perceptions of the immorality of same-sex attraction and behavior would be clear and strong (Holland et al., 2003). Additionally, the attitudinally congruous environment of a private Christian college should contribute to the homogeneity of students' responses regarding same-sex attraction and behavior

(Visser & Mirabile, 2004). However, students are not repeatedly given information regarding the efficacy of sexual reorientation therapy. Thus, it was predicted that students' perceptions of this type of therapy would be much less similar, strong, and clear than their perceptions regarding the morality of same-sex attraction and behavior.

Method

Participants

The participants in this study were undergraduate students at a private Christian university enrolled in at least one undergraduate psychology course. The initial convenience sample included 668 students of various majors. However, 23 cases were removed from the analysis due to incomplete survey responses. Thus, the total sample included in the analysis consisted of 645 students. In order to preserve anonymity and to encourage students' honesty while completing the survey, no demographic information was collected from the students.

Participation in this study was completely voluntary, and in exchange for completing the survey, each student received one psychology activity credit for any undergraduate psychology class. Participants were recruited for involvement in the survey through an announcement on the psychology department's web page, which read as follows: "Need a PSYC activity? Participation is being sought for a short survey concerning same-sex attraction and behavior. The survey contains 25 questions and should only take about 15 minutes to complete. Participation is voluntary, and the survey is anonymous. In order to complete this survey for a PSYC activity, go to [link to the website]. Students may only complete the survey one time in order to receive one PSYC activity credit. Please direct any questions to [survey creator at survey creator's email

address].” Additionally, an email was sent to all undergraduate students within the psychology program that read: “Attention, psychology students! A short survey concerning same-sex attraction and behavior is now available for one PSYC activity credit. Please visit the PSYC activities page for more details and the link to the survey.”

Materials

The participants completed a short questionnaire concerning their perceptions of the morality of same-sex attraction and behavior and their perceptions of the harm or benefits of sexual reorientation therapy for those experiencing same-sex attraction. Since no current survey has addressed individuals’ perceptions of both the morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy, an original survey was created for this data collection. For the purposes of this study, attraction was defined as “romantic or sexual desires toward another person.” Behavior was defined as “any action based upon the initial attraction towards another person.” These definitions were provided for participants when beginning the survey.

Fifty questions were originally created for the survey, and these questions were then analyzed and revised. The final survey included 25 statements to which students would indicate their level of agreement or disagreement by selecting one choice from a 5-point Likert scale format ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Twelve of these statements addressed students’ perceptions of the morality of same-sex attraction and behavior, and the remaining 13 statements addressed students’ perceptions of the efficacy of sexual reorientation therapy.

Additionally, six statements from the morality subscale and seven statements from the efficacy subscale were reverse-worded in order to protect the validity of the

measure. Reverse-worded questions are questions in which the participant's disagreement with the statement indicates a higher level of the traits being measured. In this survey these traits included the perceptions of the morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy. These types of questions prevent three types of bias: yea-saying bias, nay-saying bias, and social desirability bias. Yea-saying bias is the tendency for participants to agree to each survey statement, while nay-saying bias is the tendency for participants to disagree with each survey statement. Social desirability bias occurs when participants do not honestly select responses but instead select the responses they believe to be the most socially acceptable responses. Reverse-worded questions act as a protective measure against such kinds of bias (Warner, 2008). The final survey and data collection procedure received full approval from the university's institutional review board before the data collection began (See Appendix for the complete set of survey questions).

Procedure

The final 25-question survey was made available to participants in an electronic format through an online survey program. Once the survey was available in an electronic format, the announcement regarding the survey was posted on the psychology department's webpage, and all undergraduate psychology students received the email informing them about the research opportunity. The survey was then available to students through a permanent web link for a period of two full weeks. During these two weeks, students could access and complete the survey at any time of day.

When students accessed the survey through the permanent web link, they first read a statement explaining the purposes of research, the confidentiality and anonymity

of their survey responses, and their consent to participating in this research study. This statement read as follows: "Before beginning this survey, it is important to read the following instructions. This survey includes 25 questions about same-sex attraction and behavior. It should take approximately 15 minutes to complete. Please answer all 25 questions honestly. At no time during the survey will you be asked to give your name. This survey is completely anonymous. Additionally, all information gained from this survey will remain confidential. Since participation in this survey is voluntary, you may exit the survey now without any penalty. If you do not wish to participate in this survey, please exit the survey now. You will receive no penalty if you decide to exit the survey now. By clicking on the icon and moving to the first page of the survey, you are indicating your desire to participate in this survey. If you do not wish to answer one or more of the questions on the survey, you may skip the question and move on to the next one. In exchange for completing this survey, you will receive one psychology activity credit."

The survey did not require participants to enter any identification information. Responses were submitted anonymously and recorded by the online survey software program. The survey remained available for students for a period of two weeks, after which the data collection was complete. The survey responses were then transferred from the online survey program to an SPSS data file for the analysis.

Results

Factor Analysis

Before conducting statistical analyses on the data from the 25-question survey, the survey responses were reviewed for any errors. The data were first examined to identify

any incomplete cases, and these cases were then removed from the data set and the subsequent analysis. Additionally, the values of the responses to the 13 reverse-worded items were transformed in order to correspond to the values of the other survey questions. Thus, a high score on a reverse-worded question would correspond to a low score on an original survey question, and conversely, a low score on a reverse-worded question would correspond to a high score on an original survey question. After the values were transformed, a high total score indicated a strong belief in the morality of same-sex attraction and behavior and strong belief in the inefficacy of sexual reorientation therapy. Conversely, a low total score indicated a strong belief in the immorality of same-sex attraction and behavior and strong belief in the efficacy of sexual reorientation therapy.

In order to assess whether the survey truly measured two separate constructs, a principal component factor analysis was conducted. The survey was originally designed to assess the following two constructs: perceptions of the morality of same-sex attraction and behavior and perceptions of the efficacy of sexual reorientation therapy. Thus, it was predicted that the factor analysis would demonstrate the presence of two main components within the survey. Contrary to this hypothesis, the initial principal component factor analysis yielded five components with eigenvalues greater than 1. However, the first component alone accounted for most of the variance in scores (30.65 %), while components two through five did not account for much variance. A scree plot of the data indicated that the amount of explained variance clearly leveled off with component two, demonstrating the strength of the first component as the only construct measured by the 25-question survey.

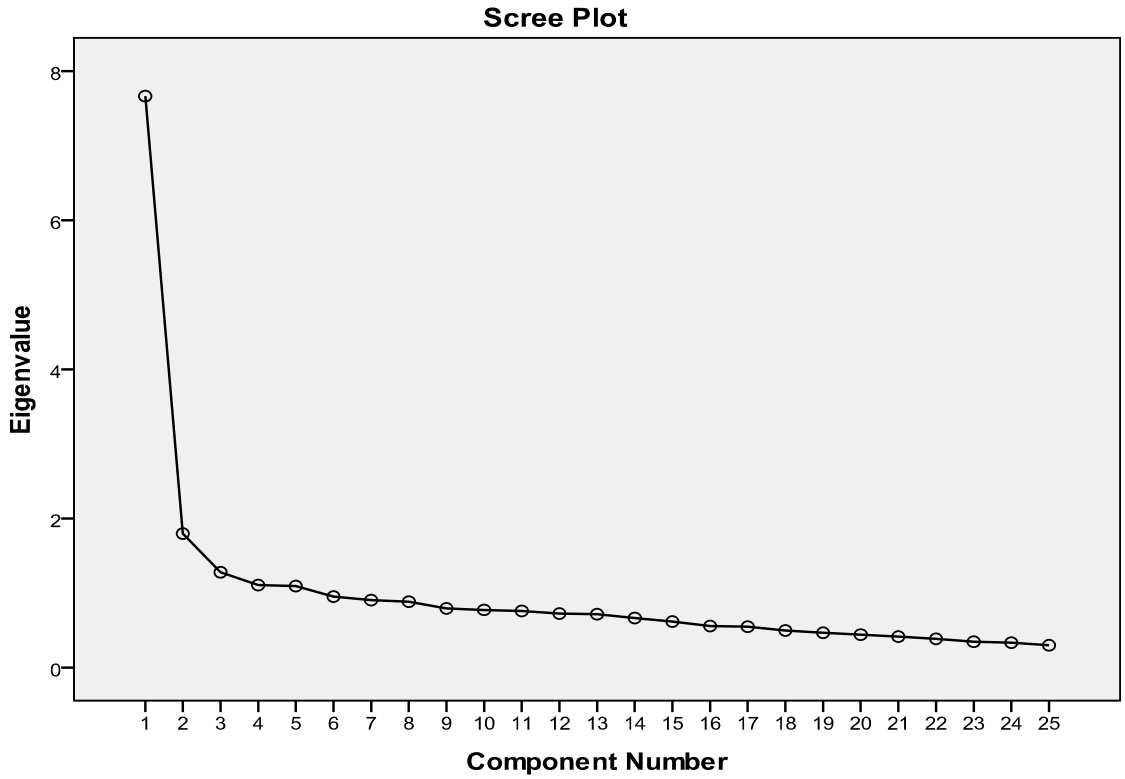

Figure 1. Scree plot of initial principal component analysis.

In order to assess further the original hypothesis of two separate constructs within the survey, a second principal component factor analysis was conducted, forcing a 2-factor solution. However, the survey items did not load on the two fixed factors as designed within the survey. This second analysis and the scree plot of the data did not provide strong evidence that the survey assessed the two constructs. Rather, the analysis suggested that the two sets of questions within the survey measured the same underlying characteristic. Contrary to the hypothesis and to the original design of the study, the factor analysis indicated that the survey measured only one construct, not two separate constructs.

Reliability

After establishing that the survey assessed one construct, the survey's reliability was examined. Item-total correlations were calculated for each individual survey item to determine the consistency of each item. Individual items with item-total correlation scores .3 or greater are considered to be good items with adequate consistency (Cohen & Swerdlik, 2010). Since each item received an item-total correlation greater than .3 ($r >$ .3), all 25 survey items indicated appropriate consistency and were included in the final reliability analysis. The final item-total correlations for all survey items are included in Table 1. Additionally, Cronbach's alpha indicated very high reliability for the 25-question survey as a whole ($\alpha = .90$).

Table 1.

Corrected item-total correlations of individual survey items.

Survey Question	Corrected Item-Total Correlation
1	.375
2	.353
3	.374
4	.488
5	.453
6	.485
7	.379
8	.544
9	.479
10	.392
11	.419
12	.492
13	.527
14	.423
15	.543
16	.662
17	.595
18	.557
19	.375
20	.458
21	.500
22	.531
23	.596
24	.674
25	.593

Discussion

The original survey developed through this study to assess students' perceptions of the morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy demonstrated high reliability, indicating great consistency. Each of the 25 items achieved adequate levels of consistency, and each of these items contributed to the overall reliability of the scale. Therefore, no items were removed from the survey or excluded from the final analysis, indicating that the original survey provided a good

measure of students' perceptions in these two areas. For this specific population of undergraduate students at a private Christian university, this survey acted as an appropriate and reliable method of assessing students' views regarding the morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy.

However, the original hypotheses were not supported by the final analysis. It was hypothesized that the survey would assess two separate areas of belief and that students' attitudes regarding the morality of same-sex attraction and behavior would be more homogenous and explicit than their attitudes regarding the efficacy of sexual reorientation therapy. Contrary to the hypothesis, the survey did not measure two separate constructs according to the principal component factor analysis. Instead, the survey measured only one construct, which assessed both perceptions of the morality of same-sex attraction and behavior and perceptions of the efficacy of sexual reorientation therapy. For this population, the perceptions of same-sex attraction and behavior were so strongly related to perceptions of the efficacy of sexual reorientation therapy that the principal component factor analysis reported measuring only one area of belief. Interestingly, the two separate constructs measured by the survey were only two parts of one major construct. Within this population, the survey acted as a scale of one underlying characteristic in which participants received either a high or low overall score concerning the area of morality of same-sex attraction and behavior and the efficacy of sexual reorientation therapy.

It is important to note that this population may not be representative of the general population. As students at a private Christian university, the students within this population have received multiple opportunities to examine the relationship between their

personal beliefs and behavior in both academic and spiritual settings. Additionally, these students are frequently encouraged to examine the consistency of their beliefs, including their beliefs regarding the morality of same-sex attraction and behavior. As students at a private Christian university, these students may have received greater instruction regarding both the morality of same-sex attraction and behavior and information regarding sexual reorientation therapy than other college students. Therefore, it is not surprising that within this population, students' perceptions of same-sex attraction and behavior are strongly related to perceptions of the efficacy of sexual reorientation therapy.

This strong relationship between beliefs regarding the morality of same-sex attraction and behavior and beliefs regarding sexual reorientation therapy supports previous research demonstrating this same relationship (Benoit, 2005; Blackwell, 2008). Christian individuals who view same-sex attraction and behavior as immoral typically support measures designed to help individuals refrain from homosexual behavior, such as sexual reorientation therapy. Additionally, many Christians view same-sex attraction as unnatural and a perversion of an innate heterosexual orientation, leading them to endorse therapy that promotes the belief of an innate heterosexual orientation. Lastly, since many Christians believe that homosexual behavior is chosen and therefore learned, they believe that measures such as sexual reorientation therapy can reverse such behavior.

Additionally, this strong relationship between attitudes concerning the morality of same-sex attraction and behavior and attitudes concerning the efficacy of sexual reorientation therapy within this sample may have been influenced by other factors, such as repetition of beliefs and an attitudinally congruous environment (Holland et al., 2003;

Visser & Mirabile, 2004). For this specific population of undergraduate students at a private Christian university, repetition of the university's core beliefs regarding the immorality of same-sex attraction and behavior may have strengthened students' beliefs regarding the immorality of same-sex attraction and behavior and thus strengthened students' views of the efficacy of sexual reorientation therapy. Moreover, students at a private Christian university spend a significant amount of their time within an attitudinally congruous environment, which may also influence students' beliefs of the immorality of same-sex attraction and behavior and therefore their beliefs regarding sexual reorientation therapy.

As noted earlier, the population assessed through this survey may not be representative of the general population. Within other populations, this same survey may measure two separate areas of belief as originally designed. Among individuals in different populations, beliefs regarding the morality of same-sex attraction and behavior may not be closely related to beliefs regarding the efficacy of sexual reorientation therapy. Additionally, individuals within other populations may not have seriously or frequently considered their personal beliefs regarding these issues, which may influence their survey responses. Moreover, individuals outside the private Christian university setting may not receive teaching or instruction concerning the morality of same-sex attraction and behavior or information regarding the efficacy of sexual reorientation therapy. Each of these factors could influence survey responses, and within other populations, the survey may truly measure two separate constructs.

Limitations

The current study had several limitations. First, since no demographic information was collected from the participants, no conclusions could be drawn regarding differences in beliefs among various groups or types of students. Additionally, the lack of this information prevents any conclusions regarding the representativeness of the current sample within the private Christian university population. Moreover, due to the lack of demographic information, the generalizability of these results to similar populations is uncertain. It is unknown whether this survey method would be as effective among students at other private Christian universities. However, excluding such demographic information from the current survey may have contributed to greater honesty among students' responses to the survey questions. Lastly, the survey included only close-ended questions, excluding the possibility of gaining additional information from participants through open-ended questions.

In addition to these limitations, the current data collection included only one sample within one specific population. Data were collected at one point in time among one group of students, and it is unknown whether the results might have been different if the data were collected at another time of the year or among another sample of students. Additionally, there was no subsequent data collection from another sample of students. Therefore, no comparisons could be made between two samples from the same population or between two samples from two different student populations.

Future Research

Future research should continue to explore the area of beliefs regarding same-sex attraction, homosexual behavior, and sexual reorientation therapy. Replication of the

current study is necessary to confirm the reliability and the validity of the survey measure created for this data collection. Additionally, replication of the current study is needed to establish the consistency of the current findings and to provide a deeper understanding of this relationship between beliefs among Christian individuals. Moreover, additional studies should continue to examine the strength of the relationship between beliefs regarding same-sex attraction and behavior and beliefs regarding sexual reorientation therapy among diverse populations. Perhaps within populations other than private Christian universities, there is no evidence of this strong relationship between beliefs. Further research is needed in this area, and future data collections should include students from private Christian universities as well as students from secular universities. Furthermore, additional data collections should include individuals from other ages and backgrounds.

Further research is also necessary to determine the underlying factors contributing to the strong relationship between beliefs regarding the morality of same-sex attraction and behavior and attitudes regarding the efficacy of sexual reorientation therapy. Subsequent studies should establish and examine the factors that may influence beliefs regarding same-sex attraction and behavior. Much additional research is needed to understand factors that may influence beliefs about sexual orientation and sexual reorientation therapy.

References

APA discredits "reparative therapy". (2009). *Contemporary Sexuality*, *43*(10), 7.

Bartlett, A., Smith, G., & King, M. (2009). The response of mental health professionals to clients seeking help to change or redirect same-sex sexual orientation. *BioMed Central Psychiatry*, *9*.

Benoit, M. (2005). Conflict between religious commitment and same-sex attraction: Possibilities for a virtuous response. *Ethics & Behavior*, *15*(4), 309-325.

Blackwell, C. (2008). Nursing implications in the application of conversion therapies on gay, lesbian, bisexual, and transgender clients. *Issues in Mental Health Nursing*, *29*(6), 651-665.

Bright, C. (2004). Deconstructing reparative therapy: An examination of the process involved when attempting to change sexual orientation. *Clinical Social Work Journal, 32*(4), 471-481.

Christianson, A. (2005). A re-emergence of reparative therapy. *Contemporary Sexuality*, *39*(10), 8-17.

Cohen, R. J., & Swerdlik, M. E. (2010). *Psychological testing and assessment: An introduction to tests and measurements* (7th ed.). New York, NY: McGraw-Hill.

Holland, R. W., Verplanken, B., & van Knippenberg, A. (2003). From repetition to conviction: Attitude accessibility as a determinant of attitude certainty. *Journal of Experimental Social Psychology, 39,* 594-601. doi: 10.1016/S0022-1031(03)00038-6

Liszcz, A., & Yarhouse, M. (2005). Same-sex attraction: A survey regarding client directed treatment goals. *Psychotherapy: Theory, Research, Practice, Training*, *42*(1), 111-115.

Malony, H. (2005). Pastoral counseling and sexual identity. *Journal of Psychology and Christianity*, *24*(4), 361-367.

McDowell, J., & Hostetler, B. (1996). *Josh McDowell's handbook on counseling youth: A comprehensive guide for equipping youth workers, pastors, teachers, and Parents*. Dallas, TX: Word.

Petrocelli, J. V., Tormala, Z. L., & Rucker, D. D. (2007). Unpacking attitude certainty: Attitude clarity and attitude correctness. *Journal of Personality and Social Psychology, 92*(1), 30-41. doi: 10.1037/0022-3514.92.1.30

Rosik, C., Griffith, L., & Cruz, Z. (2007). Homophobia and conservative religion: Toward a more nuanced understanding. *American Journal of Orthopsychiatry*, *77*(1), 10-19.

Shidlo, A., & Schroeder, M. (2002). Changing sexual orientation: A consumers' report. *Professional Psychology: Research & Practice*, *33*(3), 249-259.

Spitzer, R. (2003). Can some gay men and lesbians change their sexual orientation? 200 participants reporting a change from homosexual to heterosexual orientation. *Archives of Sexual Behavior, 32*(5), 403-17.

Tan, E. (2008). Mindfulness in sexual identity therapy: A case study. *Journal of Psychology & Christianity*, *27*(3), 274-278.

Throckmorton, W. (2002). Initial empirical and clinical findings concerning the change process for ex-gays. *Professional Psychology: Research and Practice, 33*(3), 242 248. doi: 10/1037//0735-7028.33.3.242

Throckmorton, W., & Welton, G. (2005). Counseling practices as they relate to ratings of helpfulness by consumers of sexual reorientation therapy. *Journal of Psychology and Christianity*, *24*(4), 332-342.

Visser, P. S., & Mirabile, R. R. (2004). Attitudes in the social context: The impact of social network composition on individual-level attitude strength. *Journal of Personality and Social Psychology, 87,* 779-795. doi: 10.1037/0022-3514.87.6.779

Warner, R. M. (2008). *Applied statistics: From bivariate through multivariate techniques*. Los Angeles, CA: Sage.

Wilkinson, W. W., & Roys, A. C. (2005). The components of sexual orientation, religiosity, and heterosexuals' impressions of gay men and lesbians. *Journal of Social Psychology, 145,* 65-83.

Yarhouse, M. (1998). When clients seek treatment for same-sex attraction: Ethical issues in the "right to choose" debate. *Psychotherapy: Theory, Research, Practice, Training*, *35*(2), 248-259.

Yarhouse, M. (2008). Narrative sexual identity therapy. *American Journal of Family Therapy*, *36*(3), 196-210.

Yarhouse, M., & Burkett, L. (2002). An inclusive response to LGB and conservative religious persons: The case of same-sex attraction and behavior. *Professional Psychology: Research and Practice*, *33*(3), 235-241.

Yarhouse, M., Burkett, L., & Kreeft, E. (2002). Paraprofessional Christian ministries for sexual behavior and same-sex identity concerns. *Journal of Psychology and Theology, 30*(3), 209-227.

Yarhouse, M., Stratton, S., Dean, J., & Brooke, H. (2009). Listening to sexual minorities on Christian college campuses. *Journal of Psychology & Theology*, *37*(2), 96-113.

Yarhouse, M., & Tan, E. (2005). Addressing religious conflicts in adolescents who experience sexual identity confusion. *Professional Psychology: Research and Practice*, *36*(5), 530-536.

Yarhouse, M., & Throckmorton, W. (2002). Ethical issues in attempts to ban reorientation therapies. *Psychotherapy: Theory, Research, Practice, Training*, *39*(1), 66-75.

Appendix

Students' Perceptions Of Same-Sex Attraction And Sexual Reorientation Therapy Survey

Before beginning this survey, it is important to read the following instructions. This survey includes 25 questions about same-sex attraction and behavior. It should take approximately 15 minutes to complete. Please answer all 25 questions honestly. At no time during the survey will you be asked to give your name. This survey is completely anonymous. Additionally, all information gained from this survey will remain confidential. Since participation in this survey is voluntary, you may exit the survey now without any penalty. If you do not wish to participate in this survey, please exit the survey now. You will receive no penalty if you decide to exit the survey now. By clicking on the icon and moving to the first page of the survey, you are indicating your desire to participate in this survey. If you do not wish to answer one or more of the questions on the survey, you may skip the question and move on to the next one. In exchange for completing this survey, you will receive one psychology activity credit.

For the purposes of this study, attraction is defined as romantic or sexual desires toward another person. Behavior can be defined as any action based upon the initial attraction towards another person. For each statement below, read each statement carefully and circle the choice and number that best describes you. Read each statement carefully before making your choice since you may agree with one statement but disagree with the next. For example, if you select "Agree" for the statement "Apples are sweet." you may select "Disagree" for the statement "Apples are bitter."

*1) Therapy designed to change an individual's same-sex behavior is harmful to those not desiring to change their same-sex behavior.

2) I have a responsibility to confront those experiencing same-sex attraction or practicing same-sex sexual behavior.

*3) The Bible permits same-sex sexual behavior.

4) I personally believe that same-sex sexual behavior is immoral.

5) Therapy designed to change an individual's same-sex attraction is helpful to those desiring to change their same-sex attraction.

6) The Bible clearly addresses the issue of same-sex attraction behavior.

*7) If I had a friend who was struggling with same-sex attraction and behavior but did not desire to change his or her attraction and behavior, I would not recommend therapy.

8) Those who practice same-sex sexual behavior can change and instead practice opposite-sex attraction behavior.

9) Therapy designed to change an individual's same-sex attraction is effective.

*10) The Bible is clear that same-sex attraction is included in God's plan.

*11) Individuals are born with a predetermined sexual orientation that they cannot change.

*12) Others' sexual attraction and behavior is not of my concern.

13) Those with a same-sex attraction orientation can develop an opposite-sex attraction orientation.

14) The Bible condemns same-sex attraction.

15) Therapy designed to change an individual's same-sex attraction can aid individuals in changing their same-sex attraction.

*16) Individuals with same-sex attraction tendencies do not need to change these tendencies.

17) I personally believe that same-sex attraction is immoral.

18) Therapy designed to change an individual's same-sex behavior is helpful to those desiring to change their same-sex behavior.

*19) I personally believe that it is moral for a man or a woman to act on his or her same-sex attractions.

20) The Bible's attitude towards same-sex attraction is relevant today.

*21) Therapy designed to change an individual's same-sex attraction cannot aid individuals in changing their same-sex sexual behavior.

*22) The Bible does not clearly address the issue of same-sex attraction.

*23) Therapy designed to change an individual's same-sex attraction is harmful to those with same-sex attraction.

*24) Individuals with same-sex sexual behavior do not need to change their behavior.

*25) I personally believe that a same-sex attraction orientation is moral.

*These items are reverse-coded.