

Seton Hall University eRepository @ Seton Hall

Seton Hall University Dissertations and Theses
(ETDs)

Seton Hall University Dissertations and Theses

Summer 5-3-2017

The Effect of Quantity and Quality of Contact on Heterosexual Civilian Attitudes Toward Gay Men and Lesbians in the Military

Brienne Brown
brienne.brown@gmail.com

Follow this and additional works at: <https://scholarship.shu.edu/dissertations>



Part of the [Counseling Psychology Commons](#)

Recommended Citation

Brown, Brienne, "The Effect of Quantity and Quality of Contact on Heterosexual Civilian Attitudes Toward Gay Men and Lesbians in the Military" (2017). *Seton Hall University Dissertations and Theses (ETDs)*. 2323.
<https://scholarship.shu.edu/dissertations/2323>

The Effect of Quantity and Quality of Contact on Heterosexual Civilian Attitudes Toward Gay
Men and Lesbians in the Military

by

Brienne Bennett Brown

Dissertation Committee

Pamela F. Foley, Ph.D., ABPP

John E. Smith, Ed.D

Daniel Cruz, Ph.D., ABPP

Christopher B. Gates, Ph.D.

Submitted in partial fulfillment of the requirements for the degree

Doctor of Philosophy

Department of Professional Psychology and Family Therapy

Seton Hall University

January 2017

© 2017 Brienne Brown





SETON HALL UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
OFFICE OF GRADUATE STUDIES

APPROVAL FOR SUCCESSFUL DEFENSE

Brienne Brown, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ph.D. during this **Spring Semester 2017**.

DISSERTATION COMMITTEE

(please sign and date beside your name)

Mentor: Dr. Pamela F. Foley		5/13/17
Committee Member: Dr. John E. Smith		5/3/17
Committee Member: Dr. Daniel Cruz		5/14/17
Committee Member: Dr. Christopher B. Gates		5/3/17

The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate's file and submit a copy with your final dissertation to be bound as page number two.

Abstract

This study examined the impact of contact with gay men and lesbians on attitudes toward gay men and lesbians in the military. Specifically, this study examined the extent to which heterosexual civilians' quantity of contact and quality of contact with gay men and lesbians predict their attitudes toward gay men and lesbians in the military over and above demographic traits and social desirability.

An online survey was administered to participants ($N = 140$). Attitudes toward gay men and lesbians were measured using the Attitudes Toward Homosexuals in the Military Scale (ATHM); quantity of contact and quality of contact were measured by the Quantity of Contact with Gay Men and Lesbians Scale and the Quality of Contact with Gay Men and Lesbians Scale, respectively. Social desirability was measured by the Social Desirability Response Set (SDRS).

Hierarchical regression results revealed increased quality of contact with gay men and lesbians as predictive of more positive attitudes toward gay men and lesbians in the military. Results support contact hypothesis literature suggesting it is not the amount, or quantity of contact, but rather the quality of contact that predicts attitude change toward members of an out-group. Additionally, results support previous research indicating both women and individuals with liberal political ideology report more positive attitudes toward gay men and lesbians in the military. Findings are presented relative to extant literature; implications and directions for future research are presented.

Keywords: Attitudes, Gay, Lesbian, Contact Hypothesis, Military

Table of Contents

I. Chapter 1: Introduction..... 1

 Statement of the problem 1

 Background..... 2

 History of intergroup bias toward the gay and lesbian community 2

 The contact hypothesis 4

 Contact hypothesis and the military..... 5

 Impact of DADT repeal in relation to contact hypothesis 6

 Impact of civilian attitudes on veterans’ health 7

 Purpose of This Study 9

 Significance of This Study..... 10

 Research Questions & Hypotheses 10

 Definitions..... 11

 Limitations 16

II. Chapter 2: Review of the Literature 17

 Attitudes Toward Out-Groups 17

 Historical out-group bias toward gay men and lesbians in the U.S 20

 The Contact Hypothesis 22

 Impact of quantity of contact on attitudes..... 24

 Impact of quality of contact on attitudes 26

 Contact hypothesis utilized with gay men and lesbians..... 29

 Limitations of contact hypothesis 33

 Current Attitudes Towards and Status of Gay Men and Lesbians..... 34

Attitudes Towards Gay Men and Lesbians in the Military.....	37
History of gay men and lesbians in the military	37
Mental health of lesbian and gay veterans	40
Military members’ attitudes towards gay men and lesbians in the military	42
Civilian attitudes towards gay men and lesbians in the military	44
Impact of Civilian Attitudes on Veteran Mental Health.....	46
Proposal of Current Study.....	48
III. Chapter 3: Method	50
Methodology.....	50
Demographics of Participants.....	51
Measures	52
Demographic Questionnaire	52
Quantity of Contact with Gay Men and Lesbians Scale.....	52
Quality of Contact with Gay Men and Lesbians Scale.....	53
Attitudes Towards Homosexuals in the Military Scale (ATHM).....	53
The Socially Desirable Response Set (SDRS-5)	5?
Data Collection	55
Statistical Analyses	57
IV. Chapter 4: Results.....	61
Descriptive Statistics.....	61
Scale Analyses	64
Hypothesis Tests.....	65
Hypothesis 1.....	65

Hypothesis 2.....	67
Summary.....	68
V. Chapter 5: Discussion	70
Discussion of the Results and Hypotheses.....	70
Hypothesis 1.....	70
Hypothesis 2.....	72
Predictive demographics	73
Practical Implications.....	74
Methodological Implications	75
Limitations	76
Directions for Future Research	77
Summary and Conclusions	78
References.....	80
Appendices.....	98
Appendix A: Exclusionary Demographic Criteria.....	70
Appendix B: Demographic Questionnaire.....	70
Appendix C: The Quantity of Contact with Gay Men and Lesbians Scale	70
Appendix D: The Quality of Contact with Gay Men and Lesbians Scale	72
Appendix E: Attitudes Toward Homosexuality in the Military Scale(ATHM; Estrada, 2002)	73
Appendix F: Social Desirability Response Set (SDRS-5)	74

List of Tables

Table 1: Political Views of Participants.....	61
Table 2: Correlation Matrix of the Study Variables	62
Table 3: Hierarchical Regression Analysis Results for the Effect of Quantity of Contact on the Attitude Controlling for Demographic Information	65
Table 4: Hierarchical Regression Analysis Results for the Effect of Quality of Contact on the Attitude Controlling for Demographic Information	66

CHAPTER I

Introduction

Statement of the Problem

Research suggests gay and lesbian military members experience poorer mental health consequences, including a higher rate of suicidal ideation, than their heterosexual counterparts (Blosnich, Bossarte, & Silenzio, 2012; Herrel et al., 1999; Matarazzo et al., 2014). Research also suggests civilian attitudes impact military members' mental health when transitioning from active duty to civilian life (Kauth, Meier, & Latini, 2014; Kauth & Shipherd, 2016; Mattocks et al., 2014). Further affecting gay and lesbian service members is the September 20, 2011, repeal of "Don't Ask, Don't Tell" (DADT), a law which previously prohibited members of the military from disclosing their sexual orientation for fear of disciplinary action (Belkin, 2015). The revocation of DADT implies an increased open presence of gay and lesbian military members and veterans (Kauth et al., 2014). In light of the repeal of DADT, this study is a response to the need for increased understanding of civilians' attitudes towards lesbian and gay military members, due to the research suggesting gay and lesbian veterans experience poorer mental health than heterosexual veterans and research suggesting the significant impact of civilian attitudes on veteran mental health (Kauth et al., 2014; Matarazzo et al., 2014).

The aim of the present study is to provide further understanding of civilian attitudes towards gay and lesbian military members through the lens of the contact hypothesis. The contact hypothesis, a well-documented and empirically supported theory, states that under certain circumstances, bias towards an out-group tends to decrease after favorable contact with members of that out-group (Allport, 1954). The current study extends research by assessing the

impact of both quality of contact and quantity of contact with gay and lesbian individuals on civilian attitudes towards gay and lesbian military members. This chapter explores the history of bias towards the gay and lesbian community, the contact hypothesis and its application to the United States military and DADT, as well as the impact of civilian attitudes on veterans' mental health. It also describes the purpose and significance of the study and the corresponding study hypotheses.

Background

History of intergroup bias toward the gay and lesbian community. The experience of stereotypes, prejudiced beliefs and discrimination towards members of a group, which differs from one's own group, is referred to as intergroup bias (Wilder, 2015). The mass shooting that claimed 49 innocent lives at a gay Orlando nightclub in June of 2016 was not the first incidence of bias-related violence towards gay men and lesbians in the United States (Ellis, Fantz, Karimi, & McLaughlin, 2016). On the contrary, there is a long history of prejudice, discrimination, and violence towards the gay and lesbian community in United States history (Herek & Capitanio, 1996; Schiappa, Gregg, & Hewes, 2006; Woodford, Brennan, Gutiérrez, & Luke, 2013).

Some poignant examples of bias towards the gay and lesbian community include plain-clothes police officers arresting bar patrons for violating sexual norms in the 1930s and employment discrimination dubbed "The Lavender Scare" during the Cold War, when over 1,400 suspected gay men and lesbians were fired from their government jobs (Hegarty, 2015; Johnson, 2015; Tremmel, 2015). The Stonewall Riot of 1969 is cited as the first major protest on behalf of equal rights for the gay and lesbian community. The Stonewall Inn, a gay bar in New York City, was serving liquor without a license; however, when three drag queens and a lesbian were arrested along with bar staff, the onlooking crowd began throwing bottles at the police

officers, forcing them to take shelter (Freeman & Rupp, 2015). Although the Stonewall Riot was the beginning of multiple gay and lesbian civil rights organizations, persecution has continued through the present time (Freeman & Rupp, 2015). Anti-gay politics in the form of the Save Our Children Movement was successful in banning gay and lesbian teachers from public school employment in 1977, and judges court ordered gay and lesbian parents to prevent their children from being present in the same room as their same-sex partners as late as 1985 (Rivers, 2015; Strub, 2015). There continue to be challenges faced by gay and lesbian parents today; many states do not allow same-sex couples to have a joint adoption after adopting a child or second-parent adoption after the birth of a child to a same-sex couple (Findlaw, 2013).

Individual hate crimes towards gay men and lesbians have also been documented as examples of out-group bias (Federal Bureau of Investigation [FBI], 2016; Keating, 2017). A notable example is the 1998 murder of Matthew Shepard in Wyoming, where he was beaten, pistol whipped, strung up to a fence with rope, and left to die in near-freezing cold because he placed his hand on the knee of his male attacker (Keating, 2017). Shepard's death spearheaded American anti-LGBT violence; after 11 years of thwarted attempts, President Obama signed into law a hate crimes prevention act bearing Shepard's name in 2009 (Keating, 2017). Despite the Matthew Shepard and James Byrd, Jr. Hate Crimes Prevention Act, statistics released by the FBI state that 17.7% of the bias-oriented crimes committed in the United States in 2015 were classified as sexual-orientation bias (FBI, 2016; Keating, 2017). The aforementioned examples are an outline of the history of out-group bias towards the gay and lesbian community in the United States. The contact hypothesis has been utilized to decrease such prejudice in minority groups (Pettigrew, Tropp, Wagner, & Christ, 2011; Tredoux & Finchilescu, 2007).

The contact hypothesis. The contact hypothesis posits that intergroup bias occurs due to both misinformation and ignorance about members of a group to which one does not belong, that is, an out-group (Wilder, 2015). The contact hypothesis, originally proposed by Allport (1954), further states that favorable face-to-face contact between members of different out-groups will disconfirm inaccurate perceptions, facilitate intergroup interaction, and engender less bias and therefore more positive feelings towards members of the out-group (Pettigrew et al., 2011). The contact hypothesis specifies four optimal conditions that must be present for reduction of intergroup bias (Allport, 1954). These conditions require the individuals have equal status, be working towards common goals, engage in intergroup cooperation, and have the support of relevant authorities (Allport, 1954; Techakesari, Louis, & Barlow, 2015).

The contact hypothesis has been utilized to explore attitudes towards out-groups with various populations including overweight individuals, differing racial groups, transgender individuals and individuals with different sexual orientation, among others (Alperin, Hornsey, Hayward, Diedrichs, & Barlow, 2014; King, Winter, & Webster, 2009; Kwon & Hugelshofer, 2012; Pettigrew et al., 2011). The contact hypothesis rests on the notion that members of different groups, specifically, members of majority groups, hold preconceived prejudiced attitudes towards members of a minority group. Exposing members of out-groups to members of the in-group, or increasing their contact, challenges the previously held misconceptions and stereotypes, which, in turn, decreases experienced prejudice (Allport, 1954).

Allport's theory has been supported by many empirical studies. Pettigrew and Tropp (2006) conducted a meta-analysis of 515 studies investigating the contact hypothesis. Results of the meta-analysis suggest a strong negative association between contact and prejudice (mean $r = .21$; Pettigrew & Tropp, 2006). The contact hypothesis has been supported regarding the

population in the current study, gay men and lesbians (Bernstein & Swartwout, 2012; Kwon & Hugelshofer, 2012; Span, 2011). Utilizing a pretest, posttest design and an LGB speaker panel as an intervention in a university setting, Kwon and Hugelshofer (2012) reported increased positive attitudes of heterosexual college students after being exposed to an LGB speaker panel. Similarly, Span (2011) also utilized a pretest, posttest design with university students and an LGB speaker panel. Again, results suggest decrease of anti-gay bias in students who had been exposed to the LGB speaker panel (Span, 2011). In addition to LGB speaker panels conducted at a university, the contact hypothesis has been supported to decrease prejudice towards gay men and lesbians within a police department (Bernstein & Swartwout, 2012). In a study that surveyed 249 sworn police officers and 144 civilians, on-the-job contact was significantly related to anticipating positive outcomes for a gay or lesbian police officer (Bernstein & Swartwout, 2012). The contact hypothesis states, and empirical evidence supports, the notion that in many cases, contact between members of out-groups and in-groups leads to more accurate perception of members of that out-group and therefore decreased feelings of prejudice toward the out-group (Wilder, 2015).

Contact hypothesis and the military. As previously stated, the four optimal conditions that must occur for intergroup bias reduction via the contact hypothesis include equal status, common goals, intergroup cooperation, and support of authorities (Allport, 1954). These conditions are inherent in military ranks. The U.S. military has in place guidelines and rules that favor group efficacy, not individual benefit (Bullock, 2013). Therefore, military members learn to function as a unit, relying on one another for the accomplishment of a common goal, and are supported by their authorities in this endeavor (Bullock, 2013). However, the integration of different groups within the military has proved challenging in the past. For example, the military

displayed resistance to allowing African Americans to be integrated into regiments that had previously been all-White during the Second World War (McCrary & Gutierrez, 1979). Later, in 1948, the military struggled with the integration of women into the armed forces and only removed the ban on combat roles for women in 2013 (Bumiller & Shanker, 2013). Despite a history of integration challenges, White and Black Americans, male and female service members, although originating as out-groups, have been integrated into the United States military largely due to the contact and shared goals implicit within military ranks (Herek et al., 1996). Prejudice reduction has been documented within military ranks on two occasions due to implicit intergroup contact (Dovidio, Gaertner, & Kawakami, 2003). During World War II, prejudice reduction was seen among White American soldiers who worked with their Black American peers and White American seamen who worked with their Black American counterparts (Dovidio et al., 2003). The contact hypothesis applied to out-groups, in this case, White and Black soldiers, has been documented to decrease previously held prejudices within the military (Cunningham & Melton, 2013).

Impact of DADT repeal in relation to contact hypothesis. The military's history of integration of members of out-groups is important to consider as openly gay and lesbian soldiers are integrating into units due to the repeal of "Don't Ask, Don't Tell" (DADT; Belkin, 2015; Bullock, 2013; Herek et al., 1996). The law (DADT) previously prohibited gay and lesbian service members from disclosing their sexual orientation (Belkin, 2015, p. 289). The repeal of DADT enables military members to disclose their sexual orientation without fear of sanctions, including a dishonorable discharge (Kauth et al., 2014). The military's history of integration of members of out-groups places them in a unique situation to have members of sexual orientation out-groups working within the same unit toward a common goal (Herek et al., 1996).

Now that the United States military has repealed DADT, there are and will continue to be openly gay and lesbian service members (Kauth et al., 2014). After a military member's service to the United States military is complete, she or he is no longer considered active duty and instead holds the title of military veteran (National Center for PTSD, 2012). Veterans who separate from the military with an honorable discharge are eligible for both veteran medical care and veteran benefits (U.S. Department of Veterans Affairs, 2015). This includes, but is not limited to, healthcare coverage, vocational assistance, housing assistance, and burial services (U.S. Department of Veterans Affairs, 2015). Additionally, nongovernment agencies are provided financial incentives for hiring veterans (U.S. Department of Veterans Affairs, 2012). These aspects of veteran life are important to note due to the recent development of openly gay and lesbian members of the military who will eventually part from the armed forces and become gay and lesbian veterans (Kauth & Shipherd, 2016). The success of changing negative opinions may affect the quality of services these veterans receive (Kauth et al., 2014).

Impact of civilian attitudes on veterans' health. The culture to which veterans return after active duty impacts their mental health (Kauth et al., 2014; Kauth & Shipherd, 2016; Mattocks et al., 2014). Veterans returning to an unfavorable climate can experience negative consequences regarding their financial future due to the fact that civilians often hire veterans, thus providing financial stability in the form of jobs (U.S. Department of Veterans Affairs, 2012). In addition to job stability, civilians' treatment toward veterans impacts their mental health (Matarazzo et al., 2014). Currently, the suicide rate for veterans is extremely high; in 2014, an average of 20 veterans died by suicide each day (U.S. Department of Veterans Affairs, 2016). After adjusting for age and gender, the risk for suicide is 21% higher among veterans in comparison to civilian adults (U.S. Department of Veterans Affairs, 2016). Additionally,

literature suggests that the suicide rate for lesbian and gay veterans is elevated in comparison to their heterosexual counterparts (Matarazzo et al., 2014). Blosnich et al. (2012) utilized data from the Massachusetts Behavioral Risk Factor Surveillance Survey and reported that 11.48% of sexual minority veterans had seriously considered attempting suicide within the past year in comparison to 3.48% of heterosexual veterans having seriously considered attempting suicide in the past year. Utilizing data from the Vietnam Era National Twin Registry, Herrell et al. (1999) reported 53% suicidal ideation among Vietnam veterans who had at least one same-sex sexual partner compared to 25.2% of those with no reported same-sex partners. Additionally, of the veterans who reported having one or more same-sex partner, 14.7% reported attempting suicide compared with 3.9% of veterans with no same-sex partner (Herrel et al., 1999; Matarazzo et al., 2014). Acceptance of veterans after their return from active duty by family members and the general civilian population impacts their financial security and mental health (Kauth et al., 2014). The consistently higher rates of suicidal ideation and suicidal behavior of gay and lesbian veterans, in comparison to heterosexual veterans, warrants further attention.

Currently, there is a paucity of literature assessing civilian attitudes towards gay men and lesbians in the military. The small amount of research that has been conducted suggests that certain demographic variables may impact feelings towards gay and lesbian veterans (Besen & Zicklin, 2007; Coronges, Miller, Tamayo, & Ender, 2013; Moradi & Miller, 2009; Wyman & Snyder, 1997). Specifically, women, individuals with more education, and those with liberal political affiliation hold more positive attitudes towards gays and lesbians in the military than their demographic counterparts (Moradi & Miller, 2009). Multiple studies suggest that men, individuals with less education, and more conservative political affiliation hold more negative

attitudes about gay men and lesbians serving in the military (Besen & Zicklin, 2007; Wyman & Snyder, 1997).

Although civilian attitudes towards gay men and lesbians have been assessed according to demographic variables, research has not been undertaken assessing the variables of quality and quantity of contact with gays and lesbians, and civilian attitudes towards gays and lesbians in the military. The contact hypotheses posits that negative opinions held towards members of an out-group results from a lack of contact with members of that group (Allport, 1954). Increased contact with members of an out-group has been shown to decrease negatively held stereotypes and increase positive feelings towards members of that out-group (Pettigrew et al., 2011). This theory, although well documented through varying out-groups, has not previously been applied to heterosexual civilian attitudes towards gay men and lesbians in the military.

Purpose of This Study

It is the intent of this study to assess the impact of civilians' quality and quantity of contact with gay men and lesbians on attitudes towards gay men and lesbians in the military. With the knowledge that civilian attitudes impact veterans' health upon retiring from active duty, it is of interest to examine the applicability of the contact hypothesis to civilian attitudes. This study is particularly impactful due to the repeal of DADT and the subsequent open presence of gay men and lesbians in the military.

Significance of This Study

The historical prejudice, discrimination, and violence towards the gay and lesbian community is well documented. Indeed, gay and lesbian military members have been shown to have poorer mental health consequences, including higher rates of suicidal ideation, than their heterosexual counterparts. Currently it is estimated that there are 1 million gay, lesbian, and

bisexual veterans and approximately 70,000 currently serving in the military (Kauth et al., 2014). With the repeal of DADT, and the knowledge that civilians' attitudes affect veterans' mental health, it is of great consequence that the attitudes of civilians towards gay and lesbian military members are assessed. The utilization of the contact hypothesis has been well documented and guides the hypotheses of the current study. This study will add to the currently sparse body of literature on gay and lesbian military members and could inform policy for future prejudice reduction towards the one million gay and lesbian service members and veterans.

Research Questions and Hypotheses

Given the lack of existing research documenting the effect of contact between sexual minority service members and the general public, this study seeks to explore this relationship, after accounting for variables that are known to affect public opinion.

The research questions and hypotheses for the present study are derived from previous research utilizing the contact hypothesis, stating that the quality and quantity of contact between out-groups will decrease negative stereotypes and prejudices and increase positive attitudes towards members of that out-group (Allport, 1954; Pettigrew et al., 2011). The specific demographic variables that have been previously shown to predict civilian attitudes towards gays and lesbians include sex, level of educational attainment, and political orientation (Moradi & Miller, 2009). Furthermore, social desirability, or presenting oneself in a favorable light, has been shown to occur when respondents utilize self-report measures, such as the ones in the proposed study (Hays, Hayashi & Stewart, 1989). A meta-analysis undertaken by Dodou and de Winter (2014) suggest that social desirability is seen equally as frequently on paper-and-pencil instruments as when participating in research online, akin to the current study. In order to account for this possible limitation, social desirability was assessed in the current study.

Therefore, it is the overall prediction of the current study that quantity and quality of contact with gay men and lesbians will predict civilian attitudes towards gay men and lesbians in the military over and above social desirability and the aforementioned demographic variables.

Research Question 1. Is there an effect of quantity of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and lesbians in the military, after accounting for social desirability and demographic variables (sex, educational attainment, and political affiliation)?

Hypothesis 1. Quantity of contact with gay men and lesbians will predict civilian heterosexuals' attitudes towards gay men and lesbians in the military over and above social desirability and the demographic variables of sex, educational attainment, and political affiliation.

Research Question 2. Is there an effect of quality of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and lesbians in the military, after accounting for social desirability and demographic variables?

Hypothesis 2. Quality of contact with gay men and lesbians will predict civilian heterosexuals' attitudes towards gay men and lesbians in the military over and above social desirability and the demographic variables of sex, educational attainment, and political affiliation.

Definitions

Gay. The term *gay* refers to the identity and community that has developed for those with an affectional attraction to someone of the same sex and is distinguished from sexual behavior; some men and women have sex with others of their own gender but do not identify as gay or lesbian (American Psychological Association, 1991). The current study utilizes *gay* and

gay male to specifically refer to individuals with that identity. For the purposes of this study, self-reported identity will be utilized to identify gay, lesbian, and heterosexual individuals. The term homosexual has been rejected due to its previous use as a medical and pathological term (Freeman & Rupp, 2015).

Lesbian. Akin to the way *gay* will be used in this study, *lesbian* refers to the identity and community of women who engage in same-sex relationships (American Psychological Association, 1991; Freeman & Rupp, 2015). For the purposes of this study, self-reported identity will be utilized to identify gay, lesbian, and heterosexual participants. Again, the term *lesbian* will be utilized instead of homosexual due to the negative pathological stereotypes associated with the term (American Psychological Association, 1991).

Sexual orientation. For the purposes of this study, sexual orientation will be utilized as an exclusion criterion. Due to the fact that the study aims to generalize to self-identified heterosexual civilians, individuals who identify as other than heterosexual, including those who identify as gay, lesbian, or bisexual, will be excluded from data collection. The question that will assess sexual orientation is informed by the research of Ridolfo, Miller, and Maitland (2012) who assessed the validity of current sexual orientation measures and provided recommendations for assessment of self-reported sexual orientation.

Political affiliation. Due to previous research suggesting political affiliation correlates with attitudes towards gay men and lesbians in the military, the political affiliation of the participants will be assessed in the current study. For the purposes of this study, the measure, which will assess political affiliation, is a single-item measure entitled the Liberal-Conservatism Self-Identification Scale, created by The American National Election Studies (2012).

Out-group. An out-group is a group to which a person does not belong (VanSwol, 2015). Out-group membership can be based on a variety of characteristics including, but not limited to, sex, race, socioeconomic status, and particularly salient to this study, sexual orientation. Out-groups are differentiated from in-groups, or groups to which individuals do belong (VanSwol, 2015). For the purposes of this study, the *out-group* is defined as individuals who identify their sexual orientation as other than heterosexual. Although the categories of sexual orientation are recognized as more fluid than binary, the current study is addressing psychological out-group bias, and specific attitudes have been associated in the literature with those who identify solely as heterosexual. Therefore, the current study defines the in-group as individuals who identify as heterosexual and the out-group as those who identify their sexual orientation in any other way than heterosexual.

Intergroup bias. Intergroup bias refers to the preferences one shows towards their own social group and greater social distance from other groups (Conway, 2015). Intergroup bias, also referred to as in-group bias, has been shown to appear in children as young as 3 years of age and has also been documented as a way to maintain a positive social identity within a social group (Conway, 2014; Patterson & Bigler, 2006; Tajfel, 2010). For the purposes of this study, intergroup bias will be measured in the form of attitudes towards the out-group, gay men and lesbians in the military. Specifically, attitudes toward gay men and lesbians in the military will be measured by the full-scale score on the Attitudes Towards Homosexuals in the Military Scale (Estrada, 2002).

Contact. Throughout the contact hypothesis literature, contact is measured in multiple ways; quality of contact, quantity of contact, indirect contact, and imagined contact have all been researched (King et al., 2009; Miles & Crisp, 2014; Schiappa et al., 2006; Tawagi & Mak, 2015).

However, for the purposes of this study, quantity of contact with gay men and lesbians will be measured by the full-scale score of the Quantity of Contact With Gay Men and Lesbians Scale, a 6-item measure adapted from a quantity of contact scale utilized in a study assessing the effects of contact on attitudes towards individuals with intellectual disabilities (McManus, Feyes, & Saucier, 2011). Similarly, quality of contact will be measured by the full-scale score of the Quality of Contact With Gay Men and Lesbians Scale, adapted from a quality of contact scale utilized in a study assessing the effects of contact on attitudes towards individuals with intellectual disabilities (McManus et al., 2011).

Attitudes. For the purposes of this study, attitudes towards gay men and lesbians in the military will be measured by the Attitudes Toward Homosexuals in the Military scale (ATHM; Estrada, 2002). Although there are multiple measures that assess attitudes towards gay and lesbian civilians, ATHM is the only measure that assesses attitudes towards the gay and lesbian community in the military (Wallenberg, Anspach, & Leon 2011). The scale is a 14-item measure, which measures attitudes towards gay men and lesbians in the military on four dimensions: trust, threat, comfort, and acceptance (Wallenberg et al., 2011). Included in the measure are two questions that ask respondents about their feelings towards the ban on gay men and lesbians serving in the military, or DADT ("If the ban was lifted, homosexuals would be subject to physical violence"; "I feel the ban on homosexuals in the military should be lifted"). The two items referring to DADT have been removed from the scale as they no longer apply to the current climate, since DADT has been legally repealed. This change is made with permission from the scale's original author (A. Estrada, personal communication, January 13, 2017).

Veteran. A veteran is an individual who has served in the United States military and has been discharged from military service. Veterans differ from members of the military who are classified as active duty, in the Reserve, or National Guard (National Center for PTSD, 2012). A person who is active duty is considered a full-time military employee, may live on a military base, and may be deployed at any time. An individual who is Reserve or National Guard is not a full-time member of the military but may be deployed at any time should the need arise. Veterans, however, are not active duty, Reserve, or National Guard and cannot be deployed (National Center for PTSD, 2012). For the purposes of this study, status as a veteran will serve as an exclusion criterion for participation. Veteran discharge status (honorable, dishonorable, etc.) will not be accounted for because status as a veteran is exclusionary regardless of discharge.

Civilian (n.d). A civilian is an individual who is not on active duty in the military. When military members return from active duty, they are considered veterans but could also be technically considered civilians due to the fact that they are no longer on active duty. This study utilized a sample delimited to non-veteran civilians only, as research has not previously investigated the effect of quality and quantity of contacts on non-veteran civilian attitudes towards gays and lesbians in the military. Additionally, it is of interest to investigate non-veteran civilian attitudes as veterans' post active-duty mental health and financial future are impacted by the attitudes of civilians (Kauth et al., 2014).

DADT. The policy named "Don't Ask, Don't Tell," was signed into law by President Bill Clinton in 1993 (Herek et al., 1996). The terms of DADT stated that military personnel would not be asked about their sexual orientation and would not be discharged for identifying as gay or lesbian. However, engaging in sexual conduct with a member of the same sex continued to be grounds for discharge (Herek et al., 1996). Prior to DADT, beginning in 1942, the military had

adopted the view of homosexuality as an indicator of pathology. As a result, gay draftees were rejected, and the acknowledgement of a gay or lesbian identity banned men and women from military service in the 1950s and 1960s. In 1982, the military altered their policy, stating homosexuality is incompatible with military service. Subsequently, 16,919 men and women were discharged from the military under the separation category of "homosexuality" between the years of 1980 and 1990 (Herek et al., 1996).

President Obama repealed DADT on September 20, 2011. As a result of this repeal, gay and lesbian members of the military are able to disclose their sexual orientation without fear of disciplinary sanctions or dishonorable discharge (Freeman & Rupp, 2015).

Limitations

One limitation of the current study is the use of a convenience sample, which may limit the generalizability of results. Measures used in the proposed study are self-report measures. The possibility for social desirability bias is present with the use of self-report measures. However, the vast majority of the literature utilizing the contact hypothesis also utilizes self-report measures, so the data collection will be consistent within the contact hypothesis literature (Christ & Wagner, 2013). In order to account for social desirability, participants completed a five-item measure of socially desirable response set (Hays et al., 1989). Another potential limitation in the study arises from common-method bias, because all measures are multiple-choice and self-report. Further bias may result from the similarity of the constructs measured. Measuring quality and quantity of contact with gay men and lesbians as well as attitudes towards gay men and lesbians in the military may produce the consistency effect. The consistency effect refers to the tendency of participants to answer questions in a consistent way, producing correlations that may not exist in real-life settings (Podsakoff, MacKenzie, Lee, & Podsakoff,

2003). Similar to social desirability, the majority of literature assessing contact between in-groups and out-groups have utilized a similar research design; thus, the current research will be consistent with the extant literature (Christ & Wagner, 2013; Conway, 2014).

CHAPTER II

Review of the Literature

The United States military's policy banning gay and lesbian service members from disclosing their sexual orientation, also known as "Don't Ask, Don't Tell" (DADT), has been repealed (Belkin, 2015). Consequently, gay men and lesbians are serving openly in the military and will be returning as gay and lesbian veterans (Kauth et al., 2014). As they reintegrate into civilian life, these veterans will rely on civilian support. Thus, it is of importance to understand civilian attitudes to the historically disenfranchised population of gay men and lesbians, because civilian attitudes impact veterans' reintegration after military service (Kauth & Shipherd, 2016; Mattocks et al., 2014). The current review will detail the history of bias toward the gay and lesbian community through the lens of the contact hypothesis. Previous research assessing attitudes towards gay men and lesbians in the military will be detailed. Additionally, the history of and changing policies regarding gay men and lesbians in the military will be reviewed, including the impact of civilians on veteran reintegration.

Attitudes Toward Out-Groups

Man or woman, rich or poor, Black or White, gay or "straight," the categorization of individuals into distinct social groups creates "in-groups," groups to which an individual belongs, and "out-groups," groups to which an individual does not belong (Johnston, 2001). In-group and out-group membership can be based on sex, socioeconomic status, race, sexual orientation, or any other aspect an individual uses to distinguish themselves from others (Van Swol, 2015). Out-group characterization can affect individuals' perceptions of themselves, as well as the way they are treated in the larger social structure (Van Swol, 2015). Social psychologists suggest the differentiation between in-groups and out-groups leads to loyalty and

preference for in-groups over out-groups and eventually leads to maintenance of in-group solidarity and out-group bias (Johnston, 2001).

A classic example of intergroup relations resulting in in-group favoritism and out-group hostility is illustrated by the Robbers Cave Experiment (Sherif, 1988). In the landmark study, 22 twelve-year-old boys of similar, lower middle-class backgrounds were assigned to two different groups at a summer camp and encouraged to bond as individual groups through the pursuit of common goals. Over a period of 5 days each group generated their own status hierarchies and spontaneously created group names, “The Eagles” and “The Rattlers.” The groups were brought into competition with one another and exhibited out-group bias in the form of derogatory name calling, refusing to eat with the other group, and theft of out-group property (Sherif, 1988). The Robbers Cave Experiment illustrates the ease in which out-group hostility can be created, even between groups of individuals sharing similar developmental backgrounds and physically similar traits.

The participants in the Robbers Cave experiment were all aged 12; however, research suggests that in-group bias, or preference towards one’s own group, can be seen in children’s peer preferences by ages 3 or 4 (Conway, 2014; Patterson & Bigler, 2006). In a study assessing in-group bias in preschool children, 87 children aged 3 to 5 years were assigned to both experimental and control groups. Children in both experimental and control groups were given red or blue “work shirts” which were worn for 3 weeks. During that period, teachers in the experimental groups made frequent reference to “Reds and Blues,” while teachers in the control conditions made no reference to the different groups. Both experimental and control groups were treated equally, and discriminatory statements made by children based on color group were handled like any discriminatory statement: labeled as incorrect and unkind. At the end of the 3-

week experimental period, children in both control and experimental groups developed in-group biased attitudes and a preference for in-group peer acquaintances. Children in the experimental group demonstrated stronger preferences for toys associated with their own group as well as peers associated with their own group (Patterson & Bigler, 2006). In addition to children, recent literature illustrates in-group bias present in adults (Currarini & Friederike, 2016).

A study similar to the aforementioned experiment was performed with adults; 258 participants were similarly assigned to “Red and Blue” groups (Currarini & Mengel, 2016). After group assignment, participants played eight different “games,” wherein they were given the opportunity to choose to be matched with a member of their in-group or out-group as well as portray characteristics of altruism to members of either group. Across all games adults exhibited in-group bias, or preference to be matched with members of their own “Red” or “Blue” groups, which had been selected randomly. In games where participants were allowed to act altruistically, participants again showed significant in-group favoritism or bias, acting altruistically more often towards members of their own “Red” or “Blue” groups (Currarini & Mengel, 2016). In addition to the aforementioned studies, out-group bias is seen in the history of the United States. Both the racial segregation between Black and White Americans and marginalization of women are two examples of out-group bias. However, the current study will focus on the out-group bias towards gay men and lesbians. In order to understand the current attitudes towards gay men and lesbians as an out-group, it is important to cite the historical context in which out-group bias of gay men and lesbians began.

Historical out-group bias toward gay men and lesbians in the U.S. Romantic same-sex relationships were historically commonplace in the late 19th century, due to the increasing segregation of men and women (Doyle, 2015, p. 132). While men went into the workforce,

women stayed in the home, disrupting the household or farmstead dyad, which had become commonplace in the preindustrial United States (Doyle, 2015, p. 133). There is historical evidence suggesting romantic friendships between both famous and unknown individuals. For example, the public relationship of President Buchanan and Senator William King of Alabama was described in President Buchanan's words as a "communion of central importance in his life," as well as Walt Whitman, who wrote openly about his attraction to young men (Doyle, 2015, p. 134). However, the social context of the early 20th century saw significant shifts in attitudes towards same-sex relationships and violations of binary gender expression (Doyle, 2015; Francikova, 2015; Tremmel, 2015). Industrialization in the early 1900s led to change in social roles; rural families who found it increasingly difficult to manufacture goods and cultivate land competitively were forced to send adult children to cities in search of jobs (Tremmel, 2015, p. 155). On their arrival, young men and women spent the majority of their time working in mills and factories as well as socializing away from the watchful eyes of their family (Tremmel, 2015, p. 155). Unsupervised youth began experimenting with sexuality in the form of same-sex relationships and gender expression, taking different forms than those modeled within family structures. These changes were viewed by some as social-sexual anarchy (Tremmel, 2015, p. 160).

As massive numbers of workers arrived in port cities, moralists, lawmakers, and reformers became appalled at the behavior of the youth mixing beyond racial, ethnic, and class divisions and engaging in sexual activities with those of the same sex (Tremmel, 2015, p. 160). As a result, cities such as New York cracked down on things such as interracial sex, birth control, and same-sex relationships, calling them threats to the social fabric. For example, cross-dressing laws were established in 34 cities across 21 states between 1900 and 1914 (Tremmel,

2015, p. 160). In the 1930s, an economic downturn rattled job security and created panic over the market's instability, causing many people to scrutinize abnormal social behavior, which might amplify chaos (Tremmel, 2015, p. 161). As a result, politicians promised to combat sexual, social, and political disorder in an attempt to ease voter anxieties. (Tremmel, 2015, p. 161). The perceived social-sexual threat of sexual nonconformity was so large that some states focused on "cleaning up" recreational sites. During "cleanup" efforts, plainclothes police arrested patrons in city bars for violating gender or sexual norms (Tremmel, 2015, p. 161). Norm violations, including same-sex relationships, were excluded from the public sphere in the 1930s in the form of bar raids, arrests, and employment discrimination (Tremmel, 2015, p. 162).

This move toward out-group bias against the same-sex community continued throughout the 20th century in the form of bar raids and the labeling of same-sex practices as abnormal, criminal, and pathological (Tremmel, 2015, p. 163). Gay men were classified as unfit for military service during the Second World War for fear that they would damage military cohesion and morale (Hegarty, 2015, p. 179). During the Cold War, gay men and lesbians were classified as a "security risk" and therefore banned from all positions within the United States government (Johnson, 2015). The ban and subsequent removal of an estimated 1,400 suspected gay men and lesbians from their government jobs is known historically as "the Lavender Scare" and further illustrates the historical out-group bias toward the gay community in United States history (Johnson, 2015). "Homosexuality" was considered illegal during the 1950s and 1960s and classified as a mental illness in the *Diagnostic and Statistical Manual* from 1952–1973 (Loftin, 2015, p. 213). Gay and lesbian parental custody cases from 1967–1985 further illustrate the bias wherein judges ruled that lesbian mothers and gay fathers, in order to maintain custody of their

children, could not have their children in the presence of their same-sex partners (Rivers, 2015, p.255).

Modern antigay politics are often traced to the 1977 Save Our Children campaign, spearheaded by country singer Anita Bryant (Strub, 2015, p. 265). In addition to leading a national antigay political movement, Save Our Children influenced the repeal of anti-discrimination laws, effectively banning gay men and lesbians from teaching in public schools (Strub, 2015, p. 269). All of the aforementioned examples trace a deep history of out-group bias towards the lesbian and gay community in the United States.

The Contact Hypothesis

One of the ways out-group bias has been shown to be reduced is through contact with the out-group in question. This simple tenet underlies a decades-old theory called the contact hypothesis. The contact hypothesis is credited to Gordon W. Allport who described the theory in his book entitled *The Nature of Prejudice* (1954). Also known as the intergroup contact theory, the contact hypothesis states: Under appropriate conditions, interpersonal contact is one of the most effective ways to reduce prejudice between members of majority and minority groups (Schiappa et al., 2006). Allport theorized prejudice towards an out-group resulted from generalizations based on mistaken information about that group (1954). Therefore, the contact hypothesis states that prejudice will be reduced as accurate knowledge is gained about a group of people. Theoretically, knowledge, derived from contact with an individual of that out-group, will change how individuals feel about others from an out-group (Schiappa et al., 2006).

Allport's theory designates specific conditions, which must be met, for positive intergroup attitudes to arise between members of different groups. These optimal conditions require that contact be characterized by equal status, common goals, intergroup cooperation, and

the support of authorities in order to reduce prejudice and increase intergroup warmth (Allport, 1954; Techakesari et al., 2015)

The contact hypothesis has been supported by research for over 60 years (Techakesari et al., 2015). The findings of a meta-analysis of 515 studies on the contact hypothesis conducted by Pettigrew and Tropp (2006) estimate the mean effect size between contact and prejudice as a correlation coefficient of $-.21$, suggesting greater intergroup contact corresponds with lower levels of intergroup bias (Pettigrew & Tropp, 2008). Studies utilizing the contact hypothesis to examine prejudice reduction have been undertaken with a variety of groups including those which differ by race, religion, and sexual orientation, among others (Pettigrew et al., 2011; Tredoux & Finchilescu, 2007).

The contact hypothesis was first utilized after researchers witnessed Black and White individuals who had become friends with one another refraining from participating in the race riot of 1943 in Detroit, MI (Pettigrew et al., 2011). Following these observations, researchers investigated contact between different racial groups in a number of settings after desegregation, including the Merchant Marine, a Philadelphia police department, and Dartmouth College (Pettigrew et al., 2011). In each of the aforementioned settings, relations between Black and White individuals improved dramatically, including genuine bonds being developed between Black and White seamen, mixed-race police partnerships forming, and decreased prejudiced student attitudes (Pettigrew et al., 2011).

In addition to increased knowledge, there are other factors, which mediate the relationship between contact with an out-group and reduced prejudice. Intergroup contact also reduces threat and anxiety. Previous research found that members of a majority racial group who had contact with members of other racial groups exhibited lower levels of psychological stress

and self-reported anxiety than members of the majority group who did not have contact with other racial groups (Pettigrew & Tropp, 2008). In addition to decreasing anxiety, intergroup contact has been shown to increase empathy towards members of an out-group through perspective taking. Intergroup contact may enable individuals to take the perspective of out-group members through close, cross-group friendship, thereby increasing empathy with the concerns of the minority group member (Pettigrew & Tropp, 2008). Increased knowledge, decreased anxiety, and increased empathy through perspective taking have all been shown to be mediator variables in the relationship between increased contact and reduced prejudice (Pettigrew & Tropp, 2008).

Impact of quantity of contact on attitudes. As research utilizing the contact hypothesis has continued, the impacts of various factors including quantity of contact, quality of contact, and indirect contact have been explored (Conway, 2014). The research examining the impact of quantity of contact on attitudes towards out-groups have had an important impact on the overall research surrounding the contact hypothesis. A study investigating transprejudice, or the negative valuing, stereotyping, and discriminatory treatment of transgender people in Hong Kong, explored the impact of quantity of contact on attitudinal change (King et al., 2009). A sample of 856 Hong Kong Chinese participants were administered the Chinese Attitudes Towards Transgenderism and Transgender Civil Right Scale. Results suggest previous contact with transpeople was significantly associated with decreased social discrimination and increased support for equal opportunities, among others (King et al., 2009).

Walch et al. (2012) also explored the impact of quantity of contact while exploring stigma reduction towards transgender individuals. The researchers created a speaker panel consisting of four transgender individuals who spoke about their histories as well as the

emotional impact of their transgender experiences. The transgender speaker panel was presented to 42 participants, university students, and their attitudes towards transgender individuals were measured both before and after the speaker panel. Significant reductions in transphobia were found after participants had been exposed to the transgender speaker panel (Walch et al., 2012). The intervention of utilizing a speaker panel to reduce prejudice towards a sexual minority community is also seen in the research of Kwon and Hugelshofer (2012).

Although most support for the contact hypothesis stems from measured in-person contact with individuals from out-groups, there has also been research looking at indirect contact, specifically a television show. Schiappa et al. (2006) explored the effect of viewing the television show *Will & Grace* on heterosexuals' attitudes towards gay men. Due to the fact that *Will & Grace* portrays two gay men with very different personalities, Schiappa et al. (2006) hypothesized that more frequent viewing of *Will & Grace* would be associated with lower levels of sexual prejudice towards gay men. A sample of 245 university students recorded their viewing of *Will & Grace*, reactions to the show, attitudes towards homosexuality, and previous contact with gay men, lesbian women, or bisexual individuals. Results indicated that with greater viewing frequency of *Will & Grace*, scores demonstrated a lower level of sexual prejudice towards gay men. Although results of this study may be due to viewers who already have more pro-gay attitudes watching *Will & Grace*, it is interesting to note that 60% of participants agreed with the statement “*Will & Grace* has encouraged me to think positively about homosexuals” (Schiappa et al., 2006, p. 31).

Even imagined contact with members of an out-group has been shown to reduce prejudice and encourage positive intergroup behavior (Miles & Crisp, 2014). Imagined intergroup contact is defined as “the mental stimulation of a social interaction with a member of

an out-group” (Miles & Crisp, 2014), p. 4. In a meta-analysis of this new indirect contact strategy, Miles and Crisp reviewed 70 studies for a quantitative analysis of imagined contact on intergroup bias. Their analysis yielded strong support for the imagined contact hypothesis, on both implicit and explicit measure of attitudes. Although the current study will be utilizing measurement of direct contact, not imagined contact, it is of importance to note the extent to which contact, even imagined, can have on attitudes and prejudice reduction (Miles & Crisp, 2014).

Impact of quality of contact on attitudes. Although there are numerous studies, which cite the importance of increasing quantity of contact between out-groups, the quality of the contact between groups also plays a pivotal role in the reduction of bias and out-group discrimination. After discovering a social divide between international and domestic students at an Australian university, Tawagi and Mak (2015) designed a study exploring the determinants of intergroup attitudes of Asian international students. In the past decade, universities around the world, particularly those in Australia, have witnessed an increase in international student enrollment (Tawagi & Mak, 2015). In 2010, one fifth of the student body of an Australian university was composed of international students, the majority of which (80%) originated from Asia (Tawagi& Mak, 2015). The influx of Asian students was accompanied by a social divide between international and domestic students, including international students becoming the victims of discrimination and crime, perpetrated by domestic students. Tawagiand Mak’s (2015) study utilized the contact hypothesis, however, focusing on the quality of contact between out-groups. Researchers measured Asian students’ perceptions of a culturally inclusive educational environment, quantity of contact with domestic students, quality of contact with domestic students, attitudes towards domestic students, and friendships with domestic students. Results

indicate quality of contacts as the strongest predictor of Asian students' attitudes towards domestic students. Additionally, quality of contact was the only significant predictor, but quantity of contact and friendships with domestic students did not emerge as predictive variables (Tawagi & Mak, 2015). These findings suggest the importance of quality of contact when utilizing methodology guided by the contact hypothesis.

Barlow et al. (2012) extended research on the quality aspect of the contact hypothesis by exploring the effect of positive and negative intergroup contact. The researchers explored the effect of intergroup contact valence and prejudice in a population of 1,476 Australians. Findings suggest that valence is a moderating factor in the relationship between quantity of contact between out-groups and prejudice. Specifically, increased prejudice toward members of an out-group occurred when contact was negative. Results of this study illustrate the importance of quality of contact with an out-group in addition to quantity of contact (Barlow et al., 2012).

In addition to racial relations, the contact hypothesis was applied to weight bias in a study undertaken by Alperin et al. (2014). The researchers investigated whether contact with overweight people is associated with self-reported bias towards overweight individuals. Results from 1,176 American participants suggest positive contact with overweight people decreased prejudice toward overweight individuals. This finding was true regardless of the participant's status as overweight or "normal" weight. Additionally, results suggest negative contact with overweight individuals predicted increased prejudice towards the overweight population. In fact, results were more robust suggesting negative contact was positively associated with three subscales of anti-fat attitudes. Results of Alperin et al. are consistent with the contact hypothesis, specifically the importance of measuring quality of contact when assessing attitudinal change.

Relating more closely to the current study, Harwood (2015) investigated the link between attitudes toward the repeal of DADT and contact with gay men and lesbians. Harwood utilized data originally collected by the Department of Defense (DoD) in 2010. The DoD collected data from 115,052 active U.S. service members, regarding their feelings about serving with gay colleagues, prior contact with members of the gay community, and their responses if DADT was repealed. Harwood's analysis of the DoD data supported the contact hypothesis; all forms of contact with gay men and lesbians, both in and outside of military settings, were associated with reduced prejudice against gay men and lesbians. Quality of contact with gay men and lesbians in the military is more strongly associated with attitudes towards DADT repeal than quantity of contact. This analysis suggests that it is not just the amount of contact but the context in which contact occurs that affects individuals' attitudes towards a policy affecting gay men and lesbians (Harwood, 2015). This study is one of many that utilize the contact hypothesis to inform hypotheses about attitudes towards the gay and lesbian community.

Contact hypothesis utilized with gay men and lesbians. Kwon and Hugelshofer (2012) explored the use of an intervention based on the contact hypothesis to reduce the levels of prejudice towards lesbian, gay, and bisexual individuals on a college campus. With the knowledge that anti-lesbian, gay, and bisexual attitudes are prevalent on college campuses, and that negative attitudes also lead to discriminatory behavior, harassment, and physical violence, the researchers created a classroom-based intervention. The intervention was a lesbian, gay, and bisexual (LGB) speaker panel, composed of a lesbian, gay man, and bisexual individual who were members of the gay, lesbian, and bisexual allies organization. Each member of the speaker panel presented autobiographical information about their experiences and feelings toward their sexual orientation. The majority of the intervention consisted of the student participants asking

the panelists questions regarding issues related to sexual orientation. Prior to the intervention, 186 students in both the control and experimental conditions had completed pretest self-report measures assessing their feelings toward lesbian, gay, and bisexual individuals. Members of the control group were not exposed to the speaker panel, while the classes randomly assigned to the experimental condition did experience the LGB speaker panel. Results from the pretest and posttest measures suggest that the use of the LGB speaker panel presentation was effective in increasing heterosexual positive attitudes towards LGB individuals. The findings support the use of contact between out-groups to mitigate negative feelings towards members of a sexual minority group.

Span (2011) utilized a similar design as Kwon and Hugelshofer (2012); an LGB speaker panel was presented to a group of university students assigned to the experimental group, while a control group was not presented with an LGB speaker panel. Both groups completed pretest and posttest measures assessing feelings and attitudes towards the LGB population. Despite similar methodological designs, analyses of Span (2011) differ from those of Kwon and Hugelshofer (2012). Results from the analysis of Span (2011) indicate that anti-gay bias decreased significantly for both experimental and control conditions. Participants in both experimental and control conditions also indicated they care significantly more about the problems of the LGB population posttest. The decrease in anti-gay bias of the experimental condition is explained by the contact hypothesis. The author suggested the significant decrease in anti-gay bias in the control group may be due to the pretest measure acting as a catalyst for conversation among participants about LGB individuals, therefore decreasing anti-gay bias (Span, 2011).

As previously stated, one of the four ideal conditions necessary for intergroup contact to reduce bias is institutional support. This prerequisite is highlighted in a study undertaken by

Bernstein and Swartwout (2012). The researchers sought to answer the question: “What factors influence heterosexuals’ expectations about what will happen when lesbian and gay men come out,” in a traditionally homophobic environment of a police department (Bernstein & Swartwout, 2012, p. 1146). Bernstein and Swartwout utilized the contact hypothesis to inform their hypothesis. Researchers hypothesized that contact with gay men and lesbians on the job, as well as characteristics of the workplace, would predict heterosexuals’ anticipated outcomes of gay men and lesbians coming out in a police department. The study, which utilized a sample of 249 sworn officers and 144 civilians, examined attitudes towards gay men and lesbians as well as participants’ contact with gay men and lesbians. Results support the contact hypothesis; on the job contact was significantly related to anticipated positive outcomes for gay or lesbian police department employees who are open with their sexuality. Additionally, Bernstein and Swartwout found institutional tolerance for discrimination as significant, suggesting that institutional policies have a meaningful effect on employee attitudes and actions. This finding is important because it encourages employers to have and enforce a zero tolerance policy towards anti-gay sentiments in the workplace. Furthermore, since workplace contact was found to be a significant predictor of anticipation of positive consequences, it provides data that instructs employers to encourage employees to be open with their sexual orientation for greater employee cohesion (Bernstein & Swartwout, 2012).

Further utilization of the contact hypothesis with the gay and lesbian population is seen in Cunningham and Melton’s (2013) study. The researchers explored the moderating effect of contact with gay and lesbian friends on the relationships between sexism, sexual prejudice, and religious fundamentalism. A sample of 269 heterosexual adults residing in Texas was utilized to test the hypothesis stating: “Contact with gay and lesbian friends will moderate the relationship

between religious fundamentalism and sexual prejudice (p. 402).” The authors also hypothesized that sexual prejudice will be reduced when quantity of contact with gay and lesbian friends was high. The researchers found friendships with lesbian and gay individuals serve as a moderator in reducing prejudice to lesbians and gay men by heterosexual adults (Cunningham & Melton, 2013).

A study by Bowen and Bourgeois (2001) encountered further support for the contact hypothesis regarding attitudes towards gay men and lesbians. The researchers surveyed 109 college students residing in a dormitory. Heterosexual students expressed more positive attitudes towards LGB students when they perceived one or two LGB students to reside on the same dormitory floor (Bowen & Bourgeois, 2001).

Not only does contact affect attitudes, but Avery (2001) found psychology doctoral students who had family members or friends who identified as lesbian and gay had significantly more knowledge about gay, lesbian, and bisexual issues than doctoral students who had no contact or acquaintances who were gay or lesbian. These findings illustrate Allport’s original theory behind the contact hypothesis; the more contact one has with a member of an out-group, the more information they provide about their group, which may serve to counteract previously believed untrue stereotypes.

In addition to applying the contact hypothesis to gay men and lesbians in the United States, research has been undertaken in other countries, specifically Turkey, to examine if contact with a lesbian woman would alter attitudes towards homosexuality. Sakalli and Uğurlu (2002) utilized a population of university students who had no social contacts with gay men or lesbians. The researchers randomly assigned 54 heterosexual participants into an experimental condition or a control condition. The experimental condition consisted of a lesbian woman in a

classroom situation giving information about herself and answering questions from the students/participants for one hour. The control group was given no contact with the lesbian woman. Results of the pretest, posttest design indicate significant attitude change in the experimental condition. This study further supports the contact hypothesis, illustrating the impact of contact with a member of an out-group on attitudes towards that group, in this case, lesbians in Turkey (Sakalli & Uğurlu, 2002).

Mohipp and Morry (2004) extended research applying the contact hypothesis to lesbians and gay men by exploring symbolic beliefs underlying attitudes. The researchers suggest attitudes are an overall evaluation of how a person feels towards a stimulus object and what they believe about members of a social group (Mohipp & Morry, 2004). The researchers go on to describe the three components, which inform attitudinal decisions: cognitive, affective, and past experiences. The cognitive component is further subdivided into stereotypes and symbolic beliefs. Symbolic beliefs refer to one's cherished norms and values and one's perceptions of social groups. Based on previous research suggesting symbolic beliefs play an impactful role in predicting attitudes towards out-groups, Mohipp and Morry hypothesized that symbolic beliefs would mediate the relationship between contact and attitudes towards gay men and lesbians. Data from 152 heterosexual university students suggest that symbolic beliefs is a significant predictor for attitudes towards lesbian women; however, this result was not replicated for attitudes towards gay men. The study's results also replicate previous findings; individuals with prior contact reported more positive attitudes towards gay men and lesbian women.

Limitations of contact hypothesis. Overall, there is robust evidence, spanning decades, supporting the contact hypothesis; interaction between members of out-groups will decrease prejudice between members of those groups. Decrease in prejudice has been shown to be

affected by both quantity of contact with members of an out-group as well as quality of contact with members of an out-group. However, the contact hypothesis literature lacks a universal method of measuring the variables of quality of contact and quantity of contact (Conway, 2014).

Some studies have utilized single-item scales to assess quantity of contact, for example: Have you had any contact with gay men or lesbian women? and quality of contact, for example “On average, how frequently do you have positive/good contact with [members of out-group]?” (Alperin et al., 2014; Barlow et al., 2012; Mohipp & Morry, 2004). While other studies measured quality and quantity of contact by assessing multiple relationship dimensions for example: “Do you have any gay and/or lesbian acquaintances, do you have any gay and/or lesbian friends, do you have any gay and/or lesbian family members, do you know any gay and/or lesbian families?” (Costa, Pereira & Leal, 2015). Additionally, quantity of contact has been measured by the frequency with which members of out-groups participated together in academic and social activities (Tawagi & Mak, 2015).

The lack of consensus on a method of measurement of quality and quantity of contact is a limitation of the contact hypothesis. Future research would benefit from the identification of an ideal definition and measurement of quality of contact and quantity of contact.

Current Attitudes Towards and Status of Gay Men and Lesbians

The history of out-group bias towards the gay and lesbian community has been detailed earlier in this chapter. However it is important to note the current status and attitudes towards the gay and lesbian community. In June 1969, gay, lesbian, and transgender youth fought back against police brutality during a bar raid at the Stonewall Inn, a well-known gay bar in New York City. This event is often referenced as a catalyst for the national gay liberation movement (Freeman & Rupp, 2015). Throughout the decades following the Stonewall riots, the gay

community has made gains in the form of the Matthew Shepard and James Byrd, Jr. Hate Crimes Prevention Act, and most recently, the Supreme Court's ruling on June 26, 2015, which stated that individual states cannot ban same-sex marriage (Cable News Network [CNN], 2016). The Supreme Court's decision is a landmark victory for the gay and lesbian community in the United States.

Research suggests heterosexual attitudes towards the nine million gay men and lesbians in the United States continue to improve over time (Gates, 2011). In the past few decades, the percentage of Americans reporting they know lesbians or gay men has risen substantially (Loehr, Doan, & Miller, 2015). In 1983, a Gallup/Newsweek poll revealed that 25% of Americans reported having a lesbian or gay acquaintance or friend. The percentage of Americans reporting a gay or lesbian acquaintance or friend rose to 75% in 2010 (Lewis, 2011). The increased percentage of Americans who report knowing a gay man or lesbian is also evidence that people have become more open about their sexual orientation over time.

Despite the political and attitudinal gains, the lesbian and gay community continue to experience a wide range of prejudice varying from verbal expression of dislike to violent attacks (Schiappa et al., 2006). In a national survey of lesbian, gay, and bisexual adults, 20% of respondents endorsed experiencing anti-gay violence (Kauth et al., 2014). The experience of prejudice and discrimination causes members of the gay and lesbian community to experience poorer mental health than the general population (Institute of Medicine, 2011; Kauth et al., 2014). Relative to the general population, gay men, lesbian, and bisexual individuals experience higher rates of depression, anxiety, suicidal ideation, interpersonal violence, smoking, problem drinking, substance abuse, and cardiovascular disease than heterosexuals (Institute of Medicine, 2011).

Increased mental health risks are not isolated to the gay and lesbian community in the United States. Shilo and Savaya (2012) examined the effects of internalized homophobia and fear of social rejection due to sexual orientation in a sample of 461 LGB Israeli youths aged 16-23. Results replicate United States trends; LGB youth are more susceptible to a wide array of mental health issues including depression, suicide, and substance abuse. Shilo and Savaya explored the heightened vulnerability of the LGB youth population through the lens of the minority stress theory, citing lack of traditional familial support and the negative impact of religiosity on LGB youth mental health. Their study further identifies the LGB population as a minority population with increased mental health risks (Shilo & Savaya, 2012).

In addition to experiencing prejudice in the mainstream culture and subsequent increased mental health risks, gay men and lesbians face further challenges in seeking and receiving medical treatment (Burke et al., 2015). A report issued by the Institute of Medicine (2011) stated gay men and lesbians “face discrimination that can lead to an outright denial of care or to the delivery of inadequate care. (p.62)” Indeed, when assessing both implicit and explicit bias of 4,441 heterosexual, first-year medical students, Burke et al. (2015) found 45.5% of respondents expressed some explicit bias, and 81.5% expressed implicit bias towards gay and lesbian individuals.

A trend in demographics has appeared regarding attitudes toward gay men and lesbians. Over numerous studies, results suggest individuals holding more negative attitudes towards gay men and lesbians tend to be male, less educated and hold conservative political ideals (Besen & Zicklin, 2007; Herek & Capitano, 1996; Herek et al., 1996). Not surprisingly, this trend also appears when assessing attitudes toward same-sex marriage (Costa et al., 2015). Costa et al. utilized the contact hypothesis to investigate whether similar findings would appear for attitudes

towards same-sex parenthood. Costa et al. replicated previous research by reporting women and non-religious participants as significantly more likely to report gay/lesbian friends and acquaintances and feel more comfortable in their company and overall less negative attitudes towards gays and lesbians. Furthermore, Costa et al. extended previous trends by finding that women and non-religious participants hold less negative attitudes towards gay and lesbian parenting.

Attitudes Towards Gay Men and Lesbians in the Military

History of gay men and lesbians in the military. The first documented incident involving a gay man in the military was recorded on March 11, 1778 (Estrada, 2012). Lieutenant Gorthold Frederic Enslin was found guilty of sodomy and perjury after being discovered in a sexual encounter with Private John Monhart. Lieutenant Enslin was immediately “drummed out,” or dishonorably dismissed from the military (Estrada, 2012). After this incident there are few records containing any documentation regarding gay service personnel. Policy towards gay men and lesbians serving in the military was not put into place until after World War I, under the Articles of War (Estrada, 2012). The Articles of War were originally established by Congress in 1775 to provide legal guidelines to govern the military. However, they did not address concerns regarding sexual orientation until 1916, when the articles included “miscellaneous crimes and offenses, (p. 345)” including sodomy (Estrada, 2012). Sodomy was named a felony crime in the updated Articles of War in 1920 and warranted grounds for prosecution. At this time, contemporary psychiatric views considered homosexuality indicative of psychopathology (Estrada, 2012). The pathological label on homosexuality, in combination with the Articles of War citing sodomy as a felony crime, provided rationale for excluding service personnel on the basis of their sexual orientation (Estrada, 2012).

From 1923–1943, gay service members were at risk of being separated from the armed forces if they had been suspected of, or charged with, sodomy (Estrada, 2012). Gay military personnel were classified as unfit for service and were discharged for “ineptness or undesirable habits or traits of character” (Estrada, 2012, p. 347). In 1951, the Uniform Code of Military Justice (UCMJ) replaced the Articles of War as the governing laws on the U.S. military. Included in the UCMJ was a provision classifying sodomy as a court-martial offense, providing the legal basis to exclude gay service personnel from the military from 1950–1959 (Estrada, 2012). Estimates suggest between the late 1940s and mid 1950s, 2,000 people were separated from the United States military for being charged with “homosexuality” (McCrary & Gutierrez, 1979). Often, their separation carried an other-than honorable discharge, creating barriers for future employment and rendering them unqualified for medical benefits post military service (McCrary & Gutierrez, 1979). In 1959, additional directives were added to guide military administration in handling gay service personnel. The new directives classified “homosexual acts” including sodomy as “sexual perversions,” labeling gay service personnel as unfit for military service and providing grounds for military discharge (Estrada, 2012). This policy remained in effect until Bill Clinton’s presidency in 1993.

Early in his presidency, Bill Clinton expressed support for lifting the ban on gay men and lesbians serving in the military; however, he faced significant barriers from Congress, the Joint Chiefs of Staff, and the general public (Pesina, Hitchcock, & Rienzi, 1994). The resulting action came in the form of a new policy titled “Dont Ask, Don’t Tell” (DADT). DADT was regarded as a compromise. Gay purges and questions about sexual orientation would not occur; however, the ban against gay men and lesbians serving in the military was not lifted. This decision was described by president Clinton as an “honorable compromise” and “major step forward;”

however the gay community felt it was representative of a “broken promise” and regarded DADT a “shattering disappointment” (Pesina et al., 1994, p. 504).

In his State of the Union address in January of 2010, President Barack Obama pledged to work to “repeal the law that denies gay Americans the right to serve the country they love because of who they are” (Estrada, 2012, p.348). In December, 2010, President Obama signed into law a bill repealing DADT, eliminating all restrictions prohibiting gay men and lesbians from serving openly in the military (Estrada, 2012). Beginning in 2011, The U.S. military began implementing policy that is inclusive of gay and lesbian personnel (Estrada, 2012).

Since the repeal of DADT, there has been a push within the Veterans Health Administration (VHA) to provide medical and mental health services with special considerations for gay and lesbian veterans (Kauth et al., 2014). In fact, a report published by Kauth & Shipherd (2016) reported 84% of VHA facilities participating in the 2016 Human Rights Campaign’s Healthcare Equality Index survey, achieved Leadership status in care for LGBT patients. Leadership status indicates the transformation of the VHA into a healthcare system that is recognizing the unique needs of LGBT patients. The report goes on to note rapid changes in VHA facilities: advancing inclusiveness and clinical competence for lesbian, gay, bisexual, and transgender patients (Kauth & Shipherd ,2016). Additionally, systematic changes have put in place nine postdoctoral fellowships in LGBT health as well as invigorated research on veterans who identify as gay, lesbian, bisexual, or transgender within the VHA system (Kauth & Shipherd, 2016). It is especially important that the VHA has made gains in treating LGBT veterans because research indicates sexual minority veterans experience more negative mental health consequences than heterosexual veterans (Kauth et al., 2014; Matarazzo et al., 2014)

Mental health of lesbian and gay veterans. There is a small amount of literature on lesbian and bisexual female veterans; the extant research suggests higher risk of sexual violence, higher scores on measures of PTSD, problem drinking and depression, as well as more mental distress, sleep problems, and lower satisfaction with life compared to heterosexual female veterans (Kauth et al., 2014). In a study of 335 female veterans, lesbian and gay veterans experienced significantly more childhood sexual assault (60% vs. 36%) and forced sexual contact during military service (31% vs. 13%) than heterosexual female veterans (Mattocks et al., 2013). Data collected from 1,004 female veterans indicate veterans with female sexual partners were significantly more likely to report lifetime rape compared to heterosexual female veterans (73% vs. 48%; Booth, Mengeling, Torner, & Sadler, 2011). Cochran, Balsam, Flentje, Malte, and Simpson (2013) compared a survey of 409 lesbian, gay, and bisexual veterans, with the records of 15,000 randomly selected veterans treated in the VHA system. Resulting analyses show significantly higher scores from lesbian and bisexual veterans on screens for problem drinking, PTSD, and depression (Cochran et al., 2013). Data from a 2010 Behavioral Risk Factor Surveillance System show lesbian and bisexual veterans reporting more mental health distress, frequent sleep problems, and lower satisfaction with life compared to heterosexual female veterans (Blosnich, Foynes, & Shipherd, 2013). The survey also reported lesbian and bisexual veterans more likely to smoke and have poorer mental health outcomes than heterosexual female veterans (Blosnich et al., 2013)

The trend for lesbian and female bisexual veterans to have increased mental health risks is mirrored in the gay male veteran population (Cochran et al., 2013; Kauth et al., 2014). Akin to lesbian women, gay men are also more likely to screen positive for depression, PTSD, and alcohol abuse than heterosexual male veterans treated at the VHA (Cochran et al., 2013). Data

from the 2010 Behavioral Risk Factor Surveillance Data indicate higher rates of smoking and asthma in the gay male veteran population than male heterosexual veterans (Blosnich et al., 2013). Similar to lesbian and bisexual female veterans, there is evidence that gay male veterans may experience higher rates of sexual harassment than heterosexual male veterans while in the military (Kauth et al., 2014). In addition to various mental health concerns, gay and lesbian veterans are also more at risk for suicide and suicidal ideation than heterosexual veterans.

Blosnich et al. (2012) utilized data from the Massachusetts Behavioral Risk Factor Surveillance Survey and reported that 11.48% of sexual minority veterans had seriously considered attempting suicide within the past year, in comparison to 3.48% of heterosexual veterans. Herrell et al. (1999) utilized data from the Vietnam Era National Twin Registry and reported suicidal ideation among 53% Vietnam veterans who had at least one same-sex sexual partner compared to 25.2% of those with no reported same-sex partners. Additionally, of the veterans who reported having one or more same-sex partners, 14.7% reported attempting suicide compared with 3.9% of veterans with no same-sex partner (Herrell et al., 1999; Matarazzo et al., 2014). Often societal factors, including being marginalized by majority groups, have significant impact on mental health (Kauth et al., 2014). It is for this reason that it is of interest to understand attitudes towards gay men and lesbians in the military.

Previous research examining attitudes towards gay men and lesbians have been divided into civilian attitudes and military personnel attitudes. It is interesting to note that both groups have followed similar trends; both civilians and military members have increased positive attitudes towards gay men and lesbians over time (Estrada, Dirosa, & Decostanza, 2013), and this shift in attitudes continued to be predicted by demographic characteristics of sex, educational

attainment, and political views (Coronges et al., 2013; Harris & Vanderhoof, 2008; Moradi & Miller, 2009).

Military members' attitudes towards gay men and lesbians in the military. A 1995 study undertaken by Matthews, Harger, and Weaver explored both female veterans and female civilians' attitudes towards gay men and lesbians, which was then referred to as "homosexual behavior." The researchers found no significant difference between civilian women and veteran women's opinions in a sample of 5,402 participants. Female veterans and civilians indicated homosexual behavior as "always wrong" at rates of 75.5% and 70.7%, respectively. These results followed a similar trend reported by Matthews, Harger, and Weaver in 1994, who found no significant difference in civilian and veteran men's attitudes towards "homosexual behavior." In the earlier study, 74.2% of civilian men and of 75.5% veteran men indicated "homosexual behavior" as "always wrong" from a sample of 3,623 participants (Matthews et al., 1994).

In 1994, Miller explored military members' agreement with the statement "gays and lesbians should be allowed to enter and remain in the military. (p. 72)" Findings reported 75% of male soldiers and 43% of female soldiers disagreed or strongly disagreed with the pro-gay and lesbian in the military statement (Miller, 1994). Estrada and Weiss (1999) assessed attitudes of male members of Marine Corps Reserve toward gay men and lesbians serving in the military. Of the 72 Marine Corps Reserve respondents, 72% disagreed or strongly disagreed with the statement "I feel that the ban on homosexuals in the armed forces should be lifted" (Estrada & Weiss, 1999, p.87). The authors found trends in the demographics of the respondents; those expressing more negative attitudes toward gay men and lesbians in the military tended to be more politically conservative, have more religious attendance, and have little or no contact with gay men and lesbians in their personal life (Estrada & Weiss, 1999).

Harris and Vanderhoof (2008) examined correlates of attitudes towards gay men and lesbians serving in the military with a civilian population of 210 adult university students and 31 high school students enrolled in Reserve Officer Training Corps (ROTC) classes. By enrolling in ROTC, students commit to serve in the military after graduation in exchange for a paid education (Department of Defense, 2017). Results suggest the same general pattern of findings for both groups. Those with less conservative political views, those who knew more gay and lesbian individuals and female respondents were more likely to agree that gay men and lesbians should be permitted to serve in the military (Harris & Vanderhoof, 2008). This study further exemplifies the trend of more positive attitudes reported from those with less conservative political views, women, and those who knew gay men and lesbians.

Moradi and Miller's (2009) investigation of 2006 survey data of Iraq and Afghanistan war veterans indicate more positive feelings towards gay men and lesbians serving in the military than data collected in the 1990s. Specifically, 40% of the 545 veteran survey respondents indicated support for DADT, or the ban on gay men and lesbians in the military, decreased from 75% who supported the ban in 1993 (Moradi & Miller, 2009). Consistent with aforementioned demographic trends, small main effects were found for the demographic variables of sex, religious affiliation, and political party affiliation. Women, self-identified atheists, realists or humanists, and those who identified as Democrat, Independent, or minor party expressed significantly more support for open service than men, those who self-identified as Protestant or Muslim, and self-identified Republicans (Moradi & Miller, 2009).

Coronges et al. (2013) evaluated attitudes towards gay men and lesbians in the military among 139 undergraduate cadets at the United States Military Academy at West Point, New York. Forty-nine percent of the cadet respondents endorsed the policy to ban gay men and

lesbians from serving in the United States military. Again, demographic trends were seen along sex, religion, and political affiliation. Cadets who were men, Republican, and Christian held more negative views towards the gay and lesbian community than the rest of the sample (Coronges et al., 2013). These results replicate findings of Ender, Rohall, Brennan, Matthews and Smith (2012), who also examined attitudes towards gay men and lesbians serving in the military, among cadets.

Ender et al. (2012) compared 654 ROTC cadets, 1,190 Military Academy cadets, and 1,175 civilian college-aged students from 2002–2007 regarding their attitudes towards gay men and lesbians serving in the military. After controlling for age and gender, Ender et al. (2012) reported that U.S. Military Academy cadets are significantly more likely to believe that gay men and lesbians should be banned from military service, as compared to ROTC and civilian college students. Cadets who were male and identified as Republican were the most likely to oppose gay men and lesbians serving in the military (69.8%). Female, Democrat students were most likely to be tolerant of gay men and lesbians serving in the military (Coronges, et al., 2013; Ender et al., 2012).

Civilian attitudes towards gay men and lesbians in the military. Research assessing civilian attitudes towards gay men and lesbians serving in the military is less empirically robust than the literature regarding military members' attitudes. The majority of the data regarding civilian attitudes comes in the form of public opinion polls.

Data from public opinion polls show an increase of acceptance of gay men and lesbians serving in the military over time (Estrada et al., 2013). As is reflected in the aforementioned studies (Matthews et al., 1994, 1995), in 1993, only 44% of those polled by the Washington Post-ABC News held the opinion that gay men and lesbians who are open with their sexual

orientation should be allowed to serve in the military (Dropp & Cohen, 2008). The percentage of people polled who approved of open and lesbian military service increased in 2001 to 62% (Dropp & Cohen, 2008). More recently, in 2008, 75% of Americans polled by Washington Post-ABC News approved of openly gay and lesbian service members (Dropp & Cohen, 2008).

Wyman and Snyder (1997) performed secondary analyses on 1993 Gallup Poll data, which assessed attitudes toward lifting DADT of 999 randomly selected adults aged 18 or older. Analyses replicated previous demographic findings; women favored lifting the ban more than men (51% vs. 34%), liberals were more supportive of lifting the ban than conservatives (66% vs. 27%), college-educated respondents were more supportive than non-college educated respondents (50% vs. 36%), and people who knew a gay person were more supportive of lifting the ban than those who did not endorse knowing a gay person (66% vs. 39%, Wyman & Snyder, 1997).

A study that utilized 1996 data from the Pew center, which conducts national surveys, examined attitudes toward homosexuality, including attitudes towards gay marriage, gay adoption, and gays in the military (Besen & Zicklin, 2007). Resulting analyses contradict previously seen demographic trends; in the sample of 1,407 respondents, men were more likely to approve of gay men and lesbians serving in the military than women. However, religiosity was also a significant predictor for attitudes towards gay men and lesbians in the military; being a religious man, compared to a religious woman, makes one less likely to approve of gay and lesbian military service (Besen & Zicklin, 2007).

Trends in the literature assessing attitudes toward gay men and lesbians in the military include attitudes improving over time as well as demographic correlates of more positive attitudes held by women, those who are more politically liberal, and those who have more

educational attainment. The majority of the research has assessed military members' attitudes, and there is a paucity of empirical data regarding civilian attitudes. This discrepancy needs to be addressed due to the impact of civilian attitudes on military members mental health after their service.

Impact of Civilian Attitudes on Veteran Mental Health

Upon return from deployment, veterans experience a wide array of mental health consequences, including, but not limited to, anxiety, depression, substance use disorders, posttraumatic stress disorder (PTSD), and suicidal ideation (Kerrigan, Kaough, Wilson, Wilson, & Bostick, 2004). Research indicates social support during the time of reintegration to civilian life mitigates traumatic stress and depressive symptoms for veterans (Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009). Social support has also been cited as negatively associated with suicidal ideation for veterans post deployment (Lemaire & Graham, 2011). Additionally, social support is associated with a higher health-related quality of life in veterans with spinal cord injury (Sutton, Ottomanelli, Njoh, Barnett, & Goetz, 2015). Sherman, Larsen, and Borden (2015) performed a systematic literature review on military members functioning during and after deployment, utilizing 92 empirical studies published since 2001. The authors note a growing trend in the literature: the importance for recognition of social/role functioning. Eleven percent of the studies in the literature review focused on veterans' difficulties feeling part of their community and belonging in civilian society. Additionally, veterans report difficulty making new friends and feeling understood by civilians (Sherman et al., 2015). A qualitative study undertaken by Demers (2011) also noted the theme of "no one understands us" (p.170) resulting from interviews of 45 veterans returning from Iraq and Afghanistan. Specifically,

Demers notes veterans' experience of "lack of respect" from civilians and "not fitting into the civilian world" (p.170) as significant barriers to readjustment.

In an effort to ease veteran readjustment, Sherman et al. (2015) suggest an emphasis be placed on "community integration" post-deployment, to facilitate veterans' return to participation in social and work roles. Additionally, Sherman et al. suggest providing training to civilian providers about military culture so they can better serve the veteran population. The authors go on to note civilian programs such as "give an hour," which recruits licensed mental health professionals to volunteer time with military members as they integrate back into society post deployment. Demers (2011) also provides recommendations highlighting the importance of civilian support for successful veteran reintegration. Transition groups for families and friends of veterans as well as military cultural competence training for mental health professionals are suggestions given by Demers (2011). Finally, Sherman et al. (2015) note that minimal research exists on the post-deployment experiences of lesbian and gay veterans, suggesting future research include this population.

In addition to veteran mental health, civilians have an impact on veterans' financial stability in the form of jobs (Kauth et al., 2014). There are numerous financial incentives for civilian employers, including tax credits of \$5,600 and \$9,600 for hiring veterans who have been actively seeking work for over 6 months and veterans with disabilities, respectively (Committee on Veteran's Affairs, 2011). There are multiple organizations in existence to increase veteran hiring by civilians including the 100,000 Jobs Mission, cofounded by 11 companies promoting veteran employment. Founded in 2011, with the goal of hiring 100,000 veterans by 2020, the coalition reported the companies had hired 190,000 veterans by September, 2014 and projected 200,000 by 2015 (Hall, Harrell, Biskler, Sterwart, & Fisher, 2014). Similar to the literature

regarding veteran readjustment, there is a lack of data regarding lesbian and gay veteran employment.

Proposal of Current Study

While it is not socially acceptable to hold negative attitudes towards people of different races, it is more commonplace to hold negative attitudes toward those in sexual minority groups such as gay men and lesbians (Kennedy, 1996). Oppression faced by these groups is historically widespread; thus, research on attitudes is pivotal. Due to the increased mental health risks of lesbian and gay veterans, and the research citing civilian support's positive impact on the mental health of veterans, it is crucial to expand the current literature to include civilians' attitudes towards lesbian and gay veterans in the military. This research is particularly relevant since the repeal of DADT implies the presence of openly gay and lesbian service members.

The impact of civilian attitudes towards lesbian and gay veterans has not previously been examined through the lens of the contact hypothesis. Utilizing the contact hypothesis and measuring civilian contact with gay men and lesbians allows correlations to be drawn beyond previously documented demographic characteristics. The current study aims to increase the understanding of civilians' attitudes towards gay men and lesbians in the military, of critical importance, due to the evidence suggesting civilian social support impacts veteran readjustment.

Results of the current study have implications for the estimated 13,000 active duty, 58,000 reserve and guard, and 250,000 estimated gay, lesbian, and bisexual veterans in the United States (Gates, 201; Kauth et al., 2014). Greater understanding of civilian attitudes towards returning gay and lesbian veterans may influence future policy to reduce stigma and improve civilian acceptance and reintegration efforts for gay and lesbian veterans. Increased understating of civilian attitudes may also impact the hiring and financial future of gay and lesbian veterans.

Increased insight may also lead to further shifts in military and VHA policy, which could improve the mental health of lesbian and gay veterans, which has been documented as significantly more problematic than heterosexual veterans.

CHAPTER III

Method

This chapter will address the following five areas: (a) the methodology, including the number of participants needed; (b) the demographic data that were collected; (c) the psychometric properties of each instrument; (d) procedures involved in data collection; and (e) the statistical methods that were used to analyze the data will be discussed.

Methodology

The current study aims to answer the question: Is there an effect of quantity of contact and quality of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and lesbians in the military, after controlling for demographic variables (sex, educational attainment, and political affiliation)? The hypotheses state that quantity and quality of contact with gay men and lesbians will predict civilian heterosexuals' attitudes towards gay men and lesbians in the military over and above the demographic variables of sex, educational attainment, and political affiliation. The methodological design of the current study is considered correlational. Measures will be administered to a group of self-selecting, nonrandom participants. Therefore, conclusions drawn from data analysis are not causal. However, correlations and predictions may be drawn.

In order to determine if there is a relationship between contact with gay men and lesbians on civilian attitudes towards gay men and lesbians in the military, the number of participants needed must be established. An a priori power analysis was calculated utilizing using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) with an alpha level of .05, a small effect size of .15, 1- β error probability of .80, and six predictor variables using linear multiple regression. The six

predictor variables include the three demographic variables of sex, educational attainment, and political affiliation, as well as social desirability, and the variables quantity of contact, and quality of contact. The total sample size suggested was 109 participants. Anticipating that some responses may be incomplete or otherwise invalid, the current study aimed to collect data from 140 participants.

Demographics of Participants

The demographic data that was collected includes participants' sex, age, racial and ethnic identity, military status, political affiliation, sexual orientation identity, and educational attainment. Participants will not be excluded due to their age; there will be no age ceiling for participants due to the fact that the proposed study aims to generalize to the entire heterosexual, civilian population. However, participants were excluded from completing measures based on veteran status, sexual identity, and sexual orientation identity.

Veterans and active duty personnel were excluded from data collection because the current study aimed to generalize to the civilian, nonveteran population. Additionally, this study aimed to generalize to the heterosexual civilian population. Thus, participants' endorsement of their sexual orientation as gay, lesbian, or bisexual also served as exclusion criteria for the current study. Finally, participants endorsing their sex as "other" were excluded from study participation as the current study aimed to utilize the demographic traits of "male" or "female" as criterion variables.

Sex, political affiliation, and educational attainment data of participants was collected due to previous research suggesting that these variables impact attitudes towards gay men and lesbians in the military (Besen & Zicklin, 2007; Coronges et al., 2013; Moradi & Miller, 2009;

Wyman & Snyder, 1997). Finally, data regarding racial and ethnic identity was collected for descriptive statistics of the participant population.

Measures

Demographic questionnaire. As previously mentioned, the demographic information, which was collected includes sex, age, racial and ethnic identity, military status, political affiliation, sexual orientation identity, and educational attainment. The question regarding sexual orientation identity is informed by Ridolfo et al. (2012) who assessed the validity of current sexual identity measures. The measure assessing political affiliation is a single-item measure entitled the Liberal-Conservatism Self-Identification Scale (The American National Election Studies, 2012). This scale was chosen due to the continuous nature of the variable; respondents have the option to identify their political views as very liberal, liberal, slightly liberal, moderate/middle of the road, slightly conservative, conservative, or very conservative (The American National Election Studies, 2012). Additionally, the single-item measure was chosen because extant literature guided by the contact hypothesis has continually utilized single-question measures of political affiliation (Besen & Zicklin, 2007; Coronges et al., 2013; Estrada et al., 2013; Wyman & Snyder, 1997). Racial and ethnic identity was determined utilizing categories implemented by the National Institutes of Health (2012).

Quantity of Contact with Gay Men and Lesbians Scale. The Quantity of Contact with Gay Men and Lesbians Scale is a 6-item measure adapted from a quantity of contact scale utilized in a study assessing the effects of contact on attitudes towards individuals with intellectual disabilities (McManus, Feyes, & Saucier, 2011). The original scale incorporated items from a study assessing interracial relations (Plant & Devine, 2003). An example of a scale item is: "In the past, I have interacted with gay men and lesbians in many areas of my life (e.g.,

school, friends, work, clubs).” Participants respond to the items using a Likert-type scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). Quantity of contact scores are determined by averaging the total score of scale items with a higher score indicating a greater amount of contact with gay men and lesbians (McManus et al., 2011). The original scale reported a Cronbach’s alpha of .74 (McManus et al., 2011). The internal consistency for the current scale was assessed after data were collected.

Quality of Contact with Gay Men and Lesbians Scale. The Quality of Contact with Gay Men and Lesbians Scale is a 6-item measure adapted from a quality of contact scale utilized in a study assessing the effects of contact on attitudes towards individuals with intellectual disabilities (McManus et al., 2011).. The original scale incorporated items from a study assessing interracial relations (Plant & Devine, 2003). An example of a scale item is: “In the past, my experiences with gay men and/or lesbians have been pleasant.” Participants respond to the items using a Likert-type scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). Quality of contact scores are determined by averaging the total score of scale items with a higher score indicating more positive contact with gay men and lesbians (McManus et al., 2011). The original scale reported a Cronbach’s alpha of .90 (McManus et al., 2011). The internal consistency for the current scale was assessed after data were collected.

Attitudes Towards Homosexuals in the Military Scale (ATHM). Although there are many scales, which provide measurement of attitudes toward civilian gay men and lesbians, ATHM, created by Estrada (2002), is the only measure that assesses attitudes towards gay men and lesbians in the military. ATHM is a 14-item measure. An example of a scale item is: “I feel that gay men/lesbians should be allowed to serve openly in the armed forces.” Participants respond to the items using a Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly*

agree). Reverse scoring is used on seven of the items. A summation of the scores produces a number between 14 and 70; a higher score indicates more positive attitudes towards gay men and lesbians in the military.

A study by Wallenberg et al. (2011) utilized ATHM to investigate the predictive ability of graduate degree program on attitudes towards gay men and lesbians in the military. In collaboration with the scale's original author (Estrada, 2002), Wallenberg et al. (2011) created descriptive categories for numeric scores on the scale. Average scores on the ATHM for each respondent are classified as follows: 1–1.4 reflects extremely negative attitude; 1.5–2.4 reflects a negative attitude; 2.5–3.4 reflects a neutral attitude; 3.5–4.4 reflects a positive attitude; 4.5–5 reflects an extremely positive attitude (Wallenberg et al., 2011).

A factor analysis undertaken by the scale's author, Estrada (2002), revealed four factors accounting for the total variance of the scale: Trust, Threat, Comfort, and Acceptance. Trust accounted for 40.6% of the total common variance, Threat accounted for 8.7%, Comfort accounted for 8.2%, and Acceptance accounted for 7.5% of the total common variance, suggesting the measure is not unidimensional (Estrada, 2002). Cronbach's alpha was computed for the entire scale and each subscale, or factor. The reliability coefficient for the 14-item measure is .87 and ranged from .63–.78 for the subscales (Estrada, 2002; Wallenberg et al., 2011). For assessment of validity, ATHM was compared to Herek's Attitudes Towards Lesbians and Gay Men scale. The resulting correlation analysis of .75 suggests ATHM is a valid measurement tool of attitudes towards gay men and lesbians in the military (Estrada, 2002; Wallenberg et al., 2011).

Since ATHM was created in 2002, two of the questions refer to the ban on gay men and lesbians in the military, or DADT. The items are worded: "If the current ban prohibiting openly

gay and lesbian individuals from serving in the military was lifted, homosexuals would be subject to physical violence,” and “I feel that the ban on homosexuals in the armed forces should be lifted.” The ban was lifted in September of 2011; therefore, these two questions are irrelevant and were deleted for the current study, with permission from the author. Factor analysis and Cronbach’s alpha was computed for the adjusted, 12-item scale after data has been collected to ensure the original four-factor structure of the scale is upheld.

The Socially Desirable Response Set (SDRS-5). The tendency for participants to respond to questions in a way that represents themselves as favorable is referred to as social desirability (Hays et al., 1989). The current study accounted for social desirability by including the SDRS-5, a five-item measure of social desirability. An example of a question is: “I am always courteous even to people who are disagreeable.” Participants respond using a Likert-type scale ranging from 1 (*definitely true*) to 5 (*definitely false*). The most extreme response is considered socially desirable responding, for example, responding *definitely true* to the question “No matter who I’m talking to, I’m always a good listener.” Cronbach’s alpha for the SDRS-5 was .66 and .68 when administered to 3053 outpatients of medical and mental health providers and 75 older adults at senior centers, respectively. Test-retest reliability was assessed in the population of older adults after a time period of one month; the resulting reliability was .75. The SDRS-5 takes less than one minute to complete and has been recommended for use in research utilizing self-report measures, such as the current study (Hays et al., 1989).

Data Collection

In order to participate in this study, participants must be 18 years of age or older and must be proficient in English. Additionally, participants must identify as heterosexual, identify as male or female, and must be civilians who have not served in the United States, or any other

military. Exclusion criteria include participants who identify as gay, lesbian, or bisexual, endorse their sex as other than male or female, and active duty military members or military veterans.

The participants for the current study were a self-selecting, nonrandom sample recruited through Amazon Mechanical Turk (MTurk; www.mturk.com). Mechanical Turk is a web-based platform that allows researchers to recruit and pay participants to perform tasks such as the measures in this study (Berinsky, Huber, & Lenz, 2012). Although originally created for political science, MTurk has become frequently used by social scientists (Berinsky et al., 2012; Petronzi, 2016).

After a researcher creates an MTurk account, she or he becomes a *requestor* and is able to create a survey within the MTurk website or embed a survey from another online survey platform. For the purposes of the current study, the measures were created utilizing the survey tool Qualtrics, and the survey link was embedded into the MTurk website. Once the link is embedded, the researcher deposits a sum of money into her MTurk account. MTurk is then responsible for distribution of funds, in the form of credit for amazon.com purchases, to participants once they have completed the study. In this way, participants are compensated for their participation; however, their responses remain anonymous to both the researchers and amazon.com (Amazon Mechanical Turk, 2009).

After participants create an account on MTurk, they are designated *workers* and may choose from a list of multiple surveys to complete. This list of surveys or jobs from which workers choose are referred to as *HITS*. The current study was one of hundreds of HITS that will be available for participants to complete. The current study was accompanied by a recruitment flyer, which informed participants about the nature of the study and the length of

time they can anticipate the survey to take them to complete. Participants clicked on the web-based survey link, hosted on qualtrics.com, after reading the recruitment flyer. Participants were directed to information about the study, including IRB approval and a request for informed consent. Participants were first asked to click affirmative to questions regarding the exclusion criteria of the study: sex as male or female, confirmation of United States residency or citizenship, no veteran status, and heterosexual sexual orientation. If an individual did not indicate affirmative responses for any of the exclusion criteria, they were not directed to complete further study measures. For those who did meet inclusion criteria, it is estimated that the study took participants less than 10 minutes to complete. Additionally, upon the recommendation of quality control set by MTurk, participants must have a Human Intelligence Task (HIT) rating of 80% or higher to assure that their work has been consistently validated and approved from their prior participation in work completed on MTurk. MTurk compensated participants \$1.00 for their participation in the study via credit towards purchases on amazon.com.

MTurk has been validated as a recruitment method for use with web-based survey research by Berinsky et al. (2012). Berinsky et al. replicated findings of previously published experimental research using MTurk, providing good concurrent validity for the web-based recruitment platform. In comparison to convenience samples, Berinsky et al. (2012) reported participants recruited via MTurk respond to experimental stimuli consistently with in-person research. Furthermore, the internal and external validity of MTurk was assessed by identifying demographic characteristics of samples of participants in the MTurk population (Berinsky et al., 2012). Results suggest participants recruited with MTurk are more representative of the U.S. population than in-person convenience samples (Berinsky et al., 2012). The results of the

current study aimed to be generalized to the U.S. population so it is important to utilize a sample representative of that population. Therefore, the current study utilized MTurk as a recruitment tool, providing a more generalizable sample while maintaining anonymity of participants and compensating them for their participation (Amazon Mechanical Turk, 2009; Petronzi, 2016).

Statistical Analyses

In order to determine the effects of quantity of contact and quality of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and lesbians in the military, after accounting for social desirability and specific demographic variables (sex, educational attainment, and tendency to hold more conservative or liberal political ideals), the current study utilized a correlational research design. Participants indicated their quantity and quality of contact with gay men and lesbians, their attitudes towards gay men and lesbians in the military, and five items regarding social desirability. The resulting data were analyzed using hierarchical regression. The data were analyzed using SPSS version 22 (IBM Corp, 2013). The use of a hierarchical regression allows researchers to assess if contact (both quality and quantity) accounts for the variance in heterosexual civilian attitudes towards gay men and lesbians over and above demographic variables and social desirability. Therefore, a hierarchical regression was computed for the dependent variable of civilian attitudes towards gay men and lesbians in the military, with demographic variables, sex, educational attainment, and political affiliation, and social desirability entered in the first step and the contact variables, quality of contact and quantity of contact, in the second.

Descriptive statistics regarding participants' demographic information were also computed. Specifically, descriptive statistics were computed to assess the characteristics of the

sample on the variables of age, sex, racial and ethnic identity, political affiliation, and educational attainment.

CHAPTER IV

Results

It was the intent of this study to assess the impact of civilians' quality and quantity of contact with gay men and lesbians on attitudes towards gay men and lesbians in the military. With the knowledge that civilian attitudes impact veterans' mental health upon retiring from active duty, it is of interest to examine the applicability of the contact hypothesis to civilian attitudes. This study is particularly impactful due to the repeal of DADT and the subsequent open presence of gay men and lesbians in the military. This chapter includes the results based on the methodology proposed in the previous chapter. Specifically, this chapter provides descriptive statistics of participants, reliability analyses of the measures used in the study including descriptive statistics for each of the scales, and results of hypothesis tests.

Descriptive Statistics

There was a total of 216 participants who initially responded to the survey. However, 75 potential participants were excluded due to the fact that they did not meet inclusion criteria. Data for the remaining 141 participants was screened for outliers. No significant outliers appeared except one participant who answered "0" for the question, which states, "Beginning with Kindergarten, how many years of education have you completed?" As this was a significant outlier and not assumed to be accurate, this participant's education value was excluded from the analysis and treated as missing. After excluding the outlier, the years of education ranged from 10 to 22 years after kindergarten. The mean years of education was 15.54 (SD 2.23). The skewness statistics suggested that the distribution was normal.

All of the participants answered the question regarding their sex, and there were 82 (58.2%) heterosexual males and 59 (41.8%) heterosexual females in the study.

In terms of the political ideology of the participants in the study, 75 (53.2%) were on the liberal spectrum, and 36 (25.5%) were on the conservative spectrum; 30 (21.3%) of the participants claimed to be moderate or middle of the road in their political stance (see Table 1).

Table 1

Political Views of Participants

	Frequency	Percent	Cumulative percent
Very liberal	19	13.5	13.5
Liberal	34	24.1	37.6
Slightly liberal	22	15.6	53.2
Moderate/Middle of the road	30	21.3	74.5
Slightly conservative	14	9.9	84.4
Conservative	16	11.3	95.7
Very conservative	6	4.3	100.0
Total	141	100.0	

Participants included 5 (2.3%) American Indian or Alaska Natives, 15 (6.9%) Asians, 10 (4.6%) Black or African Americans, 14 (6.5%) Hispanics or Latino/a, 1 (0.5%) Native Hawaiian or other Pacific Islanders, and 96 (44.4%) Whites.

The age of the participants ranged from 20 to 63 years old. The average age of the participants was 33.66 (*SD* 9.72). The age variable was slightly positively skewed (1.19).

A correlation matrix for the variables was computed and can be seen in Table 2. Sex is significantly correlated with quantity of contact, quality of contact, attitudes toward gay men and lesbians in the military, and social desirability. Specifically, being female is positively

correlated with having more quantity of contact and quality of contact with gay men and lesbians, as well as having more positive attitudes toward gay men and lesbians in the military and endorsing more social desirability. Political ideology is significantly correlated with quantity of contact and quality of contact with gay men and lesbians as well as attitudes toward gay men and lesbians in the military. Specifically, more liberal political ideology was positively correlated with more quantity of contact and quality of contact as well as more positive attitudes toward gay men and lesbians in the military.

Table 2

Correlation Matrix of the Study Variables

	Quant	Qual	Att	SDRS	Sex	Age	Edu	Political
Quant	1							
Qual	.575**	1						
Att	-.140	-.387**	1					
SDRS	-.210*	-.319**	.216*	1				
Sex	.319**	.352**	-.250**	-.292**	1			
Age	.077	.126	-.109	-.025	.098	1		
Educa- tion	-.107	-.031	-.107	.046	-.033	.121	1	
Political	-.210*	-.305**	.395**	.088	-.019	.176*	-.081	1

Note. * $p < .05$ level (2-tailed). ** $p < .01$ level (2-tailed).

Scale Analyses

Reliability analyses were calculated for the four scales used in the study. For the Quantity of Contact Scale, the Cronbach's alpha was .62, which suggested a moderate to low internal consistency. The quality of contact scale, on the other hand, showed a high internal consistency (.93). Furthermore, the ATHM scale also showed a high internal consistency according to the reliability analysis (.87).

For the quantity of contact scale, four questions were worded positively, and two were worded negatively. In the ATHM scale, six items were worded positively, and six were worded negatively. For the social desirability scale, two questions were worded positively, and three questions were worded negatively in terms of desirability. The negative questions were reverse coded for each scale so that the items' coefficients stayed positive for the purpose of the internal consistency analysis (Cronbach's alpha). There was no reverse scoring necessary for the quality of contact scale as all questions are worded positively.

For the purpose of the research questions and model building, a total score of each scale was calculated. For the Quantity of Contact Scale, the scores ranged from 6 to 45, and the mean score was 26.13 with a standard deviation of 8.79. The skewness statistic was -.35, suggesting that the distribution was normal. For the Quality of Contact Scale, the scores ranged from 6 to 54, and the mean score was 40.63 with a standard deviation of 10.64. The skewness statistic showed a slight negative skew, (-.87). Utilizing ± 2 as a cutoff for normal distribution, the skewness, or asymmetry of the distribution, is still able to be interpreted (Gravetter & Wallnau, 2014). In terms of the social desirability scale, scores ranged from 5 to 25, and the mean was 13.78 with a standard deviation of 4.85. There was no concern of skewness since the skewness statistic was .099. Lastly, the ATHM scores ranged from 24 to 50, and the mean was 33.96 with

a standard deviation of 4.77. The skewness statistic showed a very minor skewness (1.04), but it is still acceptable for interpretation (Gravetter & Wallnau, 2014).

Hypothesis Tests

For the hypothesis-testing portion of the study, two hierarchical regression models were built according to the proposed method in Chapter 3. Demographic information and social desirability were accounted for in the first step of the regression. Prior to the interpretation of the results, the collinearity statistics were examined to evaluate the potentials for collinearity in the model. The tolerance and variable inflation factor (VIF) scores were all within the normal range; therefore, there were no concerns of multicollinearity in the models.

Hypothesis 1. The first hypothesis sought to determine if there is an effect of quantity of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and lesbians in the military, after accounting for social desirability and demographic variables (sex, educational attainment, and political ideology). It was hypothesized that quantity of contact with gay men and lesbians would predict civilian heterosexuals' attitudes towards gay men and lesbians in the military over and above social desirability and the demographic variables of sex, educational attainment, and political ideology.

For the impact of the quantity of contact model, sex and political ideology had significant impacts on attitudes towards gay men and lesbians in the military. In the first step of the regression, women tended to have a slightly more positive attitude towards gay men and lesbians in the military. In both Step 1 and Step 2, it appeared that the more liberal the participant, the more likely she or he will have a positive attitude toward homosexuals in the military. However, after accounting for the effects of the demographic information and social desirability, quantity

of contact with gay men and lesbians did not significantly impact attitudes toward gay men and lesbians in the military (see Table 3).

Table 3

Hierarchical Regression Analysis Results for the Effect of Quantity of Contact on the Attitude Controlling for Demographic Information

Predictor	ΔR^2	β
Step 1	.277***	
Sex		-.173**
Age		-.127
Years of education		-.081
Race/ethnicity		-.146
Political view		.393***
SDRS		.14
Step 2	.001	
Sex		-.202
Age		-.13
Years of education		-.071
Race/ethnicity		-.132
Political view		.412***
SDRS		.147
Quantity of contact		.091
Total R^2	.277	
N	140	

Note. ** $p < .05$. *** $p < .01$.

Hypothesis 2. The second hypothesis sought to determine if there is an effect of quality of contact with gay men and lesbians on civilian heterosexuals' attitudes towards gay men and

lesbians in the military, after accounting for social desirability and demographic variables (sex, educational attainment, and political ideology). It was hypothesized that quality of contact with gay men and lesbians would predict civilian heterosexuals' attitudes towards gay men and lesbians in the military over and above social desirability and the demographic variables of sex, educational attainment, and political ideology.

When considering the impact of quality of contact and attitudes towards gay men and lesbians in the military, accounting for demographic factors and the social desirability score, sex and political ideology were again seen to significantly impact attitudes toward gay men and lesbians in the military in the first step of the regression. Similar to the first hierarchical model, women and participants with more liberal political views reported a more positive attitude toward gay men and lesbians in the military. In the second step, liberal political ideology remained significant, while sex was no longer a significant predictor of attitudes.

After accounting for the effects of the demographic information and social desirability, the quality of contact with gay men and lesbians significantly impacted attitudes, which indicates that higher reported quality of contact tends to lead to a more positive attitude toward gay men and lesbians in the military (see Table 4).

Table 4

Hierarchical Regression Analysis Results for the Effect of Quality of Contact on the Attitude Controlling for Demographic Information

Predictor	ΔR^2	β
Step 1	.277***	
Sex		-.173**
Age		-.127
Years of education		-.081
Race/ethnicity		-.146
Political view		.393***
SDRS		.14
Step 2	.022**	
Sex		.129
Age		-.102
Years of education		-.09
Race/ethnicity		.128
Political view		.338***
SDRS		.102
Quality contact		-.177**
Total R^2	.299	
n	140	

Note. ** $p < .05$. *** $p < .01$.

Summary

The purpose of this study was to assess the impact of civilians' quality and quantity of

contact with gay men and lesbians on attitudes towards gay men and lesbians in the military. Two hierarchical regression models were used to answer the two main research questions of the study. The first research question was not fully supported because, after controlling for the effects of demographic information and social desirability, quantity of contact did not impact attitudes toward gay men and lesbians in the military significantly. However, the second research question was supported fully, indicating that the higher the reported quality of contact, the more likely a participant was to have a more positive attitude towards gay men and lesbians in the military. Besides the findings supporting the main research questions, the results also suggested that women were more likely to have a positive attitude towards gay men and lesbians in the military, and politically liberal participants in the study also tend to have a more positive attitude towards gay men and lesbian in the military. Possible explanations for interpretations of the study are explored in Chapter 5.

CHAPTER V

Discussion

This chapter will discuss the implications of the results presented in Chapter 4. First, the findings of the two main hypotheses and predictive demographic trends will be discussed, including possible explanations of the findings and their relationship to the previous literature. Next, practical and methodological implications of the study will be discussed. Finally, limitations of the study will be presented as well as directions for future research.

Discussion of the Results and Hypotheses

The current study examined the application of the contact hypothesis to attitudes toward gay men and lesbians in the military. Moreover, this study sought to determine if there was an effect of either quantity of contact or quality of contact on heterosexual civilians' attitudes towards gay men and lesbians in the military over and above previously established predictive demographic variables of sex, political ideology, and educational attainment, as well as social desirability. In order to do this, both quantity of contact and quality of contact with gay men and lesbians were measured in a sample of heterosexual civilian participants. Additionally, attitudes towards gay men and lesbians in the military were measured as well as five questions assessing social desirability. Finally, demographic information was collected from participants. Resulting hierarchical regression models were computed for each of the predictor variables, with differing results.

Hypothesis 1. The first regression model, exploring the impact of quantity of contact on attitudes, was found to be nonsignificant; therefore, the first main hypothesis in the study was not supported. This finding is in partial opposition to the contact hypothesis, which states that increased favorable contact with members of different out-groups will disconfirm inaccurate

perceptions, facilitate intergroup interaction, and engender less bias and therefore more positive feelings towards members of the out-group (Allport, 1954; Pettigrew et al., 2011).

An explanation for this somewhat discrepant finding lies in the details of the contact hypothesis, specifically the use of the word *favorable*, when describing contact between members of out-groups to reduce prejudice and bias. As mentioned in Chapter 1, the contact hypothesis specifies four optimal conditions that must be present for reduction of intergroup bias (Allport, 1954). These conditions require individuals have equal status, work towards common goals, engage in intergroup cooperation, and perceive support of relevant authorities (Allport, 1954; Techakesari et al., 2015). The first hypothesis test of the current study did not measure any of these aspects, only the amount, or quantity of contact, participants had with gay men and lesbians. The results of Pettigrew and Tropp's (2006) meta-analysis of 515 contact hypothesis studies found studies that carefully structured contact situations to meet Allport's optimal conditions achieved significantly higher effect sizes than other samples. The meta-analysis suggested optimal conditions, or increasing the quality of contact, enhance the positive effect of intergroup contact (Pettigrew & Tropp, 2006).

Akin to the current study, Conway (2014) examined the impact of both quantity of contact and quality of contact on student attitudes toward student-veterans. Similarly, Conway (2014) did not find quantity of contact as a significant predictor of attitudes toward student-veterans. This is consistent with prior studies, suggesting it is the quality of contact that determines attitudes towards members on an out-group (Conway, 2014; McManus et al., 2011; Plant & Devine, 2003). The nonsignificance of the first hypothesis suggests that contact alone is not enough to change attitudes toward an out-group.

Hypothesis 2. The second regression model explored the impact of quality of contact on attitudes toward gay men and lesbians in the military. The second regression model was statistically significant, and thus supports the second hypothesis: Quality of contact with gay men and lesbians predicts heterosexual civilians' attitudes toward gay men and lesbians in the military, over and above social desirability and the demographic variables of sex, educational attainment, and political ideology. The effect size, $\Delta R^2 = .30$ was moderate, suggesting the variance in attitudes is moderately explained by quality of contact while controlling for demographic traits and social desirability. This finding mirrors previous research, including Tawagi and Mak (2015), who found quality of contact as the only significant predictor of domestic students' attitudes towards foreign students where quantity of contact did not emerge as a predictive variable. Additionally, in a study similar to the current one, Harwood (2015) found quality of contact with gay men and lesbians in the military is more strongly associated with attitudes towards DADT repeal than quantity of contact. Furthermore, Conway (2014) reported quality of contact as the only significant predictor of student attitudes toward student–veterans in a study that also measured quantity of contact. The statistical significance of the second hypothesis test in the current study provides further support for the notion that not just the amount of contact, but rather the valence or quality of contact, contributes to bias and prejudice reduction toward members of an out-group.

Support for the second hypothesis can be seen as congruent to the nonsignificant findings of the first hypothesis. Due to the fact that there are inherent aspects of quality within the contact hypothesis, it is understandable that the hypothesis in the current study, which specifically explored the quality aspect of interaction, was found to be significant, while the hypothesis exploring only the amount or quantity of interaction was found to be nonsignificant.

Predictive demographics. In addition to the main hypotheses in the study, it is important to note findings regarding predictive demographic trends in the current study. Previous literature exploring attitudes towards gay men and lesbians in the military indicates that men tend to hold less favorable attitudes than women (Coronges et al., 2013; Ender et al., 2012; Harris & Vanderhoof, 2008; Moradi & Miller, 2009). Specifically, a report by Miller (1994) showed 75% of male soldiers disagreed or strongly disagreed with a pro-gay and lesbian in the military statement as opposed to 43% of female soldiers. The results of the current study are aligned with this research, suggesting men reported less positive attitudes towards gay men and lesbians in the military than did women. Gender was a significant predictor of attitudes only for the first step of the regression analyses; after accounting for the independent variables of quantity of contact and quality of contact in the regression models, gender was no longer significant.

A second predictive demographic finding in the current study is also supported by previous literature. Liberal political ideology was predictive of positive attitudes towards gay men and lesbians in the military in both regression analyses. This finding is reflected in numerous other studies citing individuals with liberal political ideation expressing more positive feelings towards gay men and lesbians in the military than those who hold more conservative political beliefs (Estrada & Weiss, 1999; Harris & Vanderhoof, 2008; Moradi & Miller, 2009; Wyman & Snyder, 1997).

Further bivariate correlation analysis suggests women tend to have more quantity and quality of contact with gay men and lesbians. Additionally, women have significantly more favorable attitudes toward gay men and lesbians in the military and endorse significantly more social desirability than men. Liberal political ideology is significantly positively correlated with quantity and quality of contact with gay men and lesbians and also is significantly correlated

with more positive attitudes toward gay men and lesbians in the military. These trends are consistent with the majority of the contact hypothesis literature: both women and individuals with liberal political ideology tend to have more positive attitudes toward gay men and lesbians in the military (Coronges et al., 2013; Ender et al., 2012; Estrada & Weiss, 1999; Harris & Vanderhoof, 2008; Moradi & Miller, 2009; Wyman & Snyder, 1997).

Practical Implications

It has been established through previous research that gay men and lesbians exiting the military have poorer mental health outcomes than their heterosexual counterparts (Blosnich et al., 2012; Herrell et al., 1999; Matarazzo et al., 2014). It has also been established that civilians impact the mental health of veterans by providing social support and financial stability in the form of employment (Kauth et al., 2014; Kauth & Shipherd, 2016; Mattocks et al., 2014). With these considerations in mind, the current study has implications for potential stigma reduction policy for gay and lesbian veterans. Additionally, results of the current study have the potential to inform individuals on ways to improve relationships between the out-groups of civilian heterosexuals and gay/lesbian military members and veterans.

Since the current study results suggest an increase in quality of contact will improve attitudes toward gay men and lesbians in the military, it would be beneficial for members of these out-groups to engage in positive interaction. Setting up activities that fulfill the four optimal conditions of the contact hypothesis may be an option to increase quality of contact and thus reduce out-groups bias. Such an intervention may take the form of planned contact utilized in a study of Jewish-Israeli and Palestinian youths undertaken by Maoz (2003). After the planned contact, consisting of an intergroup dialogue, Jewish-Israeli attitudes toward Palestinians became significantly more favorable (Maoz, 2003).

Alternatively, a planned contact intervention for healthcare providers of gay and lesbian veterans could be created based on Arizona State University's DREAMzone program (Cadenas, Cisneros, Todd, & Spanierman, 2016). DREAMzone is an initiative designed to reduce stigma and discrimination while providing work competencies for university professionals, student affairs practitioners, and staff working with undocumented immigrant students (Cadenas et al., 2016). This initiative consists of didactic programming and workshops with undocumented students and is facilitated by students with the support of campus personnel. A sample of 239 DREAMzone participants completed measures assessing their empathy toward, anxiety about, and prejudice toward undocumented immigrants, prior to and after DREAMzone participation. Results suggest DREAMzone was effective in improving attitudes toward undocumented immigrants (Cadenas et al., 2016). Using DREAMzone as a model, doctors, nurses, and numerous other support staff at a VA hospital could be invited to participate in a similar program focused on contact with gay and lesbian veterans and military members. Such an intervention has the potential to improve the care given to gay and lesbian veterans, thus improving their medical treatment and mental health.

Methodological Implications

Three of the four scales utilized in the current study were modified from their original versions. Thus, internal consistency was assessed for each individual scale. For the quantity of contact with gay men and lesbians scale, Cronbach's alpha was .62, which suggested a moderate to low internal consistency. The original scale reported a Cronbach's alpha of .74 (McManus et al., 2011). This scale's low internal consistency may inspire future researchers to further modify this scale to improve its ability to measure the quality of contact with gay men and lesbians.

The Quality of Contact Scale showed a high internal consistency (.93), which is higher than the scale's original alpha of .90 (McManus et al., 2011). This scale's high internal consistency suggests that it may be a good measure to use in the future for the assessment of quality of contact with gay men and lesbians.

Due to the fact that the ATHM scale included two items that referred to the repealed law, DADT, the two items were removed and a factor analysis was computed for the adjusted scale. The original scale had a four-factor structure, and the revised scale for the current study exhibits a three-factor structure. However, the overall ATHM scale still showed a high internal consistency according to the reliability analysis (.87), even higher than the original scale (.78). Future research utilizing ATHM may consider the adjusted three-factor structure, since it accounts for the repealed law and exhibits higher internal consistency than the original version.

Limitations

This study had a number of limitations, many of which are inherent in research guided by the contact hypothesis. For example, the lack of consensus on the definition and measurement standards of contact is one of the theory's limitations (Christ & Wagner, 2013). The current study utilized scales to measure contact that had been adapted from previous studies (McManus et al., 2011; Plant & Devine, 2003). This modification may have contributed to the low internal consistency of the quality of contact with gay men and lesbians scale. Furthermore, the low internal consistency of the quantity of contact measure may have contributed to the nonsignificant finding of the quantity of contact hypothesis.

Another potential limitation in the study arises from common-method bias, because all measures are multiple-choice and self-report. Further bias may result from the similarity of the constructs measured. Measuring quality and quantity of contact with gay men and lesbians as

well as attitudes towards gay men and lesbians in the military may have produced the consistency effect. The consistency effect refers to the tendency of participants to answer questions in a consistent way, producing correlations that may not exist in real-life settings (Podsakoff et al., 2003). Again, this is often cited as a limitation in research utilizing the contact hypothesis and is therefore consistent with research in this field (Christ & Wagner, 2013).

A third limitation of the current study is the use of a nonrandom, self-selected sample. Although the sample recruited from MTurk was diverse in demographic characteristics such as age, sex, race, and level of educational attainment, the participants took part in the survey for payment of \$1.00 and thus may share some inherently similar characteristics.

Directions for Future Research

Although research utilizing the contact hypothesis has been undertaken and supported for over 60 years, as seen in this study, there remains the need for a gold-standard measurement tool for the variable of contact. Although the Quality of Contact Scale exhibited high internal consistency in the current study, the Quantity of Contact Scale showed low internal consistency. Future research exploring a definition and validated quantitative measure of contact would benefit research applying the contact hypothesis to varying out-groups.

The current study utilized a correlational design, and thus correlations have been made, but causation cannot be implied. Future research would benefit from a pretest, posttest research design with an experimental manipulation. Previous contact hypothesis research has frequently utilized an out-group speaker panel. Based on the results of the current study suggesting quality of contact is more impactful than quantity, it may be of interest to design an experimental manipulation, possibly modeled on the aforementioned DREAMzone programming, which meets the four optimal conditions of the contact hypothesis (Cadenas et al., 2016). An

experimental research design would allow causal inferences to be made and further conclusions to be drawn about the impact of quality and quantity of contact on attitudes toward gay men and lesbians in the military.

Although the current study accounted for the effects of demographic variables and social desirability, it may be of interest to explore other variables that impact attitudes towards gay men and lesbians. For example, to expand upon the research of Pettigrew and Tropp (2008), which explored mediating variables of anxiety reduction and empathy development in the relationship between contact and prejudice reduction, may provide meaningful data.

Summary and Conclusions

This study explored the potential impact of civilian heterosexuals' quantity of contact and quality of contact with gay men and lesbians on attitudes toward gay men and lesbians in the military. Consistent with previous research utilizing the contact hypothesis, this study found a significant impact of the quality of contact with gay men and lesbians on heterosexual attitudes towards gay men and lesbians in the military. Although the other main hypothesis was found to be nonsignificant, this finding is in agreement with prior research suggesting quality of contact is more impactful than quantity of contact on change in attitudes toward an out-group.

This study adds to the large body of contact hypothesis literature while also adding to the sparse body of literature exploring attitudes towards gay men and lesbians in the military. The marginalized group of gay and lesbian veterans may be impacted by this study in a number of ways. Knowing that there is a correlation between the quality of time spent with members of an out-group and positive attitudes toward that group may improve both the mental health and the financial future of gay and lesbian military members and veterans.

References

- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Alperin, A., Hornsey, M. J., Hayward, L. E., Diedrichs, P. C., & Barlow, F. K. (2014). Applying the contact hypothesis to anti-fat attitudes: Contact with overweight people is related to how we interact with our bodies and those of others. *Social Science & Medicine*, 12337–12344. doi:10.1016/j.socscimed.2014.10.051
- Amazon Mechanical Turk. (August 5, 2009). *Amazon Mechanical Turk privacy notice*. Retrieved from <https://www.mturk.com/mturk/privacynotice>
- American National Election Studies. (2012). *Liberal-Conservative self-identification 1972–2012*. Retrieved from http://www.electionstudies.org/nesguide/toptable/tab3_1.htm
- American Psychological Association. (1991). Avoiding heterosexual bias in language. *American Psychologist*, 46(9), 973–974.
- Avery, A. M. (2001, August). Graduate students' perceptions of the inclusion of gay, lesbian, and bisexual issues during clinical training in practicums and internship. *Dissertation Abstracts International*, 62, 1064.
- Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. M., Harwood, J., & Sibley, C. G. (2012). The contact caveat: Negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality & Social Psychology Bulletin*, 38(12), 1629–1643.
- Belkin, A. (2015). “Don’t Ask, Don’t Tell”: The politics of military change. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 289–292). Madison, WI: University of Wisconsin Press.

- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis Advance Access*, 1–17. doi: 10.1093/pan/mpr057
- Bernstein, M., & Swartwout, P. (2012). Gay officers in their midst: Heterosexual police employees' anticipation of the consequences for coworkers who come out. *Journal of Homosexuality*, 59(8), 1145–1166. doi:10.1080/00918369.2012.673945
- Besen, Y., & Zicklin, G. (2007). Young men, religion and attitudes toward homosexuality. *Journal of Men, Masculinity and Spirituality*, 1(3), 1–14.
- Blosnich, J. R., Bossarte, R. M., & Silenzio, V. B. (2012). Suicidal ideation among sexual minority veterans: Results from the 2005–2010 Massachusetts Behavioral Risk Factor Surveillance Survey. *American Journal of Public Health*, 102(Suppl 1), S44–S47. doi:10.2105/AJPH.2011.300565
- Blosnich, J., Foyne, M., & Shipherd, J. (2013). Health disparities among sexual minority women veterans. *Journal of Women's Health*, 22(7), 631–636.
- Blosnich, J. R., Mays, V. M., & Cochran, S. D. (2014). Suicidality among veterans: Implications of sexual minority status. *American Journal Of Public Health*, 104(Suppl 4), S535-S537. doi:10.2105/AJPH.2014.302100
- Booth, B. M., Mengeling, M., Torner, J., & Sadler, A. G. (2011). Rape, sex partnership and substance use consequences in women veterans. *Journal of Trauma and Stress*, 24, 287–294.
- Bowen, A. M., & Bourgeois, M. J. (2001). Attitudes toward lesbian, gay and bisexual college students: The contribution of pluralistic ignorance, dynamic social impact and contact

- theories. *Journal of American College Health*, 50(2), 91–96.
doi:10.1080/07448480109596012
- Bullock, D. (2013). The contact hypothesis and racial diversity in the United States military. *Dissertation Abstracts International Section A*, 74,
- Bumiller, E., & Shanker, T. (Jan 24, 2013). Military chiefs' personal encounters influenced lifting women's combat ban. *The New York Times*. Retrieved from http://www.nytimes.com/2013/01/25/us/politics/formally-lifting-a-combat-ban-military-chiefs-stress-equal-opportunity.html?_r=0
- Burke, S. E., Dovidio, J. F., Przeworski, J. M., Hardeman, R. R., Perry, S. P., Phelan, S. M., Nelson, D. B., Burgess, J. D., Yeazel, M. W., & van Ryn, M. (2015). Do contact and empathy mitigate bias against gay and lesbian people among heterosexual first-year medical students? A report from the medical student CHANGE study. *Academic Medicine*, 90(5), 645–651. doi:10.1097/ACM.0000000000000661
- Cable News Network. (2016, July 27). *Same-sex marriage fast facts*. Retrieved from <http://www.cnn.com/2013/05/28/us/same-sex-marriage-fast-facts/>
- Cadenas, G. A., Cisneros, J., Todd, N. R., & Spanierman, L. B. (2016). DREAMzone: Testing two vicarious contact interventions to improve attitudes toward undocumented immigrants. *Journal of Diversity in Higher Education*, doi:10.1037/dhe0000055
- Christ, O., & Wagner, U. (2013). Methodological issues in the study of intergroup contact: Towards a new wave of research. *Advances in intergroup contact* (pp. 233–261). New York, NY: Psychology Press.
- Civilian. (n.d.) In *Merriam Webster's online dictionary*. Retrieved from <https://www.merriam-webster.com/dictionary/civilian>

- Cochran, B. N., Balsam, K., Flentje, A., Malte, C. A., & Simpson, T. (2013). Mental health characteristics of sexual minority veterans. *Journal of Homosexuality*, *60*, 419–435.
- Committee on Veterans' Affairs. (November 10, 2011). *House Veterans legislation passes Senate*. Retrieved from <http://veterans.house.gov/sites/republicans.veterans.house.gov/files/111011%20VOW%20FINAL.pdf>
- Conway, M. A. (2014). *The impact of quality of contact, quantity of contact, and exposure to information on student attitudes toward veterans* (Unpublished doctoral dissertation). Fairleigh Dickinson University, Florham Park, NJ.
- Coronges, K. A., Miller, K. A., Tamayo, C. I., & Ender, M. G. (2013). A network evaluation of attitudes toward gays and lesbians among U. S. military cadets. *Journal of Homosexuality*, *60*(11), 1557–1580. doi:10.1080/00918369.2013.824322
- Costa, P. A., Pereira, H., & Leal, I. (2015). 'The contact hypothesis' and attitudes toward same-sex parenting. *Sexuality Research & Social Policy: A Journal of the NSRC*, *12*(2), 125–136. doi:10.1007/s13178-014-0171-8
- Cunningham, G. B., & Melton, E. N. (2013). The moderating effects of contact with lesbian and gay friends on the relationships among religious fundamentalism, sexism, and sexual prejudice. *Journal of Sex Research*, *50*(3–4), 401–408. doi:10.1080/00224499.2011.648029
- Currarini, S., & Mengel, F. (2016). Identity, homophily and in-group bias. *Social identity and discrimination*, 40–55. doi:10.1016/j.euroecorev.2016.02.015
- Demers, A. (2011). When veterans return: The role of community in reintegration. *Journal of Loss & Trauma*, *16*(2), 160–179. doi:10.1080/15325024.2010.519281

- Department of Defense. (2017). *ROTC programs*. Retrieved from http://todaysmilitary.com/training/rotc?source-id=ROTC&content-id=rotc&medium-id=Exact&campaign-id=G_Military_Training_Programs_Exact
- Dodou, D., & de Winter, J. (2014). Review: Social desirability is the same in offline, online, and paper surveys: A meta-analysis. *Computers in Human Behavior*, 36487–36495. doi:10.1016/j.chb.2014.04.005
- Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Processes & Intergroup Relations*, 6(1), 5–20. doi:10.1177/1368430203006001009
- Doyle, D. D., Jr. (2015). Nineteenth-century male love stories and sex stories. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 132–140). Madison, WI: University of Wisconsin Press.
- Dropp, K., & Cohen, J. (July 19, 2008). Acceptance of gay people in military grows dramatically. *The Washington Post*.
- Ellis, R., Fantz, A., Karimi, F., & McLaughlin, E. C. (2016, June 13). Orlando shooting: 49 killed, shooter pledged ISIS allegiance. *CNN Online*. Retrieved from <http://www.cnn.com/2016/06/12/us/orlando-nightclub-shooting/>
- Ender, M. G., Rohall, D. E., Brennan, A. J., Matthews, M. D., & Smith, I. (2012). Civilian, ROTC, and Military Academy undergraduate attitudes toward homosexuals in the U.S. military: A research note. *Armed Forces & Society*, 38(1), 164–172. doi:10.1177/0095327X11410856
- Estrada, A. X. (2002). A preliminary scale for assessing attitudes towards homosexuals in the military. *Psychological Reports*, 90(2), 583–592. doi:10.2466/PR0.90.2.583-592

- Estrada, A. X. (2012). Gay service personnel in the U.S. military: History, progress and a way forward. In J. H. Laurence & M. D. Matthews (Eds.), *The Oxford Handbook of Psychology* (344–364). doi:10.1093/oxfordhb/9780195399325.013.0120
- Estrada, A. X., Dirosa, G. A., & Decostanza, A. H. (2013). Gays in the military: Reviewing the researching conceptualizing a way forward. *Journal of Homosexuality*, *60*, 327–355.
- Estrada, A. X., & Weiss, D. J. (1999). Attitudes of military personnel toward homosexuals. *Journal of Homosexuality*, *37*(4), 83–97. doi:10.1300/J082v37n04_05
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175–191. doi:10.3758/BF03193146
- Federal Bureau of Investigation. (November 14, 2016). *FBI releases 2015 hate crime statistics*. Retrieved from https://ucr.fbi.gov/hate-crime/2015/resource-pages/hate-crime-2015-_summary_final
- Findlaw. (2013). *Legal issues for gay and lesbian adoption*. Retrieved from <http://family.findlaw.com/adoption/legal-issues-for-gay-and-lesbian-adoption.html>
- Francikova, D. (2015). Romantic friendship: Exploring modern categories of sexuality, love and desire between women. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 143–150). Madison, WI: University of Wisconsin Press.
- Freeman, S. K., & Rupp, L. J. (2015). *Understanding and teaching U.S. lesbian, gay, bisexual, and transgender history*. Madison, WI: University of Wisconsin Press.
- Gallup/Newsweek Poll. (1983, July 20-21). *National adult telephone survey*.

- Gates, G. J. (April, 2011). *How many people are lesbian, gay, bisexual and transgender?* Los Angeles, CA: The Williams Institute.
- Gay. (n.d.). In *Miriam Webster online*. Retrieved from https://www.merriam-webster.com/dictionary/gay?utm_campaign=sd&utm_medium=serp&utm_source=jsonld
- Gravetter, F., & Wallnau, L. (2014). *Essentials of statistics for the behavioral sciences* (8th ed.). Belmont, CA: Wadsworth.
- Green, S.B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research*, 26, 499-510. doi: 10.1207/s15327906mbr2603_7
- Hall, C. H., Harrell, M. C., Biskler, B. A., Sterwart, R., & Fisher, M. P. (2014). *Veteran employment: Lessons from the 100,000 jobs mission*. Retrieved from https://www.rand.org/content/dam/rand/pubs/research_reports/RR800/RR836/RAND_RR836.pdf
- Harris, M. B., & Vanderhoof, J. (2008). Attitudes towards gays and lesbians serving in the military. *Journal of Gay & Lesbian Social Services*, 3(4), 23–51.
doi:/10.1300/J041v03n04_03
- Harwood, J. (2015). Intergroup contact, prejudicial attitudes, and policy preferences: The case of the U.S. military's "Don't Ask, Don't Tell" policy. *Journal of Social Psychology*, 155(1), 57–69.
- Hays, R. D., Hayashi, T., & Stewart, A. L. (1989). A five-item measure of socially desirable response set. *Educational And Psychological Measurement*, 49(3), 629-636.
doi:10.1177/001316448904900315

- Hegarty, M. E. (2015). The other way: Gay men and lesbians in the Second World War. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 178–184). Madison, WI: University of Wisconsin Press.
- Herek, G. M., & Capitano, J. P. (1996). 'Some of my best friends': Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412–424.
doi:10.1177/0146167296224007
- Herek, G. M., Jobe, J. B. & Carney, R. M. (Eds.). (1996). *Out in force: Sexual orientation and the military*. Chicago, IL: The University of Chicago Press.
- Herrell, R., Goldberg, J., True, W. R., Ramakrishnan, V., Lyons, M., Eisen, S., & Tsuang, M. T. (1999). Sexual orientation and suicidality: A co-twin control study in adult men. *Archives of General Psychiatry*, 56(10), 867–874. doi:10.1001/archpsyc.56.10.867
- Institute of Medicine. (2011). *The health of lesbian, gay, bisexual and transgender people: Building a foundation for better understanding*. Washington, DC: National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=13128
- International Business Machines Corporation. (2013). *IBM SPSS Statistics for Mac, Version 22.0*. Armonk, NY: Author.
- Johnson, D. K. (2015). The red scare's lavender cousin: The construction of the cold war citizen. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 186–197). Madison, WI: University of Wisconsin Press.
- Johnston, L. (2001). Ingroup and outgroup. In J. Michie (Ed.), *Reader's guide to the social sciences*. London, UK: Routledge. Retrieved from

http://ezproxy.shu.edu/login?url=http://search.credoreference.com/content/entry/routsocial/ingroup_and_outgroup/0

- Kauth, M. R., Meier, C., & Latini, D. M. (2014). A review of sexual health among lesbian, gay and bisexual veterans. *Current Sexual Health Report*. doi:10.1007/s11930-014-0018-6
- Kauth, M. R., & Shipherd, J. C. (2016). Transforming a system: Improving patient-centered care for sexual and gender minority veterans. *LGBT Health*, 3(3), 177–179. doi:10.1089/lgbt.2016.0047
- Keating, S. (2017, January 4). What Matthew Shepard's murder can teach us about hate in America today. *Buzzfeed News*. Retrieved from https://www.buzzfeed.com/shannonkeating/hate-in-america?utm_term=.skpok4YBx#.oslZQwO6v
- Kennedy, S. A. (1996, September). Changing attitudes toward lesbian women and gay men through self-confrontation. *Dissertation Abstracts International*, 57, 2219
- Kerrigan, A. J., Kaough, J. E., Wilson, B. L., Wilson, J., & Bostick, R. (2004). Vocational rehabilitation of participants with severe substance use disorders in a VA veterans industries program. *Substance Use & Misuse*, 39(13–14), 2513–2523.
- King, M. E., Winter, S., & Webster, B. (2009). Contact reduces transprejudice: A study on attitudes towards transgenderism and transgender civil rights in Hong Kong. *International Journal of Sexual Health*, 21(1), 17–34. doi:10.1080/19317610802434609
- Kwon, P., & Hugelshofer, D. S. (2012). Lesbian, gay, and bisexual speaker panels lead to attitude change among heterosexual college students. *Journal of Gay & Lesbian Social Services: The Quarterly Journal of Community & Clinical Practice*, 24(1), 62–79. doi:10.1080/10538720.2012.643285

- Lemaire, C. M., & Graham, D. P. (2011). Factors associated with suicidal ideation in OEF/OIF veterans. *Journal of Affective Disorders, 130*(1–2), 231–238.
doi:10.1016/j.jad.2010.10.021
- Lemmer, G., & Wagner, U. (2015). Can we really reduce ethnic prejudice outside the lab? A meta-analysis of direct and indirect contact interventions. *European Journal of Social Psychology, 45*(2), 152-168. doi:10.1002/ejsp.2079
- Lewis, G. B. (2011). The friends and family plan: Contact with gays and support for gay rights. *Policy Studies Journal, 39*, 217–238.
- Loehr, A., Doan, L., & Miller, L. R. (2015). The role of selection effects in the contact hypothesis: Results from a U.S. National survey on sexual prejudice. *Archives of Sexual Behavior, 44*(8), 2111–2123. doi:10.1007/s10508-015-0483-7
- Loftin, C. M. (2015). Community and civil rights in the Kinsey era. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 213–222). Madison, WI: University of Wisconsin Press.
- Lytle, A., Dyar, C., Levy, S. R., & London, B. (2016). Essentialist beliefs: Understanding contact with and attitudes towards lesbian and gay individuals. *British Journal Of Social Psychology*, doi:10.1111/bjso.12154
- Maoz, I. (2003). Peace-building with the hawks: Attitude change of Jewish-Israeli hawks and doves following dialogue encounters with Palestinians. *International Journal of Intercultural Relations, 27*(6), 701–714. doi:10.1016/j.ijintrel.2003.08.004
- Matarazzo, B. B., Barnes, S. M., Pease, J. L., Russell, L. M., Hanson, J. E., Soberay, K. A., & Gutierrez, P. M. (2014). Suicide risk among lesbian, gay, bisexual, and transgender

- military personnel and veterans: What does the literature tell us? *Suicide and Life-Threatening Behavior*, 44(2), 200–217. doi:10.1111/sltb.12073
- Matthews, M. D., Harger, B. S., & Weaver, C. N. (1994). Attitudes toward homosexual behavior: Effects of veteran status. *Psychological Reports*, 75(3, Pt. 2), 1516–1518. doi:10.2466/pr0.1994.75.3f.1516
- Matthews, M. D., Harger, B. S., & Weaver, C. N. (1995). Attitudes of women toward homosexual behavior as a function of veteran status. *Psychological Reports*, 76(1), 266. doi:10.2466/pr0.1995.76.1.266
- Mattocks, K. M., Kauth, M. R., Sandfort, T., Matza, A. R., Sullivan, J. C., & Shipherd, J. C. (2014). Understanding health-care needs of sexual and gender minority veterans: How targeted research and policy can improve health. *LGBT Health*, 1(1), 50–57. doi:10.1089/lgbt.2013.0003
- Mattocks, K. M., Sadler, A., Yano, E. M., Krebs, E. E., Zephyrin, L., & Brandt, C. (2013). Sexual victimization, health status, and VA healthcare utilization among lesbian and bisexual OEF/OIF veterans. *Journal of General Internal Medicine*, 28(2), S604–608.
- McCrary, J., & Gutierrez, L. (1979). The homosexual person in military and in national security employment. *Journal of Homosexuality*, 5(1–2), 115–146. doi:10.1300/J082v05n01_10
- McManus, J. L., Feyes, K. J., & Saucier, D. A. (2011). Contact and knowledge as predictors of attitudes toward individuals with intellectual disabilities. *Journal of Social and Personal Relationships*, 28(5), 579–590. doi:10.1177/0265407510385494
- Miles, E., & Crisp, R. J. (2014). A meta-analytic test of the imagined contact hypothesis. *Group Processes & Intergroup Relations*, 17(1), 3–26. doi:10.1177/1368430213510573

- Miller, L. L. (1994). Fighting for a just cause: Soldiers' views on gays in the military. *Gays and lesbians in the military: Issues, concerns, and contrasts* (pp. 69–85). Hawthorne, NY: Aldine de Gruyter.
- Mohipp, C., & Morry, M. M. (2004). The relationship of symbolic beliefs and prior contact to heterosexuals' attitudes toward gay men and lesbian women. *Canadian Journal of Behavioural Science /Revue Canadienne Des Sciences Du Comportement*, 36(1), 36–44. doi:10.1037/h0087214
- Moradi, B., & Miller, L. (2009). Attitudes of Iraq and Afghanistan war veterans toward gay and lesbian service members. *Armed Forces and Society*, 1–23.
- National Center for PTSD. (April 6, 2012). *Active Duty vs. Reserve or National Guard*. Retrieved from http://www.va.gov/vetsinworkplace/docs/em_activeReserve.html
- National Institutes of Health. (April 8, 2012). *Racial and ethnic categories and definitions for NIH diversity programs and for other reporting purposes*. Retrieved from <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-089.html>
- Patterson, M. M., & Bigler, R. S. (2006). Preschool children's attention to environmental messages about groups: Social categorization and the origins of intergroup bias. *Child Development*, 77(4), 847–860. doi:10.1111/j.1467-8624.2006.00906.x
- Pease, J. L., Billera, M., & Gerard, G. (2016). Military Culture and the Transition to Civilian Life: Suicide Risk and Other Considerations. *Social Work*, 61(1), 83-86. doi:10.1093/sw/swv050
- Pesina, M. D., Hitchcock, D. L., & Rienzi, B. M. (1994). The military ban against gay males: University students' attitudes before and after the presidential decision. *Journal of Social Behavior & Personality*, 9(3), 499–506.

- Petronzi, G. (2016). *Understanding attitude towards help seeking in predicting preference for psychotherapeutic orientation* (Unpublished doctoral dissertation). Seton Hall University, South Orange, NJ.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5), 751–783. doi:10.1037/0022-3514.90.5.751
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology, 38*, 922–934.
- Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations, 35*(3), 271–280. doi:10.1016/j.ijintrel.2011.03.001
- Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., & Southwick, S. M. (2009). Psychological resilience and postdeployment social support protect against traumatic stress and depressive symptoms in soldiers returning from Operations Enduring Freedom and Iraqi Freedom. *Depression & Anxiety (1091–4269), 26*(8), 745–751. doi:10.1002/da.20558
- Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin, 29*(6), 790–801. doi:10.1177/0146167203029006011
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. doi:10.1037/0021-9010.88.5.879

- Poole, J. H. (2008). Outcomes of intergroup contact: An assessment of joint professional military education. *Dissertation Abstracts International Section A*, 68, 5047.
- Ridolfo, H., Miller, K., & Maitland, A. (2012). Measuring sexual identity using survey questionnaires: How valid are our measures? *Sexuality Research and Social Policy*, (2), 113.
- Riskind, R. G. (2014). Psychological barriers to parenthood among lesbians and gay men. *Dissertation Abstracts International*, 74,
- Rivers, D. (2015). Queer generations: Teaching the history of same-sex parenting since the Second World War. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 254–263). Madison, WI: University of Wisconsin Press.
- Sakalli, N., & Uğurlu, O. (2002). The effects of social contact with a lesbian person on the attitude change toward homosexuality in Turkey. *Journal of Homosexuality*, 44(1), 111–119. doi:10.1300/J082v44n01_06
- Scarberry, N. C., Ratcliff, C. D., Lord, C. G., Lanicek, D. L., & Desforges, D. M. (1997). Effects of individuating information on the generalization part of Allport's contact hypothesis. *Personality And Social Psychology Bulletin*, 23(12), 1291-1299. doi:10.1177/01461672972312006
- Schiappa, E., Gregg, P. B., & Hewes, D. E. (2006). Can one TV show make a difference? Will & Grace and the parasocial contact hypothesis. *Journal of Homosexuality*, 51(4), 15–37. doi:10.1300/J082v51n04_02
- Sherif, M. (1988). *The Robbers Cave Experiment: Intergroup conflict and cooperation*. Middletown, CT: Wesleyan University Press.

- Sherman, M. D., Larsen, J., & Borden, L. M. (2015). Broadening the focus in supporting reintegrating Iraq and Afghanistan veterans: Six key domains of functioning. *Professional Psychology: Research and Practice, 46*(5), 355–365.
doi:10.1037/pro0000043
- Shilo, G., & Savaya, R. (2012). Mental health of lesbian, gay, and bisexual youth and young adults: Differential effects of age, gender, religiosity, and sexual orientation. *Journal of Research on Adolescence, 22*(2), 310–325. doi:10.1111/j.1532-7795.2011.00772.x
- Sienrukos, J. C. (2002, September). An assessment of the attitudes toward homosexuals serving openly in the United States military at Camp Zama, Japan. *Dissertation Abstracts International Section A, 63*, 1144.
- Span, S. A. (2011). Addressing university students' anti-gay bias: An extension of the contact hypothesis. *American Journal of Sexuality Education, 6*(2), 192–205.
doi:10.1080/15546128.2011.571957
- Strub, W. (2015). The new right's antigay backlash. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 265–277). Madison, WI: University of Wisconsin Press.
- Sutton, B., Ottomanelli, L., Njoh, E., Barnett, S., & Goetz, L. (2015). The impact of social support at home on health-related quality of life among veterans with spinal cord injury participating in a supported employment program. *Quality of Life Research, 24*(7), 1741–1747. doi:10.1007/s11136-014-0912-4
- Tajfel, H. (Ed.). (2010). *Social identity and intergroup relations*. New York, NY: Cambridge University Press.

- Tawagi, A. L., & Mak, A. S. (2015). Cultural inclusiveness contributing to international students' intercultural attitudes: Mediating role of intergroup contact variables. *Journal of Community & Applied Social Psychology, 25*(4), 340–354. doi:10.1002/casp.2218
- Techakesari, P., Louis, W., & Barlow, F. K. (2015). The role of contact partners' gender in moderating the effect of positive contact on intergroup attitudes: A theoretical framework. *Sensoria: A Journal of Mind, Brain & Culture, 11*(1), 16–27. doi:10.7790/sa.v11i1.406
- Tredoux, C., & Finchilescu, G. (2007). The contact hypothesis and intergroup relations 50 years on: Introduction to the special issue. *South African Journal of Psychology, 37*(4), 667–678. doi:10.1177/008124630703700401
- Tremmel, R. V. (2015). Industrial capitalism and emergent sexual cultures. In S. K. Freeman & L. J. Rupp (Eds.), *Understanding and teaching U.S. lesbian, gay, bisexual and transgender history* (pp. 153–164). Madison, WI: University of Wisconsin Press.
- U.S. Department of Veterans Affairs. (2012). *Special employer incentives*. Retrieved from <http://www.benefits.va.gov/VOW/docs/seiflyerfinal.pdf>
- U.S. Department of Veterans Affairs. (February, 2015). *VA benefits for service members*. VA/DOD Program Office. Retrieved from <http://www.benefits.va.gov/BENEFITS/factsheets/general/ ServicemembersFactSheet.pdf>
- U.S. Department of Veterans Affairs. (August 3, 2016). *Suicide among veterans and other Americans 2001–2014*. Retrieved from <http://www.mentalhealth.va.gov/docs/2016suicidedatareport.pdf>
- Van Swol, L. M. (2015). Out-group. In *Salem Press Encyclopedia* online. Retrieved from <http://eds.b.ebscohost.com.ezproxy.shu.edu/eds/detail/detail?sid=2218c463-9263-4d9e->

98cfee9a572a9fd9%40sessionmgr120&vid=1&hid=122&bdata=JnNpdGU9ZWRzLWxp
dmU%3d#AN=96397556&db=ers

- Walch, S. E., Sinkkanen, K. A., Swain, E. M., Francisco, J., Breaux, C. A., & Sjoberg, M. D. (2012). Using intergroup contact theory to reduce stigma against transgender individuals: Impact of a transgender speaker panel presentation. *Journal of Applied Social Psychology, 42*(10), 2583–2605. doi:10.1111/j.1559-1816.2012.00955.x
- Wallenberg, J., Anspach, A., & Leon, A. M. (2011). Student degree program and attitudes toward gays and lesbians in the military: Is there a connection? *Journal of Homosexuality, 58*(4), 476–496. doi:10.1080/00918369.2011.555668
- Wilder, D. A. (2015). Contact hypothesis. In *Salem Press Encyclopedia*. Database: Research Starters.
- Winter, L. B. (2011). West Virginia school psychologists' attitudes toward gay and lesbian students. *Dissertation Abstracts International Section A, 72*, 2114.
- Woodford, M. R., Brennan, D. J., Gutiérrez, L., & Luke, K. P. (2013). U.S. graduate social work faculty's attitudes toward lesbian, gay, bisexual, and transgender people. *Journal of Social Service Research, 39*(1), 50–62. doi:10.1080/01488376.2012.666936
- Wyman, M. A., & Snyder, M. (1997). Attitudes toward 'gays in the military': A functional perspective. *Journal of Applied Social Psychology, 27*(4), 306–329. doi:10.1111/j1559-1816.1997.tb00634.x
- Zuwerink, J. R., & Devine, P. G. (1996). Attitude importance and resistance to persuasion: It's not just the thought that counts. *Journal Of Personality And Social Psychology, 70*(5), 931-944. doi:10.1037/0022-3514.70.5.931

Appendix A

Exclusionary Demographic Criteria

1. Are you currently serving in the military(circle one)?

(A) Yes

(B) No

An affirmative response to this question will be considered exclusionary as the study aims to generalize to heterosexual non-veteran civilians.

2. Have you ever served in any military (circle one)?

(A) Yes

(B) No

An affirmative response to this question will be considered exclusionary as the study aims to generalize to heterosexual non-veteran civilians.

3. Do you identify your sexual orientation as heterosexual?

(A) Yes

(B) No

A response of “No” will be considered exclusionary as the study aims to generalize to heterosexual non-veteran civilians.

4. Are you currently a citizen or permanent resident of the United States?

(A) Yes

(B) No

A response of “No” to this question will be exclusionary as the study aims to generalize to United States civilian attitudes towards gay men and lesbians serving in the United States military.

Appendix B

Demographic Questionnaire

1. Sex:

- (A) Male
- (B) Female
- (C) Other

2. Age: (in years) _____

3. Beginning with Kindergarten, how many years of education have you completed?

4. When it comes to politics do you usually think of yourself as:

- (A) Very Liberal
- (B) Liberal
- (C) Slightly Liberal
- (D) Moderate/Middle of the road
- (E) Slightly Conservative
- (F) Conservative
- (G) Very Conservative

5. What is your race/ethnicity?

- (A) American Indian or Alaska Native
- (B) Asian.
- (C) Black or African American
- (D) Hispanic or Latino
- (E) Native Hawaiian or Other Pacific Islander
- (F) White

Appendix C

The Quantity of Contact with Gay Men and Lesbians Scale

Please use the 9-point scale below to indicate your agreement with each statement.

1 2 3 4 5 6 7 8 9

Disagree Very Strongly

Agree Very Strongly

1. ____ In the past, I have interacted with gay men and lesbians in many areas of my life (e.g., school, friends, work, clubs).
2. ____ The neighborhood(s) I grew up in had mostly people who were not gay men or lesbians.
3. ____ The high school I attended had mostly students from gay and lesbian families.
4. ____ In the past, I have rarely interacted with gay men or lesbians.
5. ____ I have a close family member who is a gay man or a lesbian.
6. ____ I have a close friend who is a gay man or a lesbian.

Appendix D

The Quality of Contact with Gay Men and Lesbians Scale

Please use the 9-point scale below to indicate your agreement with each statement.

1 2 3 4 5 6 7 8 9

Disagree Very Strongly

Agree Very Strongly

1. ____ In the past, my experiences with gay men and/or lesbians have been pleasant.
2. ____ I have had many positive experiences with gay men and/or lesbians.
3. ____ Over the course of my life, I have had many friends who identify as gay or lesbian.
4. ____ Overall I have had positive experiences with gay men and lesbians.
5. ____ I have enjoyed the experiences I have had with gay men and lesbians.
6. ____ The experiences I have had with gay men and or lesbians have been fun.

Appendix E

Attitudes Toward Homosexuals in the Military Scale (ATHM; Estrada, 2002)

PLEASE READ THE FOLLOWING STATEMENTS AND PLACE A MARK ON THE SCALE RESPONSE (Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree) THAT BEST DESCRIBES YOUR LEVEL OF AGREEMENT.

PLEASE SELECT ONLY ONE RESPONSE.

1. Gay men and lesbians would not be reliable in a combat situation.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

2. Openly gay or lesbian service members would try and seduce straight service members.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

3. Lesbians/gay men should be allowed to enter and remain in the military.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

4. If I was in the military, it would be all right for gay men and lesbians to be in the military as long as I don't know who they are.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

5. Allowing openly gay men and lesbians in the armed forces would be very disruptive.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

6. If I was in the military, I would feel uncomfortable if there was a gay man or lesbian in my unit.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

7. If I was in the military, I would feel uncomfortable having to share my room with a gay or lesbian service member.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

8. Gay males make me more uncomfortable than lesbians.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

9. In the event of a draft, gay men should be drafted the same as straight men.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

10. Allowing gays and lesbians in the military will increase soldiers' acceptance of gay men and lesbians.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

11. I feel that gay men/lesbians should be allowed to serve openly in the armed forces.

Strongly Agree Agree Not Sure Disagree Strongly Disagree

12. Allowing openly lesbian or gay individuals in the military would cause some problems but those problems would be manageable.

Strongly Agree

Agree

Not Sure

Disagree

Strongly Disagree

Appendix F

Social Desirability Response Set (SDRS-5)

Listed below are a few statements about your relationships with others. How much is each statement TRUE or FALSE for you?

1. I am always courteous even to people who are disagreeable.

Definitely True Mostly True Don't know Mostly False Definitely False

2. There have been occasions when I took advantage of someone.

Definitely True Mostly True Don't know Mostly False Definitely False

3. I sometimes try to get even rather than forgive and forget

Definitely True Mostly True Don't know Mostly False Definitely False

4. I sometimes feel resentful when I don't get my way.

Definitely True Mostly True Don't know Mostly False Definitely False

5. No matter who I'm talking to, I'm always a good listener.

Definitely True Mostly True Don't know Mostly False Definitely False
