2021

Correlation between Moral Foundations and Students' Attitudes Toward Concealed Carry Guns on College Campuses

Hengameh Hashemi Toosi
Walden University

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Hengameh Hashemi Toosi

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Stephen Rice, Committee Chairperson, Psychology Faculty
Dr. Donna Heretick, Committee Member, Psychology Faculty
Dr. Virginia Salzer, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2021

Abstract

Correlation between Moral Foundations and Students' Attitudes Toward Concealed Carry Guns on College Campuses

by

Hengameh Hashemi Toosi

MS, American Public University, 2013

BS, Kennesaw State University, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

General Psychology

Walden University

May 2021

Abstract

Attitudes towards concealed carry of guns (CCG) on campus are diverse across society and within college and university communities. The purpose of this quantitative study was to investigate possible predictors of college students' attitudes toward CCG on college campuses. Using the moral foundations theory, it was hypothesized that students' types of moral foundations, political affiliations, and demographics would predict four dimensions of attitudes toward CCG at their college campuses. The prediction model included gender, race, political affiliation (PA), as well as scores for harm (H), fairness (F), ingroup (I), authority (A), and purity (P) from the Moral Foundations Questionnaire (MFQ) predicting separate scores for attitudes regarding concealed carry: safety if students carry (SS), safety if faculty/staff carry (FS), confidence in police for crime prevention (CP), and ability to protect self if carrying a gun (SP). The sample size included 145 college students from across the United States. Primary results of multiple linear regressions revealed that, in general, moral foundations did not significantly predict attitudes, with one exception: "authority" significantly predicted SP. Political affiliation was a significant predictor of SS, FS, and SP, with conservatives generally more favorable than liberals. Age and race were not significant predictors. This investigation of some predictors of students' attitudes toward CCG on campus can help professionals promote positive social change in higher education by recognizing factors that may affect students' preferences and sense of safety regarding concealed weapons on campus.

Correlation between Moral Foundations and Students' Attitudes Toward Concealed Carry Guns on College Campuses

By

Hengameh Hashemi Toosi

MS, American Public University, 2013

BS, Kennesaw State University, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

General Psychology

Walden University

May 2021

APA 7

Acknowledgments

"However difficult life may seem; there is always something you can do and succeed at. It matters that you don't just give up." “There should be no boundaries in a human endeavor.”

- Stephen Hawking

This research is dedicated to my family, especially to my mother, who always encouraged me to pursue my education and supported me in any way she could.

To my husband, Mohsen, and my two lovely children, Jasmine and Nick, who lived through my pursuit of higher education and were patient throughout all the years I was busy with my schoolwork. My success was not possible without your love and support. Thank you and love you all.

I also thank my chair, Dr. Stephen Rice, for his total support, guidance, and encouragement; my committee, Dr. Donna Heretick for her kind support; and my URR Dr. Ginny Salzer.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

The research idea developed from personal experience with college students when a law proposing a permit to conceal carry guns (CCG) on college campuses was on the Georgia governor's table for adoption. The Campus Carry Law, also called the House Bill 280, was passed and went into effect on July 1, 2017, in Georgia. The Campus Carry Law had bipartisan supporters. The law received attention from college students, their parents, and college employees. The right to carry guns and ways to reduce related violence have been a debatable social and political subject for decades.

The debate over CCG on college campuses received more attention after devastating mass shootings on college campuses in Virginia Tech University and Northern Illinois University. These mass shootings prompted state governments to consider passing concealed carry bills for students, faculty, and staff to carry concealed weapons on college campuses for self-defense in case of threats (Fennell, 2009). Mass shooting on college campuses and schools has been an issue of national concern for since the school shooting in Columbine High School in 1999, in which 12 students and one teacher were killed. According to the U.S. Department of Education (2017), at least 33 murder cases have been reported on college campuses every year since 2007.

According to Grayson and Meilman (2013), the probability of individual shootings (including suicide, accidental shootings, and homicide) is much higher than mass shootings in colleges. Students with suicidal or homicidal thoughts are more likely

to be successful in committing these acts when they have guns in their hands compared to when they possess a knife or pills (Grayson & Meilman, 2013).

Kyle et al. (2017) said 83.13% of faculty and staff and 62.90% of students in a Midwestern city opposed laws regarding carrying a concealed weapon on their college campus. People who work and study in colleges feel less safe when concealed guns are on college campuses. In a similar study, Shepperd et al. (2018) examined the students, faculty, and staff's perception on safety, regarding anticipated consequences. The participants were 11,390 individuals at a southeastern university who accepted to participate and provided the required information. The results of the study revealed that most participants believed that legalization of CCGs on university campuses have negative consequences (78.4% of non-gun owner, 65.4% of gun owner for non-protection reasons).

The purpose of the current study was to investigate possible predictors of college students' attitudes toward concealed guns on college campuses. Focusing on the views of students related to their different moral values when guns are allowed on college campuses is a relatively unaddressed area of research involving the legality and safety of carrying guns on college campuses. Moral foundations are related to individual beliefs and shape people's intentions and collective behaviors (Dickinson et al., 2016). While this study examined students' attitudes, it could offer insight into how school authorities and lawmakers can understand students' perspectives of school-related issues and knowing which moral foundation predicts students' opinions and actions.

From a social change viewpoint, understanding which moral values may more significantly influence students' attitudes toward concealed carry on college campuses can help in terms of designing better ways to approach and work with students with different values and beliefs.

Positive social change is a phenomenon that starts with the shift at different levels of human life, from an individual's attitudes and knowledge to global problems (Singh & Majumdar, 2014). The findings of this study can give some insights regarding how best to protect students from gun violence on campuses and how to educate students, faculty, and staff regarding self-protection. The results of this study can provide lawmakers and university executives with more information to make decisions regarding concealed carry on college campuses.

This chapter includes the background of the study, problem statement, purpose of the study, research questions, and hypotheses.

Background of the Study

Attitudes towards concealed carry of guns (CCG) on campus are diverse across society and within college and university communities. While some state legislators representing their constituents approve CCG on campus, nearly 63% of college students, and 83% of faculty and staff opposed the law (Kyle et al., 2017). One reason given by those who worked and studied in colleges was that they would feel less safe if concealed gun was allowed on campus. Students at a southeastern university expressed similar sentiments about feeling less safe and carrying a handgun on campus. Simultaneously, around 70% of students, faculty, and staff stated they thought that legalization of CCGs

on university campuses had negative consequences (Shepperd et al., 2018). Students who favored to concealed carry on campus tended to be mostly Republicans, males, gun owners, and those who grew up with guns in their homes (Jang et al., 2014).

Political affiliation is a reliable predictor of attitudes on public policy issues, including gun control and CCG on college campuses (Schildkraut et al., 2018). However, there can be a diversity of attitudes on these kinds of issues, even within groups with the same political affiliation.

Political ideologies are related to endorsement of different moral foundations, and these differences explain differences in attitudes towards various public policies (Cliford & Jerit, 2013; Dickinson et al., 2016). To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards CCG on campus. This research would extend previous studies that examined political affiliation and other sociodemographic factors as predictors of students' perceptions towards CCG on college campuses. Examining the relationship between moral values and students' attitudes toward CCG on campus can give professionals in higher education a better understanding of probable factors that may influence students' attitudes toward CCG on campus.

Problem Statement

Mass shootings on college campuses and schools have been an issue of national concern for many years. From 1991 to 2001, 136 school shootings were responsible for 77% of violent deaths in colleges in the United States (Lewis, et al., 2016). The numbers increased to 239 school shootings and 138 deaths related to gun violence in colleges from 2014 to 2018 (Patel, 2018). Based on a 2014 Gallup poll, 60% of gun owners in the U.S.

said the primary reason for them to purchase guns was self-defense and protection (Stroebe et at., 2017). Data has shown that most gun owners are motivated to own guns for self-defense, which is a subjective factor related to their perception of the victimization. According to the Violence Policy Center [VPC], (2018), CCP holders have been accountable for 1,239 deaths related to 1,033 non-self-defense shootings from 2007 to 2018. Although people who have permission to conceal are supposed to be obedient citizens, they have been involved in 31 mass shootings, 58 suicides, 51 homicides, and 21 law enforcement officer killings in the U.S. since 2007. These data cover a fraction of incidents because most states have barred releasing information about concealed carry-related offenses. According to the VPC (2018), CCG were not mainly used for self-defense, and 75% of CCG holders who were involved in shooting incidents have been convicted of homicide.

Conversely, the percentage of students who carry guns to school is not high. Five percent of students carry guns to school, and boys are more likely than girls to bring guns onto college property (Office for Victims of Crimes [OVC], 2018). Of the boys who carried guns, 80% were white. Although the Virginia Tech University mass shooting prompted Congress to act on preventing more incidents at schools, mass shooting incidents did not incline (Patel, 2018). There have been at least 239 school shootings nationwide, killing 138 and injuring 438 students from 2014 to 2018. Data from 1999 to 2001 showed that school shootings were responsible for 77% of violent deaths in colleges in the United States (Lewis et al., 2016). Therefore, there have been 100 more school shootings between 2014 and 2018 than between 1999 and 2001. In February 2018, at

Marjory Stoneman Douglas High School in Parkland, Florida, a gunman killed 17 people and injured many more. There has been an average of five school shootings per month since 2017 (Patel, 2018).

Verrecchia and Hendrix (2017) said gun owners were mostly white males and conservatives who perceived college and the world as dangerous places. These individuals were significantly more likely to support a law that allowed qualified faculty and students to concealed carry at college campuses. However, 46.5% of students reported feeling safe if their college or university allowed guns on the campus. According to Thompson et al. (2013), this percentage was 21%.

Different political ideologies are related to endorsement of different moral foundations. These differences in moral reasoning explain differences in attitudes towards various public policies. When attitudes toward public policies are under study, conservatives place more emphasis on ingroup/loyalty and authority/respect than purity/sanctity and harm/care. At the same time, liberals put more values on individualizing foundations including fairness/equality and harm/care (Dickinson et al., 2016). Furthermore, the distinction between very conservative and very liberal in terms of valuing compassion and fairness was minimal when they were already informed about negative consequences of climate change (Dickinson et al., 2016).

To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards CCG on campus. Examining the relationship between moral values and students’ attitudes toward CCG on campus can give

professionals in higher education a better understanding of probable factors that may influence students' attitudes toward CCG on college campuses.

Purpose of the Study

The purpose of this quantitative study was to examine the relationship between several predictor variables and the dependent variable of attitudes toward concealed carry guns on campus. Students' attitudes included their support or disapproval of CCG on college campuses based on their perceptions of safety. The dependent variable was measured using items from the Thompson et al. instrument. There are certain variables that may influence a person's perceptions toward concealed carry on university campuses. Predictor variables of interest in the current study were students' types of moral foundation: care/harm, fairness/equality, in-group/loyalty, authority/respect, and purity/sanctity, and political affiliations.

The nature of this study was quantitative. The purpose was to examine various factors as predictors of attitudes toward CCG on college campuses. The design was correlational. The quantitative design is faster and easier than the qualitative design in terms of collecting and assessing data (McCusker & Gunaydin, 2015). Quantitative research is more appropriate than qualitative research when the researcher is seeking to systematically explore a phenomenon through a collection of quantifiable data via questionnaires and statistical methodology (McCusker & Gunaydin, 2015).

This study investigated the attitudes of college students toward CCG on college campuses relating to their moral reasoning. Based on the MFT, there are five foundations of moral insight that control the social life of people across all cultures. These five

foundations include two individualizing foundations (harm/care and fairness/equality) and three binding foundations (authority/respect, in-group/loyalty, and purity/sanctity; Haidt & Joseph, 2004, 2007). The opinions or attitudes of students toward allowing guns on college campuses was assessed; therefore, the survey research design was the proper design to collect data.

Research Questions and Hypotheses

The following research questions and hypotheses guided this research study:

RQ1: To what degree do moral foundations (as measured by the Moral Foundation Questionnaire) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses?

$H_0 1$: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

$H_a 1$: Moral foundations and political affiliations are significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ2: To what degree do moral foundations (as measured by the Moral Foundation Questionnaire) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?

H_02: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

H_a2: Moral foundations and political affiliation are significant predictors of college students' agreement with feeling safe if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ3: To what degree do moral foundations (as measured by the Moral Foundation Questionnaire) and political affiliation (as measured by self-reported political identity) predict college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses?

H_03: Moral foundations and political affiliation are not significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a3: Moral foundations and political affiliation are significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

RQ4: To what degree do moral foundations (as measured by the Moral Foundation Questionnaire) and political affiliation (as measured by self-reported political identity) predict college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?

H_04: Moral foundations and political affiliation are not significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a4: Moral foundations and political affiliation are significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

Quantification of the dependent variable was measured using the questions that were used in the Thompson et al. (2013) study to collect the students' perception regarding concealed carry guns on college campuses. The independent variables were measured using the Moral Foundation Questionnaire (MFQ) (Graham et al., 2011) to acquire the students' moral foundations (Graham et al., 2011). The MFQ included 30 items that assessed the participants' moral reasoning based on five moral foundations: (1) Harm, (2) Fairness, (3) Authority, (4) Ingroup, and (5) Purity. Self-reported political identity, as it is scaled in Graham, Haidt and Nozek, (2009), was used to assess the participants' political affiliation.

Theoretical Foundation

This study investigated the attitudes of college students toward CCG on college campuses based on the Moral Foundation Theory (MFT). Based on the MFT, there are five foundations of moral insight that control people's social lives across all cultures. These five foundations include two individualizing foundations (harm/care and fairness/equality) and three binding foundations (authority/respect, ingroup/loyalty, and purity/sanctity; Haidt & Joseph, 2004, 2007). Haidt and Kesebir (2010) first defined a

moral system as “interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible” (p. 800). This definition gave psychologists a broader vision of the moral system, in which society, culture, and history influence a large number of people's interactions and moralities (Graham et al., 2011). Based on this theory, the names of the foundations are: (a) harm/care, (b) fairness/reciprocity (equality), (c) in-group/loyalty, (d) authority/respect, and (e) purity/sanctity.

Several studies have shown that rhetoricians use moral language to draw public opinions toward supporting their positions. Moral foundations can influence people’s views on different public policies. Purity foundation seems to be related to many cultural wars such as same-sex marriage, while ingroup and authority foundations are related to positions regarding flag burning and terrorism (Clifford & Jerit, 2013). Different political ideologies are related to endorsement of different moral foundations. These differences in foundations of moral reasoning explain differences in attitudes towards various public policies (Cliford & Jerit, 2013; Dickinson et al., 2016). More information about these studies and the association between the moral foundations and attitudes toward different social and public policies are in chapter 2.

MFT gives us an explanation about the concept, measure, and differences in moral values among various cultures, societies, and individuals (Graham et al., 2011). The MFT was used in the current study as it helps to identify moral values associated with students’ attitudes toward CCG on college campuses. This research would extend

previous studies that examined political affiliation and other sociodemographic factors as predictors of students' perceptions towards CCG on college campuses. Moral foundations are not only related to individual beliefs, but also shape people's intentions and collective behaviors (Dickinson et al., 2016). While this study examines students' attitudes, it can offer insight into how school authorities and lawmakers can understand students' perspectives on some school-related issues.

Nature of the Study

The nature of this study was quantitative. The purpose was to examine various factors (moral foundations and political affiliations) as predictors of attitudes toward CCG on college campuses. The design was correlational and included quantitative description of views and opinions. The quantitative design is faster and easier than the qualitative design in terms of collecting and assessing data (McCusker & Gunaydin, 2015).

Based on the MFT, there are five foundations of moral insight that control the social life of people across all cultures. These five foundations include two individualizing foundations: "(1) harm/care and (2) fairness/equality), and three binding foundations: (1) authority/respect, (2) in-group/loyalty, and (3) purity/sanctity)" (Haidt & Joseph, 2007, p. 368). The surveys also quantify the opinions or attitudes of students toward allowing guns on college campuses. Students' attitudes toward CCG on college campuses were the dependent variable. Predictor variables were five classes of moral foundations and political affiliations. MFT gives us an explanation of the concept, measure, and differences in moral values among various cultures, societies, and

individuals (Graham et al. 2011). MFT is related to the current study as it helps to identify the moral values associated with students' attitudes toward CCG on college campuses.

The target population of the study was college students. The sampling frame consisted of college and university students attending classes in the United States. The sampling method was nonprobability convenience sampling. Invitations to participate in this research were posted in Facebook to different college student groups and included the link to the survey. Data were collected with an online survey posted on SurveyMonkey. Students who were willing to participate read and agreed to the rules and conditions of the study. A total of 193 students agreed to take the survey. However, a quarter of them failed to provide critical information regarding the degree of safety they felt when students, faculty and staff, campus police, or themselves personally were carrying a conceal weapon for protection, and were therefore dropped from the data set. The response rate was 75%, with a final total of $N = 145$ students.

Multiple regression facilitated the assessment of relationships among variables in order to test alternative hypotheses. This test is proper to use when there are two or more independent variables that can be continuous or categorical, and the dependent variable can be measured as continuous. Multiple regression was used to explain the relationship between the value of the dependent variable (students' attitude toward CCG on college campuses) and independent variables (moral reasoning and political views). It was also used to predict the dependent variable based on the independent variable, and determine

which independent variables has a significant effect on the dependent variable. This test was used to measure total variance and relative contributions of each of the predictors.

Definitions

Attitudes toward Concealed Carry: The respondents' level of perceived agreement regarding various settings and situations involving the carrying of concealed firearms on college campuses" (Thompson et al., 2013, p. 245). A sample inference from an assessment of the students' attitudes is “I do not see any problems with faculty, students, and visitors carrying concealed handguns on campus". Participants will mark one of the five options of strongly agree, agree, neutral, disagree, or strongly disagree.

Concealed Carry: Carrying a handgun in a place “outside the home when is kept out of sight, typically in a holster inside a waistband or under the arm, or in a pocket or purse” (Bishop, 2012, p. 907). Permits to concealed carry are issued by state officials (Bishop, 2012).

Concealed carry law: Permits which allow concealed carry to anyone who meets eligibility criteria (Bishop, 2012, p. 907).

Feel of Safety: Feeling of not being threatened or endangered “by wild animals, extremes of temperatures, criminals, assault and murder, tyranny, etc.” (Maslow, 1943, p.379).

Conservative: The term Conservatism was first introduced in Wilson & Patterson's (1968) Conservatism Scale as Authoritarianism. A conservative person has a right-wing attitude toward social issues such as patriotism, support for large military, and

religious rules. These conservative traits were used to measure someone's stand points on conservatism since then (Smith et al., 2011).

Liberal: Based on Wilson and Patterson's (1968) Conservatism Scale, a liberal person supports smaller military and less religious rulings. These liberal characters were used to measure one's standpoints on liberalism in contemporary times (Smith et al., 2011).

Political affiliation: The value system that is used to explain the degree a person follows conservative or liberal views regarding sociopolitical issues and how society should be effectively managed (Smith et al., 2011).

Moral Foundations Theory (MFT): "A theory that explains the moral values of a person" (Graham et al., 2009). Haidt and Kesebir (2010) first defined moral system as "interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible" (p. 800). According to Haidt and Joseph (2007), the definitions of the five foundations are as follows:

1. harm/care—protect and care for young, vulnerable, or injured kin, support for those who prevent or relieve harm.
2. fairness/reciprocity—reap benefits of dyadic cooperation with non-kin, endorsement of justice and equality.
3. ingroup/loyalty—reap benefits of group cooperation, support for traditional values and in-group cooperation.

4. authority/respect—negotiate hierarchy, defer selectively, support for civil obedience and respect for authority.

5. purity/sanctity—avoid microbes and parasites, endorsement of living a more noble way, religious ideas and divinity" (p. 382).

Assumptions

This study contains several assumptions. It was assumed that participants truthfully responded to the surveys. All measures in this study were self-reported. It was assumed that explanations about the study's importance and procedures, anonymity, privacy, confidentiality, and relevance students encouraged accurate responses. Without this assumption, the study results would not be operational and feasible.

There are seven assumptions related to using multiple regression analysis that were inferred in this study. The dependent variable should be measured on continuous scale. There should be two or more independent variables that are categorical or continuous. There should be a linear relationship between the dependent variable and each independent variable, and between the dependent variable and the dependent variables collectively. Data should meet normality and homoscedasticity assumptions. Residuals are approximately normally distributed, meaning that the differences between the observed values and the predicted values or error (i.e., the regression residuals) are normally distributed. The variables used in a multiple linear regression show multivariate normality, meaning that there are no significant outliers, high leverage points or highly influential points. There are adequate correlations between the predicted and predictor variables, but two or more independent variables are not highly correlated with each

other. Data met the assumptions and multiple regression was used as the analysis method in this study.

Scope and Delimitations

The research questions addressed factors that may influence college students' attitude towards CCG on college campuses. The target population of the study was college students. The sampling frame of the study included students attending classes at colleges and universities in the United States. Haidt et al. (2009) said different political ideologies are related to endorsement of different moral foundations, and differences in moral foundations reasoning explain differences in attitudes toward various public policies. Although, I intended to send surveys to diverse student groups across the nation, generalizability of results to all college students in the U.S. is not guaranteed. In convenience sampling, the sample is not selected randomly; therefore, the sample is not a strong representative of the population, and making generalizations about the findings would be biased (Laerd Statistics, 2013).

Limitations

Although this study followed all guidelines for a proper and valid methodology to assess relationships between variables, there were still some threats to validity. For example, surveying and self-reporting can be a threat to internal validity, as students may be dishonest and respond in a socially desirable way. Many students partially completed the survey, and many missed key questions; therefore, only 145 out of 193 responses were accepted for analysis. The excluded respondents failed to provide critical information regarding the degree of safety they felt when students, faculty and staff,

campus police, or themselves personally were carrying a concealed weapon for protection and were dropped from the data set. There are not any resource constraints in this study.

Significance of the Study

From a social change viewpoint, understanding which moral values may more significantly influence students' attitudes toward concealed carry on college campuses, can help in terms of designing better ways to approach and work with students with different values and beliefs.

The findings of this study can lead to social change in terms of how best to protect students from gun violence on campuses and how to educate students, faculty, and staff to feel confident and protected. The results of this study can provide lawmakers and university executives with more information to make decisions regarding the use of concealed carry on college campuses.

Summary and Transition

This research investigated factors that can predict college students' attitudes toward CCG on college campuses. The target population of the study was college students. The sample includes students who were attending classes at U.S. colleges. This study may help lawmaker officials and college executives make better decisions regarding CCG on college campuses. A literature review and descriptions of the theoretical framework are in Chapter 2.

Chapter 2: Literature Review

Introduction

Devastating mass shootings on college campuses and schools has been an issue of national concern for many years since the school shooting in Columbine High School in 1999, in which 12 students and one teacher were killed. From 1991 to 2001, 136 school shootings were responsible for 77% of violent deaths in colleges in the United States (Lewis, et al., 2016). The numbers increased to 239 school shootings and 138 deaths related to gun violence in colleges from 2014 to 2018 (Patel, 2018).

The purpose of this study was to investigate possible predictors of college students' attitudes toward CCG on college campuses. The predictor variables of interest in the current study are the following types of student moral foundations: (a) care/harm, (b) fairness/equality, (c) in-group/loyalty, (d) authority/respect, and (e) purity/sanctity and political affiliations. While this study examined students' attitudes, it may offer insight into how school authorities and lawmakers can understand students' perspectives on some school-related issues.

The literature review determined the need for continued study regarding the relationship between predictors and students' attitudes toward CCG on college campuses. This study involved ascertaining whether the independent variables affected the dependent variable, and if so, to what extent. The research was quantitative and involved a regression procedure to examine correlations among variables. This literature review was used to inspect the viability of this study and limitations. I used the survey method

and regression analysis to assess the relationship between predictor and dependent variables.

The research involved examining five moral foundations as possible predictors of students' attitudes toward CCG on college campuses. Political affiliation was another predictor that is a reliable predictor of views on public policy issues, including gun control, stem cell research, and abortion (Cliford & Jerit, 2013).

To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards CCG on campus. This research would extend previous studies that examined political affiliation and other sociodemographic factors as predictors of students' perceptions towards CCG on college campuses. Examining the relationship between moral values and students' attitudes toward CCG on campus can give the professionals in higher educations a better understanding of the probable factors that may influence students' attitudes toward CCG on campus.

The following literature review will include several sections. The first section is the research strategy, and the second section describes the theoretical framework of the study, the MFT. Additionally, the chapter includes broader reviews of moral values, political affiliations, debates on CCG, guns, and safety, faculty, staff, campus police, university presidents, and students' attitudes toward concealed carry on college campuses and measurements of these variables. Next, the chapter includes implications of past studies related to current research and ends with a summary of findings.

Literature Search Strategy

This literature review contains articles and data about different factors and perceptions related to guns. I obtained literature through comprehensive online Walden library searches using various sources such as journals and government and organizational reports. Online research was accomplished using the Walden Library with the following databases: Google Scholar, Academic Search Complete, Education Research Complete, PsycINFO, ProQuest Central, PsycARTICLES, Psychology Databases Combined Search, and Thoreau.

Key terms used in the literature review were *attitudes toward CCG*, *concealed carry*, *concealed carry law*, *moral foundations theory*, *political affiliation*, *conservative*, *liberal*, and *safety*. The literature review was descriptive and informative, investigating people's standpoints on guns and CCG on college campuses and factors that affect their opinions regarding guns, crimes, and gun safety. There was no research to examine the role of moral foundations as a predictor of students' attitudes towards concealed carry on campus among the 380 articles that fit my search criteria I reviewed.

Theoretical Foundation

This study involves investigating the attitudes of college students toward CCG on college campuses based on the MFT. Based on the MFT, there are five foundations of moral insight that control the social life of people across all cultures. These five foundations include two individualizing foundations (harm/care and fairness/equality) and three binding foundations (authority/respect, ingroup/loyalty, and purity/sanctity; (Haidt & Joseph, 2004, 2007). Haidt and Kesebir (2010) defined a moral system as

"interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible" (p. 800). Society, culture, and history influence a large number of people's interactions and moralities (Graham et al., 2011). Haidt and Graham developed the expanded version of the MFT. The foundations are: (a) harm/care, (b) fairness/reciprocity (equality), (c) in-group/loyalty, (d) authority/respect, and (e) purity/sanctity.

The MFT involves concepts, measures, and differences in moral values among various cultures, societies, and individuals (Graham et al., 2011). The MFT it was used to help identify moral values associated with students' attitudes toward CCG on college campuses.

Clifford and Jerit (2013) conducted a study to investigate public attitudes toward stem cell research using moral foundations. Analysis of news stories related to stem cell research ranged from 1999 to 2010. Words used either in support or against the issue, were coded and included the following: Suffer, protect, empathy, care, and safety were under "harm" foundation and "sacred"; integrity, and disgust were under "purity" foundation. Rhetoric with different views on stem cell research involved different moral words to influence public opinion. A supporter of stem cell research used mainly harm language while the opponent used harm, general moral, and purity language in their scripts. Moral language used by both opponents and supporter rhetoric affected public opinion toward supporting their positions. Moral foundations change people's views on different policies. Purity foundation seems to be related to many cultural wars

such as wars on same-sex marriage, while ingroup and authority foundations are related to oppositional views on flag burning and terrorism (Clifford & Jerit, 2013).

Dickinson et al. (2016) showed the importance of moral values in shaping people's standpoints about climate change. Data were derived from records of 1000 adults who completed the Cornell National Social Survey by phone in 2014. The survey contained 64 questions involving moral values assessment, age, gender, political party, level of political activity, and beliefs in climate change. Fairness and purity foundations were predictors of willingness to act on climate change while in group and loyalty were not related to supportive attitudes or desire to act on climate change. Furthermore, liberals and conservatives showed different moral foundations regarding attitude and willingness to work on climate change. Conservatives place more values on purity and authority, while liberals mostly valued compassion and fairness. Haidt et al. (2009) said different political ideologies are related to endorsement of different moral foundations.

When attitudes toward public policies are under study, conservatives place more emphasis on ingroup/loyalty and authority/respect than purity/sanctity and harm/care. At the same time, liberals put more values on individualizing foundations, including fairness/equality and harm/care (Dickinson et al., 2016). However, the difference between conservatives and liberals in terms of their moral values was insignificant when harm of a policy was explained to both groups and accepted. For example, distinctions between very conservative and very liberal individuals when valuing compassion and fairness was minimal when they were informed about negative consequences of climate change (Dickinson et al., 2016).

Following the studies about the moral values, political affiliation and public policies, Low and Wui (2016) conducted a study to understand the impact of the moral reasoning and political affiliation relationships on people's attitude toward the poor. The survey was sent to random American adults, and 185 completed it.. The MFQ) includes 30 items that assess participants' moral reasoning based on five moral foundations: harm, fairness, authority, ingroup, and purity. A scale containing 12 categories was used to assess participants' attitudes toward the poor.

The findings of the study complied with the findings of the previous studies. All five moral foundations are related to attitudes toward the poor, and there was a positive correlation between positive attitude toward the poor and harm and fairness (Low et al., 2016). By contrast, ingroup, authority, and purity were negatively correlated with a positive attitude toward the poor. Age was also negatively correlated with positive attitudes toward the poor, and women had more positive attitudes toward the poor than men did. The moral foundations model is a better predictor of attitudes toward the poor than the political affiliations. However, there was not a strong association between political affiliation and the attitudes toward the poor (Low, 2016).

Different political ideologies are related to endorsement of different moral foundations, and differences in moral foundations reasoning explain differences in attitudes toward various public policies (Cliford & Jerit, 2013; Dickinson et al., 2016). To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards CCG on campus. This research would extend previous studies that examined political affiliation and other sociodemographic factors as

predictors of students' perceptions towards CCG on college campuses. Examining the relationship between moral values and students' attitudes toward CCG on campus can give professionals in higher education a better understanding of probable factors that may influence students' attitudes toward CCG on campus.

Literature Review

Gun Ownership in the United States

According to Yablon (2018), approximately 393 million guns are owned by U.S. citizens out of 875 million totals globally in 2018. The number of firearms has been regularly increasing: 192 million in 1994, 242 million in 1996, 270 million in 2007, 310 million in 2009, and 357 million in 2015 (Ingraham, 2015; Krouse, 2012). There is no national gun registry in the U.S., and data about gun ownership is obtained via surveys (Wallace, 2015). The number of private gun ownerships in the U.S. has increased, and the country's share of global gun ownership rose from 42% in 2007 to 46% in 2018 (Yablon, 2018). The Pew Research Center (PRC)reported that 30% of adult individuals owned guns in the U.S. at the given year, and 66% said they had more than one, including 29% who owned more than five (Gramlich, & Schaeffer, 2018). Most gun owners (72%) had handguns, 62% had rifles and 54% possessed shotguns. The majority (73%) of gun owners claimed that they could not see themselves without owning guns. Around 41% of these gun owners were White and 19% were Black (Stroebe et al., 2017). These data suggest that while the number of manufactured and imported firearms in the U.S. has significantly increased in recent years, the percentage of households owning

firearms has not drastically changed. Therefore, most guns are purchased by those who already own guns (Wallace, 2015).

Based on a 2017 Gallup poll, 60% of gun owners in the U.S. said the first reason for them to purchase guns was self-defense and protection, which was a subjective factor related to victim perceptions (Stroebe et al., 2017). Stroebe et al., (2017) conducted a study to investigate the motivation and reasons behind owning guns from the psychological perspective. Eight hundred thirty-nine men were surveyed in the U.S. Women were not surveyed because men were more likely to own guns than women. The survey covered questions about participants' opinion regarding topics including (a) social world dangers and threats, (b) business development management (BDW), (c) personal experiences of assaults or threats, (d) type of guns they owned or would buy, (e) reasons for buying guns, (f) effectiveness of guns in terms of self-protection, (g) gun rights, (h) shooting and killing rights, and (i) political affiliations (Stroebe et al., 2017). Political affiliation is strongly related to gun ownership in the U.S. Based on the data, 57% of conservatives have guns at home, and 45% personally own a gun; these numbers are 30% and 15% for liberals, respectively (Saad, 2020).

Data analysis showed that almost all gun owners possessed at least two guns. Owning handguns only was positively correlated with self-defense and protection as reasons to own guns. Protection and self-defense gun owners were two groups who perceived the world as a dangerous place full of corrupt and violent people. Perceived life time risk of assault (PLRA) was correlated with having previous experience involved with being a victim of assault or violence, and BDW was correlated with being

conservative as their political affiliation. BDW had strong and inclusive beliefs about the world and society, and claimed it was hard to influence people's worldviews. Therefore, it was so much harder to influence the BDW group's ideas about guns. For both BDW and PLRA handgun owners, perceived effectiveness of guns for protection was positively correlated with beliefs in the right to own, kill, and directly shoot intruders (Stroebe et al., 2017).

Guns at School

A national survey of nearly 10,000 students in 4-year colleges across the country indicated 4.3% of students reported having guns, and 1.6% reported to be threatened with a gun while they were on campus (Miller et al., 2002). Students who owned guns were more likely to be male (8.2%) than females (1.1%), and engage in risky behaviors such as alcohol and drug abuse or high-risk sexual behavior. Almost half of students claimed they carried guns for self-protection (Miller et al., 2002). Women, students of color, students who attended urban colleges, and students who were less likely to binge drink had a higher probability of carrying a gun for protection (Miller et al., 2002).

This study was a follow up of the 1997 study, in which a national sample of students from 130 four-year universities were surveyed (Miller et al., 1999). The study aimed to find the percentage of students who carried a gun on-campus. Out of 30,000 students who received the survey, almost half of them (n=15,685) completed it. The respondents could choose between the following three options: (1) No, (2) Yes (a handgun), and (3) Yes (a semiautomatic) to the question whether they had a gun with

them. The result showed that 3.5% of the respondents reported carrying guns at campuses (Miller et al., 1999).

Based on the two studies mentioned above, the percentage of the students who carried guns had increased from 1997 to 2002. In both studies, students who owned guns were more likely to be male, attending public colleges as opposed to private ones, and living in the south or west. The results also indicated that students who owned guns were also more likely to engage in high-risk behaviors such as alcohol abuse, driving under the influence, and binge drinking (Miller et al., 1999, 2002). The statistic information in "National Crime Victims' Rights Week Resource Guide: Crime and Victimization Fact Sheets" showed that 5% of students carried guns to school, and boys were more likely than girls to carry guns onto college property [Office for Victims of Crimes (OVC), 2018]. Of the boys who carried guns, 80% were white. This new data was very close to the studies of Miller et al. (1999, 2002).

Crimes Related to CCG

According to the Violence Policy Center [VPC], (2018), concealed carry permit holders have been accountable for 1,239 deaths related to 1,033 non-self-defense shootings from 2007 to 2018. Although people who have permission to concealed carry are supposed to be "good guys" and "law obedient citizens" with guns, they have been involved in 31 mass shootings, 58 suicides, 51 homicides, and 21 law enforcement officers' killings in the U.S. from 2007 to 2018. These data cover a tiny fraction of incidents because most states have barred releasing information about concealed carry-related offenses. Based on VPC's data, concealed carry guns (CCG) is not mostly used

for self-defense, and the majority (75%) of concealed carry permit holders who were involved in shooting incidents, have been convicted of homicide (VPC, 2018).

Although the Virginia Tech University mass shooting prompted Congress to act on preventing more incidents at schools, the mass shooting incidents did not incline (Patel, 2018). There have been at least 239 school shootings nationwide, killing 138 and injuring 438 students, from 2014 to 2018. The data from 1999 to 2001 showed there had been 136 school shootings that were responsible for 77% of violent deaths in colleges in the United States. (Lewis et al., 2016). Therefore, there have been 100 more school shootings in the recent four years (2014-2018) than in ten years in the 1999 to 2001 period.

In a recent mass shooting, in February 2018, at Marjory Stoneman Douglas High School in Parkland, Florida, the gunman killed 17 people and injured many others. There has been an average of five school shootings per month during the past four years (Patel, 2018). According to Grayson and Meilman (2013), research has shown that the probability of individual shootings, including suicide, accidental shootings, and homicide, is much higher than that of mass shootings in colleges. Students with suicidal or homicidal thoughts are more likely to be successful in committing these atrocities with guns in hands than knives or pills (Grayson & Meilman, 2013).

Debates on CCG

The cases of Amanda Carpenter in the University of Nevada and the massacre at Virginia Technical University were the critical events in 2007 that turned the national attention toward guns in college campuses and students' safety (Wiseman, 2012).

Amanda Carpenter was attacked and raped in the university parking lot when going home after finishing a midterm exam. She claimed that if she had a gun with her at the time of the attack, she could defend herself and stop the rape. The assailant had a gun, but she did not, because the state had banned carrying weapons on college campuses. Amanda spoke about the incidence at the Students for Concealed Carry on Campus's Conference and supported the legalization of concealed carry weapons on college campuses (Wiseman, 2012). After a while, in April 2007, the mass shooting at Virginia Tech. University occurred, in which 33 people were killed (NPR, 2007). The killing started at 7:15 am and continued till 9:45 when the campus police received a call about the shooting on campus. When they entered, the shooting stopped, and the gunman killed himself. It was one of the deadliest mass shootings in the United States (NPR, 2007).

After the Virginia Tech University mass shooting, a Texas college student created a group page on Facebook advocating the right to carry guns on college campuses (Wiseman, 2012). Membership in this Facebook group rapidly increased in 2008, following another shooting in Northern Illinois University, where a gunman killed six people. Students who supported concealed carry on college campuses started an organization whose mission was to raise awareness of the benefits carrying guns for self-defense and to reduce misconceptions about carrying guns at school. These activities caught the media and authorities' attention, and states started to debate on laws permitting concealed carry on college campuses (Wiseman, 2012; Guns on Campus, 2018). As of today, only 16 states have banned concealed carry on all college campuses, 23 states gave the authority to colleges and universities to decide whether to allow the concealed carry

on their campuses. Ten states have passed the law to enable the students to concealed carry on college campuses, including Georgia, Arkansas, Colorado, Idaho, Kansas, Mississippi, Oregon, Texas, Utah, and Wisconsin. Tennessee passed the law in 2016 to allow only college and university faculties to carry handguns at college campuses (Guns on Campus, 2018).

Passing concealed carry guns (CCG) permission bill had some drawbacks too (Wiseman, 2012). Students around the country joined the Students Against Guns in Education (SAGE) to show their opposition to the legalization of CCG at college campuses and demanded more restrictions on carrying and owning guns. They argued that the college environment was different from other public spaces that permitted citizens to carry guns. They claimed that college students start to form new social and personal identity and experience new responsibilities that can cause anxiety and constant feeling of irritability therefore, there was no place for guns at college campuses. Jay Sanguinetti, the SAGE co-president, said, "bringing guns on campus will do more harm than good. It will alter the classroom environment, and a lot of teachers and campus police say it will make their jobs harder" (Wiseman, 2012, p. 55).

Nedzel (2014) claimed that stricter gun laws are not effective because most deranged shooters do not have licenses, and they obtain their guns from parents or grandparents. The author argued that mass shootings in schools would only decrease if the potential criminals knew that victims might also possess a gun. She also stated that concealed carry laws had reduced violent crimes wherever they have passed (Nedzel, 2014). On the other hand, the result of a study about gun threat incidents on college

campuses conducted by Miller, Hemenway, and Wechsler (2002) showed that carrying firearms on college campuses was strongly related to being threatened with guns at college. It so was perceived more as a self-defense tool than as a crime-triggering device in college students.

Following the studies about carrying guns for protection, Dolan (2019) claimed that four separate studies of 2,442 gun owners had showed that the feeling of being "disempowered" can increase the likelihood of purchasing guns and shooting someone. The correlation between disempowerment and violent shooting is stronger when gun owners feel that mass shooting is not preventable and is a constant threat. That is why gun violence and shooting incidents significantly increase after each mass shooting in the U.S. (Dolan, 2019). Only 6% of self-defense-gun owners have had an experience of being a victim of assault, and there is no significant evidence showing that guns can either reduce the risk of being assaulted or can protect the owner in cases of shooting incidents (Stroebe et al., 2017).

In a newer study, Carter and Binder (2018) intended to find the relationship among concealed carry permits, violence, police service level, socioeconomic status, political affiliation, and gun ownership in Florida. The data obtained from Florida's Department of Agriculture and Consumer Services' Division of Licensing from 67 counties in Florida. This data comprised the number of individuals who had applied for permits to concealed carry and had obtained the permit. The data about the violent crimes were gathered using the Uniform Crime Report (UCR) index offenses of violent crime (homicide, rape, robbery, aggravated assault) provided by the Florida Department of Law

Enforcement (Carter & Binder, 2018). This study claimed that the fear of crimes and distrust in police services was positively related to obtaining concealed carry permits. The residents of the counties with higher crime rates were more in favor of concealed carry guns. Higher socioeconomic status and per-capita-income were also positively related to applying to obtain the concealed carry permit. Based on the study's results, most gun owners purchased guns for protection and self-defense (Carter & Binder, 2018).

The general population of the United States is still opposing the law to allow concealed carry firearms at college campuses (Arrigo, & Acheson, 2016). However, it is not surprising that politicians and government officials are still discussing the controversies of gun control policies and the debates regarding this public issue. Partisan, media, and lobbying groups express opinions on gun control policies in different forms and foundations.

According to Arrigo, & Acheson (2016) republicans support more lenient gun control policies and believe responsible citizens should own guns to defend themselves and their people. Those who do not support gun control claim that they support corporations because without gun restrictions, they would buy more guns, leading to big profit for American gun manufacturers (Wilson, 2006).

On the contrary, the democratic party supports more restricted gun control laws and the banning of selling military weapons (Wilson. 2006). There are great partisan differences on whether or not people conceal carry in public places. The fundamental questions for different parties are related to the cause of gun violence and if gun violence is a serious issue in the U.S. Democrats and liberals view the gun violence in the country

as a very significant problem that needs to be solved in any way possible, while Republicans and conservatives perceive it as a moderate problem (Oliphant, 2017). In the 2012 Democratic platform, the party claimed that "We believe that the right to own firearms is subject to reasonable regulation" (Moving America Forward, 2012, p. 18). The party believes that more gun control laws and restrictions are necessary for public safety and protection. However, not everybody affiliated with the democratic party or republican party are supporting their party's view on gun control issues (Arrigo, & Acheson, 2016).

Some lobbying groups and committees such as Political Action Committees (PAC) are also so influential in establishing gun laws (Arrigo & Acheson, 2016). One of the massively influential group is the National Rifle Association (NRA). NRA advocates the right to purchase, own, and use any guns referring to the Second Amendment. This group of lobbyists are so powerful and involved in almost all government levels by making ads and forming campaigns against any gun control law. They are also affiliated with the republican party and can influence the gun control laws through republican politicians. The Brady Campaign to Prevent Gun Violence is another lobbying group supporting gun control laws and affiliation with the democratic party. These two lobbyist groups paly a very significant role in gun control-related legislation and regulations, and even in cases that the majority of people are against the law, these groups can put pressure on the policymakers and officials to pass the law. One of the good examples is the law that allows us to carry guns at college campuses. Although many studies have

shown that most people, students, faculty, and staff oppose the concealed carry law at college campuses, many states have passed the law (Arrigo, & Acheson, 2016).

Both supporters and opponent groups of concealed carry on college campuses use The Second Amendment of the Bill of Rights to support their position. It is necessary to understand the Second Amendment to understand the debates on gun control from both sides.

The Second Amendment

The Second Amendment of the Bill of Rights states, "a well-regulated Militia, being necessary to the security of a free state, the right of the people to keep and bear arms, shall not be infringed" (U.S. Const. amendment. II). It is not easy to interpret the meaning of The Second Amendment, written in 1791. Two important cases of the United States Supreme Court law debating the permission or prohibition of carrying guns in college campuses are “District of Columbia v. Heller” (2008) and “McDonald v. City of Chicago” (2010) (Smith, 2012). The “District of Columbia v. Heller” (2008) was the first United States Supreme Court decision on The Second Amendment elucidation since 1939. The “Heller” case reversed the District of Colombia ban on gun ownership and keeping guns at home for protection and self-defense. The Supreme Court specified that The Second Amendment did not mean the "right to keep and carry any weapon in any manner whatsoever and for whatever purpose" (District of Columbia v. Heller, 2008, p. 2). Based on this case, The Second Amendment cannot be a premise for permission to carry guns in government buildings and schools.

“McDonald v. City of Chicago” (2010) in the state of Illinois confirmed that "no form of government could legally have laws prohibiting the individual ownership of guns for noncriminal use" (Smith, 2012, p. 238). Although the Supreme Court laws were clear, stating that owning guns was legal and nobody could prohibit American citizens from owning guns for noncriminal use, it did not clarify if the concealed carry law should be constitutional. Because of the lack of a clear Supreme Court's rule, the decision about the legalization of the concealed carry on college campuses is within the jurisdiction of the state courts. Advocates of concealed carry on college campuses read The Second Amendment as a law that permits everybody to have guns everywhere. The opponents interpret The Second Amendment as if it is about owning guns at home for protection, not carrying them in colleges. Policymakers face different interpretations of the Second Amendment for different situations, including the legalization of concealed carry on college campuses (Smith, 2012).

Perceptions of CCG in Higher Education

Faculty and Staff

To assess faculty perceptions toward Concealed Carry guns (CCG), Bennet, Kraft, and Grubb (2011) conducted a study. They sent surveys to all full-time faculty members of a state university in southeast Georgia. From 287 faculties that received the survey, 158 completed the surveys. The survey was prepared by students in criminal justice and political science research classes to assess the attitudes toward the recently proposed legislation about Concealed carry guns (CCG) in Georgia. The Georgia House Bill 89 was passed in 2008, allowing carrying guns in parks and restaurant, and two

amendments proposal of HB54 and H.B. 55 were introduced in 2011 1nd 2012 respectively, to allow CCG in religious worship places and colleges (Georgia State Bill, 308, 54, and 55). The study results showed that 75% of Georgia University faculties opposed the CCG on college campuses, and only 17% supported the idea. In this study, being a republican and owning guns were the only two variables that could predict CCG support (Bennet, Kraft, & Grubb, 2011).

In a similar study, Thompson, et al. (2013) aimed to be more inclusive, to examine a larger sample, and to comprise more variables than the previous study to assess the faculty's opinions on CCG. They randomly selected three universities from each of the Great Lake States (i.e., Michigan, Ohio, Indiana, Illinois, and Wisconsin) for a total of 15 public universities. They distributed 75 questionnaires per university (1,125 total). The instrument was developed by a thorough study of gun' literature to assess the faculty's perception toward CCG. Three survey experts and three law enforcement experts reviewed the survey and confirmed their validity. Each faculty member received a survey by mail, and faculties who had not returned the completed survey would receive a second mailed survey. The return rate was 70%. The result of the study showed that 97% of faculties felt safe on the campus, and 94% opposed passing the law to allow CCG on college campuses. The majority of the faculties (93%) believed that most faculty would feel unsafe if students on college campuses possessed CCG. Faculties who supported the CCG on college campuses were mostly males, whites, republicans, gun owners, and those who grew up where guns were present (Thompson et al., 2013).

Replicating the Thompson et al. (2013) study, Dahl et al. (2016), focused on community colleges instead of four-year universities sampled in Thompson et al. 's (2013) study. Dahl et al. (2016) surveyed 1,889 faculties who worked in community colleges. Eighteen states were selected that could make decisions on policies regarding concealed carry on college campuses. The survey contained the data about faculty's attitude toward concealed carry guns (CCG) in public spaces and colleges, being a victim of gun violence, owning or being exposed to firearms, and opinions about safety if guns were allowed in college campuses. The study's result was remarkably close to the results of the study conducted by Thomson et al. (2013). Most faculty (88%) in the study claimed that they would feel less safe if guns were allowed on campuses, and they believed carrying guns on college campuses would change the sense of safety to the feeling of being threatened. Supporters of CCG were mostly males, gun owners, and victims of gun violence (Dahl, et al., 2016).

To investigate what factors predict the support for CCG at college campuses, De Angelis et al. (2017) conducted a survey study at a large western university. The electronic survey was sent to 75% of randomly selected faculty and staff. Out of 1,907 recipients, 1,170 completed the survey. The questionnaire contained items that assessed the support (or opposition) for the CCG, and possible predictors for that support, including "employee perceptions of safety, fear of crime/violence, crime victimization, and trust in police/government" (De Angelis et al., 2017, p. 82). The findings indicated that the responders who believed the government and police could not protect them were more likely to support the CCG at college campuses. They claimed that they need to

carry guns at college campuses for protection and security. However, employees who reported greater fear of crimes and shooting incidents were less likely to support CCG at college campuses. Being a conservative and a frequent churchgoer was also strongly associated with the support for the CCG law (De Angelis et al., 2017).

Students

A study conducted by Patten et al. (2013) in California showed that nearly 70% of college students, faculty, and staff opposed the law of carrying CCGs on their college campuses. This study argued that people who work and study in colleges feel less safe when CCGs are on college campuses (Patten et al., 2013). However, the study's conduct was not generalizable to the national level because only two colleges in California and Nebraska met the criteria for participation in the study.

In a similar study, 1,800 Midwestern college students' perceptions and practices regarding the concealed carry gun bill were assessed (Thompson et al., 2013). Participants were undergraduate students from 15 public Midwestern universities, from five Great Lakes states. All students completed the anonymous questionnaire during the class hour. The results showed that almost 79% of students did not feel safer if guns were allowed on campus, and 78% claimed that they would not carry a handgun on campus if it were legal to do so. However, almost half of the students (51%) stated they felt better able to protect themselves if they had guns when facing violent incidents, but only 5% of students had a permit to CCG. From those who had the permit to CCG, 12% was carrying guns to the college, although it was illegal. The result also showed that 47% of the students supported the legalization of CCG on college campuses. Supportive students

were more likely to be males, gun owners, republicans, and males who grew up in homes where guns were present (Thompson et al., 2013).

Following Thompson et al. (2013), Jang et al. (2014) conducted a survey to explore the factors that predict the students' attitude toward concealed carry at college campuses. six hundred surveys were sent to the students of 15 classes in Missouri Western State University. A total of 456 students completed and returned the surveys. The variables in the study included (a)socio-demographics, (b) deviant lifestyle, (c) political party, (c) weapon socialization, (d) victimization experience, (e) fear of crime, (f) perceived risk of victimization, (g) the likelihood of shooting, and (h) confidence in the police. The dependent variable was the perception of students toward concealed carry guns (CCG) on college campuses. The result showed that 49.9% of students disagreed with the legalization of CCG, and 32.4% agreed. Male students and students with the republican party orientation were significantly more supportive of the legalization of CCG, comparing to female or not republican students. The study was ungeneralizable nationally to college populations due to the small sample size and location (Jang et al. 2014).

While the issue of gun control has been under scrutiny for decades, mass shootings in public places, especially in schools, have not been successful in making the lawmakers find a solution to reduce the gun-related casualties (Wallace & Dunn, 2018); however, many different ideas and suggestions have been proposed. One of these solutions is using “smart guns” instead of typical guns. Smart guns are the personalized weapons that only the authorized owner can fire them. Wallace and Dunn (2018)

conducted a nationwide web survey to investigate college students' attitudes toward using smart guns instead of traditional guns. Out of 891 responses that students across that country, only 520 survey responses were complete and valid. Therefore, the sample was not large enough to represent all college students in the U.S.

The survey consisted of 59 questions containing topics about safety, ideas about guns and gun owners, demographics, and attitudes toward using smart guns (Wallace & Dunn, 2018). The potential participants had to be 18 and older. For the quantitative data, the multinomial regression facilitated the assessment of the students' attitudes on smart guns. For the qualitative part (open-ended responses about their views), descriptive statistics were used to analyze the data. The study results indicated that around half of the participants favored using smart guns over traditional guns. The results also showed that the more academically advanced the students were, the more likely they favored the traditional guns. Females and liberals were much more likely to accept the use of smart guns. Age did not have a significant effect on the preference among the students (Wallace & Dunn, 2018).

Another debate on gun violence and mass shootings have been about the availability of military assault weapons to non-militant people. A semiautomatic military gun was used in most of the mass shootings during the past twenty years (Lewis et al., 2016). To investigate the college students' opinion about the availability of the assault weapons versus handguns, Lewis et al. (2016) surveyed a random sample of 1400 college students from a Midwestern university. The participants received the survey and the consent form via email. Four hundred nineteen (n=419) students completed the survey

and sent it back. The participants' age range was 18 to 59, while 56% of the sample were female, and 43% were male. The total number of enrolled students was 15000. The survey covered demography questions, opinions about gun law, gun types, and gun violence prevention (Lewis et al., 2016).

The results indicated that 54% of the participants supported the law that bans the purchase of military assaults, and 57% supported the idea of allowing the professors to carry handguns at college campuses. Female students were 1.9 times more likely than their male counterparts to support the law of banning the purchase of high capacity assault weapons, and 1.5 times more likely to agree with the law that allows the professors to carry registered handguns at colleges. Four major factors that contributed to the gun violence and mass shootings were "(1) Decline in parenting and family values (17%), (2) Gang involvement (14%), (3) Bullying (13.8%), and (4) guns are easy to obtain (13.8%)" (Lewis et al., 2016, p. 457).

The result of the Lewis et al. (2016) study was misaligned with the older studies. While based on Lewis et al. (2016) study, most students, particularly females, supported the idea of permitting the professors to carry a gun at colleges, a study conducted by Cavanaugh et al. (2012) concluded that students, in general, did not feel comfortable with allowing concealed carry at colleges. Cavanaugh et al. (2012) conducted the study in two universities of Texas and Washington State to examine the student's attitude about carrying guns at colleges. Both states had considered passing laws to allow concealed carry guns at colleges and universities at the time of the study. Classes and students were randomly selected, and the samples well represented the demographics of the

universities. The Texas university response rate was 74% (n=1317), and Washington was 72.1% (n=375). The study results indicated that in both universities, students were significantly more likely to feel unsafe and uncomfortable if concealed carry guns at colleges or universities got legal. The ratio of feeling comfortable to feeling uncomfortable was 1:3 for Texas and 1:2 for Washington (Cavanaugh et al., 2012).

Following Cavanaugh et al. (2012) study and reoccurring of several mass shootings, investigating the students' attitude toward carrying guns at college campuses caught the researchers' attention again. Verrecchia and Hendrix (2017) surveyed 1,126 students in undergraduate programs in two mid-Atlantic region colleges. Participants received their survey via Survey Monkey. The results of their study complied with the findings of the previous assessments. Verrecchia and Hendrix's (2017) study showed that white males who were gun owners were also conservative in their views.

In a more recent study conducted by Kyle et al. (2017), five hypothesized predictors of safety on campus emerged through data collection at a Midwestern university. Four hundred ten students, faculty, and employees participated in a survey to investigate the attitudes toward safety factors and policies. The findings of the study were in agreement with previous studies. Participants disagreed with the law allowing students to carry guns; the rates were 83.13% for the faculty and staff and 62.90%for the students. Less than half of the students and 63% of faculty disagreed with allowing faculty to carry guns. The younger the participants were, the more likely they supported the law allowing faculty to be armed. Participants who were male and white reported more support for carrying a gun at campus than their counterparts, females, and non-whites.

After recent legalization of CCG at college campuses in some states (i.e., Georgia in 2017 and Texas in 2015), Shepperd et al. (2018) conducted a study to examine the students, faculty, and staff's perception on safety, regarding anticipated consequences. The participants were 11,390 individuals at a southeastern university who accepted to participate and provided the required information (N=11,390). They received the survey by email. The survey contained three groups of items regarding the probable consequences of carrying guns at college campuses. The first group included questions to assess the participants' opinion on feeling safe during heated arguments if carrying guns were allowed/not allowed. The second group of questions evaluated the faculty's perceptions of feeling safe while assessing students' progress/academic outcomes if guns were allowed and not allowed. The third group of questions covered the participants' perceptions of how the academic atmosphere would be if guns were allowed or were not allowed (Shepperd et al., 2018).

In the demographic part of the survey, the participants provided information about their gun ownership status and if they own the gun for protection reasons (protection owners) or other purposes (non-protection owners). The review board panel approved the use of the survey.

Analysis of variances (*F* and *t* ratios), one sample test, and Mauchly's test facilitated the data analysis. Participants were categorized into three groups of the protection group, non-protection group, and non-owner groups based on owning guns. The results showed that all three groups felt less safe during heated arguments if students and faculty were allowed guns on campus. Non-owner (55.1%) and non-protection

(47.7%) groups claimed that they felt less safe evaluating students' academic progress if CCGs at college campuses were legal. However, 81% of protection owners reported they felt safe assessing students in both situations of guns being allowed or not being allowed at college campuses. Finally, non-owners and non-protection owners asserted that the quality of the learning atmosphere would be impaired if carrying guns on campus was legalized.

The results of the study revealed that most participants believed that legalization of CCGs on university campuses have negative consequences (78.4% of non-owner, 65.4% of non-protection). The study also had the following limitations: (a) participants were selected from one southeastern university, and (b) it did not include the feeling of safety in non-academic places of campus (i.e., parking lot, rest areas and cafeterias). The concluded negative consequences relating to the legalization of CCGs at college campuses was not shown to be true in colleges that has already passed the carry gun laws several years ago (Shepperd et al., 2018).

Police Officers

After the terrorist attacks on September 11th., 2001, public places' security got closer attention and became a priority in all officials' discussions (Thompson et al., 2009). Although mass shootings and gun-related crimes had already been happening in schools and colleges before these terrorists' attacks, they started to find their place in gun debates and safety concerns after these incidents. The Director of the Federal Bureau of Investigation described his concerns about safety in colleges and schools and called these institutes as easy targets for terrorists. The campus security officers and police

department's ability to protect students became one of the significant debates on public safety. Therefore, police officers' opinions about guns at schools and safety became an important subject for research (Thompson et al., 2009).

Thompson et al. (2009) believed that investigating the campus police chiefs' opinions about the police officers' role in reducing campus gun violence is a necessity because campus police chiefs are responsible for running all the security plans and activities at college campuses. Thompson and her colleagues selected a random sample of all the police chiefs in 4-year colleges and universities. They used the Directory of the International Association for College Law Enforcement Administrators (IACLEA) to find the eligible participants.

The survey consisted of 43 questions, and a panel of survey research and firearm experts approved its validity. Six hundred campus police chiefs received the questionnaire by mail; however, only 417 completed and returned them. Respondents were mostly men (89%), Caucasian (85%), and 40 to 59 years of age (71%). The results of the study indicated that 25% of police chiefs had at least one firearm incident in their campus (e.g., shooting, carrying, or using for threatening purposes) in the last school year. The majority of the police chiefs (86%) believed that allowing students to concealed carry guns (CCG) would not reduce the gun violence's' incidents on their campus, and 80% claimed they should be the leader of the safety and protection on campuses. About 50% of the respondents believed that the faculty and staff (especially the college counselors) should be trained and educated in safety protocols and procedures of reducing gun violence on campuses (Thompson et al., 2009).

Bartula and Bowen (2015) stated that college campus police officials' perceptions are one of the key elements in having a better understanding of carrying gun laws and their effectiveness on campuses. The state of Texas passed a law in 2015 that allowed CCGs at college campuses. Subsequently, open carry guns became legal in the same year. Therefore, Bartula and Bowen (2015) conducted their study in Texas. A 31-item questionnaire was sent via email to all colleges and universities' top police officials, including police chiefs, security directors, and public safety directors in Texas to assess campus police officials' perceptions of the probable effects of allowing open carry guns on campuses. The Texas Association of College and University Police Administrators (TACUPA) provided the police officials' email addresses. The response rate was 41%, and 47 police officials returned the completed survey.

This study's results closely aligned with Thompson et al. 's (2009) study in which only the police chiefs received the surveys. The participants (91.5%) did not support open carry guns on campus. Participants also believed that the number of gun-related incidents and crimes would not change if the CCG Law were in effect. Moreover, participants stated that allowing open carry would increase the fear of crime and victimization among students, faculty, and staff. 85% agreed that open carry would not decrease the fear of victimization (Bartula & Bowen, 2015).

University Presidents

Price et al. (2014) conducted a study to investigate the college and university presidents' perceptions on allowing CCG on campus. The participants were 900 university presidents randomly selected from nationwide universities, using the United

States Department of Education's National Center for Education Statistics (NCES). The survey package mailed to the participants included the survey, a cover letter, and a paid-postage envelope. After two weeks of sending the first wave mailing, the second wave mailing was sent specifically to those who had not replied to the first wave. Of the 900 participants surveyed, only 401 responded. The data were analyzed using the SPSS, conducting descriptive statistics, and odds ratios (Price et al., 2014). The results of the study showed that the sample consisted of 76% male, 87% white, 52% aged 60 to 69, 79% did not possess a gun, 57% did not grow up in a gun-owned-home, and 5% had a concealed carry permit (Price et al., 2014).

The findings indicated that the majority (98%) of the university presidents (participants) felt safe at their university campus (Price et al., 2014). A few of the participants (7%) reported witnessing a gun-related crime on campus. Almost all the presidents (95%) opposed the law allowing students, faculty, and staff or visitors to concealed carry handguns on campus. Campus presidents also asserted that most faculty and students would feel unsafe if guns were concealed carry on campus by students or faculty. Most participants (88%) stated that if people were allowed to concealed carry on campus, they should attend a firearm and safety course and earn a permit. Less than one-fourth of the participants believed that allowing concealed carry would make the campus a safer place, 89% thought that those who carry would not be able to protect others, nor themselves (74%). The study's results aligned with previous studies, assessing the same thing with students, faculty, and employees, and campus police as participants (Price et al., 2014).

Moral Values and Guns

Moral foundation theory (MFT) gives us an explanation about the concept, measure, and differences in moral values among various cultures, societies, and individuals (Graham et al. 2011). Studies have shown the importance of moral values in shaping people's standpoints about climate change and stem cells (Dickinson et al., 2016; Clifford & Jerit, 2013). See the theoretical foundation section of this paper for the complete description of the studies. To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards concealed carry guns (CCG) on campus. This research would extend previous studies, such as survey research by Jang et al. (2014) that examined political affiliation and other sociodemographic factors as predictors of students' perceptions towards CCG on college campuses. Political affiliation is a reliable predictor of attitudes on several public policy issues, including gun control and others, such as stem cell research and abortion (Clifford & Jerit, 2013).

Summary and Conclusions

This literature review aimed to explore the relationship between the variables of attitudes toward guns being allowed on campus. The literature review found no research examining the role of moral foundations as a predictor of students' attitudes towards concealed carry guns (CCG) on campus. The research was limited to the correlation between moral values and public issues; and only two studies on stem cell and climate change were relevant. Gender, political affiliation, gun ownership, and race were the most important variables to predict college students and faculty's attitudes toward

legalization of concealed carry and safety. Debates over the legalization of CCG on college campuses reached the highest level after the mass shooting at the Virginia Technical University in 2007. Both opponents and supporters of the legalization of CCG declaim The Second Amendment the way that support their opinion regarding the CCG. The continuous occurrence of mass shootings in the U.S after the Virginia Technical University massacre and hot debates over gun control show that there need to be more studies about the factors that may prevent mass shootings and crimes related to guns.

Chapter 3: Research Method

Introduction

As the number of mass shootings or gun-related fatalities has been increasing since 1991, the need for quantitative research about the public attitude toward gun policies has increased. The purpose of this study was to research the relationship between moral foundations and students' attitudes toward CCG on college campuses. The study was quantitative and involved applying a regression procedure to examine correlations between variables. I assessed predictor variables, dependent variables, and the relationship between them using the survey method and regression analysis to determine how the dependent variables effect participants' attitudes.

Chapter 3 covers in detail the quantitative method and statistical plans to explore the research questions. These details include information about the research design and rationale, methodology, sampling procedures, procedures for recruitment and data collection, instrumentation and operationalization of constructs, and data analysis plan. This chapter includes a discussion of threats to validity and ethical issues related to procedures and participation as well as a summary of the chapter.

Research Design and Rationale

The research design of this study was quantitative and correlational. The purpose was to examine moral foundations and political affiliations as predictors of attitudes toward CCG on college campuses. The design was correlational and involved examining quantitative descriptions of attitudes or opinions. Correlational studies facilitate examining relationships among variables; however, they do not assess causes and effects.

Using the quantitative design enables researchers to collect data from many participants, find patterns of association among variables, and assess how strong correlations are. The correlational design is an appropriate method when manipulating variables or other experimental designs are unethical or hard to perform. The correlational design was suitable for this study because of the nature of the research questions.

This study involved investigating the attitudes of college students toward CCG on college campuses based on to their moral reasoning. Attitude toward CCG was measured by Thompson et al. (2013), providing questions about the students' opinions about the legalization of concealed carry guns on campuses and their safety. The quantitative design is most appropriate when the researcher has clear research questions, data are collected using questionnaires, and statistical methods are used to analyze data (McCusker & Gunaydin, 2015). attitudes of students were assessed using a questionnaire.

Based on the MFT, there are five foundations of moral insight that control people's social lives across all cultures. These five foundations include two individualizing foundations harm/care and fairness/equality and three binding foundations authority/respect, ingroup/loyalty, and purity/sanctity (Haidt & Joseph, 2004, 2007). Data collection included assessing the opinions and attitudes of students toward allowing CCG on college campuses.

Students' attitudes toward CCG on college campuses were the dependent variable. Predictor variables were classified via five classes of moral foundations and political affiliations. Based on the MFT, the names of the foundations are: (a) harm/care, (b) fairness/reciprocity (equality), (c) in-group/loyalty, (d) authority/respect, and (e)

purity/sanctity (Haidt and Graham, 2007). The MFT involves explanations of concepts, measures, and differences in terms of moral values among various cultures, societies, and individuals (Graham et al., 2011). The MFT was used in the current study to identify moral values associated with students' attitudes toward CCG on college campuses. There are not any resource constraints in this study.

Multiple regression facilitated the assessment of college students' attitudes toward concealed carry on college campuses and moral foundations. This test is viable when there are two or more independent variables that can be continuous or categorical and the dependent variable can be measured as continuous. Multiple regression allows assessment of correlations between dependent and independent variables. It also facilitates measurement of total variance and relative contribution of each of the predictors (Laerd Statistics, 2013).

Haidt et al. (2009) said different political ideologies are related to endorsement of different moral foundations, and differences in moral foundations reasoning explain differences in attitudes toward various public policies. To date, there has been no research to examine the role of moral foundations as a predictor of students' attitudes towards CCG on campus. This research would extend previous studies that examined political affiliation and other sociodemographic factors as predictors of students' perceptions towards CCG on college campuses. Examining the relationship between moral values and students' attitudes toward CCG on campus can give professionals in higher education a better understanding of probable factors that may influence students' attitudes toward CCG on campus.

The investigation of predictors of students' attitudes toward CCG on campus can help professionals in higher education to recognize factors that may affect students' performance in school. Students need to feel safe to be able to focus on learning (Jacoe, 2020). A safe environment is required for dynamic learning. The feeling of safety is positively correlated with students' class attendance and scores (Jacoe, 2020).

From a social change viewpoint, understanding which moral values may more significantly influence students' attitudes toward concealed carry on college campuses, can help us design better ways to approach and work with students with different values and beliefs. Positive social change is a phenomenon that starts with the shift at different levels of human life, from an individual's attitudes and knowledge to global problems (Singh & Majumdar, 2014).

If students feel that more guns on campus would compromise or promote their safety, then they need to be more informed about gun laws and the impact of these laws on gun-related crimes in their states and influence legislation introduced in their states. College and university administrators and police should help students know about gun laws and how they can best preserve their safety. The findings of this study can give insights regarding how best to protect students from gun violence on campuses and how to educate students, faculty, and staff regarding self-protection. The results of this study can provide lawmakers and university executives with more information to make decisions regarding the use of concealed carry on college campuses.

Methodology

Population

The target population of the study was college students. According to the NCES (2020), there are around 19.7 million college students in the United States in 2020. The sample of this study consisted of 145 students attending classes at colleges and universities in the U.S. (Walden Institutional Review Board [IRB] approval #10-07-20-054928).

Sample and Sampling Procedures

The sampling method was nonprobability convenience sampling. In this study, the target population was large, and participation was self-selected. Convenience sampling was the best choice as the sampling method because random sampling was not possible. A G*Power 3.1 power analysis was used to meet the power of 0.95 with six predictors: harm/care, fairness/reciprocity, in-group/loyalty, authority/respect, purity/sanctity, and political affiliation. The recommended minimum sample size was 145. A sample of 145 active students met the following criteria for participation: (a) age between 18 and 65, (b) active enrollment in the U.S. colleges or universities, and (c) attendance in at least one face-to-face college course. Students were informed about participation criteria in the invitation and consent form.

According to Tabachnick and Fidell (2019), the minimum sample size should be 20 times the number of predictive variables in regression analysis. The predictive variables in this study were six, so the minimum sample size was 120. Demographic

information in this study included gender, age, race, college size and geographical location, and political affiliation.

Procedures for Recruitment, Participation, and Data Collection

Participants were active college students in the U.S. An invitation to participate was posted to several groups of U.S. college students on Facebook. Students who were willing to participate read and agreed to the rules and conditions of the study. It also included a link to access SurveyMonkey. Upon their agreement to participate, they could click on the link to start the survey. The questionnaire contained a consent form, demographic data, questions, and the MFQ. In the consent form, students received information about their right to quit the study at any time, a brief description of the study, confidentiality, and anticipated participation duration (10-215 minutes). By clicking on the continue button, participants went to the next page to complete the survey. Upon completion of the survey, they saw a thank you page with my contact information.

Instrumentation and Operationalization of Constructs

This study used the MFQ to acquire the students' moral foundations. The MFQ includes 30 items that assess participants' moral reasoning based on five moral foundations: harm, fairness, authority, ingroup, and purity. Graham et al., (2011) confirmed the validity and reliability of the scale obtained through test and retest, and measuring internal consistency.

To find test-retest reliability, the MFQ was completed by 123 students at the University of Southern California. After an average interval of 37.4 days (range = 28-43 days), the same students completed the MFQ a second time. Test-retest Pearson

correlations for each foundation score were .71 for harm, .68 for fairness, .69 for ingroup, .71 for authority, and .82 for purity ($p < .001$). Results showed that item responses were consistent over time and proved internal consistency and reliability. To assess the external validity of the test, items from several other scales that were predicted to be related to the MFQ items were selected. For example, "harm" scales were the Empathy subscales of IRI (Davis, 1983), and "fairness" scales were the endorsement of social justice items of the Schwartz Values Scale (Schwartz, 1992). Measurements of correlation between foundations and external scales showed that each foundation was the strongest predictor for its own external scale (average $r = .51$ vs. average $r = .14$ for the off diagonals). This test confirmed convergent and discriminate validity.

MFQ was used in a similar study conducted by Clifford and Jerit, (2013) to investigate the public attitudes toward stem cell research using moral foundations; and by Dickinson et al. (2016) to investigate the importance of moral values in shaping people's standpoints about climate change.

Operationalization

Four items of Thompson et al. (2013) questionnaire were used to assess the students' attitude toward CCG. These items were:

1. I feel safe if students were permitted to carry concealed handguns on campus.
2. I feel safe if faculty/staff were permitted to carry concealed handguns on campus.
3. I feel confident that university police can prevent crime on campus.

4. I would feel able to protect myself if I carried a concealed hand gun on campus.

Participants marked one of the four options: (1) strongly agree, (2) agree, (3) disagree, or (4) strongly disagree. The scale did not include a neutral option to make participants choose the option related to their level of agreement toward CCG. Administering this scale in the study could answer research questions about attitudes toward CCG on campus.

The MFQ scale was used to measure moral values. For example, KILL represents the harm moral judgment because it can never be right to kill a human being. FAIR represents the ethical judgment fairness because when the government makes laws, the number one principle should be ensuring that everyone has fair treatment. HISTORY represents the ingroup". KIDRESPECT represents children's respect for authority figures. Finally, HARMLESS represents moral judgment purity. The response options for the items were (1) strongly disagree, (2) moderately disagree, (3) slightly disagree, (4) slightly agree, (5) moderately agree, and (6) strongly agree (graham et al., 2011).

Data Analysis Plan

Research questions were addressed using multiple regression. The dependent variable was students' perceptions of safety. Safety was measured in four ways based on who was carrying concealed weapons (i.e., other students, faculty and staff, university police, and the student him- or herself; Thompson et al., 2013). Independent or predictor variables included five moral foundations from the Moral Foundation Questionnaire (MFQ, Graham et al., 2011): (1) Harm, (2) Fairness, (3) Authority, (4) Ingroup, and (5)

Purity; self-reported political affiliation (Graham, Haidt & Nozek, 2009) and political affiliation. Select demographic variables were also entered as possible predictor variables. Multiple regression is practicable when there are two or more independent variables that are continuous or categorical, and the dependent variable is measured as continuous. Multiple regression allows to assess the correlation between the value of the dependent variable (students' attitude toward concealed carry gun on college campuses) and the value of independent variables (moral reasoning and political views). It is used to predict the dependent variable based on the independent variable, and to determine which independent variables has a significant effect on the dependent variable. It also allows us to measure the total variance explained, and the relative contribution of each of the predictors to the total variance explained (Laerd Statistics, 2013). With an alpha level of .05, the confidential level will be 95%, and the power of .80 means the probability of finding an effect will be 80% (Field 2009). IBM SPSS, version 25.0 (Statistical Package for the Social Science) software was utilized in this study. The data cleaning and screening process for the study included checking participants' responses for missing values or blank comebacks of questionnaires. A total of 193 students agreed to take the survey. However, a quarter of them failed to provide the critical information of the degree of safety that they felt when students, faculty and staff, campus police, or themselves personally were carrying a conceal weapon for protection and were dropped from the data set. The response rate was 75% with a final total of $N = 145$ students.

This study was guided by four research questions and hypotheses:

RQ1: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses?

$H_0$1: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

H_a1: Moral foundations and political affiliations are significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ2: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?

$H_0$2: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

H_a2: Moral foundations and political affiliation are significant predictors of college students' agreement with feeling safe if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ3: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college

students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses?

$H_0$3: Moral foundations and political affiliation are not significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a3: Moral foundations and political affiliation are significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

RQ4: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?

$H_0$4: Moral foundations and political affiliation are not significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a4: Moral foundations and political affiliation are significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

Quantification of the dependent variable was measured using four questions that were used in the Thompson et al. (2013) study to collect the students' perception regarding concealed carry guns on college campuses. The independent variables were measured using the Moral Foundation Questionnaire (MFQ) (Graham et al., 2011) to

acquire the students' moral foundations (Graham et al., 2011). The MFQ included 30 items that assessed the participants' moral reasoning based on five moral foundations: (1) Harm, (2) Fairness, (3) Authority, (4) Ingroup, and (5) Purity. Self-reported political identity, as it was scaled in Graham et al. (2009), was used to assess the participants' political affiliation.

Threats to Validity

Although this study will follow all the guidelines for a proper and valid methodology to assess the relationships among variables, there are still some threats to validity. For example, the nature of the study, based on surveying and self-report can be a threat to internal validity as the students may be dishonest and respond in a socially desirable way.

Ethical Procedures

A consent form with a brief description of the study was available for the students to read and agree before starting the survey (Walden IRB approval no. 10-07-20-054928). In the consent form, the students received information about the voluntary nature of the study and their right to quit the study at any time during the study, a brief description of the study, a brief description of the importance of the study and its goal, assurance of the confidentiality and privacy, and anticipated participation duration (10-15 minutes). Students who agreed to participate clicked on the continue button and started the Survey Monkey. Upon completing the survey, they saw a thank you page with my contact information. I also informed the participants in the consent form that they can find a brief presentation of the study and its results in my YouTube Channel: HashGunStudy, under

the video: College Students and Guns after the approval of the dissertation. The study was confidential and protected by a password in the researcher's private computer. The participants' names were not recorded. The data will be destroyed six years from the approval of the study (approximately April 2027), by deleting all the data and using a Drive-Wiping software program to make sure the data cannot be recovered. Walden University institutional permission and IRB approval was obtained after the URR approval of the proposal.

Summary

Quantitative research facilitated investigation of the students' perceptions of concealed carry guns (CCG) on college campuses and safety based on their moral reasoning. The research method was a survey, and the target population was the United States college students. The independent variables were the moral reasoning assessed through MFQ utilization and the political affiliations. The dependent variable was the college students' attitude toward CCG on college campuses assessed using the questions from Thompson et al. (2013) scale. Chapter 4 will contain a discussion on data collection and data analysis.

Chapter 4: Results

Introduction

Recent increases in gun violence in schools have raised distressing and pressing questions. Those questions include how college students feel about the consequences of laws that permit themselves and others using the campus to legally carry concealed handguns for protection. The purpose of this quantitative study was to quantify how concealed carry behavior impacts college students' feelings of safety on campus.

The idea that morals might influence safety emerges from the MFT. There are five foundations of moral insight that control the social life of people across all cultures, or universal fundamentals. These five moral foundations are harm/care and fairness/equality, which are together called individualizing foundations, and authority/respect, in-group/loyalty, and purity/sanctity, which are together called binding foundations (Haidt & Joseph, 2004, 2007).

Opinions about concealed carry are influenced by political ideologies. Political affiliation in the United States is broadly divided between conservatism and liberalism. Generally speaking, conservatives believe in personal responsibility. Conservative policies emphasize individual empowerment to solve problems. Correspondingly, conservatives seek free markets, a strong national defense, traditional American values, individual liberties, and limited government. Conservatives see the primary role of government as providing its citizens with the necessary freedoms for pursuing their personal and professional goals. By contrast, liberals believe that the government's responsibility is to solve citizens' problems. Liberal policies emphasize government

empowerment to solve problems. Correspondingly, liberals seek governmental promotion of equal opportunities, equality for all citizens, alleviation of social ills, and protection of civil liberties to protect individual and human rights. Liberals see the primary role of government as guaranteeing that no one is in need.

Research Questions and Hypotheses

This study was guided by four research questions and hypotheses:

RQ1: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses?

$H_0 1$: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

$H_a 1$: Moral foundations and political affiliations are significant predictors of college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ2: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?

$H_0$2: Moral foundations and political affiliation are not significant predictors of college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

H_a2: Moral foundations and political affiliation are significant predictors of college students' agreement with feeling safe if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

RQ3: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses?

$H_0$3: Moral foundations and political affiliation are not significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a3: Moral foundations and political affiliation are significant predictors of college students' agreement with university police's ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

RQ4: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?

H_04: Moral foundations and political affiliation are not significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a4: Moral foundations and political affiliation are significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

This chapter is divided into three main sections that address data collection, the results, and a summary. The data collection includes information regarding the time frame, recruitment, and response rates, justifies discrepancies in terms of analytical approaches, and provides baseline descriptive and demographic characteristics of the sample. The results section includes descriptive statistics, comparison of safety feelings among individuals who conceal carry on campus, evidence that regression assumptions were met, and results for RQ1, RQ2, RQ3, and RQ4. The chapter ends with a summary. This quantitative study was based on survey data drawn from published and validated surveys and did not include a pilot study.

Data Collection

Time Frame, Recruitment, and Response Rates

Invitations to participate in this research were posted in Facebook to different college student groups in the U.S. and included the link to the survey. Data were collected with an online survey posted on SurveyMonkey. The survey ran from October 16 to December 2, 2020. A total of 193 students agreed to take the survey. However, 25% failed to provide critical information such as the degree of safety they felt when students, faculty and staff, campus police, or they personally were carrying a concealed weapon for protection and were dropped from the data set. The response rate was 75%, with a final total of 145 students.

Discrepancies in Analytical Approaches

There are no discrepancies between the data collection plan originally presented in Chapter 3 and the one used to collect the data. However, there was a change from the proposed analytical plan in Chapter 3 and the actual analytical approach I used in Chapter 4. My overall research aim was to weigh moral foundations, political affiliation, and other potential predictor variables in terms of predicting college students' attitudes toward the role of CCG on college campuses in ensuring safety. To that end, I originally proposed to use ordinal logistic regression, which is the practical approach when the dependent variable is ordinal because I collected data on student perceptions of safety using a Likert scale, which is ordinal but can be analyzed as continuous data if screening shows that it is normally distributed. Although screening indicated that safety data were normally distributed, I ran an ordinal logistic regression. The regression revealed that the

database was inadequate because of missing values. Although there were only scattered missing values, ordinal logistic regression generates all possible combinations between dependent and predictor variables. Results of the ordinal logistic regression revealed that there were too few data for this complex approach. Specifically, 75% of cells that reflected dependent variable levels via observed combinations of predictor variable values had zero frequencies. As a result, the log-likelihood value was practically zero, and maximum likelihood estimates could not be calculated. Therefore, I replaced missing values with the mean for each variable, again established through screening that the normality of the data justified treating it as continuous data (Laerd Statistics, 2013, Tabachnick & Fidell, 2019), and ran multiple regressions instead. Sample size was adequate for multiple regression.

Baseline Descriptive and Demographic Characteristics of the Sample

The sample was comprised of four measures of feelings of safety on college campuses if concealed carry was permitted, seven basic demographic questions, political affiliation, and 30 statements used to measure five moral foundations. This section describes the multiple steps involved in deriving the five moral foundation summated scales. The rest of the variables are described along with descriptive statistics.

MFQ

The MFQ involved using two different Likert scales. The first Likert scale measured relevancy of behaviors or attitudes listed in 15 survey statements to answer the following question: When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?

Table 1

MFQ Statements Measuring Degree of Relevancy to Decisions About Right or Wrong

Moral Foundation	α	Survey Statement (Variable Code)
Harm	.70	Whether or not someone suffered emotionally (Emotionally) Whether or not someone cared for someone weak or vulnerable (Weak) Whether or not someone was cruel (Cruel)
Fairness	.76	Whether or not some people were treated differently than others (Treated) Whether or not someone acted unfairly (Unfairly) Whether or not someone was denied his or her rights (Rights)
Ingroup	.70	Whether or not someone's action showed love for his or her country (Love Country) Whether or not someone did something to betray his or her group (Betray) Whether or not someone showed a lack of loyalty (Loyalty)
Authority	.64	Whether or not someone showed a lack of respect for authority (Respect) Whether or not someone conformed to the traditions of society (Traditions) Whether or not an action caused chaos or disorder (Chaos)
Purity	.43	Whether or not someone violated standards of purity and decency (Decency) Whether or not someone did something disgusting (Disgusting) Whether or not someone acted in a way that God would approve of (God)

Note. Harm = Harm/Care. Fairness = Fairness/Reciprocity, Ingroup = Ingroup/Loyalty. Authority = Authority/Respect. Purity = Purity/Sanctity. α = Cronbach's α.Relevancy is measured with a 6-point Likert-scale (0 = not at all relevant, 1 = not very relevant, 2 = slightly relevant, 3 = somewhat relevant, 4 = very relevant, 5 = extremely relevant). The "0 = not at all relevant" option meant "This consideration has

nothing to do with my judgments of right and wrong." The "5 = extremely relevant" option meant "This is one of the most important factors when I judge right and wrong." Survey statements that measured moral relevancy are listed on Table 1; parenthetical words are conventional abbreviations for each statement. For example, the relevancy statement of "whether or not someone suffered emotionally" is abbreviated simply as "emotionally."

The second scale on the Moral Foundations Questionnaire measures the degree of agreement that the behavior or attitude listed in a second, separate set of 15 survey statements was pertinent to judgements of right or wrong (Table 2). Agreement was measured with a 6-point Likert-scale (0 = strongly disagree, 1 = moderately disagree, 2 = slightly disagree, 3 = slightly agree, 4 = moderately agree, 5 = strongly agree).

As shown on Tables 1 and 2, Moral Foundations Questionnaire statements were designed to measure five foundations of morality: Harm/Care, Fairness/Reciprocity, Ingroup/Loyalty, Authority/Respect, and Purity/Sanctity). Each of the foundations was measured as the mean of six survey items, three from the Relevancy Likert scale and three from the Agreement Likert scale.

Table 2

MFQ Statements Measuring Degree of Agreement

Moral Foundation	α	Survey Statement
Harm	.30	Compassion for those who are suffering is the most crucial virtue. (Compassion) One of the worst things a person could do is hurt a defenseless animal. (Animal) It can never be right to kill a human being. (Kill)
Fairness	.76	When the government makes laws, the number one principle should be ensuring that everyone is treated fairly. (Fairly) Justice is the most important requirement for a society. (Justice) I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing. (Rich)
Ingroup	.61	I am proud of my country's history. (History) People should be loyal to their family members, even when they have done something wrong. (Family) It is more important to be a team player than to express oneself. (Team)
Authority	.67	Respect for authority is something all children need to learn. (Kidrespect) Men and women each have different roles to play in society. (Sexroles) If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty. (Soldier)
Purity	.77	People should not do things that are disgusting, even if no one is harmed. (Harmlessdg) I would call some acts wrong on the grounds that they are unnatural. (Unnatural) Chastity is an important and valuable virtue. (Chastity)

Note. Harm = Harm/Care. Fairness = Fairness/Reciprocity, Ingroup = Ingroup/Loyalty.

Authority = Authority/Respect. Purity = Purity/Sanctity. α = Cronbach's α.

Although the individual MFQ statements were measured on two different Likert scales, instructions for deriving scores for each moral foundation are to generate the mean response of all 6 statements that apply to a specific moral foundation. This creates a summated scale (hereafter SS) that represents all 6 statements. Reliability statistics were run to generate a Cronbach's α for each set of three Relevancy and Agreement statements, respectively, for each moral foundation. Tables 2 and 3 list the reliability statistics.

On Table 1, Cronbach's α statistic revealed unacceptably low reliability for the Purity SS. To understand why, a correlation matrix of all of the possible correlations between the Purity SS and the 6 of the statements from which it was derived was generated. These are listed on Table 2. Hair et al. (2010) provided two criteria for establishing the extent to which a summated scale accurately represents all of the survey statements that it is intended to represent. The criterion for correlations between the SS and each survey statement that contributed to it is a minimum of $r = .50$. The criterion for correlations between the individual survey statements themselves is a minimum of $r = .30$. When these criteria are not reached, the offending variable(s) can be removed and the SS recalculated so that the SS is representative (Hair et al., 2010).

The correlations on Table 3 were examined to see if they met Hair et al.'s (2010) criteria. The correlations in the vertical column labeled V1 between the Purity SS and each Purity survey statement met the minimum recommended criterion of $r = .50$ with the exception of V3, which was the Disgusting statement ("Whether or not someone did

something disgusting," Table 1). In addition, four of V3's 5 correlations with the other Purity survey statements fell below the recommended minimum of $r = .30$. The decision was made to exclude the Disgusting data and recalculate the Purity SS based on V2 Decency, V4 God, V5 Harmlessdg, V6 Unnatural, and V7 Chastity. The reliability of the new Purity SS without the Disgusting statement was acceptable (Cronbach's $\alpha = .70$).

Table 3

Pearson Correlation Matrix to Check Unacceptable Reliability of the Original Purity SS

	V1	V2	V3	V4	V5	V6
V1 Purity SS	1					
V2 Decency	.60**	1				
V3 Disgusting	**.36****	**.23****	1			
V4 God	.76**	.30**	**.07**	1		
V5 Harmlessdg	.74**	.34**	.33**	.42**	1	
V6 Unnatural	.72**	.26**	**.02**	.51**	.47**	1
V7 Chastity	.74**	.29**	**-.07**	.59**	.47**	.64**

Note. V = variable. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

On Table 2, Cronbach's α statistic revealed unacceptably low reliability for the Harm SS. To understand why, a correlation matrix was again generated and examined, this time of the Harm SS and all 6 of the statements upon which it was based, and examined to see which correlations met Hair et al.'s (2010) criteria for establishing the representativeness of a summated scale.

Table 4 lists the correlations. The vertical column labeled V1 shows that all of the individual survey items correlated significantly with the Harm SS based on all 6 items. However, correlations between the original Harm SS and V6 Animal and V7 Kill, respectively, did not meet Hair et al.'s minimum criterion of $r = .50$. Moreover, the

bottom two horizontal rows of Table 4 show that V6 and V7 had negligible to very small correlations with the other Harm statements and that the sole statistically significant correlation between V5 and V6 did not reach Hair et al.'s minimum criterion of $r = .30$. Therefore, the Harm SS was recalculated without the Animal and Kill data, using the V2 Emotionally, V3 Weak, V4 Cruel, and V5 Compassion data. Without the V6 Animal and V7 Kill data, the reliability of the new Harm SS was acceptable (Cronbach's $\alpha = .70$).

Table 4

Pearson Correlation Matrix to Check Unacceptable Reliability of the Original Harm SS

	V1	V2	V3	V4	V5	V6
V1 Harm SS	1					
V2 Emotionally	.66**	1				
V3 Weak	.66**	.41**	1			
V4 Cruel	.64**	.45**	.46**	1		
V5 Compassion	.56**	.25**	.29**	.27**	1	
V6 Animal	**.44****	**.03**	**.12**	**.05**	**.25****	1
V7 Kill	**.46****	**.09**	**.00**	**.06**	**.03**	**.13**

Note. V = variable. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Screening for Normality

All data were initially screened for entry errors and missing data points. The data were collected with an online survey so entry errors were not an issue. There were scattered missing data points for all of the variables except safety. Because of the fundamental contribution of safety data to this research, individuals who did not provide safety data were removed from the data set. Likert-scaled responses were screened for normality, skew, kurtosis, homoscedasticity, outliers, and bivariate linearity to determine

if they could be tested as continuous data (Hair et al., 2010). Before screening, the decision was made to include outliers, because they represented the students' authentic perceptions; slight differences between the means and the 5% trimmed means on descriptive statistics tables show that outliers did not exert undue influence on the results. Linearity was checked with visual inspection of bivariate scatter plots and by checking for quadratic relationships. Likert-scaled data were normally distributed and were treated as continuous data. The data met the assumptions of Pearson's correlations because they were continuous and had linear relationships. Correlation coefficients were interpreted categorically as indicative of small effects (r = .10), of medium effects (r = .30), or of large effects (r = .50, Cohen, 1988). Each SS was screened for univariate normality. Skew and kurtosis statistics for the variables all fell within the ±2 criterion for normality (Warner, 2013). Further significance tests of the normality assumption were also run by generating z scores (skew and kurtosis statistics were divided by their standard errors) and establishing that none of the z scores fell outside the criterion of $z = 3.29$, $p < .001$ (Tabachnick & Fidell, 2019). Visual examination of frequency distributions with super-imposed normal curves, boxplots, and normal P-P further verified that the data met the normality and homoscedasticity assumptions. However, Case 32 (an 18-22-year-old Asian American woman who attended a small, non-religious, public university in the northwestern United States and described her political affiliation as slightly conservative) emerged as an outlier by answering every Moral Foundations Questionnaire statement with zero. She was removed from further analyses.

Representativeness of the Sample

The population of interest is college students attending college or universities in the United States. This sample is representative because it included students with the qualities that generally comprise the college population: ages 18-30+ years of age, a range of ethnicities, public versus private colleges, religious versus non-religious colleges; attending small, medium, and large colleges with locations across the entire United States.

Basic Univariate Analyses that Justified Inclusion of Covariates in the Model

In order to identify likely predictor variables that could be entered in regressions in addition to moral foundations and political affiliation, a series of *t* tests were run for dichotomous demographic variables (gender, race [dichotomized to adjust for the skew towards White students, see Table 6], type of college, and college religiosity) and a series of one-way ANOVA tests were run for variables with more than two levels (age, college size, and location) with safety measures as the dependent variables. Safety was significantly different across levels of age and dichotomized race. Age and dichotomized race were dummy coded and entered into the regressions as additional predictor variables.

Treatment and/or Intervention Fidelity

This quantitative study used an associational and predictive design study based on survey data. It did not include treatments or interventions.

Study Results

Descriptive Statistics

Table 5 lists the personal demographic characteristics of the students. Table 6 lists the college demographic characteristics. Demographic data showed that the modal student was a 30+-year-old White woman who attended a large, non-religious, public college in the southeastern United States. Table 5 shows that there were three women for every man in the study and nearly half were 30+ years old, with about a third 23-29 years old. The majority ethnic group was White, followed by less than 10% of students from other races.

Table 5

Student Demographic Characteristics

Demographic Characteristic	*n*	Percentage of Sample
Gender		
Men	33	24%
Women	101	74%
Other	2	1%
Age Class		
18-22 Years Old	34	25%
23-29 Years Old	42	31%
30+ Years Old	60	44%
Race/Ethnicity		
White	85	62%
Asian American	12	9%
Hispanic/Latino	12	9%
African American	10	7%
International	9	6%
2+Races/Other	8	5%
American Indian/Alaska Native	1	<1%

Table 6 shows that the three of the students attended a public college to every one student who attended a private college. Almost 9 out of every 10 students attended a non-

religiously affiliated college. Half of the students attended a large college but were roughly divided between attending college in the northeastern, southeastern, and central states.

Table 6

College Demographic Characteristics

College Characteristics	*n*	Percentage of Sample
Public or Private College		
Public	99	72%
Private	38	28%
College Religiosity		
Not Affiliated Religiously	119	87%
Religiously Affiliated	18	13%
College Size		
Small <5000 Students	24	18%
Medium 5000-15000 Students	44	32%
Large > 15000 Students	69	50%
College Location		
Northeastern States	27	20%
Southeastern States	37	27%
Central States	36	26%
Northwestern States	16	12%
Southwestern States	20	15%

Comparison of Safety Feelings among Different Individuals Who Conceal Carry on Campus

This section shows the results of comparing students' feelings of safety by the type of individuals who might engage in concealed carry. Figure 1 illustrates the means. There is clear stepwise increase in safety. The lowest feelings of safety were engendered by fellow students who conceal carry ($M = 1.89$, $SD = 1.02$). The strong feelings of safety were engendered by university police who conceal carry ($M = 2.45$, $SD = 1.02$) and when the student him- or herself engaged in conceal carry ($M = 2.48$, $SD = 1.07$). The mean

feelings of safety if faculty and staff were allowed to engage in concealed carry fell between the highest and lowest ratings (M = 2.28, SD = 1.13).

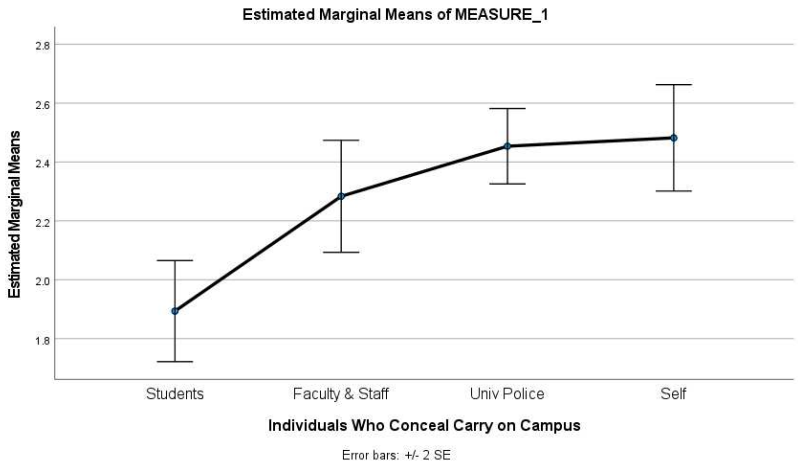
The question arose as to whether the differences in mean feelings of safety illustrated on Figure 1 varied from one another significantly. A repeated measures ANOVA was run to answer the question by comparing safety across the different individuals. The hypotheses were:

H_0: Feelings of safety engendered by different individuals who conceal carry did not differ.

H_1: Feelings of safety engendered by different individuals who conceal carry differed significantly.

Figure 1

Mean Feelings of Safety A Individuals Who Might Carry Concealed Weapons on Campus



Results showed that feelings of safety engendered by different individuals who conceal carry differed significantly (λ = .59, $F(3, 138) = 31.76$, $p < .001$, $p\eta^2 = .41$). The

null hypothesis was rejected. Planned comparisons showed that students who conceal carry engendered significantly lower feelings of safety compared to faculty and staff ($p < .001$), university police ($p < .001$), and when the student him- or herself chose to conceal carry ($p < .001$). Faculty and staff who conceal carry engendered significantly lower feelings of safety compared to when the student him- or herself chose to conceal carry ($p = .002$). Non-significant differences in safety arose between faculty/staff and university police ($p = .113$) and between university police and the student him- or herself ($p = .796$).

Results for RQ1

RQ1 was, to what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses? This section begins with descriptive statistics for moral foundations, political affiliation, and safety when students conceal carry, followed by the results of regression.

Moral Foundation SS Descriptive Statistics

Table 7 shows the descriptive statistics for the five Moral Foundations summated scales (SS). The moral foundation with the highest mean was the Harm SS, reflecting an average response between somewhat and very relevant, and slightly to moderately agree. The Fairness SS had a mean that was close in value to the Harm SS. The ingroup SS had the lowest mean, reflecting an average response of slightly relevant or slightly disagree. Means for the Authority SS and the Purity SS were between the highest and lowest

means, and reflected average responses between slightly and somewhat relevant, and slightly disagree to slightly agree.

Table 7

Moral Foundations SS Descriptive Statistics, Response Scale 0-5

Statistics		Harm SS	Fairness SS	Ingroup SS	Authority SS	Purity SS
Mean (SE)		3.67 (0.06)	3.58 (0.05)	2.10 (0.07)	2.47 (0.06)	2.36 (0.08)
95% CI	LB	3.54	3.47	1.96	2.33	2.20
	UB	3.80	3.69	2.24	2.60	2.52
5% Trimmed Mean		3.71	3.60	2.10	2.48	2.36
Median		3.64	3.56	2.08	2.45	2.34
Variance		0.62	0.41	0.70	0.67	0.93
SD		0.78	0.64	0.83	0.82	0.96
Minimum		1.00	1.50	0.17	0.17	0.20
Maximum		5.00	5.00	4.00	4.50	5.00
Range		4.00	3.50	3.83	4.33	4.80
IQR		1.00	0.83	1.17	1.00	1.20
Skewness		-0.74	-0.44	0.02	-0.23	-0.05
Kurtosis		1.14	0.23	-0.42	0.29	-0.02

Note. Relevancy was measured with a 6-point Likert-scale (0 = not at all relevant, 5 = extremely relevant). Agreement was measured with a 6-point Likert-scale (0 = strongly disagree, 5 = strongly agree). 95% CI = 95% confidence interval of the mean. LB = lower bound of the 95% CI. UB = upper bound of the 95% CI. IQR = Interquartile range. Skew SE = 0.20. Kurtosis SE = 0.40.

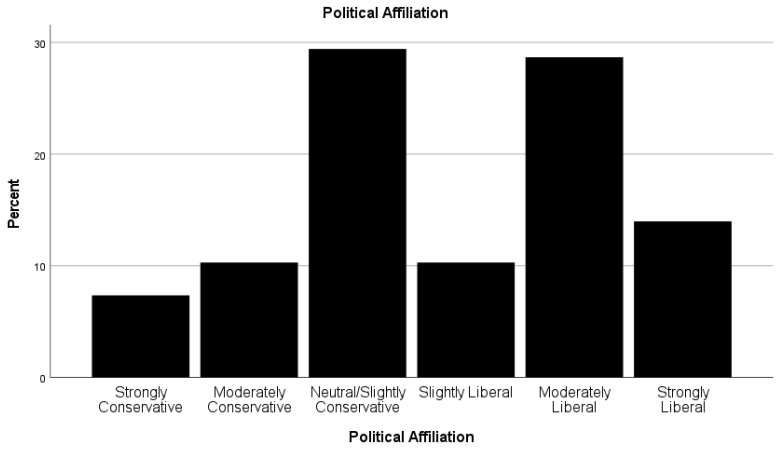
Political Affiliation Descriptive Statistics

Political affiliation had 6 levels. It was coded so that conservatives had lower values and liberals had higher values (1 = strongly conservative, 2 = moderately conservative, 3 = neutral/slightly conservative, 4 = slightly liberal, 5 = moderately liberal, 6 = strongly liberal). The reason neutral and slightly conservative are listed as one option

is that most people in the U.S who identify themselves as independent also identify as slightly conservative, and so these two options are highly correlated (Gallup, 2020). Figure 2 illustrates the distribution of students by political affiliation. The distribution was bimodal, with equal percentages of students describing their affiliation as neutral to slightly conservative or moderately liberal. Students were broadly divided, with slightly more liberals (53%, *n* = 72 students) than conservatives (47%, *n* = 64 students).

Figure 2

Percent Distribution by Political Affiliation



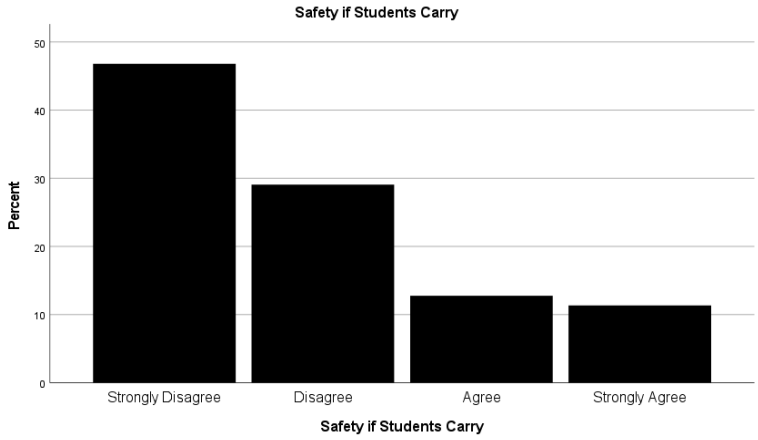
Safety if Students Carry Concealed Handguns Descriptive Statistics

The statement that measured this dimension of safety for RQ1 was, "I feel safe if students were permitted to carry concealed handguns on campus." Safety was measured on a 4-point Likert scale of agreement, coded so that higher values reflected greater agreement with the statement (1 = strongly disagree, 2 = disagree, 3= agree, 4 = strongly agree). Figure 3 shows that three out of four students disagreed or strongly disagreed that

fellow students carrying concealed weapons made them feel safe (76%, *n* = 107 students). Somewhat more of those strongly disagreed (*n* = 66 students) than disagreed (*n* = 41 students). The remaining quarter either agreed (*n* = 18 students) or strongly agreed (*n* = 16 students). They were about evenly divided in their perspectives.

Figure 3

Percent Distribution of Agreement about Feeling Safe if Students Are Permitted to Carry Concealed Handguns on Campus



Evidence that Data Met Regression Assumptions

The rest of this chapter presents results of testing the multiple regression assumptions and the regression output. This section shows that screening established that the data met the many assumptions of regression. An assumption is that multiple linear regression is run on an adequate sample. Small samples compromise a multiple regression's power of to detect statistically significant relationships and limit generalizability. A minimum of 15-20 students per predictor is needed. The concealed

carry database was adequate for regression tests that allowed a maximum of 8 predictor variables per regression (N = 145 students; Hair et al., 2010).

An assumption is that multiple linear regression is run on linear relationships (Warner, 2013) between independent variables (in this study: moral foundations, political affiliation, age, and race) and the dependent variable (in this study: feelings of safety). Linearity assumptions were verified by visual inspection of individual scatter plots that included superimposed lines of best fit. Scatter plots are illustrated in Figures 4-11.

Figure 4

Linearity of Correlation between Safety If Students Carry and Harm SS

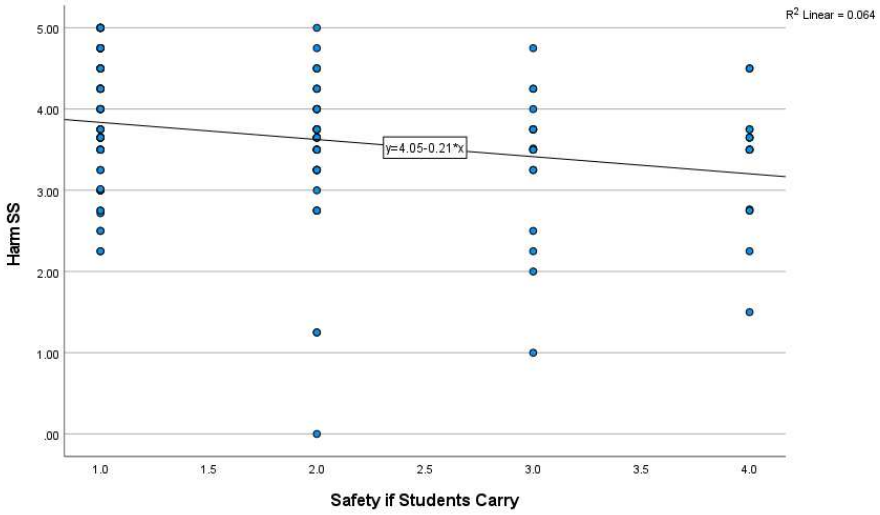


Figure 5

Linearity of Correlation between Safety If Students Carry and Fairness SS

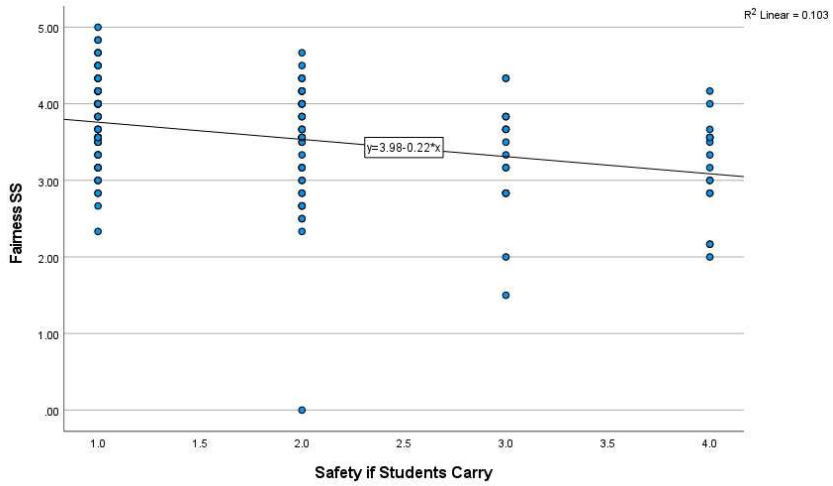


Figure 6

Linearity of Correlation between Safety If Students Carry and Ingroup SS

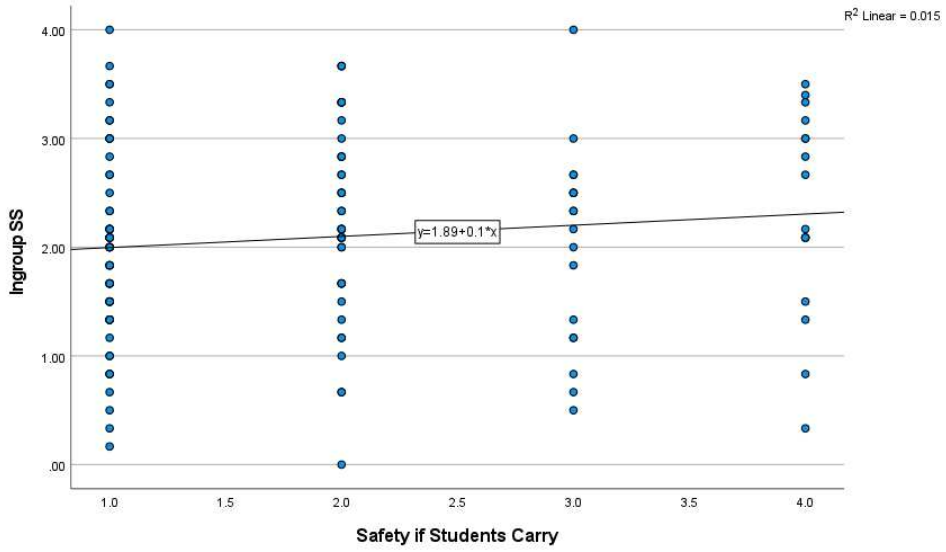


Figure 7

Linearity of Correlation between Safety If Students Carry and Authority SS

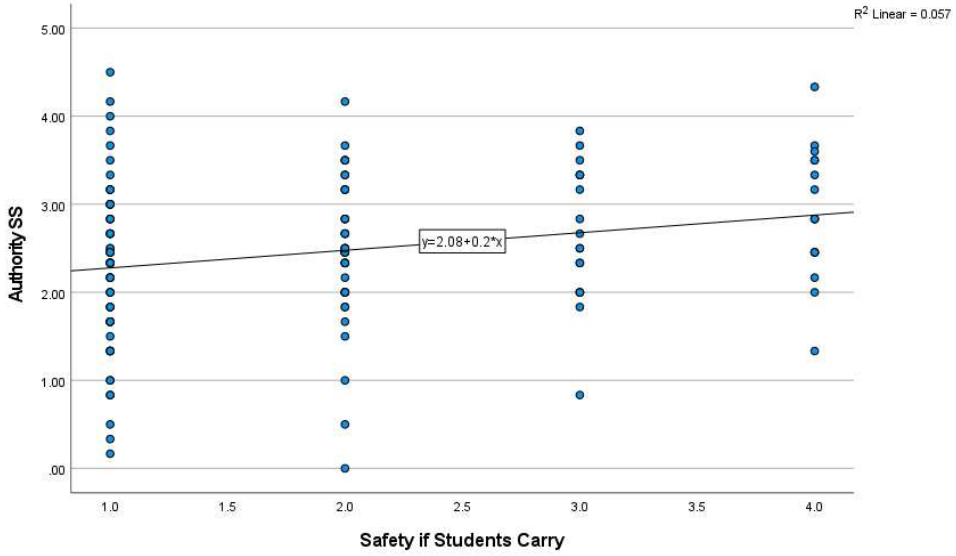


Figure 8

Linearity of Correlation between Safety If Students Carry and Purity SS

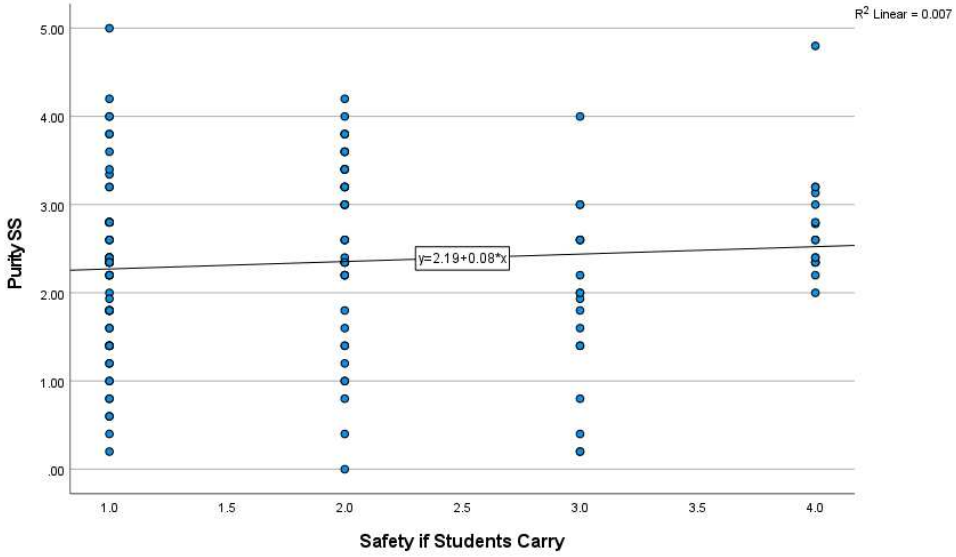


Figure 9

Linearity of Correlation between Safety If Students Carry and Political Affiliation

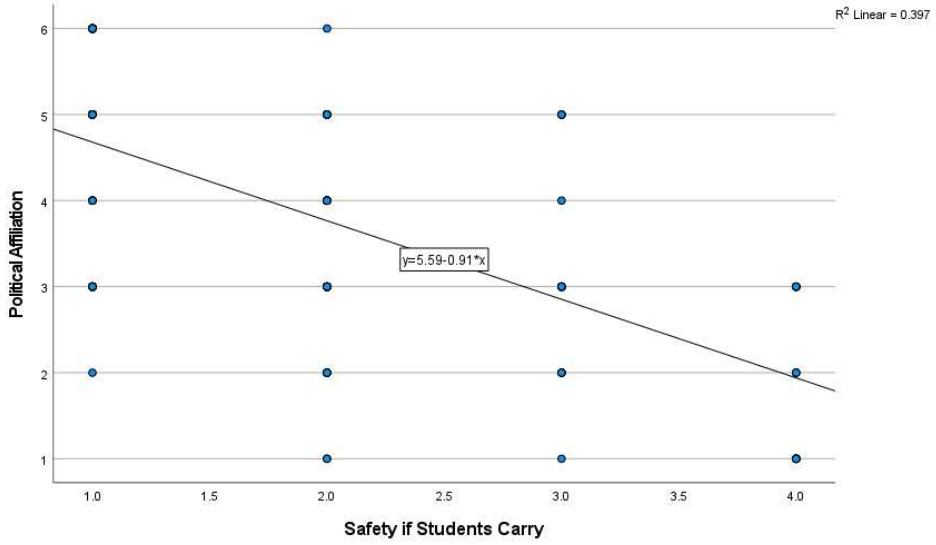


Figure 10

Linearity of Correlation between Safety If Students Carry and Age

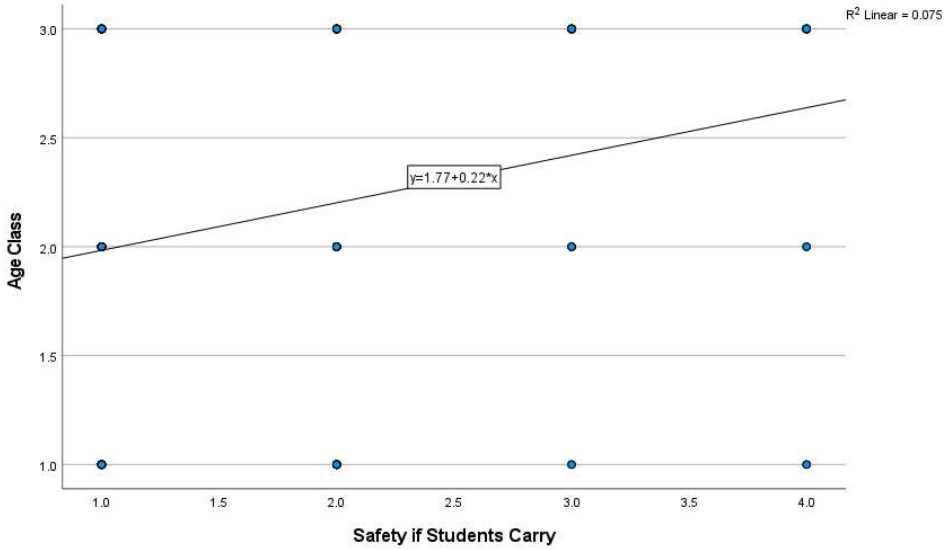
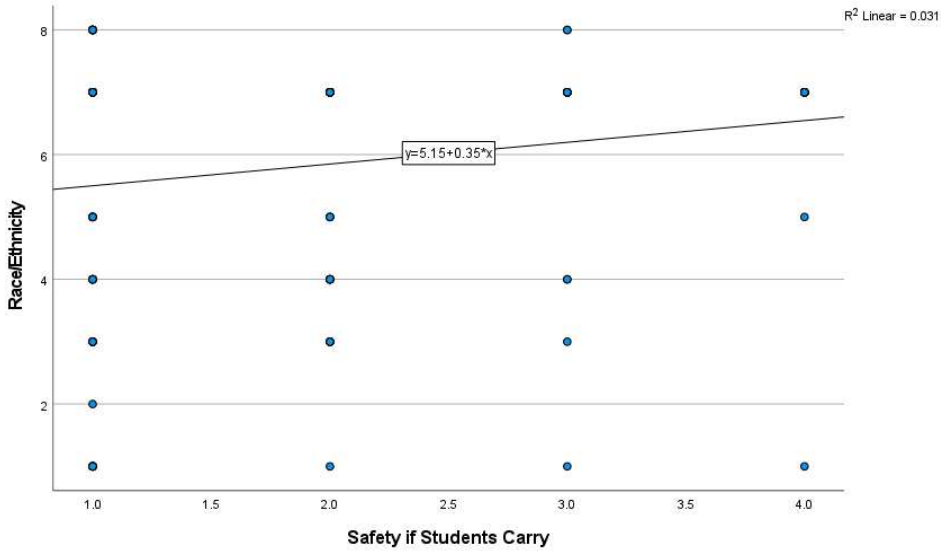


Figure 11

Linearity of Correlation between Safety If Students Carry and Race/Ethnicity



Another multiple regression assumption is that the differences between the observed values and the predicted values or error (i.e., the regression residuals) are normally distributed (Warner, 2013). This was verified in the current study with visual inspection of the histogram (see Figure 12), normal P-P plot (see Figure 13) and the scatter plot of standardized residuals and predicted values (see Figure 14).

Figure 12

Histogram of Standardized Residuals

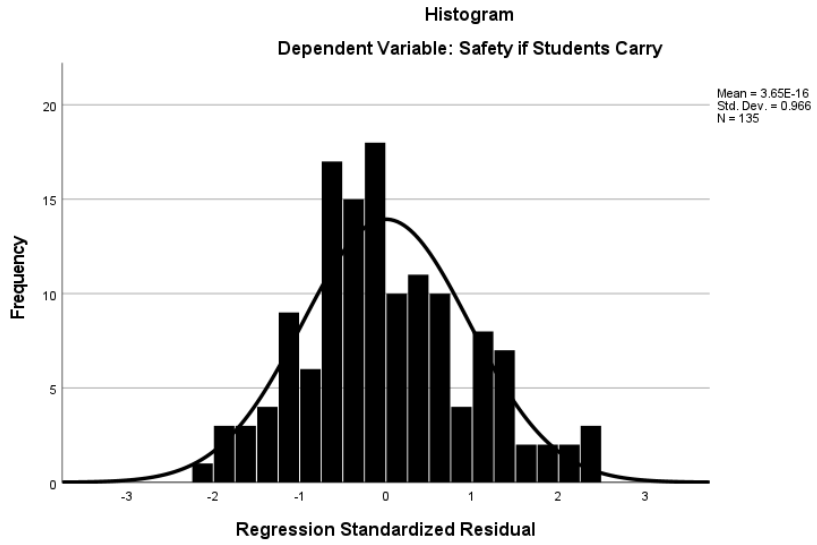


Figure 13

Normal P-P Plot

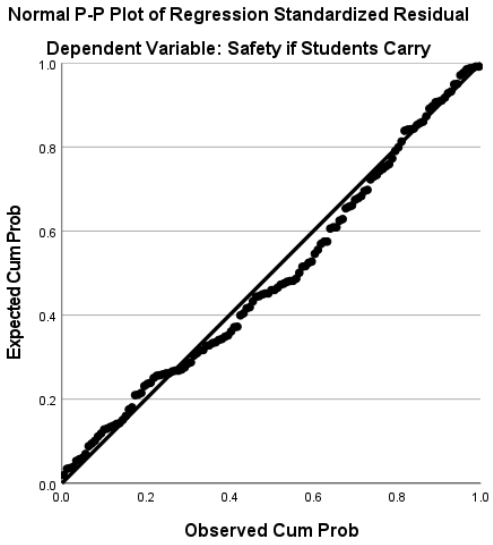
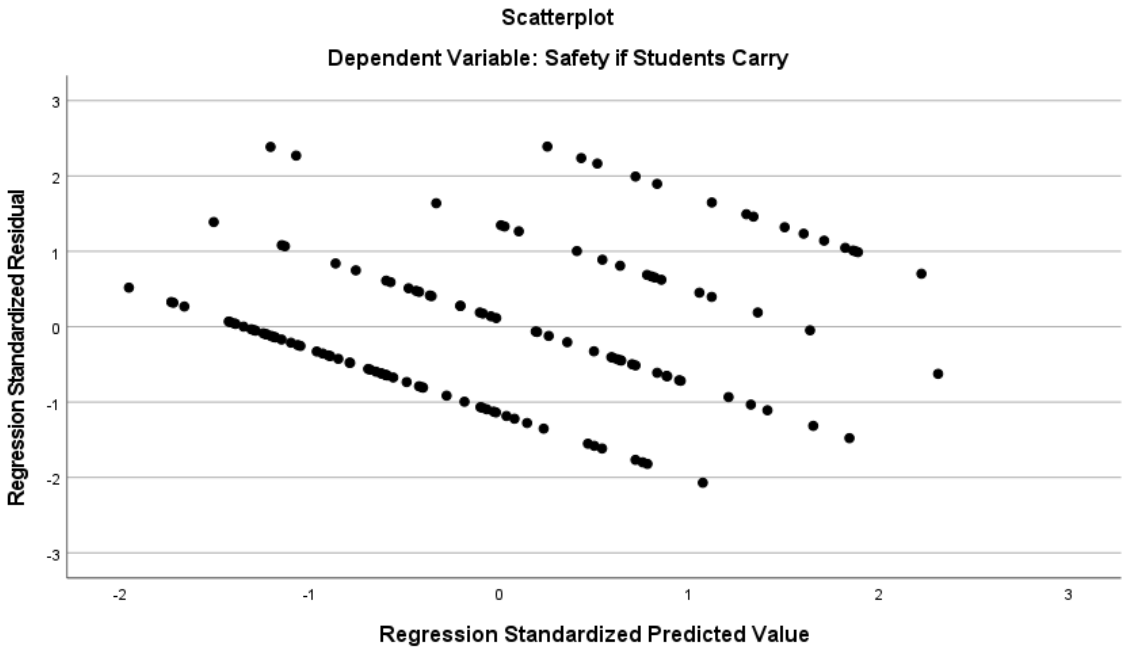


Figure 14

Scatter Plot of Standardized and Predicted Residuals



Another assumption is that the variables used in a multiple linear regression show multivariate normality. Mahalanobis distances were generated for all data points. Any student who fell substantially outside the swarm of data points in multivariate space due to an Mahalanobis distance was greater than the $X^2 = 21.96$ for 8 predictor variables at $p = .005$ (Tabachnick & Fidell, 2019) was a multivariate outlier. None of the cases were outliers. The data met assumptions of multivariate normality.

Another multiple linear regression assumption is that there are adequate correlations between the predicted and predictor variables. This was verified by correlation matrices that showed that there were a sufficient number of adequately

correlated variables for the regression with no indication of strongly-correlated predictor variables or multicollinearity (based on Hair et al.'s cut-off value of correlations around *r* = .70). The data also met the multiple linear regression assumption of little or no autocorrelation, Durbin-Watson *d* = 2.05.

RQ1 Regression Results

This section begins results of the regression. The dependent, criterion, or predicted variable was feelings of safety if students were allowed to engage in concealed carry on campus. The potential predictor variables were moral foundations, political affiliation, age, and dichotomized race. To adjust for the skew towards White students (Table 6), race was dichotomized into Whites and non-Whites. There were two Whites for every non-White (Whites 62%, *n* = 85 students; non-Whites 38%, *n* = 52 students). For RQ1, the hypotheses were:

$H_{01:}$ Moral Foundations and political affiliation are not significant predictors of college students' agreement with feeling safer if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

$H_{a1:}$ Moral Foundations and political affiliations are significant predictors of college students' agreement with feeling safer if students are allowed to conceal carry guns on college campuses when controlling for the other predictors.

The H_{01} null hypothesis was tested with two regression statistics, R^2 and β. The null R^2 hypothesis predicted that the addition of moral foundations, political affiliation, age, and race did not improve the accuracy of predicting feelings of safety when students carry over the prediction made by the mean of feeling safe when students carry on

campus (H_{01}: $R^2 = 0$, $H_{a1} = R^2 > 0$). Results of this portion of the regression showed that the addition of the predictor variables significantly improved the accuracy of predicting feelings of safety when students carry over the mean alone ($R^2 = .44$, $F(9, 125) = 10.91$, $p < .001$). The H_0: $R^2 = 0$ was rejected.

The β null hypothesis predicted that the individual predictor variables did not each make a separate, unique, statistically significant contribution to the accuracy of predicting feelings of safety after considering the other variables (H_{01}: $\beta = 0$, $H_{a1:}$ $\beta \neq 0$). Regression statistics for this portion are listed on Table 8. Tolerance statistics indicated that all of the predictor variables had adequate unique variance to contribute to predicting feelings of safety when students carried on campus. However, p values showed that none of the moral foundations or age categories made significant unique contributions; the H_{01}: $\beta = 0$ null hypothesis was retained for these predictors. Political affiliation and race (dichotomized) were the predictors that each made unique, statistically significant contributions to predicting safety if students carry. The H_{01}: $\beta = 0$ null hypothesis was rejected for political affiliation and race (dichotomized).

Table 8

Regression Coefficients for RQ1

Model	*B*	*SE*	*Beta*	*t*	*p*	*r*	*pr*	*Tolerance*	*VIF*
(Constant)	4.15	.49							
Harm SS	-0.14	.11	-.11	-1.26	.209	-.27	-.11	.54	1.84
Fairness SS	0.07	.15	.04	0.47	.636	-.34	.04	.47	2.10
Ingroup SS	-0.13	.11	-.11	-1.15	.250	.13	-.13	.45	2.17
Authority SS	0.08	.12	.06	0.65	.514	.25	.05	.41	2.40
Purity SS	-0.04	.09	-.04	-0.54	.588	.09	-.04	.58	1.71
Political Affiliation	-0.42	.06	-.61	-6.77	.000	-.63	-.52	.54	1.82
18-22 Years Old (Dummy)	0.03	.19	.01	0.16	.869	-.17	.01	.64	1.54
23-29 Years Old (Dummy)	-0.06	.17	-.03	-0.37	.711	-.17	-.03	.70	1.41
Race (Dichotomized)	-0.31	.15	-.14	-2.00	.047	-.25	-.18	.82	1.21

Figure 15 illustrates the relationship between feelings of safety when students carry and the participating students' political affiliation. The descending step-wise sequence shows how perceptions of safety corresponded to political affiliation. Specifically, conservative students felt safer (strongly conservative $M = 3.50$, $SD = 0.85$, $n = 10$ students; moderately conservative $M = 2.64$, $SD = 0.93$, $n = 14$ students; neutral to slightly conservative $M = 2.20$, $SD = 1.04$, $n = 40$ students). Comparatively, liberal students felt less safe (slightly liberal $M = 1.71$, $SD = 0.61$, $n = 14$ students; moderately liberal $M = 1.46$, $SD = 0.68$, $n = 39$ students; strongly liberal $M = 1.05$, $SD = 0.23$, $n = 19$ students).

Figure 15

Mean Feelings of Safety if Students Are Allowed Concealed Carry on Campus by Political Affiliation

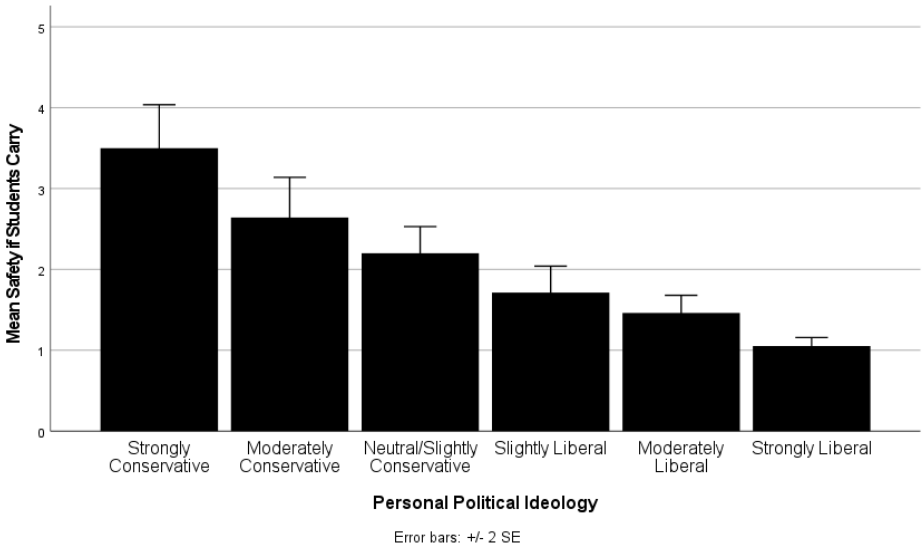
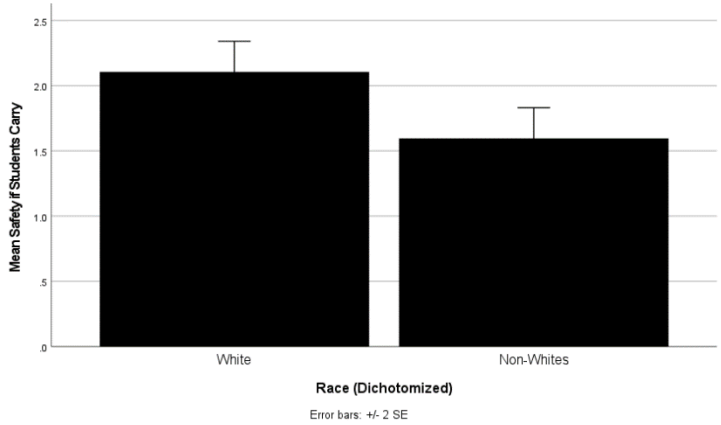


Figure 16 illustrates the relationship between safety if students carry concealed handguns and dichotomized race. Whites felt significantly safer than non-Whites (Whites $M = 2.11$, $SD = 1.08$, $n = 85$ students; non-Whites $M = 1.60$, $SD = 0.85$, $n = 52$ students).

Figure 16

Mean Feelings of Safety if Students are Allowed Concealed Carry on Campus by Race (Dichotomized)



The RQ1 regression was re-specified with political affiliation and race (dichotomized) as the only predictors; this changed the values of the regression coefficients. For Whites, the regression formula for predicting feelings of safety if students carried on campus was 3.64 – 0.42(affiliation). For non-Whites, the regression formula for predicting feelings of safety if students carried on campus was 3.64 – 0.42(affiliation) – 0.29 (dichotomized race).

Answer to RQ1

The answer to RQ1 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses?) was two-fold. Moral foundations and age categories were unrelated to prediction. On the other hand, political affiliation and race

was significant predictors. More conservative students felt greater safety compared to more liberal students, and Whites felt greater safety compared to non-Whites.

Results for RQ2

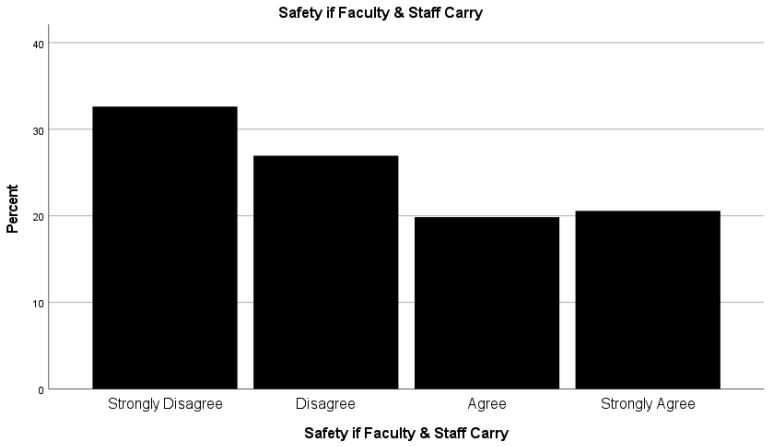
RQ2 was, to what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?

Safety if Faculty and Staff Carry Concealed Handguns Descriptive Statistics

The statement that measured this dimension of safety was, "I feel safe if faculty/staff were permitted to carry concealed handguns on campus." Safety was measured with a 4-point Likert scale of agreement, coded so that higher values reflected greater agreement (1 = strongly disagree, 2 = disagree, 3= agree, 4 = strongly agree). Figure 17 shows that the participating students were more evenly divided between those who disagreed or strongly disagreed that faculty and staff carrying concealed handguns made them feel safe (59%, *n* = 84 students) and those who agreed or strongly agreed (41%, *n* = 57 students). More students strongly disagreed (*n* = 46 students) than disagreed (*n* = 38 students). One out of every 5 students either agreed (*n* = 28) or strongly agreed (*n* = 29).

Figure 17

Percent Distribution of Agreement about Feeling Safe if Faculty and Staff are Permitted to Carry Concealed Handguns on Campus



RQ2 Regression Results

The dependent variable was the participating students' feelings of safety if faculty and staff were allowed to engage in concealed carry on campus. The predictor variables were moral foundations, political affiliation, age, and race (dichotomized). The RQ2 hypotheses were:

H_02: Moral Foundations and political affiliation are not significant predictors of college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

H_a2: Moral Foundations and political affiliation are significant predictors of college students' agreement with feeling safe if faculty and staff are allowed to conceal carry guns on college campuses when controlling for the other predictors.

The H_{02} null hypothesis was tested with two statistics, R^2 and β. The null R^2 hypothesis predicted that the addition of the predictor variables did not improve the accuracy of predictions about feelings of safety when faculty and staff engaged in concealed carry over the prediction made by the mean feeling of safety if faculty and staff engaged in concealed carry on campus (H_{02}: $R^2 = 0$, $H_{a2} = R^2 > 0$). Results of this portion of the regression showed that the addition of moral foundations and political affiliation significantly improved the predictability of feelings of safety ($R^2 = .44$, $F(9, 125) = 11.17$, $p < .001$); the H_0: $R^2 = 0$ was rejected.

The β null hypothesis predicted that individual predictor variables failed to make a unique, statistically significant contributions to prediction, over and above what the other variables contributed (H_{01}: $\beta = 0$, H_{a1}: $\beta \neq 0$). On Table 9, the tolerance statistics indicated that all of the predictor variables had adequate unique variance to contribute to predicting feelings of safety if faculty and staff conceal carried on campus. However, moral foundation, age categories, and race (dichotomized) failed to make significant unique contributions; the β null hypothesis was retained for each of these predictors. Political affiliation was the only predictor that made a significant unique contribution; the β null hypothesis was rejected for political affiliation.

Table 9

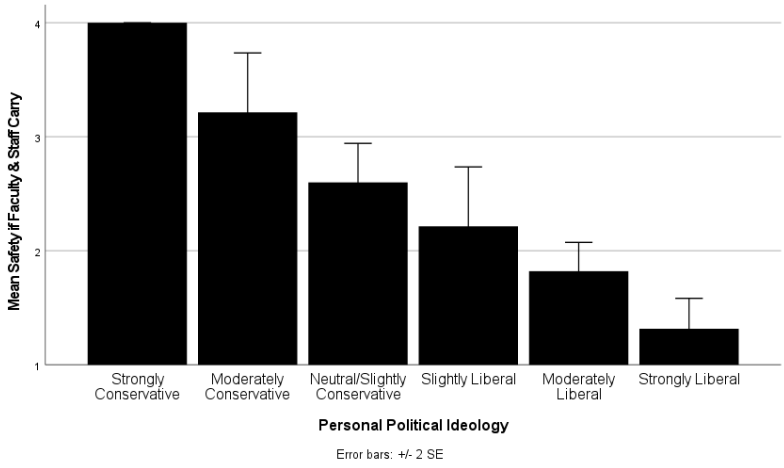
Regression Coefficients for RQ2

Model	*B*	*SE*	*Beta*	*t*	*p*	*r*	*pr*	*Tolerance*	*VIF*
(Constant)	4.72	.54							
Harm SS	-0.14	.12	-.10	-1.15	.249	-.29	-.10	.54	1.84
Fairness SS	0.01	.16	.01	0.04	.969	-.38	.01	.47	2.10
Ingroup SS	-0.06	.12	-.04	-0.48	.629	.17	-.04	.45	2.17
Authority SS	0.04	.13	.03	0.34	.731	.28	.03	.41	2.40
Purity SS	-0.01	.09	-.01	-0.15	.879	.13	-.01	.58	1.71
Political Affiliation	-0.41	.06	-.54	-6.07	.000	-.63	-.47	.54	1.82
18-22 Years Old (Dummy)	-0.21	.21	-.08	-0.99	.324	-.19	-.08	.64	1.54
23-29 Years Old (Dummy)	-0.35	.19	-.14	-1.80	.073	-.23	-.16	.70	1.41
Race (Dichotomized)	-0.21	.17	-.09	-1.22	.222	-.20	-.10	.82	1.21

Figure 18 illustrates the clear step-size descending sequence of feelings of safety if faculty and staff were allowed concealed carry on campus by participating students' political affiliations. Parallel to ratings of safety if students were allowed concealed carry on campus, the means were highest for the conservative students (strongly conservative $M = 4.00$, $SD = 0.00$, $n = 10$ students; moderately conservative $M = 3.21$, $SD = 0.97$, $n = 14$ students; neutral to slightly conservative $M = 2.60$, $SD = 1.08$, $n = 40$ students) and lowest for liberal students (slightly liberal $M = 2.21$, $SD = 0.97$, $n = 14$ students; moderately liberal $M = 1.82$, $SD = 0.79$, $n = 39$ students; strongly liberal $M = 1.32$, $SD = 0.58$, $n = 19$ students).

Figure 18

Mean Feelings of Safety if Faculty and Staff Are Allowed Concealed Carry on Campus



The RQ2 regression was re-specified with just political affiliation as the predictor; this changed the value of the coefficient. The re-specified regression formula for predicting feelings of safety if faculty and staff were allowed concealed carry on campus was 4.18 – 0.48(affiliation).

Answer to RQ2

The answer to RQ2 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?) was two-fold. Moral foundations, age, and race were unrelated to prediction. Political affiliation was a significant predictor, in that the conservative students felt safer than the liberal students, who felt less safe if faculty and staff were allowed to engage in concealed carry on campus.

Results for RQ3

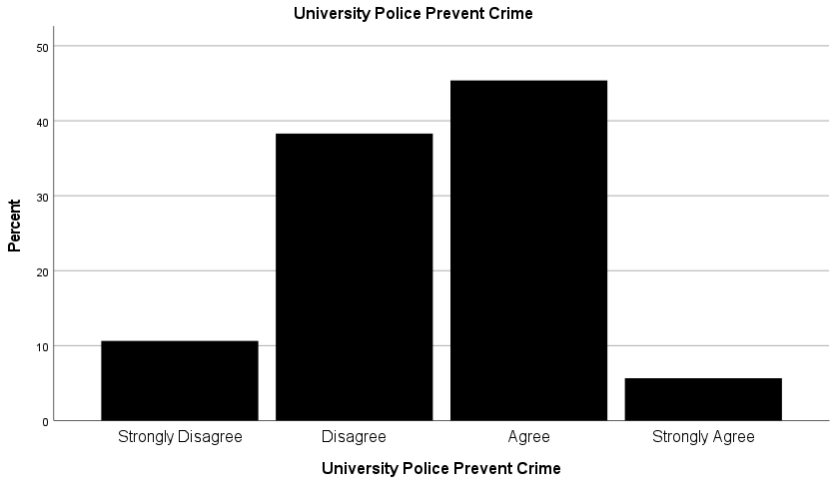
RQ3 was: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college students' agreement with the universities' police ability to prevent crimes if concealed carry guns are allowed on college campuses?

Confidence that University Police Prevent Crime on Campus Descriptive Statistics

The statement that measured this dimension of safety was, "I feel confident that university police can prevent crime on campus." Safety was measured with a 4-point Likert scale of agreement (1 = strongly disagree, 4 = strongly agree). Figure 19 shows that half of the students disagreed or strongly disagreed that university police prevent crime (48%, n = 69 students) and half agreed or strongly agreed (52%, n = 72 students). The numbers of students who felt strongly about their confidence in university police (n = 8 students strongly agreed) or their lack of confidence in university police (n = 15 students strongly disagreed) were small.

Figure 19

Percent Distribution of Confidence that University Police Prevent Crime on Campus



RQ3 Regression Results

The dependent variable was the students' levels of confidence that university police can prevent crime on campus. The predictor variables were again moral foundations, political affiliation, age, and race (dichotomized). This regression was run with the addition of gender because men reported significantly higher confidence than women that university police prevent crimes on campus ($t(132) = 2.40$, $p = .018$, men $M = 2.73$, $SD = 0.63$, $n = 33$ men; women: $M = 2.37$, $SD = 0.78$, $n = 101$ women). For RQ3, the hypotheses were:

$H_{03:}$ Moral Foundations and political affiliation are not significant predictors of college students' agreement with the universities police ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

$H_{a3:}$ Moral Foundations and political affiliation are significant predictors of college students' agreement with the universities police ability to prevent crimes if concealed carry guns are allowed on college campuses when controlling for the other predictors.

The H_{03} null hypothesis was tested with two statistics, R^2 and β. The null R^2 hypothesis predicted that the addition of predictors did not improve the accuracy of predictions about feelings of confidence over the prediction made by the mean of feelings of confidence (H_{03}: $R^2 = 0$, $H_{a3} = R^2 > 0$). Results of this portion of the regression showed that the addition of predictors did not significantly improved the predictability of confidence over that provided by the mean of confidence ($R^2 = .10$, $F(10, 124) = 1.34$, $p = .214$). The H_0: $R^2 = 0$ was retained. Correspondingly, on Table 10, none of the predictor variables achieved significance by improving on the prediction of student confidence that university police can prevent crime on campus, although tolerance statistics indicated that all of the predictor variables had adequate unique variance to contribute to predicting feelings of safety.

Table 10

Regression Coefficients for RQ3

Model	*B*	*SE*	*Beta*	*t*	*p*	*r*	*pr*	*Tolerance*	*VIF*
(Constant)	2.26	.48							
Harm SS	0.01	.10	.01	0.07	.942	-.02	.01	.53	1.86
Fairness SS	-0.07	.14	-.06	-0.51	.611	-.01	-.04	.47	2.11
Ingroup SS	0.10	.11	.11	0.87	.384	.20	.07	.43	2.28
Authority SS	0.13	.11	.14	1.10	.272	.16	.09	.41	2.42
Purity SS	-0.03	.08	-.04	-0.39	.698	.10	-.03	.58	1.71
Political Affiliation	0.03	.05	.06	0.52	.601	-.03	.05	.54	1.82
18-22 Years Old (Dummy)	0.24	.18	.14	1.32	.187	.14	.12	.64	1.54
23-29 Years Old (Dummy)	-0.02	.16	-.01	-0.16	.869	-.06	-.01	.70	1.42
Race (Dichotomized)	0.04	.14	.02	0.29	.766	.06	.02	.82	1.21
Gender	-0.28	.15	-.17	-1.89	.060	-.20	-.16	.90	1.10

Answer to RQ3

The answer to RQ3 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with the universities police ability to prevent crimes if concealed carry guns are allowed on college campuses?) was “to no degree.” Moral foundations, political affiliation, age, race, and gender were unrelated to predictions regarding university police preventing crime on campus.

Results for RQ4

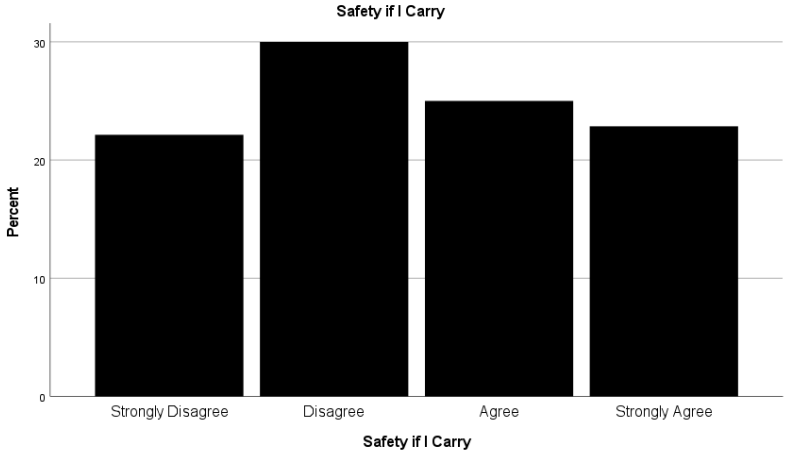
RQ4 was: To what degree do moral foundations (as measured by the MFQ) and political affiliation (as measured by self-reported political identity) predict college

students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?

The statement that measured this dimension of safety was, "I would feel able to protect myself if I carried a concealed handgun on campus". Safety was measured with a 4-point Likert scale of agreement (1 = strongly disagree, 4 = strongly agree). Figure 20 shows that the students were evenly divided on the question of self-protection. Half of the students disagreed or strongly disagreed that they felt able to protect themselves if they carried a concealed hand gun on campus (51%, n = 73 students). The other half agreed or strongly agreed (54%, n = 77 students).

Figure 20

Percent Distribution of Agreement that Participating Students Felt Able to Protect Themselves if They Carried a Concealed Handgun on Campus



RQ4 Regression Results

The dependent variable was the students' levels of agreement that they felt able to protect themselves if they carried a concealed handgun on campus. The predictor

variables were moral foundations, political affiliation, age, and race (dichotomized). The RQ4 hypotheses were:

H_04: Moral Foundations and political affiliation are not significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

H_a4: Moral Foundations and political affiliation are significant predictors of college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses when controlling for the other predictors.

The null R^2 hypothesis for RQ4 predicted that the addition of the predictor variables did not improve the predictability of agreement that the student felt able to protect him- or herself if he or she carried a concealed handgun on campus (H_{04}: $R^2 = 0$, $H_{a4} = R^2 > 0$). Results of this portion of the regression showed that the addition of predictors significantly improved predictability of being able to protect one's self ($R^2 = .41$, $F(9, 125) = 9.49$, $p < .001$). The H_0: $R^2 = 0$ was rejected.

The β null hypothesis predicted that individual predictor variables did not made a unique, statistically significant contribution to prediction, over and above what the other variables contributed (H_{01}: $\beta = 0$, H_{a1}: $\beta \neq 0$). On Table 11, the tolerance statistics indicated that all of the predictor variables had adequate unique variance to contribute to predicting personal feelings of self-protection via concealed carry. However, four of the 5 moral foundations, age categories, and race (dichotomized) failed to make significant unique contributions to prediction. The β null hypothesis was retained for each of these predictors. The moral foundation of Authority made a significant contribution to

prediction and the β null hypothesis was rejected for it. Political affiliation also made a significant, unique contribution to prediction; the β null hypothesis was also rejected for political affiliation.

Table 11

Regression Coefficients for RQ4

Model	*B*	*SE*	*Beta*	*t*	*p*	*r*	*pr*	*Tolerance*	*VIF*
(Constant)	3.46	.53							
Harm SS	-0.12	.12	-.08	-0.95	.342	-.22	-.08	.54	1.84
Fairness SS	0.21	.16	.13	1.31	.192	-.24	.12	.47	2.10
Ingroup SS	-0.19	.12	-.15	-1.53	.126	.21	-.13	.45	2.17
Authority SS	0.39	.13	.31	2.89	.004	.39	.25	.41	2.40
Purity SS	-0.09	.09	-.08	-.980	.329	.16	-.08	.58	1.71
Political Affiliation	-0.40	.06	-.55	-5.90	.000	-.58	-.46	.54	1.82
18-22 Years Old (Dummy)	0.05	.21	.02	.24	.809	-.12	.02	.64	1.54
23-29 Years Old (Dummy)	-0.14	.19	-.06	-.78	.436	-.20	-.07	.70	1.41
Race (Dichotomized)	-0.13	.16	-.06	-.791	.431	-.15	-.07	.82	1.21

Figure 21 illustrates a clear step-wide descending sequence of feeling able to protect one's self if the participating student carried concealed weapons on campus by their degrees of conservative to liberal political affiliations. Means were highest for the conservative students (strongly conservative $M = 3.90$, $SD = 0.31$, $n = 10$ students; moderately conservative $M = 3.36$, $SD = 0.74$, $n = 14$ students; neutral to slightly conservative $M = 2.75$, $SD = 1.01$, $n = 40$ students) and lowest for liberal students

(slightly liberal $M = 2.36$, $SD = 1.01$, $n = 14$ students; moderately liberal $M = 1.15$, $SD = 0.93$, $n = 39$ students; strongly liberal $M = 1.47$, $SD = 0.61$, $n = 19$ students).

Figure 21

Mean Agreement with Self-Protection if Self-Engaged in Concealed Carry on Campus by Political Affiliation

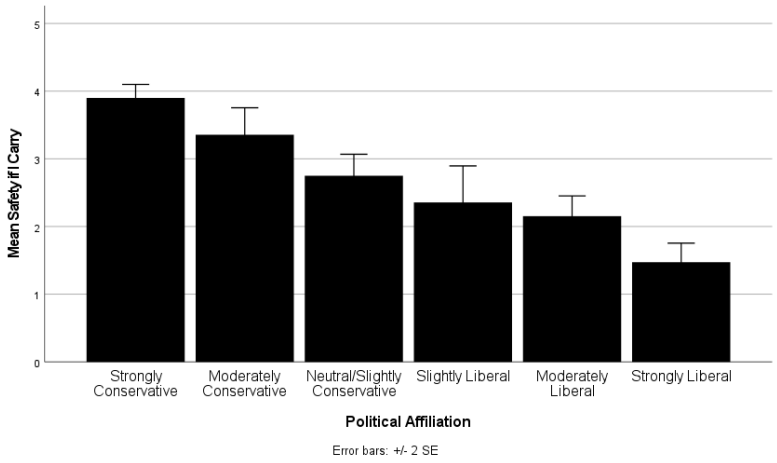
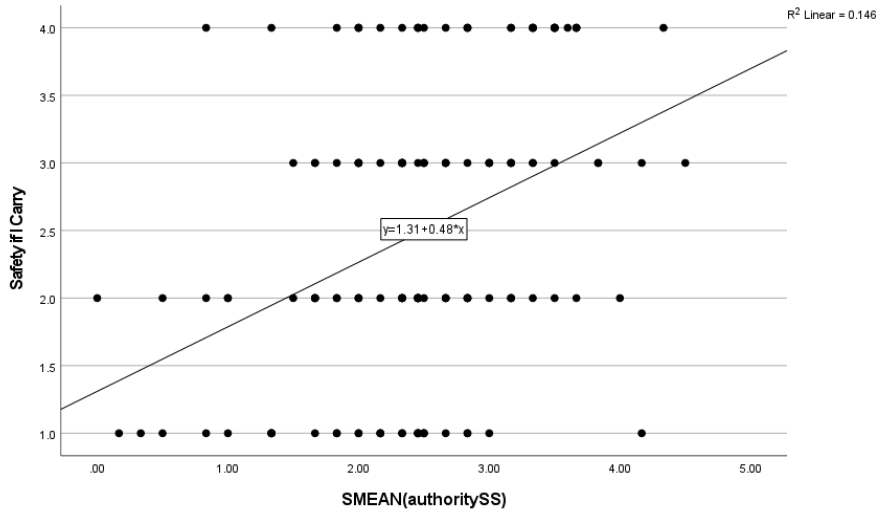


Figure 22 illustrates the correlation between levels of agreement with self-protection if the participant him- or herself engaged in concealed carry campus by authority ($r(139) = .38$, $p < .001$).

Figure 22

Scatter Plot of Agreement with Self-Protection if Self Engaged in Concealed Carry Campus by Authority



The RQ4 regression was re-specified with just authority and political affiliation as the predictors. The regression formula for predicting students' levels of agreement that they felt able to protect themselves if they carried a concealed hand gun on campus was 3.42 – 0.38(affiliation) + 0.22(authority).

Answer to RQ4

The answer to RQ4 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?) was that four of the 5 moral foundations, age, and race were unrelated to prediction. The moral foundation Authority and political affiliation were significant predictors. Students who were more conservative

and who believed more strongly in a societal need to respect authority felt safer about being able to protect themselves if they carried a concealed handgun on campus compared to students who were more liberal and believed less strongly in a societal need to respect authority.

Summary

The purpose of this quantitative study was to quantify how concealed carry laws impact feelings of safety among college students. Findings of interest concerned whether and how concealed carry affected their feelings of safety, and whether feelings of safety were related to their moral reasoning or political affiliation. A total of 193 college students from across the United States responded to the invitation to participate, with a response rate 75% and final total of $N = 145$ students. Demographic data showed that the modal student was a 30+-year-old White woman who attended a large, non-religious, public college in the southeastern United States.

The four research questions were addressed with multiple regression. The dependent variable was students' perceptions of safety. Safety was measured in four ways based on who was carrying concealed weapons (i.e., other students, faculty and staff, university police, and the student him- or herself; Thompson et al., 2013). Independent or predictor variables included five moral foundations from the Moral Foundation Questionnaire (MFQ, Graham et al., 2011: (1) Harm, (2) Fairness, (3) Authority, (4) Ingroup, and (5) Purity; self-reported political affiliation (Graham, Haidt & Nozek, 2009) and political affiliation. Select demographic variables were also entered as possible predictor variables. feelings of safety differed significantly across the different

individuals who might engage in concealed carry, in that participating students felt the least safe about fellow students engaging in concealed carry, somewhat more safe of faculty and staff engaging in concealed carry, and the safest if university police and they themselves engaged in concealed carry. The students tended to be about evenly divided between conservative and liberal.

The answer to RQ1 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safe if students are allowed to conceal carry guns on college campuses?) was that political affiliation and race were significant predictors. More conservative students reported greater safety compared to more liberal students, and Whites reported greater safety compared to non-Whites, if their fellow students were allowed to conceal carry guns on college campuses.

The answer to RQ2 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with feeling safer if faculty and staff are allowed to conceal carry guns on college campuses?) was that political affiliation was a significant predictor. Conservative students felt safer but liberal students felt less safe if faculty and staff were allowed to conceal carry handguns on college campuses.

The answer to RQ3 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with the universities police ability to prevent crimes if concealed carry guns are allowed on college campuses?) was to “no degree.”

Moral foundations, political affiliation, age, race, and gender were unrelated to confidence that university police can prevent crime on campus.

The answer to RQ4 (To what degree do moral foundations (as measured by Moral Foundation Questionnaire) and political affiliation (as measured by Self-reported political identity) predict college students' agreement with personal ability to protect themselves if concealed carry guns are allowed on college campuses?) was that the moral foundation Authority and political affiliation were significant predictors. Students who were more conservative and who believed more strongly in a societal need to respect authority felt safer about being able to protect themselves if they carried a concealed hand gun on campus compared to students who were more liberal and believed less strongly in a societal need to respect authority.

Chapter 5 presents conclusions and discussions about the results. It considers how the disconnection between moral foundations and perspectives of safety in this study corresponded with the literature. It also considers how findings about the role of political affiliation in this study corresponded with the literature.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to examine the relationship between several predictor variables and the dependent variable of attitudes toward CCG on campus. In this chapter, I present a summary, interpretations of findings, limitations of the study, recommendations for future research, potential impact for positive social change, and a conclusion.

Four research questions guided this study and were addressed using multiple regression. Key findings will extend knowledge about CCG and college students' attitudes toward safety by both confirming and denying some findings in previous studies reviewed in Chapter 2. The Findings were analyzed and interpreted in the context of the MFT. The results of the study revealed that moral foundations were unrelated to prediction of students' perceptions for all four research questions, with one exception: only the moral foundation authority was a significant predictor in terms of students claiming they believed more strongly in a societal need to respect authority and felt more confident about being able to protect themselves if they carried a concealed handgun on campus. Political affiliation was a significant predictor except in the case of RQ3that concluded political affiliation was unrelated to the students' confidence that university police can prevent crime on campus. Lowest feelings of safety were engendered by fellow students who conceal carry, and strong feelings of safety were engendered by university police and students who conceal carry and when the student him- or herself

engaged in conceal carry. I ensured that the interpretations did not exceed the data, findings, and scope of the study.

Interpretation of the Findings

The findings of the study showed that moral foundations were not significant predictors of students' perceptions of safety when concealed carry was allowed on college campuses except in the case of authority, and political affiliation was a significant predictor, except for RQ3. The results of the study both confirmed and disconfirmed what was found in peer-reviewed literature described in Chapter 2.

There is literature supporting the claim that the differences in moral foundations reasoning explain differences in attitudes toward various public policies (Cliford & Jerit, 2013; Dickinson et al., 2016). Clifford and Jerit (2013) said rhetoric with different views on stem cell research involved different moral words to influence public opinion. A supporter of stem cell research used mainly harm language while the opponent used harm, general moral, and purity language in their scripts. The study also showed that moral language used by both opponents and supporters affected public opinion toward supporting their positions. Moral foundations change people's views of different policies. The purity foundation seems to be related to cultural wars involving same-sex marriage, while in-group and authority foundations are related to oppositional views on flag burning and terrorism (Clifford & Jerit, 2013). Similar studies showed the importance of moral values in shaping people's standpoints about climate change (Dickinson et al., 2016) and attitudes toward the poor (Low et al., 2016).

The findings of the present study disconfirmed the role of moral foundations as a predictor of students' attitude toward safety when concealed carry was allowed on college campuses with one exception: authority. Students who believed more strongly in a societal need to respect authority felt safer about being able to protect themselves if they carried a concealed handgun on campus compared to students who believed less strongly in a societal need to respect authority. Several reasons may explain discrepancies between the results of this current study and previous literature. First, attitudes of students were measured based on their feelings of safety and protection if guns were allowed on college campuses. If attitude was measured based on assessing students' supporting or opposing the law, as it was used in stem cell or poverty studies, then the result could be different. Another explanation could be that students are more concerned about guns at schools than other social issues because school shootings are relevant. They are exposed to gun issues on a regular basis, and either regularly hear about school shootings or are victims of gun violence themselves, however, these experiences are related to survival issues and not moral reasoning. Future studies can focus on students' personal experiences with gun violence, their familiarity with gun incidences in schools, and knowledge about gun laws in the U.S.

Results about safety showed that three out of four students did not feel safe if other students carried, but they felt safe if they carried themselves. Students said they felt safe around faculty and staff with CCG, and safer still if university police and they themselves engaged in concealed carry. These results confirmed the previous studies by Cavanaugh et al. (2012), Thompson et al. (2013), and Patten et al. (2013) that showed

students did not feel safe if guns were allowed on campus. However, according to Thompson et al. (2013), around half of students stated they felt safer if they carry guns to protect themselves, and were not confident that police could prevent crimes on campus.

Political affiliation results indicated that conservative students felt safer and liberal students felt less safe if students, faculty/staff, and themselves were allowed to conceal carry guns on college campuses. Political affiliation was unrelated to confidence that university police can prevent crime on campus. Previous studies showed that political affiliation is a strong predictor of students' perception toward concealed carry on college campuses, and republican and conservative were more supportive of the conceal-carrying guns (Thompson et al., 2013; Jang et al., 2014; Verrecchia & Hendrix's, 2017). It is shown that political affiliation is a reliable predictor of attitudes on public policy issues, including gun control and concealed carry guns on college campuses (Schildkraut et al., 2018). On the other hand, the definition of "political affiliation is "the value system that is used to explain the degree a person follows conservative or liberal views on sociopolitical issues, and how the society should be effectively managed (Smith et al., 2011).

Previous studies have shown that conservatives put more emphasis on self-protection abilities, patriotism and loyalty, larger military and power than liberals do (Smith et al., 2011; Dickinson et al., 2016; Verrecchia & Hendrix, 2017). There are partisan differences in terms of whether or not people conceal carry in public places. The fundamental questions for different parties are related to the cause of gun violence and if gun violence is a serious issue in the U.S. Democrats and liberals view gun violence in

the country as a very significant problem that needs to be solved in any way possible, while Republicans and conservatives perceive it as a moderate problem (Oliphant, 2017). The political party is also related to gun ownership in the U.S. Based on 2020 Gallup data, 57% of conservatives have guns at home, and 45% personally own a gun, while for liberals, these numbers are 30% and 15%, respectively (Saad, 2020). Considering all these data about guns and political affiliation, I am not surprised that political affiliation turned out to be a predictive factor of students' attitudes toward concealed carry on college campuses in my study.

Limitations of the Study

Findings of the study could provide a groundwork for additional studies on related topics. Future studies can focus on other types of schools, such as high schools or graduate schools in order to extend current literature on students' attitudes and feelings regarding CCG in school.

As the current study did not find a strong association between moral foundations and students' perception of safety when guns are allowed on college campuses, future studies can examine the role of moral foundations on other gun issues such as mass shootings in schools or other public places.

The study can also be replicated using a different sampling method. A random sample of students in colleges and universities in different states can lead to reduced bias and increased generalizability of data. I also recommend including a survey question about participants' experience with firearms and comfort with handling them. The current study indicated that most students would not feel safe if other students carry concealed

weapons, but they would feel better if they themselves carried. Therefore, questions about how confident and trained they are to use a gun for protection can add valuable information to study. Finally, I recommend that future studies gather and compare data about students' perceptions of safety, rates of gun crime on campuses, and students' educational performance including dropout rates, grades, and class attendance in states that have already legalized CCG on college campuses.

Implications

This study added to the literature about students' perception of safety if CCG are permitted on college campuses. This study can contribute to a better understanding of the factors that may impact the students' perception of safety and gun crimes in schools and to predicting what changes needed to be made regarding campus safety in terms of students' perception and gun control.

The findings of this study can give some insights on how best to protect students from gun violence on campuses and how to educate students, faculty, and staff on self-protection. The results of this study can provide lawmakers and university executives with more information to make decisions regarding the use of conceal carry on college campuses. The investigation of some predictors of students' attitudes toward CCG on campus can help the professionals in higher educations to recognize the factors that may affect the students' performance in school. Students need to feel safe to be able to focus on learning (Jacoe, 2020). A safe environment is required for dynamic learning. Some studies have shown that the feeling of safety was positively correlated with the students' class attendance and scores (Jacoe, 2020).

From a social change viewpoint, understanding which moral values may more significantly influence students' attitudes toward concealed carry on college campuses, can help us design better ways to approach and work with students with different values and beliefs.

If students feel that more guns on campus would compromise (or promote) their safety, then they need to be more informed about the gun laws and the impact of these laws on gun-related crimes in their states in order to influence the legislations introduced in their states. College and university administrators and police should help the students to know about the gun laws and how they can best preserve their safety. Positive social change is a phenomenon that starts with the shift at different levels of human life, from an individual's attitudes and knowledge to global problems (Singh & Majumdar, 2014). The findings of this study can give some insights on how best to protect students from gun violence on campuses and how to educate students, faculty, and staff on self-protection. The results of this study can provide lawmakers and university executives with more information to make decisions regarding the use of concealed carry on college campuses.

Conclusion

Firearm violence on university campuses has been an issue for many years and most probably will continue to be for many more years to come. The increased number of school shootings and death rates during the last three decades has made the lawmakers pass the law for conceal carry on college campuses in many states. However, more guns on campuses have not seemed to be the solution for gun issues so far. Anyhow, the right

to carry guns and ways to reduce the related violence have been a debatable social and political subject for decades (Aronowitz & Vaughn, 2013).

The purpose of this study was to gain an understanding about the factors that could predict college students' perceptions toward their safety when guns are allowed on college campuses. I conducted this study to address the gap in practice about the role of moral foundations and political affiliation on students' perceptions toward guns on campus. This study was based on moral foundations theory (MFT). Based on MFT, there are five foundations of moral insight that control people's social lives across all cultures. These five foundations include harm/care, fairness/equality, authority/respect, ingroup/loyalty, and purity/sanctity (Haidt & Joseph, 2004, 2007).

It was shown in previous studies that different political ideologies are related to the endorsement of different moral foundations and these differences explain differences in attitudes towards various public policies (Cliford & Jerit, 2013; Dickinson et al., 2016). Conversely, my study did not find the moral foundation to be a strong predictor of students' perception on guns and safety. My study supported the literature on showing that the political affiliation is a strong predictor of students' perceptions on safety and CCG on college campuses. While around three out of four students did not feel safe if other students conceal carry, they feel safer if they carry themselves. In general, more conservative students reported greater safety compared to more liberal students, if their fellow students, faculty and staff, and they themselves were allowed to conceal carry guns on college campuses. Political affiliation was not related to the students' confidence in the police protection ability.

Students who believed more strongly in a societal need to respect authority felt safer about being able to protect themselves if they carried a concealed handgun on campus compared to students who believed less strongly in a societal need to respect authority (moral foundation "authority"). This result supported the previous studies that showed conservatives believe more strongly in "authority" moral foundation and support conceal carry on college campuses.

The topics of this study can be further explored by examining different aspects of students' gun-related issues, such as the impact of CCG on the students' educational performances, including the rate of dropouts, grades, and class attendances in the states that have already legalized the CCG on college campuses. A safe environment is a prerequisite for the learning and wellbeing of college students. Therefore, it is important to gain some insights on how best to protect students from gun violence on campuses and how to educate students, faculty, and staff on self-protection. The results of this study can provide lawmakers and university executives with more information to make decisions regarding the use of concealed carry-on college campuses.

References

Aronowitz, T., & Vaughn, J. A. (2013). How safe are college campuses? *Journal of American College Health*, *61*(2), 57-58. doi:10.1080/07448481.2013.763490

Bartula, A., & Bowen, K. (2015). University and College Officials' Perceptions of OpenCarry on College Campus. *Justice Policy Journal*, *12*(2), 1.

Bennet, K., Kraft, J., & Grubb, D. (2011). University faculty attitudes towards guns on campus. *Journal of Crime and Justice Education.* doi:10.1080/10511253.2011.590515

Bishop, J. (2012). Hidden or on the hip: The right(s) to carry after Heller. Cornell Law Review, 97, 906-929. http://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=3240&context=clr

Carter, J. G., & Binder, M. (2018). Firearm Violence and Effects on Concealed Gun Carrying: Large Debate and Small Effects. *Journal of Interpersonal Violence*, 33(19), 3025–3052. https://doi.org/10.1177/0886260516633608

Cavanaugh, M. R., Buffard, J. A., Wells, W., & Nobles, M. R. (2012). Student attitudes toward concealed handguns on campus at 2 universities. *American Journal of Public Health*, (12), 2245. https://doi-org.ezp.waldenulibrary.org/10.2105/AJPH.2011.300473

Clifford, S., & Jerit, J. (2013). How Words Do the Work of Politics: Moral Foundations Theory and the Debate over Stem Cell Research. *Journal of Politics*, 75(3), 659-671.

Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences*. 2nd ed. Hillsdale NJ: Lawrence Erlbaum.

Cook, P. J., & Goss, K. A. (2014). *The gun debates: What everyone needs to know*. New York: Oxford University Press.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126. doi:10.1037/0022-3514.44.1.113

De Angelis, J., Benz, T. A., & Gillham, P. (2017). Collective Security, Fear of Crime, and Support for Concealed Firearms on a University Campus in the Western United States. Criminal Justice Review (Sage Publications), 42(1), 77–94. https://doi-org.ezp.waldenulibrary.org/10.1177/0734016816686660

Dickinson, J. L., McLeod, P., Bloomfield, R., & Allred, S. (2016). Which moral foundations Predict the willingness to make lifestyle changes to avert climate change in the USA? *Plos One*, 11(10), e0163852. doi:10.1371/journal.pone.0163852

Dahl, P. P., Bonham, Jr. G. & Reddington, F. P. (2016). Community college faculty: Attitudes toward guns on campus, *Community College Journal of Research and Practice*, 40(8), 706-717, doi: 10.1080/10668926.2015.1124813

Dolan, E. W. (2019, March 23). Study suggests mass shootings can inadvertently promote the idea of using guns to empower oneself. https://www.psypost.org/2019/03/study-suggests-mass-shootings-can-inadvertently-promote-the-idea-of-using-guns-to-empower-oneself-53381

Field, A. (2009). Discovering statistics using SPSS third edition. Thousand Oaks, CA: Sage Publication Inc.

G*power 3.1 manual, (n.d.) http://www.gpower.hhu.de/fileadmin/redaktion/Fakultaeten/Mathematisch-Naturwissenschaftliche_Fakultaet/Psychologie/AAP/gpower/GPowerManual.pdf

Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 5, 1029.

Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Spassena, K., & Ditto, P. H. (2011). Moral Foundations Questionnaire. *Psyctests*, doi:10.1037/t05651-000

Graham, J., Iyer, R., Nosek, B. A., Haidt, J., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, (2), 366.

Grayson, P., & Meilman, P. (2011). Editorial introduction: Guns on campus. *Journal of College Student Psychotherapy*, *25*(4), 275-276. doi:10.1080/87568225.2011.605675

Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20,* 98–116. doi:10.1007/s11211-007-0034-z

Haidt, J., Graham, J., & Joseph, C. (2009). Above and below left and right: Ideological narratives and moral foundations. *Psychological Inquiry*, 20, 110–119.

Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus*, 133(4), 55–66.

Haidt, J., & Joseph, C. (2007). The moral mind: How five sets of innate moral intuitions

guide the development of many culture-specific virtues, and perhaps even modules. In P. Carruthers, S. Laurence, & S. Stich (Eds.), *The Innate Mind* (Vol. 3, pp. 367–391) New York: Oxford.

Haidt, J., & Kesebir, S. (2010). Morality. In S. T. Fiske, D. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (5th ed., pp. 797–832). Hoboken, NJ: Wiley.

Hair Jr., J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice Hall. 785 pp.

Ingraham, C. (2015). There are now more guns than people in the United States. *Washington Post*. https://www.washingtonpost.com/news/wonk/wp/2015/10/05/guns-in-theunited-states-one-for-every-man-woman-and-child-and-thensome/?utm_term=.d2b14ce79408

Jacoe, J. (2020). Too Scared to Learn? The Academic Consequences of Feeling Unsafe in the Classroom. Urban Education, 55(10), 1385–1418. https://doi-org.ezp.waldenulibrary.org/10.1177/0042085916674059

Jang, H., Dierenfeldt, R., & Lee, C. (2014). Who wants to allow concealed weapons on the college campus? *Security Journal, 27*(3), 304-319. doi:http://dx.doi.org/10.1057/sj.2012.

Krouse, W. J. (2012). Gun control legislation. Congressional Research Service, RL32842. http://www.fas.org/sgp/crs/misc/RL32842.pdf

Kyle, M. J., Schafer, J. A., Burruss, G. W., & Giblin, M. J. (2017). Perceptions of campus safety policies: Contrasting the views of students with faculty and staff. American

Journal of Criminal Justice: AJCJ, 42(3), 644-667. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1007/s12103-016-9379-x

Laerd Statistics (2013). Multiple regression using SPSS statistics. https://statistics.laerd.com/spss-tutorials/multiple-regression-using-spss-statistics.php

Lewis, R., LoCurto, J., Brown, K., Stowell, D., Maryman, J., Dean, A., … Siwierka, J. (2016). College Students Opinions on Gun Violence. Journal of Community Health, 41(3), 482–487.

Low, M., Wui, M. G., & Lopez. (2016). Moral foundations and attitudes towards the poor. *Current Psychology*, 35(4), 650-656. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1007/s12144-015-9333-y

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion*, *30*(7), 537–542. https://doi-org.ezp.waldenulibrary.org/10.1177/0267659114559116

Miller, M., Hemenway, D., & Wechsler, H. (1999). Guns at college. Journal of American *College Health, 48*, 7-12. doi:10.1080.07448489909595666

Miller, M., Hemenway, D., & Wechsler, H. (2002). Guns and gun threats at college. *Journal of American College Health*, 51(2), 57-65.

Moving America forward 2012 Democratic national platform. (2012). Democratic national convention. www.democrats.org

Guns on Campus: Overview (2018, July 14). http://www.ncsl.org/research/education/guns-on-campus-overview.aspx

National Center for Education Statistics. (2020) Fast Facts. https://nces.ed.gov/fastfacts/display.asp?id=372

Nedzel, N. E. (2014). Concealed carry: The only way to discourage mass school shootings. *Academic Questions*, 27(4), 429-435. doi: http://dx.doi.org/10.1007/s12129-014-9459-7

NPR (2007, April). Timeline: How the Virginia Tech Shootings Unfolded. https://www.npr.org/templates/story/story.php?storyId=9636137

Office for Victims of Crimes. (2018). *National crime victims' rights week resource guide:Crime and victimization fact sheets.* https://www.ncjrs.gov/ovc_archives/ncvrw/2017/index.html

Patel, J., K., (2018, February). After Sandy Hook, more than 400 people have been shot in over 200 school shootings. *The New York Times.* https://www.nytimes.com

Patten, R., Thomas, M. O., & Wada, J. C. (2013). Packing heat: Attitudes regarding concealed weapons on college campuses. *American Journal of Criminal Justice*, *38*(4), 551-569. doi:10.1007/s12103-012-9191-1

Price, J. H., Thompson, A., Khubchandani, J., Dake, J., Payton, E., Teeple, K., … Teeple, K. (2014). University presidents' perceptions and practice regarding the carrying of concealed handguns on college campuses. *Journal of American College Health, 62*(7), 461–469.

Saad, L. (2019, August 14). What Percentage of Americans own Guns? *Gallup News*. https://news.gallup.com/poll/264932/percentage-americans-own-guns.aspx

Saad, L. (2020, January 9). The U.S. Remained Center-Right, Ideologically, in 2019.

Gallup News. https://news.gallup.com/poll/275792/remained-center-right-ideologically-2019.aspx

Saad, L. (2020, July 27). U.S. Conservatism Down Since Start of 2020. *Gallup News*. https://news.gallup.com/poll/316094/conservatism-down-start-2020.aspx

Schildkraut, J., Carr, C. M., & Terranova, V. (2018). Armed and academic: Perceptions of college students on concealed carry on campus policies. *Journal of School Violence*, 17(4), 487–499. https://doi-org.ezp.waldenulibrary.org/10.1080/15388220.2018.1449655

Schwartz, S. H. (1992). Universals in the content and structure of values. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York, NY: Academic Press.

Shepperd, J. A., Losee, J. E., Pogge, G. C., Lipsey, N. P., Redford, L., & Crandall, M. (2018). The anticipated consequences of legalizing guns on college campuses. *Journal of Threat Assessment and Management, 5*(1), 21–34. https://doi-org.ezp.waldenulibrary.org/10.1037/tam0000097.supp

Singh, A., & Majumdar, S. (2014). Technology and innovation for creating social change: Concepts and theories. *Technology and Innovation for Social Change*, 109-123. doi:10.1007/978-81-322-2071-8_7

School and Campus Crime (2017). 2017 National Crime Victims' Rights Week Resource Guide: Crime and Victimization Fact Sheets, https://ovc.ncjrs.gov/ncvrw2017/images/en_artwork/Fact_Sheets/2017NCVRW_SchoolCrime_508.pdf

Smith, K. B., Oxley, D. R., Hibbing, M. V., Alford, J. R., & Hibbing, J. R. (2011). Linking genetics and political attitudes: Reconceptualizing political ideology. Political Psychology, 32(3), 369-397. doi:10.1111/j.1467-9221.2010.00821.x

Smith, T. N. (2012). To conceal and carry or not to conceal and carry on higher education campuses, that is the question. *Journal of Academic Ethics*, 10(3), 237-242. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1007/s10805-012-9161-8

Spitzer, R. J. (2011). The politics of gun control (5th ed.). New York, NY: Paradigm.

Stroebe, W., Leander, N. P., & Kruglanski, A. W. (2017). Is it a dangerous world out there? The motivational bases of American gun ownership. *Personality & Social Psychology Bulletin,* (8), 1071.

Tabachnick, B. G., & Fidell, L. S. (2019). Using multivariate statistics. 7th ed. Pearson.

Gramlich, J., & Schaeffer, K. (October 22, 2018). *7 facts about guns in the U.S.* https://www.pewresearch.org/fact-tank/2019/10/22/facts-about-guns-in-united-states

Yablon, A. (2018). Just how many guns do Americans own? (And why do estimates vary so widely?). https://www.thetrace.org/rounds/how-many-guns-do-americans-own/

Thompson, A., Price, J. H., Mrdjenovich, A. J., & Khubchandani, J. (2009). Reducing firearm-related violence on college campuses-police chiefs' perceptions and practices. *Journal of American College Health: J Of ACH, 58*(3), 247–254. https://doi-org.ezp.waldenulibrary.org/10.1080/07448480903295367

Thompson, A., Price, J. H., Dake, J. A., Teeple, K., Bassler, S., Khubchandani, J., & ... Stratton, C. (2013). Student perceptions and practices regarding carrying

concealed handguns on university campuses. *Journal of American College Health*, *61*(5), 243-253. doi:10.1080/07448481.2013.799478

Thompson, A., Price, J., Dake, J., & Teeple, K. (2013). Faculty Perceptions and Practices Regarding Carrying Concealed Handguns on University Campuses. *Journal of Community Health, 38*(2), 366–373. https://doi-org.ezp.waldenulibrary.org/10.1007/s10900-012-9626-0

United States v. Miller, 307 U.S. 174. (1939).

University of Utah v. Shurtleff, 144 P.3d 1109. (2006).

Violence Policy Center. (2018, April 13). *More than 1,200 non-self-defense deaths involving concealed carry killers since 2007, latest violence policy center research shows.* http://www.vpc.org/press/more-than-1200-non-self-defense-deaths-involving-concealed-carry-killers-since-2007-latest-violence-policy-center-research-shows.

U.S. Const. Amend. II. https://constitutioncenter.org/interactive-constitution/amendments/amendment-ii

U.S. Department of Education. (2017). *Campus safety and security*. http://ope.ed.gov/campussafetyVerrecchia, P. J., & Hendrix, N. (2017). College students' perceptions toward carrying concealed weapons on college campuses. *Virginia Social Sciences Journal,* 62-78. https://doi-org.ezp.waldenulibrary.org/10.1080/10511253.2017.1344260

Wallace, L. N., (2015). Responding to violence with guns: Mass shootings and gun acquisition. *The Social Science Journal, 52*(2), 156-167.

Wallace, L. N., & Dunn, K. C. (2018). College student attitudes towards "smart" guns: Results from a nationwide survey. *Journal of Community Health, 43*(1), 55–64. https://doi-org.ezp.waldenulibrary.org/10.1007/s10900-017-0387-7

Warner, R. M. (2013). *Applied Statistics.* 2nd ed. Sage. 1101 pp.

Wilson, H. L. (2006). Guns, gun control, and elections: The politics and policy of elections. Lanham, MD: Rowman & Littlefield.

Wiseman, R. (2012). Campaign for right to carry concealed guns on campuses gains traction. *The Education Digest*, 77, 53-56.

Appendix A: Demographics

1. Gender
    a. Female
    b. Male
    c. Others

2. Age
    a. 18-22
    b. 23-29
    c. 30+

3. Race/Ethnicity
    a. African American
    b. American Indian/Alaska Native
    c. Asian American
    d. Hispanic/Latino
    e. International
    f. Native Hawaiian/Pacific Islander
    g. White
    h. Two or More Race/Other

4. The college/university that you are attending is:
    a. Public
    b. Private

Your college is:
    c. Religiously Affiliated
    d. Not Religiously

Your College is:
    e. Small Size (Fewer than 5000 students)
    f. Medium Size (Between 5000 to 15000 students)
    g. Large Size (More Than 15000 Students)

Your college is in:
    h. Northeastern states
    i. Southeastern states
    j. Central states
    k. Northwestern states
    l. Southwestern states

5. Identify myself as:
    a. Strongly liberal
    b. Moderately liberal
    c. Slightly liberal
    d. Slightly conservative/Neutral
    e. Moderately conservative
    f. Strongly conservative

Appendix B: MFQ

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____Whether or not someone suffered emotionally

_____Whether or not some people were treated differently than others

_____Whether or not someone's action showed love for his or her country

_____Whether or not someone showed a lack of respect for authority

_____Whether or not someone violated standards of purity and decency

_____Whether or not someone was good at math

_____Whether or not someone cared for someone weak or vulnerable

_____Whether or not someone acted unfairly

_____Whether or not someone did something to betray his or her group

_____Whether or not someone conformed to the traditions of society

_____Whether or not someone did something disgusting

_____Whether or not someone was cruel

_____Whether or not someone was denied his or her rights

_____Whether or not someone showed a lack of loyalty

_____Whether or not an action caused chaos or disorder

_____Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:

[0]	[1]	[2]	[3]	[4]	[5]
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

_____Compassion for those who are suffering is the most crucial virtue.

_____When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

_____I am proud of my country's history.

_____Respect for authority is something all children need to learn.

_____People should not do things that are disgusting, even if no one is harmed.

_____It is better to do good than to do bad.

_____One of the worst things a person could do is hurt a defenseless animal.

_____Justice is the most important requirement for a society.

_____People should be loyal to their family members, even when they have done something wrong.

_____Men and women each have different roles to play in society.

_____I would call some acts wrong on the grounds that they are unnatural.

_____It can never be right to kill a human being.

_____ I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

_____ It is more important to be a team player than to express oneself.

_____ If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

_____ Chastity is an important and valuable virtue.

The Moral Foundations Questionnaire (full version, July 2008) by Jesse Graham, Jonathan Haidt, and Brian Nosek.
For more information about Moral Foundations Theory and scoring this form, see: www.MoralFoundations.org