

PREVALENCE OF CYBERBULLYING AMONG TRADITIONAL UNDERGRADUATE
STUDENTS ATTENDING FAITH-BASED UNIVERSITIES: A CAUSAL-COMPARATIVE
STUDY

by

Susan A. Hayes-McElroy

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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APPROVED BY:

Dr. Meredith Park, Ed.D., Committee Chair

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ABSTRACT

Cyberbullying among traditional undergraduate students is a relatively new issue that involves the safety of postsecondary students. The purpose of this study was to provide statistical data to faith-based universities that relate the prevalence of cyberbullying victimization experiences and the prevalence of cyberbullying offending experiences of traditional undergraduate students to biological gender (female/male) and level of religiosity (higher/lower), and to add to the small body of research conducted among this demographic. In this quantitative, causal-comparative study, traditional undergraduate students were recruited from two faith-based universities in the southern United States. Level of religiosity and cyberbullying prevalence were determined through responses to an anonymous, online survey using the Duke University Religion Index (DUREL) and the Cyberbullying and Online Aggression Survey (COAS), respectively. The researcher utilized two separate two-way analysis of variance (ANOVA) to analyze the data. The study had 284 participants that included 180 female students and 104 male students. Findings indicated that gender and level of religiosity did not have a significant effect on the prevalence of cyberbullying experiences scores among traditional undergraduate students attending faith-based universities. The results contribute to the growing body of knowledge on the prevalence of cyberbullying experiences among university students. Future research on the prevalence of cyberbullying experiences among university students could include comparing secular and faith-based universities and investigating cyberbullying prevalence at faith-based universities in different parts of the United States.

Keywords: cyberbullying, higher education, religiosity, theory of planned behavior, theory of reasoned action

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Dedication

I dedicate this manuscript to my mother, Major Shirley L. Hayes-Long, and my adoptive father, Major John W. Jordan. Your profound influence on my life continues to motivate and challenge me to want to be better, do better, and achieve more. Thank you for your love and support. I love you more than I can express, and I am glad to have you both in my corner, cheering me on!

I also dedicate this manuscript to the memory of my late father, Mr. Richard Everett Hayes. You have been gone a long time, but I still miss you. I know you are smiling down from heaven! I love you, Pop!

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About a year and a half into my doctoral journey, I happened upon a Facebook page for Liberty University doctoral students founded by Dr. Emmanuel Cherilien. This online “cohort” truly provided a place to ask questions and encourage fellow doctoral students. I am grateful for his vision and for finding a way for online doctoral students to support one another. I am also thankful to the fellow doctoral students on the page for all the encouragement!

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List of Abbreviations

Analysis of variance (ANOVA)

Cyberbullying and Online Aggression Survey (COAS)

Duke University Religion Index (DUREL)

Information and communication technologies (ICT)

Institutional Review Board (IRB)

Theory of planned behavior (TPB)

Theory of reasoned action (TRA)

CHAPTER ONE: INTRODUCTION

Overview

Cyberbullying is a relatively new form of bullying that no longer limits bullying behavior to a physical location. A worldwide concern, one not defined by borders, cyberbullying allows the bully access to his or her victim 24 hours a day, seven days a week (Webber & Ovedovitz, 2018; Zych, Ortega-Ruiz, & Del Ray, 2015). Cyberbullying is not limited to a student's primary and secondary educational career, and research indicates that bullying often continues into postsecondary education (Slovak, Crabbs, & Stryffeler, 2015). Cyberbullying research among college-level populations is growing (Sobba, Prochaska, Radu, Gass, & Glidden, 2019); however, a gap exists in cyberbullying research among postsecondary student populations at faith-based universities (Webber & Ovedovitz, 2018). Investigating the differences in the prevalence of cyberbullying victimization and offending experiences at faith-based universities, based on biological gender and level of religiosity, is a way to assist administrators and faculty as they strive to understand, and mitigate, modern-day campus safety issues that potentially affect university students. This chapter provides background information, explores the history of the problem, introduces theories associated with cyberbullying, shows the significance of the study, and addresses the gap in the literature. The chapter concludes with the study's research questions and essential definitions for understanding the topic.

Background

Bullying is a common phenomenon among children, adolescents, college students, and young adults, and although an old phenomenon, most of the formal research on bullying did not begin until the 1970s (Alqahtani et al., 2018). Traditionally, bullies gain power over their victims, and a physical manifestation of the bullying behavior is observable in the classroom, in

social settings, or in the victim's neighborhood (Chisholm, 2014). With advances in technology and an increase in Internet usage among people of all ages, a new form of bullying has emerged (Selkie, Fales, & Moreno, 2016). Like traditional bullying, cyberbullying involves a perpetrator (offender) and a victim; however, because the bully is not physically present, the damaging effects of the bully's behavior can potentially emerge long before the discovery of the bully's identity (Selkie et al., 2016).

With a consistent rise in technology use for educational purposes, cyberbullying is a 21st century problem that affects students at all levels of education. Cyberbullying can cause serious consequences in all areas of a student's life, including (a) academic studies, (b) mental health, (c) social-interaction, and (d) physical well-being (Muzamil & Shah, 2016; Williford & Depaolis, 2016). Yang and Grinshteyn (2016) found that victims of cyberbullying often struggle with severe psychological issues, suicidal thoughts, and potentially have a greater risk of attempting suicide. As students' progress through school, interface time with peers in cyberspace increases. The increased digital footprint, the speed at which the Internet and social media are expanding, the potential anonymity, and the lack of consequences increases the possibility that cyberbullying will occur into the college years (Slovak et al., 2015).

History of the Problem

Traditional bullying involves a face-to-face encounter between the bully and the victim and refers to any intentional harassment, or physically aggressive behavior, done repeatedly and over time (Olweus, 1994). Studies show that traditional bullying has negative effects on the victim (Nakamoto & Schwartz, 2010; Vandebosch, Poels, & Deboutte, 2014). Impacts of traditional bullying include, but are not limited to, (a) depression, (b) suicide, (c) anxiety, and (d) low academic performance (Nakamoto & Schwartz, 2010). Although traditional forms of

bullying continue to occur, in recent years, the focus has shifted from traditional bullying to cyberbullying.

Cyberbullying research is comparatively new, predominantly limited to the past 20 years, with the majority of published studies conducted among middle and high school populations between the ages of 9 and 18 (Alqahtani et al., 2018; Peled, 2019; Webber & Ovedovitz, 2018). Researchers do not agree on a definition of cyberbullying and methods of measuring cyberbullying vary; therefore, determining accurate prevalence rates of cyberbullying victimization and aggression continues to be a challenge (Cross et al., 2016; Kofoed & Staksrud, 2019). Other factors that skew a realistic picture of cyberbullying prevalence rates are age, differences in time of measurement, and cross-cultural considerations (Selkie et al., 2016).

Hinduja and Patchin (2013) indicated that cyberbullying might potentially take place through behaviors such as (a) cyberstalking, (b) denigration, (c) flaming, (d) harassment, (e) impersonation, and (f) trickery. Research indicates that cyberbullying, now reported among college students and young adults, is on the rise (Peled, 2019). Although there are limited studies involving cyberbullying among postsecondary students, Myers and Cowie (2016) found that cyberbullying behaviors among university students might include ridicule, social exclusion, sharing confidential information, and sending negative messages based on an individual's gender, socio-economic status, or sexual orientation, etc. These negative behaviors can have a significant impact on the mental health of those involved in such behaviors, both as victims and as offenders (Bergmann & Baier, 2018). It is also difficult for the victim to escape from a cyberbully because there is no geographical boundary (Musharraf & Anis-ul-Haque, 2018).

Social Setting

Campus safety has become a growing concern over the past decade with incidents including gun violence, physical violence, and other threats to student well-being (Kyle, Schafer, Burruss, & Giblin, 2017). Universities have implemented policies and procedures to help address the issues facing students; however, as technology use increases, a need for attention to promoting healthy online interaction among students is becoming necessary (Cassidy, Faucher, & Jackson, 2017). Recent studies also indicate that cyberbullying among postsecondary students is an area where further research and investigation is needed (Kyle et al., 2017; O'Connor, 2018).

Faith-based institutions have at the core of their mission the integration of faith and learning (C. Lee, 2018). Students attending American faith-based, evangelical universities learn that God created every person in His image, and that all believers have a direct responsibility in proclaiming that mission to transform the world in a positive way (Daniels & Gustafson, 2016). Often, students who attend faith-based universities have a theological connection to the mission of the university; however, because religion is based on a personal relationship, the assumption that student behaviors will always align with the mission may be incorrect (John 10:27 English Standard Version). Sin is part of the fallen world, and the propensity to sin does not escape the believer; therefore, the importance of understanding an issue (that may or may not align with a faith-based university's mission) is important to the overall health and well-being of the students (Romans 3:23 New International Version).

Theoretical Framework

The theories guiding this study are the theory of reasoned action (TRA) and the theory of planned behavior (TPB; Doane, Pearson, & Kelley, 2014). The TRA and the TPB are two

intertwined theories that focus on behavioral intention as the best predictor of behavior. Both theories assert that cyberbullying, as a behavior, is controllable, and both theories are thus reviewed within this theoretical framework. With cyberbullying being a relatively new problem, there is limited research that places it within a strong theoretical framework; however, “The TRA and the TPB provide a framework to identify key behavioral, normative, and control beliefs affecting behaviors” (Montano & Kasprzyk, 2008, p. 76). The TRA is a framework used for designing cyberbullying prevention programs, targeting attitudes, and normative functions.

The TPB relates to the TRA and adds the construct of perceived control to the TRA model (Montano & Kasprzyk, 2008). It is important to help individuals explore the nature of specific behaviors, whether in the role of a victim or offender. Understanding the behavior allows for prevention programs to align with the behavior and outcome measurement can then be utilized (Zagorscak, Schultze-Krumbholz, Heinrich, Wölfer, & Scheithauer, 2019). Both theories provided a framework for examining the differences in the prevalence of cyberbullying experiences among traditional undergraduate students attending faith-based universities.

Problem Statement

Cyberbullying is a global problem, with local ramifications, for individuals of all ages. Research shows that there are more individuals bullied in cyberspace than there are cyberbullies (Beyazit, Şimşek, & Ayhan, 2017). The expansion of social media and technology use is causing an increase in cyberbullying across space and time (Elci & Seckin, 2019). Approximately 34% of students report experiencing cyberbullying during their lifetime, and 15% of students admit to cyberbullying others (Beyazit et al., 2017). According to Musharraf and Anis-ul-Haque (2018), 67% of the university students studied reported being involved in cyberbullying, as a victim or an offender. Control and prevention of cyberbullying, especially

among college students, is challenging because young adult students have limited supervision and lack the protection of family and school; therefore, it is difficult for administrators, faculty, and peers to intervene effectively (Elci & Seckin, 2019).

Cyberbullying can have multiple definitions and multiple meanings (Sabella, Patchin, & Hinduja, 2013). Alqahtani et al. (2018) indicated that an inconsistent definition of cyberbullying and online aggression presents a challenge to researchers investigating the construct of cyberbullying. For the purpose of this study, cyberbullying is defined as “when someone repeatedly harasses, mistreats, or makes fun of another person, (on purpose to hurt them) online or while using cell phones or other electronic devices” (Hinduja & Patchin, 2015, p. 11).

In reviewing the literature, the bulk of cyberbullying research conducted exists among students in Grades K-12 (Webber & Ovedovitz, 2018). There is minimal research that focuses on the prevalence of cyberbullying among college and university students; moreover, the existing studies are limited to specific populations, utilized small sample sizes, and have prevalence rates that vary significantly from study to study (Myers & Cowie, 2016; Peled, 2019). In addition, the body of cyberbullying research conducted at faith-based universities is scarce (Alqahtani et al., 2018; Webber & Ovedovitz, 2018). The problem is cyberbullying continues to threaten students’ well-being, and there is a lack of research on the prevalence of cyberbullying experiences among postsecondary student populations at faith-based universities.

Purpose Statement

The purpose of this quantitative, causal-comparative study is to examine the differences in the prevalence of cyberbullying victimization experiences and cyberbullying offending experiences, based on biological gender and level of religiosity, to assist university faculty and administration in understanding this 21st century issue. The dependent variables are the

prevalence of cyberbullying victimization experiences and the prevalence of cyberbullying offending experiences. For this study, prevalence of cyberbullying is measured by how many times someone has been a victim of cyberbullying and how many times someone has been a cyberbully (or offender). Cyberbullying victimization is when someone is repeatedly mistreated, harassed, or made fun of (on purpose to hurt them) online or while using cell phones or any electronic devices (Hinduja & Patchin, 2015). Cyberbullying (offending) is when someone repeatedly mistreats, harasses, or makes fun of another person (with the intent to hurt them) online or while using cell phones or any electronic devices (Hinduja & Patchin, 2015).

The independent variables are biological gender (female/male) and level of religiosity (higher/lower). For this study, the definition of biological gender is female and male, determined by biological sex, as created by God (Genesis 1:27 New King James Version). Level of religiosity is generally defined as the frequency of church attendance (organizational religious activity), time spent in private religious activities (non-organizational religious activity), experiences with the Divine (God), and how one's beliefs influence one's behavior (intrinsic religiosity; Koenig, Parkerson, & Meador, 1997; Storch, et al., 2004). The level of religiosity is determined by measuring the level of religious involvement using an instrument that assesses one's organizational religious activity, non-organizational religious activity, and intrinsic religiosity (Koenig & Büssing, 2010). A higher level of religiosity indicates the individual reports a high frequency of church attendance, strong belief in God, and significant time spent in private religious activities. A lower level of religiosity indicates that the individual reports little to no church attendance, little to no belief in God, and little to no time spent in private religious activities (Koenig et al., 1997). This study examined the differences that may or may not be present between the independent variables as they relate to the prevalence of cyberbullying

victimization experiences and the prevalence of cyberbullying offending experiences. By using a quantitative, causal-comparative research design, this study sought to determine how the groups differed or were the same as they related to the dependent variables.

This study examined the differences in the prevalence of cyberbullying victimization and offending experiences among traditional undergraduate students attending faith-based institutions of higher learning to provide faculty, staff, and administrators with valuable information to determine how to mitigate and address at-risk, online behavior appropriately. Understanding differences in prevalence rates will allow administrators and faculty to target prevention programs accordingly and will provide statistical data to show if cyberbullying occurrence (as victim or offender) is different based on biological gender among students attending faith-based universities. Finally, examining the differences in cyberbullying prevalence experiences (as victim or offender), in light of a student's level of religiosity, will potentially help faith-based universities better understand how faith influences character and behavior.

Significance of the Study

This study is significant to the education community, more specifically to administration, faculty, and staff in faith-based, postsecondary education settings who are responsible for the health and well-being of undergraduate students. Cyberbullying prevention and student safety should be important at all levels of education where the problem exists. As technology continues to evolve, and each student's digital footprint increases, determining factors that contribute to cyberbullying and aggressive online behaviors will serve to improve the prevention programs that presently exist and provide statistical data to show the true scope of the problem. According to Gaffney, Farrington, Espelage, and Ttofi (2018), "Anti-cyberbullying programs can reduce

cyberbullying perpetration by approximately 10%–15% and cyberbullying victimization by approximately 14%” (para. 3). Cyberbullying is a prevalent form of aggression among individuals in today’s society; therefore, it is an important topic to study to improve prevention and intervention strategies (Gaffney et al., 2018). According to Selkie et al. (2016), cyberbullying has “established links” (p. 125) to mental and physical health problems; therefore, studying cyberbullying prevalence will provide up-to-date, relevant statistical data to allow targeted, evidence-based strategies to help reduce incidents. In 2010, after being shamed on social media, college freshman Tyler Clementi died by suicide and thrust the topic of cyberbullying at the postsecondary level into the spotlight (O’Connor, 2018).

Cyberbullying provides the bully with the opportunity to inflict harm anonymously, which often creates a severe problem for educators trying to address the issue (Musharraf & Anis-ul-Haque, 2018). Studies show that prevalence rates vary among college students, even in the same geographic region (Musharraf & Anis-ul-Haque, 2018). According to Varghese and Pistole (2017), 15.1% of college students reported being a victim of cyberbullying, and 8% of college students reported being an offender, indicating that cyberbullying behaviors do continue into the college years. Khine et al. (2020) found in a sample of 412 university students that 40.8% of males and 51.1% of females studied reported being victims of cyberbullying over a period of 12 months. The disparity in those two studies is just a sample of the inconsistencies in prevalence rates across cyberbullying research at the postsecondary level.

There are limited studies on cyberbullying prevalence among traditional undergraduate students at faith-based institutions (Slovak et al., 2015; Webber & Ovedovitz, 2018). O’Connor (2018) asserted that a university should be aware of the institution’s unique characteristics when addressing the issue of cyberbullying among its student body. The religious foundation of a

faith-based institution may provide a false perception of cyberbullying prevalence rates among its students. Many faith-based colleges and universities require a profession of faith, via a written testimony, as part of the application process; therefore, one may assume that an issue such as cyberbullying would be rare among this specific student population.

A gap in the research exists when looking at the prevalence rates of cyberbullying experiences among traditional undergraduate students attending faith-based universities (Slovak et al., 2015; Webber & Ovedovitz, 2018; Zacchilli & Valerio, 2011). This research study addresses the gap in the literature related to cyberbullying prevalence rates among traditional undergraduate students attending faith-based universities by examining the prevalence of cyberbullying experiences (victimization and offending) based on biological gender and level of religiosity. This study provides faculty, administrators, and stakeholders with relevant statistical data to help formulate plans to address the issue as necessary. It also provides information to assist with the implementation of more efficiently targeted prevention programs, based on the prevalence of cyberbullying victimization and offending experiences among different populations of traditional undergraduate students attending faith-based colleges and universities.

Research Questions

The goal of this quantitative, causal-comparative study was to determine whether there were differences in the prevalence of cyberbullying experiences (victimization and offending) based on biological gender (female/male) and level of religiosity (higher/lower) among students attending two faith-based universities to assist the administration and faculty in targeting prevention programs to ensure student safety. The following questions guided the study:

RQ1: Is there a difference in the prevalence of cyberbullying victimization experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

RQ2: Is there a difference in the prevalence of cyberbullying offending experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

Definitions

1. *Biological gender* – The gender designation of female and male, determined by biological sex, as created by God (Genesis 1:27).
2. *Bullying* – Any repetitive, aggressive behavior where there is a definite imbalance of power (Smith, 2016).
3. *Cyberbullying offending* – When someone “repeatedly harasses, mistreats, or makes fun of another person (with the intent to hurt them) online or while using cell phones, or any electronic devices” (Hinduja & Patchin, 2015, p. 11).
4. *Cyberbullying victimization* – When someone is “repeatedly harassed, mistreated, or made fun of (on purpose to hurt them) online or while using cell phones or any electronic devices” (Hinduja & Patchin, 2015, p. 11).
5. *Cyberstalking* – The use of repetitive, threatening behavior to cause fear (Hinduja & Patchin, 2013).
6. *Denigration* – A form of cyberbullying where a student posts gossip with damaging information about another student (Hinduja & Patchin, 2013).

7. *Doxing* – The intentional release of personal information without permission onto the Internet by a third party, with the intent to threaten, humiliate, or intimidate (Douglas, 2016).
8. *Electronic communication* – Communication involving any “transfer of signs, signals, writing, images, sounds, data transferred whole or in part by wire, radio, a photo electronic or photo-optical system, including electronic mail, Internet communications, instant messages, and facsimile communications” (Langos, 2012, p. 288).
9. *Flaming* – The act of exchanging angry messages (Hinduja & Patchin, 2013).
10. *Harassment* – A form of cyberbullying that involves sending mean, hurtful messages (Hinduja & Patchin, 2013).
11. *Information & communication technologies (ICT)* – Technologies that provide access to information through the medium of telecommunication (Chisholm, 2014).
12. *Instant messaging* – A type of online chat that allows for real-time text transmission between two or more individuals (Peled, 2019).
13. *Impersonation* – A form of cyberbullying where the bully pretends to be someone they are not (Hinduja & Patchin, 2013).
14. *Prevalence of cyberbullying* – How many times someone has been a victim of cyberbullying in the past 30 days, and how many times someone has been a cyberbully (or offender) in the past 30 days (Hinduja & Patchin, 2015).
15. *Religiosity (level of)* – The frequency of church attendance, time spent in private religious activities, experiences with the Divine (God), and how one’s beliefs influence one’s behavior (Koenig & Büssing, 1997).

16. *Social networking* – Using different platforms to build one’s social network or relationships among individuals who share similar activities, interests, backgrounds, or real-life connections (Peled, 2019).
17. *Text messaging* – The act of composing and sending short electronic messages between two or more mobile phone devices (Peled, 2019).
18. *Trickery* – A type of cyberbullying where the bully tricks his or her victim into giving out personal information and then posts it publicly without their permission (Hinduja & Patchin, 2013).

CHAPTER TWO: LITERATURE REVIEW

Overview

This comprehensive review of the literature on cyberbullying explores the construct of cyberbullying, the prevalence of cyberbullying experiences among various age groups, and predictive factors that influence behavior. The focus of this study was to determine if biological gender and level of religiosity influence cyberbullying victimization and online aggression. Grounded in the theory of reasoned action (TRA) and the theory of planned behavior (TPB), two inter-related theories, this inquiry asserts that to understand relationships, one must look at behavioral intention as the best predictor of behavior (Fishbein & Ajzen, 2010; Montano & Kasprzyk, 2008). This review synthesizes the related literature surrounding the construct of cyberbullying; furthermore, it examines the problem, provides pertinent definitions, presents types of cyberbullying, and explores the legal implications, the impact on college students, the international scope of the issue, and religiosity as a factor among students attending faith-based universities. Chapter Two concludes with a summary of the literature reviewed for this research and provides a glimpse into the methods chapter to follow.

Theoretical Framework

A theoretical framework significantly influences the research process by connecting the research to the existing body of knowledge, and providing the structure that can hold, or support, the theory of a research study (Gall, Gall, & Borg, 2007). Cyberbullying is best set within the framework of the TRA and the TPB when looking at the perpetrator and the victim (Doane et al., 2014). Cyberbullying is a relatively new construct with limited research that places it within a strong theoretical framework; however, “The theory of reasoned action and the theory of planned behavior provide a framework to identify key behavioral, normative, and control beliefs affecting

behaviors” (Montano & Kasprzyk, 2008, p. 76). This study examined the prevalence of cyberbullying experiences among traditional undergraduate students attending faith-based universities based on biological gender and level of religiosity. The research frames the behaviors of the victim and offender within this conceptual framework.

Theory of Reasoned Action

Fishbein (1967) developed the TRA to understand relationships between intentions, attitudes, and behaviors. The TRA assumes that the best predictor of behavior is behavioral intention, and this theory has been a successful indicator in predicting and explaining a wide variety of behaviors (Montano & Kasprzyk, 2008). Fishbein and Ajzen (1975) clearly defined one’s underlying beliefs, intentions, behavior, and the measurement of these constructs as critical to having a high degree of correlation between measures of attitude, norm, and perceived control. Operationalization of this theory construct was developed from an attitude measurement theory over a significant time-period, rooted in the idea that attitude can be determined by beliefs or expectations (Montano & Kasprzyk, 2008). Understanding the construct of cyberbullying through this lens can provide insight into the behaviors of the bully and the victim. It may also provide insight into behaviors exhibited by staff, faculty, administrators, and resource personnel in reporting or working with victims of cyberbullying.

Doane et al. (2014) examined cyberbullying among college students and tested the TRA as an explanation for the behavior. The researchers also included empathy toward the victim in the theory model. The TRA is applicable to behaviors a person can control and asserts that the person’s attitude toward a behavior and subjective norms of the behavior can influence the individual’s behavioral intentions, which can then influence his or her behavior (Doane et al.,

2014). The study determined that the TRA constructs are applicable to the cyberbullying behaviors of deception, malice, public humiliation, and unwanted contact (Doane et al., 2014).

Examining the behaviors of the perpetrator and victim within this theory can potentially provide evidence-based reasons for the behaviors, so mitigation of cyberbullying behaviors is possible. Repeated constructs related to cyberbullying are individual motivation factors, attitudes toward behavior, perceived norms, behavioral beliefs, and empathy (Doane et al., 2014). Prevention plans should identify and address these constructs, and it is important for victims to know the portrait of a cyberbully to help them recognize and address the problem immediately.

The TRA is a framework used for cyberbullying prevention design, targeting attitudes, and normative functions. Zagorscak et al. (2019) conducted a longitudinal study using this theoretical framework on a specific cyberbullying intervention program over a nine-month period. The study indicated that participation in the study significantly reduced the prevalence of cyberbullying. The study also found that developmental trajectories and associations were present, as suggested by the TRA (Zagorscak et al., 2019). The second relevant theory to this research is the TPB.

Theory of Planned Behavior

The TPB directly relates to the TRA; however, it includes the addition of the construct of perceived control (Montano & Kasprzyk, 2008). Ajzen (1991) added perceived control over the behavior in question to the TRA and included the supposition that one's behavior determines intention and behavioral control. The behavioral intention is then determined by examining three basic belief-concepts (Pabian & Vandebosch, 2014). According to Ajzen (1991), an attitude is a person's evaluation of a specific behavior, a subjective norm is the individual's perception of

what others think of the behavior, and perceived behavioral control is the perception of difficulty or ease of carrying out a specific behavior. In adding perceived control, the researcher takes into account situations where one may not have complete volitional control over the behavior (Montano & Kasprzyk, 2008). Perceived control can be determined by control beliefs concerning the “presence or absence of facilitators and barriers to behavioral performance” (Montano & Kasprzyk, 2008, p. 71).

When examining cyberbullying through the TPB, the subjective norm involves the individual’s normative beliefs, which include the expectations of what others (e.g., parents, friends, or teachers) believe the individual should do in reference to the behavior (Ajzen, 1991). A study conducted by Pabian and Vandebosch (2014) tested the applicability of the TPB to cyberbullying and found that the individual’s intention to engage in cyberbullying behaviors correlated with results of self-reported cyberbullying behavior.

Both theories align cyberbullying as a behavior that is controllable; therefore, it is appropriate to review cyberbullying within this theoretical framework. If students understand the nature of the how and why behind the specific behavior, whether in the role of victim or offender, prevention programs can align with at-risk behaviors, and outcome measurement can be utilized (Zagorscak et al., 2019). Although this is a relatively new field of study, there are significant studies that align the TRA and the TPB to cyberbullying, making them appropriate for the current study (Doane et al., 2014; Montano & Kasprzyk, 2008; Zagorscak et al., 2019).

Related Literature

Traditional Bullying

Traditional bullying is a serious public health concern that affects individuals of all ages (Rettew & Pawlowski, 2016). Although there is no universally accepted definition of traditional

bullying, Dan Olweus (1994) defined bullying as any aggressive behavior intentionally carried out, repeatedly and over time, by an individual or a group on a victim who cannot easily defend him or herself. Traditional bullying can include, but is not limited to, name-calling, spreading rumors, teasing, and physical assault and involves an imbalance of power between the bully and the victim. For decades, people viewed this type of bullying as harmless and simply considered it a part of growing up (Rettew & Pawlowski, 2016). Until the 1970s, authority figures encouraged victims of traditional bullying to toughen up and not be so sensitive (Webber & Ovedovitz, 2018).

In recent years, studies reveal that traditional childhood bullying can cause attention-deficit hyperactivity disorder, separation anxiety, and suicidal ideation (Silberg et al., 2016). Moreover, research now shows that bullying can have long-term effects on the victim and may result in poor health, shame, depression, anxiety, and negative social-relationship outcomes into adulthood (Hashorva, Pengili, Lici, & Prifti, 2017; Strøm, Aakvaag, Birkeland, Felix, & Thoresen, 2018). Bowes, Joinson, Wolke, and Lewis (2015) found that adolescents who were victims of traditional peer bullying were more likely to experience depression in adulthood than peers who did not experience bullying.

Some researchers contend that cyberbullying is simply a form of traditional bullying using technology to inflict the repeated harm to the victim (Olweus, 2012); however, other studies show that there is a distinct difference between traditional bullying and cyberbullying (Kubiszewski, Fontaine, Potard, & Auzoult, 2015). According to Fahy et al. (2016), cyberbullying has distinguishing features that differentiate it from face-to-face bullying that include the permanence and permeability of online messaging, as well as the publicity it can receive. Both bullying and cyberbullying involve abuse of an individual via intentional negative

interaction (Olweus & Limber, 2018). Another noted distinction between traditional face-to-face bullying and cyberbullying is the anonymity that is possible through online communication (Watts, Wagner, Velasquez, & Behrens, 2017). The nature of online communication allows cyberbullies to remain anonymous; therefore, victim abuse conceivably may persist for months or years without detection of the abuse (Watts et al., 2017). Some argue that cyberbullying is very similar to traditional bullying; however, research shows that the characteristics of cyberbullying lead to more incidents and increased severity in consequences because of the anonymity factor (Samara et al., 2017). Developments in technology have changed the boundaries, context, and nature of bullying, which has consequently caused researchers to examine the constructs as two different concepts: cyberbullying and traditional bullying (Elci & Seckin, 2019).

Cyberbullying

Technology use across the world is on the rise, and cyberbullying is a growing 21st century problem that students will potentially face throughout their educational career (Alqahtani et al., 2018; Zych et al., 2015). Cyberbullying research is relatively new and is limited to approximately the last 10 to 12 years, with a majority of the work published in the past five years (Faucher, Cassidy, & Jackson, 2015). Educators across the world are using information and communication technologies (ICT) to engage students for learning and social growth purposes (Cross et al., 2016). However, with the growing use of ICT for educational purposes, the potential for cyberbullying increases, which can have negative impacts on students' mental and physical well-being, as well as on academic performance (Khine et al., 2020). In some cases, being cyberbullied has caused deep pain and feelings of hopelessness that have led to suicide (J. Kim, Walsh, Pike, & Thompson, 2019; S. Kim, Kimber, Boyle, & Georgiades, 2019). Research

shows that cyberbullying victims are 8.7% more likely to commit suicide, and with only a 1% decrease in cyberbullying rates, fatal suicide rates decrease by 11 per 100,000 (Nikolaou, 2017). Whittaker and Kowalski (2015) found that college students saw aggressive comments directed at one's peers as less humorous, less acceptable, and less malicious than those directed at celebrities or anonymous individuals.

Alqahtani et al. (2018) argued that society is beginning to accept, and expect, online behaviors that are potentially damaging. A significant amount research examining the effects of cyberbullying among middle and high school students exists; however, the research conducted among postsecondary students, although growing, is relatively small in comparison (Khine et al., 2020; Orel, Campbell, Wozencroft, Leong, & Kimpton, 2017; Slovak et al., 2015). The lack of cyberbullying research among postsecondary students is, in part, due to the thought that bullying did not occur after high school (Webber & Ovedovitz, 2018). Englander (2012) asserted that there is significant evidence to justify expanding the scope of cyberbullying research to a student's postsecondary career. Although college students are adults, understanding the dangers and pitfalls of navigating the Internet and raising awareness of cyberbullying provides a measure of safety that can assist them in their postsecondary studies and with their overall well-being.

Cyberbullying can cause students of all ages to experience disruption in many areas of life (Muzamil & Shah, 2016; Williford & Depaolis, 2016). According to Zych et al. (2015), one in five students will experience some form of cyberbullying during their educational career. Cyberbullying does not only affect children; college students and adults engage in cyberbullying and do significant harm to their peers, as well (J. Lee, Abell, & Holmes, 2017). Furthermore, a study conducted by Peled (2019) showed that cyberbullying clearly influenced the social, academic, and emotional development of undergraduate students.

Definitions. De Souza Costa Ferreira and Deslandes (2018) asserted that a review of cyberbullying literature shows there is no universal consensus on the concept of cyberbullying. Moreover, scholars do not agree on a singular definition of cyberbullying; however, there are definitions that accurately describe the overall nature of the issue (Selkie et al., 2016). The lack of one consistent definition, even among researchers, makes the problem of cyberbullying more difficult to address (Corcoran, Guckin, & Prentice, 2015). Determining a uniform conceptualization and definition of cyberbullying is complicated further because cyberbullying can occur through different venues and in different forms (Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Unlike traditional playground bullies, cyberbullies have constant access to their victims (Patchin & Hinduja, 2006). This constant access causes problems for the student physically, emotionally, and mentally (Carter & Wilson, 2015; Young, Tully, & Ramirez, 2017). According to Patchin and Hinduja (2006), there is an interconnectedness between traditional bullying and cyberbullying, thus making cyberbullying harder to define.

Morgan (2013) asserted that cyberbullying involves the use of technology to harass another individual. According to Feinberg and Robey (2009), a cyberbully sends harmful posts over the Internet through digital devices such as cell phones or computers. Sabella et al. (2013) defined cyberbullying as the use of computers, cell phones, and other electronic devices to inflict willful and repeated harm on another individual or individuals. Shariff and Gouin (2005), as reported by Carter and Wilson (2015), indicated that the acts involved in cyberbullying include, but are not limited to, verbal abuse or written threats using cellphones, websites, chatrooms, weblogs, and multi-user domains. Olweus and Limber (2018) reported cyberbullying as bullying through electronic forms of communication such as instant messages, emails, and websites.

Corcoran et al. (2015) found that the constant evolving nature of technology further complicates the ability of researchers to understand the true nature of the problem; therefore, the lack of a consistent definition of cyberbullying has led to difficulty in understanding the scope and prevalence of the issue (Alqahtani et al., 2018). For this study, cyberbullying is defined as “when someone repeatedly harasses, mistreats, or makes fun of another person, (on purpose to hurt them) online or while using cell phones or other electronic devices” (Hinduja & Patchin, 2015, p. 11).

Role allocation. Cyberbullying often involves four separate parties: the victim, the bystander-defender, the bystander-assistant, and the bully or offender (Van Hee et al., 2018). Those who commit the bullying are the cyberbullies or offenders; bystander-defenders help the victim and discourage the bully; bystanders-assistants encourage the cyberbully or stand by and watch; individuals who are harassed or targeted by the bully are the victims (Van Hee et al., 2018; Zhou, Zheng & Gao, 2019). In a study conducted by Cunningham et al. (2015), more than 60% of university students reported involvement in cyberbullying as witnesses, 4.5% admitted to having cyberbullied an individual or group, and 5.7% reported being a victim of cyberbullying. Zhou et al. (2019) found that 92.4% of college students studied admitted to engaging in cyberbullying as a bystander. According to S. Wang (2020), there are often bystanders who witness cyberbullying events and can play a key role in adding to, or changing the dynamics of, a cyberbullying incident. A mitigating factor to intervention was the level of empathy the bystander felt based on the severity of the cyberbullying incident (S. Wang, 2020).

Detecting cyberbullying and identifying an individual’s role in the incident, by manually monitoring social media and other Internet communication, has become an unrealistic endeavor; however, automatic detection of cyberbullying signals is currently being researched (Van Hee et

al., 2018). When the characteristics in a cyberbullying exchange are identified, machine learning and natural language processing allows for automatic detection by matching text data to specifically identified traits; however, non-holistic consideration of cyberbullying and a lack of labeled datasets are two challenges facing cyberbullying detection research (Salawu, He, & Lumsden, 2020). Although still in the emergent phase, the development of an effective, researched-based, automatic detection program will provide a tool for widespread use to help mitigate and deter incidents of cyberbullying across the world.

Prevalence and perception. Although cyberbullying is a relatively new problem, it is going to continue to increase as technology advances; therefore, awareness of the prevalence of cyberbullying experiences is critical to addressing the issue. Cyberbullying, and behaviors related to cyberbullying, are increasing each year (Hinduja & Patchin, 2019a). Due to the lack of a uniform, agreed-upon definition of cyberbullying and a lack of reliable measurement tools, determining accurate prevalence rates is difficult, which contributes to the varying prevalence rates of cyberbullying victimization and aggression around the world (Jenaro, Flores & Frias, 2018). Some other factors that hinder obtaining a realistic picture of cyberbullying prevalence rates are differences in age, time measurement, cross-cultural barriers, differences in sample size, focus of the studies, and a lack of understanding of the seriousness of the issue by undergraduates participating in the studies (Myers & Cowie, 2017; Pörhölä et al., 2020).

Studies show that adolescents who engage in violent online behavior and activity are more likely to become a cyberbully (Bergmann & Baier, 2018; Selkie et al., 2016). Furthermore, bullying and cyberbullying are common phenomena in schools across the United States (Zych et al., 2015). Cross et al. (2016) reported that estimates of cyberbullying prevalence among adolescents vary between studies, with victimization rates ranging from 1% to 62%, and

perpetration rates ranging from 0.8% to 53%. Middle school students report more incidents of bullying and have higher cyberbullying prevalence rates than high school students (Hong et al., 2016). These negative behaviors can have a significant impact on the health and particularly mental health of those involved in such behaviors, both as victims and as bullies (Bergmann & Baier, 2018).

According to Wright (2017), studies on the prevalence of cyberbullying based on gender are mixed and inconclusive. Zhou et al. (2019) asserted that gender is a critical factor that influences human behavior, and the effect of gender on the construct of cyberbullying needs further study. In a meta-analysis of 109 studies by Bartlett and Coyne (2014), the researchers found that cyberbullying perpetration was higher among males than among females. S. Kim et al. (2019) found that female adolescents had a higher prevalence of cyberbullying victimization at 13.3% than males of the same age at 7.8%. Similarly, in studies conducted by Heiman, Olenik-Shemesh, and Eden (2015) and Leung, Wong, and Farver (2018) a larger percentage of females reported being victims of cyberbullying, whereas a larger percentage of males reported being perpetrators. In contrast, Zhou et al. (2019) found that among college students, 71.8% of males reported being victims of cyberbullying as compared to 44.4% of females. There are limited studies that provide evidence of a gender difference among witnesses of cyberbullying, especially among university students (Campbell et al., 2017).

In a small sample of global studies, estimates of prevalence ranged from 1% to 30% for cyberbullying perpetration (offending) and from 3% to 72% for cyberbullying victimization (Selkie et al., 2016). Faucher, Jackson, & Cassidy (2014) reported prevalence rates among college students to be 20% over 12-month period yet included in their findings disparities from other studies showing prevalence rates varying from 7% to 62%. Webber and Ovedovitz (2018)

conducted a study at a Catholic University and found that 4.3% of students surveyed reported being victims of cyberbullying, and 7.5 % reported they had participated as a cyberbully.

Musharraf and Anis-ul-Haque (2018) reported that 67% of university students were involved in cyberbullying as a bully (offender) or a victim. Varghese and Pistole (2017) found that 15.1% of undergraduate students were victims of cyberbullying, and 8% reported having cyberbullied another individual.

Sobba et al. (2019) conducted a study that found college students perceive cyberbullying as serious issue that needs attention on a wider scale; moreover, the results indicated that female college students are more likely to perceive cyberbullying as a serious issue when compared to male college students. With the rise in technology use in schools, colleges, and universities across the nation and constant access to phones, tablets, and computers, the prevalence of cyberbullying experiences increasing is inevitable.

Impact on college students. The transition from high school to higher education requires the student to adapt academically but also requires the establishment of new relationships, decisions about a career, and the maintenance of personal wellness (Peled, 2019). College and university students across the world use technology and the Internet on a daily basis for social and educational purposes. Although cyberbullying begins in the virtual world, it often has devastating psychological consequences in the physical world. The tragic death of Rutgers University student Tyler Clementi thrust the issue of cyberbullying at the postsecondary level into the spotlight. Tyler Clementi became the victim of cyberbullying when his roommate, Dahrin Ravi, posted a video of Tyler kissing another man on the Internet and subsequently ended his life because of the shame and public reaction (O'Connor, 2018).

The lack of research on cyberbullying at the university level presents a challenge to understanding the widespread effects of cyberbullying on postsecondary students (Cassidy et al., 2017; Watts et al., 2017). O'Connor (2018) asserted that university students face greater risk of cyberbullying and Internet exploitation because of their constant use of technology and are more likely to be victims and perpetrators than any other age demographic. Recent studies involving college and university students indicate that there are physical and mental impacts of cyberbullying including embarrassment, depression, sadness, poor concentration, and low self-esteem (Cassidy et al., 2017; Khine et al., 2020; W. Wang et al., 2019). Varghese and Pistole (2017) asserted that undergraduate cyber-victims present as lonelier and having more maternal attachment anxiety as compared to students who had not been victimized (although the reported sample size was small). Cassidy et al. (2017) also found that students reported cyberbullying negatively affected their academic performance, home life, and personal relationships both on and off campus. Khine et al. (2020) asserted that undergraduate victims of cyberbullying positively associated the bullying with increased alcohol use, smoking, and substance abuse. In a study conducted by Orel et al. (2017), among 282 college students, blocking the cyberbully, seeking help from friends, and steering clear of the platform the bully was using are students' most widely used strategies to cope with the cyberbullying incidents. Another relevant finding from this study was the likelihood of college students to report the cyberbullying to a professor or lecturer (Orel et al., 2017). Among the available studies conducted with college and university students, evidence shows cyberbullying is an issue among this demographic; moreover, the importance of addressing the issue is heightened because students need intervention before they take the poor digital behaviors into the workforce (Watts et al., 2017).

Types of cyberbullying. Cyberbullying occurs in cyberspace and is often difficult to detect; however, gaining understanding and awareness of the different types of cyberbullying is important for all administrators, faculty, and students. Hinduja and Patchin (2015) identified the following cyberbullying behaviors:

- Cyberstalking is a repetitive, threatening behavior that causes fear.
- Flaming is when two students exchange angry messages.
- Harassment is the sending of mean and hurtful messages
- Impersonation is the bully pretending to be someone they are not.
- Denigration is one student posting damaging information about another student.
- Trickery is convincing someone to give out personal information, and then posting it publicly without the victim's permission.

Peled (2019) described the following additional methods used in cyberbullying:

- Fraping is gaining access to a person's social media account to impersonate them and embarrass them.
- Dissing involves sharing or posting cruel information online with the intent to cause harm.
- Trolling is provoking an individual online to try to initiate a negative response.
- Phishing is the persuading or tricking of another individual online to reveal personal and/or financial information.
- Shunning involves consistently rejecting or ignoring someone who is communicating via a social network or through technology.
- Catfishing is the stealing of another person's identity to create false social media profiles in the victim's name for purposes of exploiting the victim.

- Cyberstalking is the use of publicly posted information from social networking sites to send unwanted, unsolicited messages and gifts, carried out by an individual (stalker) who does not have the victim's permission.

One specific type of cyberstalking is doxing. Doxing (or doxxing) is the release of an individual's personal information by a third party to intentionally threaten, humiliate, punish, or intimidate (Douglas, 2016; Li, 2018). Swatting is a type of cyberbullying where "swatters" make false calls to law enforcement indicating the victim is committing a dangerous crime and SWAT teams are falsely sent in (Li, 2018). A mitigating factor that pertains to certain types of cyberbullying is the ability of the perpetrator to remain anonymous; cyberbullies can create fake email addresses and false profiles that appear real to the victim, thus allowing individuals of all ages, at home and abroad, to be potential targets (Douglas, 2016; El Asam & Samara, 2016).

Sexual cyberbullying. With the ever-increasing expansion of technology, young adults are venturing into new ways to interact in personal, intimate relationships using different Internet applications. Unfortunately, while scholarly research in this area of cyberbullying that focuses on interpersonal relationships among adults and sexual interaction online is growing, it is still in its infancy (Ehman & Gross, 2019; Myers & Cowie, 2017). One form of sexual cyberbullying, revenge porn, is the sharing of private photos or videos of a sexual nature without the person's consent to seek revenge or for entertainment purposes (Hearn & Hall, 2019; O'Connor, 2018). Sexting is also a growing form a sexual cyberbullying and involves sending sexually explicit photographs of oneself via text message (Peled, 2019). According to Marganski (2017), young adults are frequent "texters," and technology use is directly related to sexting; furthermore, the researcher asserts that many ignore the fact that technology has power over social relationships.

It is important to note, according to Roberts and Ravn (2020), all sexting is not sexual cyberbullying; however, it crosses into bullying when used inappropriately against a person.

Scott and Gavin (2018) studied 239 university students, of whom 41% reported they had sent intimate pictures to romantic partners, while 17% admitted to sending intimate images to potential partners. Similarly, Cole, Policastro, Crittenden, and McGuffee (2020) found that 49% of adults admitted to sending a sexually explicit photo to their romantic partner; however, the study also showed that romantic partners could not always be trusted with the images, often resulting in revenge porn. An exploratory study conducted among 470 college freshmen in the United States revealed that only 10% of participants had a sexually explicit photo shared without their permission; furthermore, the same study showed that a higher percentage of females had been victims of revenge porn (Branch, Hilinski-Rosick, Johnson, & Solano, 2017). In contrast to Jung (2016), who found that Christian young adults do not engage in sexually deviant, online behaviors as often, Klein and Cooper (2019) studied 812 undergraduate students and asserted that undergraduate students who admitted to practicing some form of Christianity did engage in sexting behaviors. Recognizing and understanding the different types of cyberbullying can help administrators, faculty, staff, and students know what to watch out for and which prevention strategy could potentially help address and eradicate specific cyberbullying issues.

Social media. Social media platforms can allow for connectedness and belonging that a person lacks in his or her everyday life and have become a popular means for friends and family to communicate (Chan, Cheung, & Wong, 2019; Kircaburun, Kokkinos, Demetrovics, & Çolak, 2019). However, social media is one of the many places where individuals of all ages are falling prey to the inappropriate behaviors of the cyberbully (Whittaker & Kowalski, 2015). Social media platforms are among the most widely used and popular applications on the Internet

(Kemp, 2017). The introduction of Facebook, Twitter, and Instagram have changed the way college students interact and have facilitated the increase in cyberbullying experiences across college campuses (White & Carmody, 2018). Abaido (2020) asserts that the increased use of the Internet is causing young people and adults to inflict harm on one another.

Social media platforms allow for the wide dissemination of personal and private information to a large audience. Emerging adults, ages 18–22, report using two or more social media applications (on average); furthermore, among the same demographic, those who used more than two social media applications reported higher levels of depression and anxiety (Vannucci, Ohannessian, & Gagnon, 2019). Varghese and Pistole (2017) found that 86% of college-age adults report sharing their personal information on social media platforms such as Facebook and Twitter. Social platforms such as Snapchat allow for instant removal of information; therefore, the problem is often masked (Milosevic, 2016). According to Alqahtani et al. (2018), 8% of females and 10% of males indicated the most common avenues used for electronic harassment were Facebook and text messages. Elci and Seckin (2019) found that most cyberbullying incidents among postsecondary students occur through harassing messages posted on social media sites. Whittaker and Kowalski (2015) concurred that social media sites are widely used among college students for cyberbullying; however, they also asserted that texting is also a preferred method for this demographic. Kowalski, Limber, and McCord (2019) argued that instant messaging is the most widely used medium for cyberbullying among college students.

Many social media companies have official policies posted on their websites; however, these policies often do not explain the consequences associated with cyberbullying, nor are consequences uniformly administered (Milosevic, 2016). In a study conducted by White and

Carmody (2018), university students reported concerns with social media's online tracking, ease of ability for harassment, and identity theft. Studies also show that incoming freshmen are at a higher risk for cyberbullying and online harassment on social media sites due to navigating romantic relationships for the first time (Myers & Cowie, 2017; White & Carmody, 2018). Chan et al. (2019) suggested that one potential solution to minimize cyberbullying and online aggression is for countries to pass regulatory legislation that would protect social networking users from harm.

Reviewing social media platforms and policies on a regular basis is imperative because of the changing nature of technology (Faucher et al., 2015). New applications for tablets, phones, and computers are constantly emerging, so staying up to date on new policies is essential for administrators, faculty, and students (Corcoran et al., 2015). Understanding the social media platforms that students use to interact on a daily basis and the different types of cyberbullying that take place on each application can help those in leadership develop relevant policies and prevention programs to protect students in the online environment (Vannucci et al., 2019). Although students at the postsecondary level are adults, the necessity to maintain student safety is paramount to the overall health and safety of the college campus.

Legal framework. At present, there is no national legal directive regarding cyberbullying, thus allowing states to respond to cyberbullying incidents individually, with the severity of consequences differing from state to state (O'Shea, 2017). As of 2017, all 50 states have legislation in place making cyberbullying policies mandatory in Grades K-12 (TeenSafe, 2017). However, according to Kamali (2015), only a few states have laws for cyberbullying among university students, and only a small number of universities have policies in place to address this growing problem facing postsecondary students. The difficulty with legal issues

surrounding cyberbullying is writing and implementing laws that do not infringe on the person's First Amendment right of free speech (Li, 2018). Forta (2019) stated that although it is tempting to try to find one legislative solution for cyberbullying at the national level, lawmakers should proceed with caution because the First Amendment is imposing, and dealing with this issue judiciously is paramount to enforcing any future laws. Li (2018) asserted that the key to stopping online aggression and harassment is to focus on data privacy and target the resulting conduct itself.

Although no national legislation has passed, the Tyler Clementi Higher Education Anti-Harassment Act of 2019, initially introduced in 2015, proposes to require colleges and universities that receive federal funding to implement anti-harassment policies that would include cyberbullying. According to the Tyler Clementi Foundation (2019), the bill is common-sense legislation that costs little but has the potential to stop bullying and cyberbullying incidents across the country. O'Shea (2017) asserted that a national response to cyberbullying might be the answer to help curtail this growing public health concern. One proposed solution is a national "notice-and-takedown mechanism where cyberbullying speech can be removed from the Internet" (O'Shea, 2017, p. 144), providing the cyberbullying victim with a way to move forward without the bullying language or pictures remaining in cyberspace forever.

Laws specifically addressing sexual forms of cyberbullying are inconsistent across the United States. According to Cole et al. (2020), there are presently no federal statutes that refer to revenge porn as a crime; however, as of May 1, 2019, 40 states and the District of Columbia do have statutes in place that address revenge porn. The 10 states that presently do not have revenge porn legislation are Indiana, Kentucky, Massachusetts, Mississippi, Montana, Nebraska, New York, Ohio, South Carolina, and Wyoming (Cole et al., 2020). It is important to note that

even though there are statutes addressing revenge porn, only 19% of the states with statutes protect victims who consensually shared images, but later had those images shared by others without the individual's permission (Najdowski, 2017).

Presently, cyberbullying falls more into the category of immoral or inappropriate behavior; however, once the issue becomes a widespread legal concern, perpetrators will face serious consequences (Myers & Cowie, 2017). The location of the perpetrator (offender) and the victim are both concerns when discussing legal implications. Cyberbullying can take place anywhere around the globe, thus making it necessary for prosecutors to research jurisdiction laws and realistically assess the difficulties associated with prosecuting a perpetrator from another country (El Asam & Samara, 2016). Understanding the prevalence of cyberbullying in context of legal implications is critical to the debate and to the ability to forge the path ahead to relevant, evidence-based policies and prevention plans.

International research. Cyberbullying is an international health concern that knows no borders because students across the world are using the Internet to learn, socialize, and communicate (Dennehy, Cronin, & Arensman, 2019). The international scope of the problem is staggering, with the number of studies related to cyberbullying increasing across the globe using students of all ages as research subjects (Caravaca Sánchez et al., 2016; Francisco, Veiga Simão, Ferreira, & das Dores Martins, 2015; Khine et al., 2020; Myers & Cowie, 2017; Rao et al., 2017; Safaria, 2016;). A cyberbully can be sitting next to his or her victim, be across the room, in another city, in another state, or around the world (Watts et al., 2017). Understanding the scope of the problem and results of studies from around the globe can only serve to provide insight for this research study.

Cassidy et al. (2017) conducted a qualitative study of Canadian university students that revealed cyberbullying among the student population; moreover, the study concluded that it is imperative that universities develop research-based policies on cyberbullying to ensure the digital safety of students. Abaido (2020) found, following a study with 200 university students from the United Arab Emirates, 91% of the students agreed that cyberbullying is an issue, with 55% of perpetrators utilizing Instagram and 38% of perpetrators utilizing Facebook to carry out the bullying. In a study conducted among Indian university students, Yadav and Yadav (2018) found that spirituality and existential well-being negatively relate to cyberbullying and victimization. Myers and Cowie (2019) asserted that most universities in the United Kingdom are lacking specific policies addressing cyberbullying; furthermore, the study reports that there are no laws specifically making cyberbullying an offense in the United Kingdom. In a study with 638 Israeli students, Peled (2019) found that cyberbullying exists among undergraduate students and can influence emotional, social, and academic development; however, the researcher indicated that further investigation among this population is necessary. Francisco et al. (2015) conducted a study among university students in Lisbon with findings indicating that female students were more likely aggressors than male students were.

Tesler, Nissanholtz-Gannot, Zigdon, and Harel-Fisch (2019) studied 7,166 Israeli adolescents ages 11–17 and found that cyberbullying behaviors were more frequent among students who attended state-secular schools as compared to state-religious schools. Finally, Souza, Veiga Simão, Ferreira, and Ferreira (2018) conducted a study among 979 Brazilian and Portuguese university students where the research indicated that a student who had been a cyber-victim had a higher likelihood of becoming a cyberbully. The totality of these findings indicate that cyberbullying is an international problem; however, there is not consistent statistical data

across domestic or international studies to support gender or level of religiosity as mitigating factors.

Policies and prevention. Cyberbullying is a worldwide concern that has negative outcomes; therefore, prevention and intervention programs are important to ensuring the digital safety of all students (Tanrikulu, 2018). There are specific cyberbullying prevention strategies that have proven to be effective in assisting students in Grades K-12 successfully deal with cyberbullying. Prior to college, parents are a significant part of the student's immediate support system and are traditionally included in a school's online safety and behavior plan. Programs such as Media Heroes provide an evidence-based intervention, designed for use within an established curriculum, for cyberbullying prevention among middle-school students; however, adapting this and other successful K-12 prevention programs can be difficult (Chaux, Velásquez, Schultze-Krumbholz, & Scheithauer, 2016). Doane, Kelly, and Pearson (2016) conducted a study among college students using a TRA-based video to increase knowledge of cyberbullying and to provide instruction on prevention, empathy, and reducing cyberbullying behaviors. The study utilized random assignment to an experimental group who viewed the video and an assessment-only control group. Results indicated that the experimental group who viewed the video did show improvement in knowledge of cyberbullying and reduced cyberbullying perpetration behavior (Doane et al., 2016). Unfortunately, evidence-based strategies for cyberbullying prevention for use at the university level are limited due to the lack of research among this demographic (Cunningham et al., 2015).

Recent studies show that cyberbullying continues to be a growing problem at the postsecondary level because administrators and faculty are not acknowledging the severity of the issue (Cunningham et al., 2015). O'Connor (2018) showed that 45% of university students

thought their university had a cyberbullying policy, and only 21% reported receiving policy training. Alqahtani et al. (2018) found that 47.7% of undergraduate students surveyed did not think the faculty or staff at the university would understand or believe their report of cyberbullying. In a study among undergraduate students, Khine et al. (2020) reported that over 12-month period, two in five students had been cyberbullied; however, half of the students who had experienced cyberbullying never told anyone else about it. Myers and Cowie (2019) asserted that 62% of undergraduate students reported receiving no support or follow-up after reporting a cyberbullying incident. There is evidence that focusing on teaching anti-bullying strategies, enabling anonymous reporting of incidents, providing victim sensitivity training, and using a combined prevention and consequence model is a strong place to start to begin to mitigate cyberbullying on college campuses (Cunningham et al., 2015).

In order for university administrators and faculty to address the issue of cyberbullying on campuses across the world, research must keep pace with the growing problem and provide evidence-based strategies for use among postsecondary students. Universities can, and must, develop clear expectations for online behavior. Elci and Seckin (2019) asserted that universities should have clear, well-written policies for handling cyberbullying; moreover, students need to be trained how to recognize and report cyberbullying and be proactive concerning personal, and corporate, digital safety. Myers and Cowie (2017) suggested that universities are not working toward preventing the incidents but are instead drafting policies as “knee-jerk” reactions to individual incidents. Outlining appropriate consequences so that all stakeholders understand the ramifications of all infractions is important. Zhou et al. (2019) suggested that universities should pay more attention to the students’ online behaviors while proactively providing policies and training, so students can recognize inappropriate online behavior and develop systematic plans to

address the inappropriate behaviors when they occur. Looking at the problem through the lens of prevalence among certain demographic populations will help facilitate the tailoring of prevention programs and policies in higher education settings.

Predictive risk factors. Today's students interact with technology daily. Research indicates there are more students who are victims of cyberbullying than there are cyberbullies (Beyazit et al., 2017). Beyazit et al. (2017) conducted a study that revealed several risk factors for bully victimization, including: (a) age, (b) gender, (c) grade, (d) father's age, (e) household income, (f) owning a computer, and (g) parental control of Internet use. According to Von Marées and Petermann (2012), a strong predictor for cyberbullying is cyber-victimization; furthermore, they found that students who are bullies have a higher risk of becoming a victim. Moreover, students who have been cyberbullies may have been using specific techniques while in school and see their online behavior as normal (Myers & Cowie, 2017). In a study conducted by Pörhölä (2016), 50% of undergraduate cyberbullies reported being a cyberbully while in Grades K-12. Studies also show that the amount of time students spend online can increase the incidents of cyberbullying and cyber-victimization (Kowalski et al., 2014; J. Y. Lee et al., 2017). Snyder, Li, O'Brien, and Howard (2015) found that some college students spend in excess of 25 hours a week on social media sites. Finally, Kowalski et al. (2019) suggest that risk factors include family, peer interaction, year in school, and an individual's personal characteristics, in varying degrees, depending on the age of the victim/offender.

Social and moral influences. Students are influenced by peers in social settings, both in-person and online. Beyazit et al. (2017) found that peer pressure and peer acceptance are two social influences that directly influence cyberbullying victimization. Students seek approval in different ways; however, when using online applications, the tendency is to join in the

perpetration of a victim without full realization of the consequences. Allison and Bussey (2017) indicate the moral influences from family, friends, and peer groups also directly affect peer victimization. Menesini, Nocentini, and Camodeca (2013) found the absence of moral aspects, such as disobedience, lack of guilt, untrustworthiness, and meanness, in both traditional and cyberbullies. Understanding the social and moral influences that motivate the perpetrator can assist stakeholders in preparing prevention programs for specific age groups.

Religiosity

Religion can play a significant role in an individual's life, and both health and mental well-being is often affected (Quinn & Lewin, 2019). A college student's level of religiosity can have an impact on his or her formation and experience (Thomson & Davignon, 2017). According to scripture, Evangelical Christians believe that a personal relationship with Jesus Christ is the only way one can enter the kingdom of heaven (John 14:6). To determine a person's level of religiosity, it is important to inquire about his or her scriptural knowledge and understanding; moreover, it is imperative to know how that knowledge shapes the individual's life choices and behaviors (Koenig et al., 1997). For many postsecondary students attending a faith-based university, religion plays a significant role in their choice to attend a private school where faith and learning are integrated; however, this does not mean each student has the same level of religiosity. Faith is personal, and although students on Christian college campuses generally have a testimony of faith, Scripture indicates that all have sinned and fallen short of the glory of God (Rom. 3:23).

Quinn and Lewin (2019) found that high family religiosity transferred to high student religiosity; furthermore, college students who grew up in an environment where they were taught religious values and attended religious activities had a higher appreciation for, or sense of

obligation to, behaviors in line with those religious beliefs. Consistent church attendance and participation in religious practices typically influences the personal value an individual places on religion (Graafland, 2017). Moreover, according to Parboteeah, Cullen, and Lim (2004) one of the best indicators of religiosity in an individual is behavioral measures; however, religious behavior and religious affiliation are only a part of what must be included in understanding religiosity. According to Thomson and Davignon (2017), students who participate in religious activities tend to participate less often in at-risk behaviors. In contrast, Pitel et al. (2012) found that among adolescents ages 13–18, there was not a significant difference between non-Christians and Christians when examining the willingness to engage in risky online behavior.

Morality and education. Lagemann and Lewis (2012) defined morality as “the capacity to make and explain value judgments about concepts such as fairness, social justice, freedom, and equality, conceived as both democratic ideals and lived commitments” (p. 43). During a student’s college career, moral development is significant; furthermore, many emerging adults understand the meaning of living a moral or ethical life (Hudson & Díaz Pearson, 2018). As part of a private, Christian university curriculum, students are required to take courses to aid in their integration of faith and learning. Evangelical Christians believe that moral behaviors should be in concert with the principals and foundational truths of scripture. Galatians 5:16 states that believers should walk by the Spirit and not gratify the desires of the flesh. Paul warns believers that

the works of the flesh are evident: sexual immorality, impurity, sensuality, idolatry, sorcery, enmity, strife, jealousy, fits of anger, rivalries, dissensions, divisions, envy, drunkenness, orgies, and things like these. I warn you, as I warned you before, that those who do such things will not inherit the kingdom of God (Gal. 5:19-21).

Some college students view respect, doing the right thing, justice, faith, having guidelines, being a good example, and altruism as potential indicators of living a moral/ethical life; however, of the 84% of respondents studied who attend a faith-based institution, only 14% indicated that faith played a role in their understanding of morality (Hudson & Díaz Pearson, 2018).

Faith-based institutions. Cyberbullying research among college and university students attending faith-based institutions is scarce (Webber & Ovedovitz, 2018). Zacchilli and Valerio (2011) conducted research on cyberbullying among college students at a small, Catholic liberal arts college where findings showed that 1% of college freshmen reported being cyberbullied, and 5% indicated that they had been a cyberbully. Webber and Ovedovitz (2018) studied students ages 18–21, attending a large, Catholic university in the Northeast, and of the students surveyed, 53.5% were Roman Catholic, 15% identified as Protestant, and 10.7% reported no religious affiliation; furthermore, the cyberbullying prevalence rates were very low compared to the study conducted by Zacchilli and Valerio (2011).

An exploratory study by Slovak et al. (2015) at a small, Christian university found there was a cyberbullying victimization rate of 20% among students surveyed. Slovak et al. (2015) did examine religious faith as a mitigating factor to the construct of cyberbullying; however, because it was only an exploratory study, and the researchers did not use a valid and reliable instrument, the results are not generalizable (Slovak et al., 2015). The researchers did indicate that approaching cyberbullying and online aggression from a multidimensional perspective that includes faith as a factor could assist faith-based universities in establishing policies and programs to help create a campus culture of nonviolence (Slovak et al., 2015).

Webber and Ovedovitz (2018) and Zacchilli and Valerio (2011) both recommended that further research be conducted among students attending faith-based institutions; moreover, the

researchers all indicated that such research should investigate the possible connection between religiosity and cyberbullying victimization and online aggression. While the study by Webber and Ovedovitz (2018) did ask about religious affiliation, the researchers did not measure the strength or depth of the student's religious beliefs; therefore, a gap in the literature exists in relation to cyberbullying and level of religiosity based on current research. Investigating cyberbullying based on level of religiosity and gender at two faith-based, evangelical Christian universities will add to the body of knowledge on this important topic.

Summary

In reviewing the literature, it was found that cyberbullying is a growing problem across the United States and around the world. Behaviors related to cyberbullying are increasing each year (Hinduja & Patchin, 2015). This research is grounded in two complimentary theories, the TRA and the TPB. The TRA provides the framework for targeting attitudes of cyberbullying, prevention, and normative functions. The TPB asserts that one's behavior determines intention and control (Ajzen, 1991). Both of the theories assert that cyberbullying is a controllable behavior and are appropriate as a conceptual framework. Doane et al. (2016) successfully used a TRA-based video with statistically significant success; therefore, the theory has been tested and proven useful as a theoretical basis for the construct.

Traditional bullying has been a public health concern for generations; however, it is only since the emergence of the Internet and the use of ICT for personal and educational purposes that cyberbullying has become a widespread concern. The lack of a concrete, universal definition has caused much of the research surrounding cyberbullying to be inconsistent and lacking; furthermore, the understanding that cyberbullying behaviors continued into adulthood has only emerged in the past 10 years (Englander, 2012). Research has increased over the past 10–12

years among populations in Grades K-12; however, there is still a limited amount of evidence-based research at institutions of higher learning. Recent studies show that cyberbullying continues into adulthood and that universities have not kept pace with policies and prevention strategies to mitigate aggressive online behaviors occurring through digital platforms (Alqahtani et al., 2018). Therefore, there is a need for further research to provide evidence-based prevalence rates to help university administration and faculty determine the scope of the issue and design prevention programs to ensure the safety of the students. Prevalence rates vary from study to study based on age, gender, ethnicity, and other mitigating factors.

New types of cyberbullying continue to surface as updated, cutting-edge digital platforms and applications emerge and become part of everyday life. Sexual cyberbullying has grown significantly over the past five years, and research in this area is in its infancy (Ehman & Gross, 2019). Social media use also continues to increase across the world among children, adolescents, and adults; moreover, with this increased use of social media platforms, cyberbullies have more opportunity to find and attack new victims (White & Carmody, 2018).

Legal implications, international research, and risk factors contribute to the understanding of the overall issue of cyberbullying and online aggression. Universities across the nation have students who are exhibiting at-risk behaviors, and in some cases, students have taken their own lives because of the direct impact of cyberbullying. Research on prevalence of cyberbullying experiences among traditional undergraduate students, ages 18–25, has been limited (Khine et al., 2020; J. Lee et al., 2017); furthermore, many of the studies conducted took place at public universities and do not account for the student's gender and level of religiosity as indicators, leaving a gap in the literature. Research needs to keep pace with the growing problem, and further investigation into mitigating factors to ensure the digital safety of all students is

necessary. Prevention strategies and policies for use with traditional undergraduate students attending faith-based universities are severely lacking; moreover, there is a need to examine the construct, prevalence, student safety concerns, and occurrences among this demographic (Slovak et al., 2015; Webber & Ovedovitz, 2018).

The mission of faith-based institutions of higher learning is to integrate faith and learning. Students who attend private, Christian universities typically have a religious background and share their personal testimony of faith as part of the application process. Studies vary on whether or not religiosity is a strong predictor of a student's choice to participate in at-risk behaviors (Pitel et al., 2012; Thomson & Davignon, 2017). Morality is also a factor in a student's decision-making process regarding behavioral choices; however, students who are religious do not necessarily equate religiosity with morality (Hudson & Díaz Pearson, 2018). Cyberbullying research at Christian universities is scarce; therefore, examining cyberbullying in terms of level of religiosity will allow administrators, faculty, and students to understand the construct as it relates to personal faith and participation in religious activities.

As presented in the first two chapters, data related to university students and cyberbullying, although increasing, is still limited in scope. Furthermore, a gap in the literature exists in relation to cyberbullying based on biological gender and level of religiosity among students who chose to attend faith-based universities. This study aims to examine the prevalence of cyberbullying experiences (victimization and offending) when looking at biological gender and level of religiosity at two faith-based universities in the southern part of the United States. The goal of the research is to provide relevant, up-to-date, statistical data to administrators, faculty, students, and stakeholders to assist in facilitating a reflective review of present policies and procedures, and for potential updated policies and procedures to reflect the current student

needs. Digital safety among university students, who are transitioning to adulthood, is important to the overall conversation regarding keeping students safe on campus. With cyberbullying research lagging at the university level, this study adds to the growing body of empirical literature that is presently available. Chapter Three includes the methods, design, participants, and setting for the research. Validity and reliability information, as well as a full description, are included for both instruments that were utilized. The researcher outlines the procedural details for the study, discusses the process of data collection, and presents the appropriate statistical methods that were used to examine the data and report the findings.

CHAPTER THREE: METHODS

Overview

Postsecondary students are using technology for academic work on a regular basis, resulting in more access to, and use of, Internet technologies. This increased use and access, also exposes students to unsafe interactions that can put their well-being at risk (Musharraf & Anis-ul-Haque, 2018). Although studies indicate a decrease in traditional bullying, incidents of cyberbullying continue to rise, resulting in both emotional and/or physical damage to the student victim (Alqahtani et al., 2018; El Asam & Samara, 2016). Furthermore, there are limited studies on cyberbullying prevalence among college students attending faith-based universities; therefore, the purpose of this quantitative, causal-comparative study was to gather self-reported data on the prevalence of cyberbullying experiences, as a victim and as an offender, among traditional undergraduate students attending faith-based universities. The study sought to determine if the individual's biological gender or level of religiosity had an effect on the prevalence of cyberbullying experiences. This chapter addresses all components of methodology involved for the study.

Design

This study utilized a quantitative, causal-comparative research design. A quantitative, causal-comparative design was appropriate because this study was a non-experimental investigation that sought to determine cause-and-effect relationships in groups where an independent variable was, or was not, present (or present at different levels), and to determine if groups differed on the dependent variable (Gall et al., 2007). The dependent variables for this study are the prevalence of cyberbullying victimization experiences and the prevalence of cyberbullying offending experiences. For this study, prevalence of cyberbullying experiences

scores measured how many times someone was cyberbullying victim and how many times someone was a cyberbullying offender (Hinduja & Patchin, 2015). Cyberbullying victimization is when someone is “repeatedly harassed, mistreated, or made fun of (on purpose to hurt them) online or while using cell phones or any electronic devices” (Hinduja & Patchin, 2015, p.11). Cyberbullying (offending) is when someone “repeatedly mistreats, harasses, or makes fun of another person (with the intent to hurt them) online or while using cell phones or any electronic devices” (Hinduja & Patchin, 2015, p. 11).

The independent variables in this study are biological gender (female/male) and level of religiosity (higher/lower). For this study, the definition of biological gender is female and male, determined by biological sex, as created by God (Gen. 1:27). Level of religiosity is generally defined as the frequency of church attendance, time spent in private religious activities, experiences with the Divine (God), and how one’s beliefs influence one’s behavior (Koenig et al., 1997). A higher level of religiosity indicates the individual reported a high frequency of church attendance, strong belief in God, and significant time spent in private religious activities. A lower level of religiosity indicates the individual reported little to no church attendance, little to no belief in God, and little to no time spent in private religious activities (Storch et al., 2004). This study examined the differences between the independent variables as they related to the prevalence of cyberbullying victimization experiences and cyberbullying offending experiences.

Research Questions

The research questions for this study were as follows:

RQ1: Is there a difference in the prevalence of cyberbullying victimization experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

RQ2: Is there a difference in the prevalence of cyberbullying offending experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

Hypotheses

The null hypotheses for this study are:

H₀₁: There is no difference in the prevalence of cyberbullying victimization experiences scores between female and male traditional undergraduate students attending faith-based universities.

H₀₂: There is no difference in the prevalence of cyberbullying victimization experiences scores, based on level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₃: There is no difference in the prevalence of cyberbullying victimization experiences scores, based on biological gender (female/male) and level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₄: There is no difference in the prevalence of cyberbullying offending experiences scores between female and male traditional undergraduate students attending faith-based universities.

H₀₅: There is no difference in the prevalence of cyberbullying offending experiences scores, based on level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₆: There is no difference in the prevalence of cyberbullying offending experiences scores, based on biological gender (female/male) and level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

Participants and Setting

The participants for this study included 284 participants ($N = 284$) drawn from a convenience sample of traditional undergraduate students attending two faith-based universities. The postsecondary schools are private, Christian universities where traditional undergraduate students participate in chapel services, or convocation, as part of their educational studies. Both universities also have an implicit Christian mission clearly stated in their mission statement. Both schools are located in the southern part of the United States. All traditional undergraduate students who attend chapel, or convocation, as part of the curriculum were invited to participate in the survey during the fall 2020 semester.

The traditional undergraduate students for University A comprise the following demographics: 81% are Caucasian, 6% are two or more races, 4% are African American, 2% are Hispanic/Latino, 1.0% are of Asian descent, and 5% represent other nationalities. The student-faculty ratio for University A is 12:1. The total undergraduate enrollment for University A is over 1,700 students, with a biological gender distribution of 60% female students and 40% male students. At University A, 99% of full-time undergraduate students receive some type of financial aid. Students at University A are required to attend a 50-minute chapel service three times a week.

The traditional undergraduate students for University B comprise the following demographics: 44.2% are Caucasian, 37.5% are African American, 10.4% are Hispanic/Latino, 4.5% are nonresident alien, and 3.4% represent other nationalities. The total undergraduate enrollment for University B is over 900, with a biological gender distribution of 54% male students and 46% female students. Traditional undergraduates at University B are required to have 21 spiritual growth credits per semester and the student-faculty ratio is 14:1.

The gender demographics of the sample included: 104 male participants, 78 males from University A and 26 males from University B; and 180 female participants, 140 females from University A and 40 females from University B. The sample size of 284 ($N = 284$) is more than the required minimum ($N = 144$) assuming a medium effect size with a statistical power of 0.07 at the 0.05 alpha level (Gall et al., 2007). The reason for increasing the sample size was to maximize the degree to which the results are generalizable to a wider population. Gall et al. (2007) explained that to achieve population validity, quantitative researchers must randomly select the sample from the population from which they wish to generalize the results. All students who received the survey had an equal chance to complete the survey and participate in the research.

Instrumentation

This study utilized two surveys, combined for distribution, and administered through Qualtrics XM software to obtain data from participants. The surveys used were the Cyberbullying and Online Aggression Survey (COAS) and the Duke University Religion Index (DUREL).

Cyberbullying and Online Aggression Survey

The COAS is a self-report questionnaire that measures cyberbullying victimization and offending among the population surveyed (Hinduja & Patchin, 2015; see Appendix A). This tool measures a wide range of behaviors related to cyberbullying and has demonstrated adequate psychometric properties in 10 different studies from 2009 to 2019 (Hinduja & Patchin, 2019b). The instrument was valid for this study because it measures the differences in the prevalence of cyberbullying and online aggression experiences and includes both the perpetration (offending) and victimization of the construct.

The COAS consists of two parts and includes 20 questions measured on a Likert scale from 0 to 3. The response format used to assess how often each behavior had occurred was as follows: 0 (never), 1 (once), 2 (a few times), or 3 (many times). Students were asked to respond to the question with the answer that best fit their feeling toward that behavior. The survey questionnaire began with the definition of cyberbullying that the student was to use as a guide for their answers. The students had to acknowledge that they had read and understood the definition of cyberbullying used for this research before taking the survey.

There are two scales of measurement on the COAS. One scale measures cyberbullying victimization experiences, and one measures cyberbullying offending experiences. This research study utilized both scales to measure how many times the student had been a victim of cyberbullying in their lifetime and in the past 30 days. The survey also measured how many times the student had been a cyberbully (or offender) in their lifetime and in the past 30 days. The victimization scale included 10 self-report items with an internal consistency (Cronbach's alpha) from the 10 most recent studies ranging from 0.867 to 0.935 (Hinduja & Patchin, 2019b). The cyberbullying offending scale included 10 self-report items with an internal consistency, from the 10 most recent studies, ranging from 0.793 to 0.969 (Hinduja & Patchin, 2019b). Cronbach's alpha coefficient measures internal consistency, or how closely related a set of items are as a group (Warner, 2013). The COAS met the standard of an average of 0.80 Cronbach's alpha; therefore, the survey was reliable and appropriate for this study (Gall et al., 2007).

Scoring for this instrument utilized a summary scale for each of the two sections. Each student's response score was calculated by adding the scored response of the Likert scale, with a possible score ranging from 0 to 30 for each section; a higher score indicated greater involvement with cyberbullying as a victim or as an offender. For each scale, scores closer to 0

indicated a low prevalence of cyberbullying victimization or online aggression, and scores closer to 30 indicated a high prevalence of cyberbullying victimization or online aggression. A score of 0 on the victimization questions indicated the student reported never being the victim of cyberbullying. A score of 0 on the offending questions indicated that the student reported never being involved as a cyberbullying offender.

Duke University Religion Index (DUREL)

Koenig et al. (1997) created the Duke University Religion Index (DUREL) to measure an individual's level of religiosity based on his or her organizational religious activity, non-organizational religious activity, and intrinsic religious activity (see Appendix B). According to Koenig and Büssing (2010), the instrument has been used by researchers in over 100 studies and is available in 10 languages. The DUREL has a high internal consistency (Cronbach's $\alpha = 0.71-0.91$), a high overall test-retest reliability (intra-class correlation = 0.91), and high convergent reliability when compared to other measures of religiosity ($r_s = 0.71-0.86$; Ameri, Mirzakhani, Nabipour, Khanjani, & Sullman, 2017; Koenig and Büssing, 2010; Sharma et al., 2017). The DUREL meets the standard of an average of 0.80 Cronbach's α ; therefore, the survey is reliable and was appropriate for this study (Gall et al., 2007).

The DUREL is a five-item survey consisting of three subscales that measures the following dimensions of an individual's religious involvement: (1) organizational religious activity (attendance at religious services/activities), (2) non-organizational religious activity (personal religious activities/prayer and Bible study), and (3) intrinsic religiosity (experiences the presence of the Divine (God; Koenig & Büssing, 2010; Storch et al., 2004). Question 1 measures organizational religious activity (Subscale 1) with a Likert score ranging from 1 to 6, with 1 being high involvement and 6 being low involvement. Question 2 measures non-

organizational religious activity (Subscale 2), including time spent in prayer or other private religious activities. This question uses a 6-point Likert scale from 1 (more than once a day) to 6 (never). The final three questions used a 5-point Likert scale to measure the individual's personal beliefs or intrinsic religiosity (Subscale 3) from 1 (definitely true) to 5 (definitely not true; Sharma et al., 2017). For this research, an overall score of 5–13 represented a higher level of religiosity, and a score of 14–27 represented a lower level of religiosity. The composite scores from the three subscales were used to determine an overall level of religiosity (organizational, non-organizational, and intrinsic) for this study (Storch et al., 2004).

Procedures

The researcher obtained permission to conduct the study from both universities (see Appendix H) and secured permission to use both instruments (see Appendices A and B) from the appropriate individuals. Following all approvals and a successful proposal defense, the researcher secured permission from the Liberty University Institutional Review Board (IRB) to conduct the research study (see Appendix C). Following IRB permission to begin the research, the principal investigator contacted the designated faculty representative at both participating universities to finalize survey distribution plans.

The researcher sent an email to each university with the student recruitment letter for them to disseminate to all traditional undergraduate students via their official school email address (see Appendix D). This email clearly explained the study and the length of time necessary to complete the survey (5–10 minutes). The researcher requested that the faculty representative at each university send the email to all traditional undergraduate students who attend class on campus and who are required to attend chapel or religious services as part of their degree program. The initial recruitment email was sent on Monday, September 28, 2020.

All traditional undergraduate students, 18 years of age and older, attending one of the participating universities were eligible to participate. Once the students received the recruitment email, if they chose to participate, a link provided took them to the Qualtrics XM site to take the survey. The first page of the survey contained the approved consent form, and clearly stated that the student could stop taking the survey at any time if they decided they did not want to participate in the research (see Appendix E). As part of the survey, the researcher asked students to identify their biological gender (female, male, or prefer not to answer). Upon completing the survey, the student received a thank-you email that appeared on the last page of the survey (see Appendix F). Two follow-up emails were sent to the students during the approved three-week window for research. The first follow-up email was sent on Monday, October 5, 2020, and the second follow-up email was sent on Monday, October 12, 2020, to ensure the study had the maximum amount of participation possible (see Appendix G). Students had three weeks to take the survey before the principal investigator ended the data collection portion of the research. The principal investigator sent a thank-you email to the administrators from each school who initially granted permission to conduct the study.

Data Analysis

Two separate two-way ANOVAs (analysis of variance) were utilized to analyze the data collected for this study. This analysis was appropriate because it assumes a continuous dependent variable (prevalence of cyberbullying victimization and offending experiences), a categorical independent variable (biological gender and level of religiosity) with two or more independent groups (female and male/higher level of religiosity and lower level of religiosity), and independence of observations (Warner, 2013). H_{01} and H_{04} tested the main effect of

biological gender, H₀₂ and H₀₅ tested the main effect of level of religiosity, and H₀₃ and H₀₆ tested the interaction effect of the two variables (biological gender and level of religiosity).

Once all data were collected, all submitted surveys were sorted, and only completed surveys were used for data analysis. The researcher identified 284 participants who had completed the entire survey, which is significantly more than the necessary $N = 144$ to assume for a medium effect. All data were reverse recorded and entered into the SPSS program for data analysis. Data were sorted by biological gender (female/male) and level of religiosity (higher/lower) for the victimization scale and the offending scale respectively. All data have been kept confidential and were coded to ensure students were grouped by biological gender (female – 1, male – 2) and level of religiosity (higher level of religiosity – 1, lower level of religiosity – 2).

The researcher analyzed descriptive statistics using the mean and standard deviation to determine if the groups differed on the prevalence of cyberbullying victimization and offending experiences. Data were visually screened for missing data points and incorrect entries. Data sets with missing data points or having obviously incorrect entries were omitted from the overall data set. Box-and-whisker plots were used to screen the data for extreme outliers.

A two-way ANOVA requires that the assumptions of normality and homogeneity of variances be satisfied. A Kolmogorov-Smirnov ($p > 0.05$) was run for each group of the independent variable, for each hypothesis, to test for normality because $N = 280 > 50$. A Levene's test of equality of error variances ($p > 0.05$) was also run for each hypothesis to test for homogeneity of variances. The effect size for this analysis on each hypothesis, which is the proportion of the total variance that is attributed to an effect, is reported in Chapter Four. Due to running two tests of significance, a Bonferroni correction was also used to guard against Type I

error. The alpha level was calculated as: $PC\alpha = EW\alpha/k$ where $PC\alpha$ is the experiment-wise α , typically $\alpha = .05$ and k is the number of significance tests performed, which is two in this study. Therefore, $PC\alpha = .05/2$, $PC\alpha = .025$, and rounded to $\alpha = .03$.

Summaries of all collected data and the resulting analysis will be provided to University A and University B once the researcher has defended the dissertation. Each university will then be able to use the data to assist with the process of creating new cyberbullying policies, awareness campaigns, and prevention programs based on the needs of their students. The researcher used the data collected to complete dissertation findings and recommendations.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative, causal-comparative study was to compare the main effect of gender (female/male) and level of religiosity (higher/lower) on the prevalence of cyberbullying experiences, as a victim and an offender, among traditional undergraduate students attending two faith-based universities in the southern United States during the 2020 fall semester. The independent variables are biological gender (female/male) and level of religiosity (higher/lower). The dependent variables are the prevalence of cyberbullying victimization experiences and the prevalence of cyberbullying offending experiences. This chapter includes a review of the study's research questions, followed by the six null hypotheses associated with the two research questions. In addition, the chapter reports the descriptive statistics and a complete analysis of all data collected.

Research Questions

RQ1: Is there a difference in the prevalence of cyberbullying victimization experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

RQ2: Is there a difference in the prevalence of cyberbullying offending experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities?

Null Hypotheses

H₀₁: There is no difference in the prevalence of cyberbullying victimization experiences scores between female and male traditional undergraduate students attending faith-based universities.

H₀₂: There is no difference in the prevalence of cyberbullying victimization experiences scores, based on level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₃: There is no difference in the prevalence of cyberbullying victimization experiences scores, based on biological gender (female/male) and level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₄: There is no difference in the prevalence of cyberbullying offending experiences scores between female and male traditional undergraduate students attending faith-based universities.

H₀₅: There is no difference in the prevalence of cyberbullying offending experiences scores, based on level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

H₀₆: There is no difference in the prevalence of cyberbullying offending experiences scores, based on biological gender (female/male) and level of religiosity (higher/lower), of traditional undergraduate students attending faith-based universities.

Descriptive Statistics

All respondents completed an anonymous, online survey using QualtricsXM that included four separately scored sections. The COAS instrument included 10 questions on cyberbullying victimization and 10 questions on cyberbullying aggression (offending). Each question was scored on a 3-point Likert-type scale ranging from 0 (never) to 3 (many times). The highest score for each section is 30, indicating the respondent had been a cyberbullying victim or offender many times. The lowest score for each section is 0, indicating the respondent reported never being a cyberbullying victim or offender. According to Warner (2013), reliability

is the consistency of measurement of results; therefore, a Cronbach's alpha coefficient was used to calculate reliability for each instrument, with $\alpha = > 0.70$ indicating a strong reliability. The COAS victimization scale for the participating respondents ($N = 284$) had an acceptable Cronbach's alpha coefficient with $\alpha = .708$. The COAS offending scale also had an acceptable Cronbach's alpha coefficient with $\alpha = .720$.

The third part of the survey was the DUREL, which measured the respondent's level of religiosity. The DUREL utilizes five questions that are scored on a 6-point Likert-type scale ranging from 1 (more than once a week) to 6 (never) for Questions 1 and 2 and a 5-point Likert-type scale for ranging from 1 (definitely true of me) to 6 (rarely or never) Questions 3 through 5. Cronbach's alpha coefficient for the DUREL was $\alpha = .857$, indicating a high internal consistency for the instrument. Finally, the survey included a researcher-created demographic question to collect data on the respondent's biological gender. To analyze the data, the following dummy codes were used: females were coded as 1, males were coded as 2, and those who preferred not to answer were coded as 3.

The research sample includes 284 ($N = 284$) students from both participating universities who submitted completed surveys with all information needed. Three hundred and twenty-four responses were received; however, 40 were incomplete or did not contain sufficient information to be included in the study. The majority of the respondents (218 or 76.7%) were traditional undergraduate students at University A, while the remaining 66 respondents (23.3%) were traditional undergraduate students at University B. The sample includes 180 female students (62.7%) and 104 male students (36.3%). The raw scores on the DUREL ranged from 5 to 27 ($M = 10.51$, $SD = 4.71$). Each respondent's raw scores on the DUREL were calculated, and a level of religiosity was assigned. Of the 284 participants ($N = 284$), 209 (73.9%) scored a 13 or

below, indicating a higher level of religiosity, and 75 (26.1%) scored a 14 or above, indicating a lower level of religiosity. Descriptive statistics are provided for cyberbullying victimization by gender and level of religiosity (see Table 1).

Table 1

Descriptive Statistics: Cyberbullying Victimization

Gender	Level of religiosity	<i>M</i>	<i>SD</i>	<i>n</i>
Female	Higher	1.22	2.185	134
	Lower	1.28	1.361	46
	Total	1.23	2.003	180
Male	Higher	0.81	1.123	75
	Lower	1.45	2.245	29
	Total	0.99	1.536	104
Total	Higher	1.07	1.881	209
	Lower	1.35	1.744	75
	Total	1.14	1.847	284

Descriptive statistics were also calculated for cyberbullying offending experiences based on the two independent variables of gender (female/male) and level of religiosity (higher/lower) with a composite total score (see Table 2).

Table 2

Descriptive Statistics: Cyberbullying Offending Scale

Gender	Level of religiosity	<i>M</i>	<i>SD</i>	<i>n</i>
Female	Higher	.19	0.523	134
	Lower	.37	0.903	46
	Total	.23	0.644	180
Male	Higher	.47	1.245	75
	Lower	.52	0.986	29
	Total	.48	1.174	104
Total	Higher	.29	0.863	209
	Lower	.43	0.932	75
	Total	.32	0.882	284

Results

Two, two-way analyses of variance (ANOVA) were utilized to compare total scores on the COAS victimization and COAS offending scales, respectively, with two categorical independent variables. The two categorical independent variables were gender (female or male) and level of religiosity (higher or lower). The following section includes a description of the assumption testing utilized to ensure all data met the necessary assumptions for each two-way ANOVA. An analysis of each research hypothesis is also included in this section.

Data Screening

To test for extreme outliers for the dependent variables of cyberbullying victimization and cyberbullying offending, four separate box-and-whisker plots were used (see Figures 1–4). Extreme outliers were detected in all four plots; however, the researcher made a judgment call to include the extreme outliers because they are important to the overall outcome of the study. According to Warner (2013), it is a researcher's decision to include, or not include, outliers based on the study and the sample size. Two extreme outliers (7, 117) were found for female cyberbullying victimization experiences scores, and one extreme outlier (273) was found for male cyberbullying victimization experiences scores. Two extreme outliers (7, 117) were found for cyberbullying victimization experiences of students with higher levels of religiosity, and one extreme outlier (273) was found for students with lower levels of religiosity. Four extreme outliers (137, 138, 140, and 150) were found for female cyberbullying offending experiences scores, and five extreme outliers (205, 256, 244, 267, and 269) were found for male cyberbullying offending experiences scores. Four extreme outliers (199, 205, 234, and 244) were found for students who were cyberbullying offenders with higher levels of religiosity, and

four extreme outliers (138, 163, 267, and 269) were found for cyberbullying offenders with lower levels of religiosity.

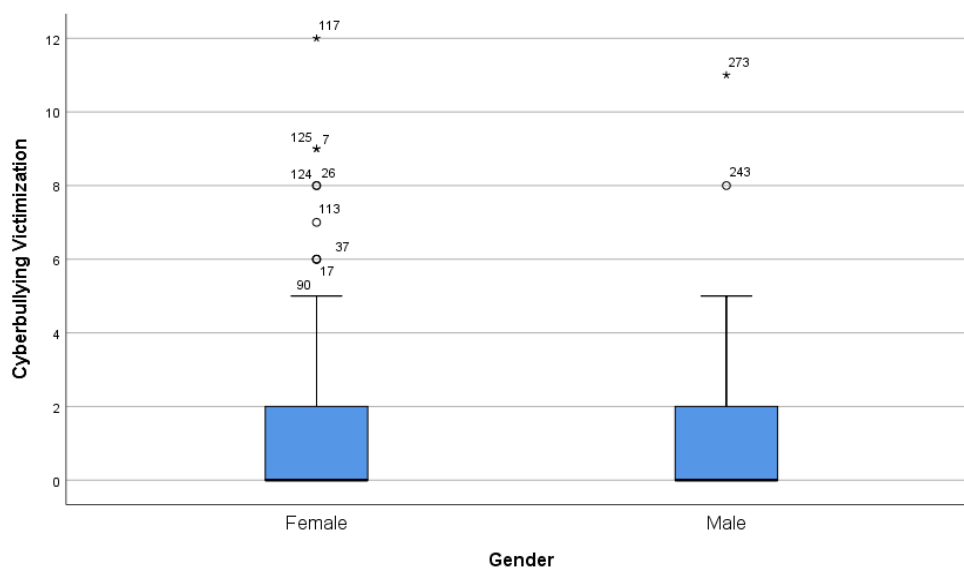


Figure 1. Box-and-whisker plot for cyberbullying victimization and gender.

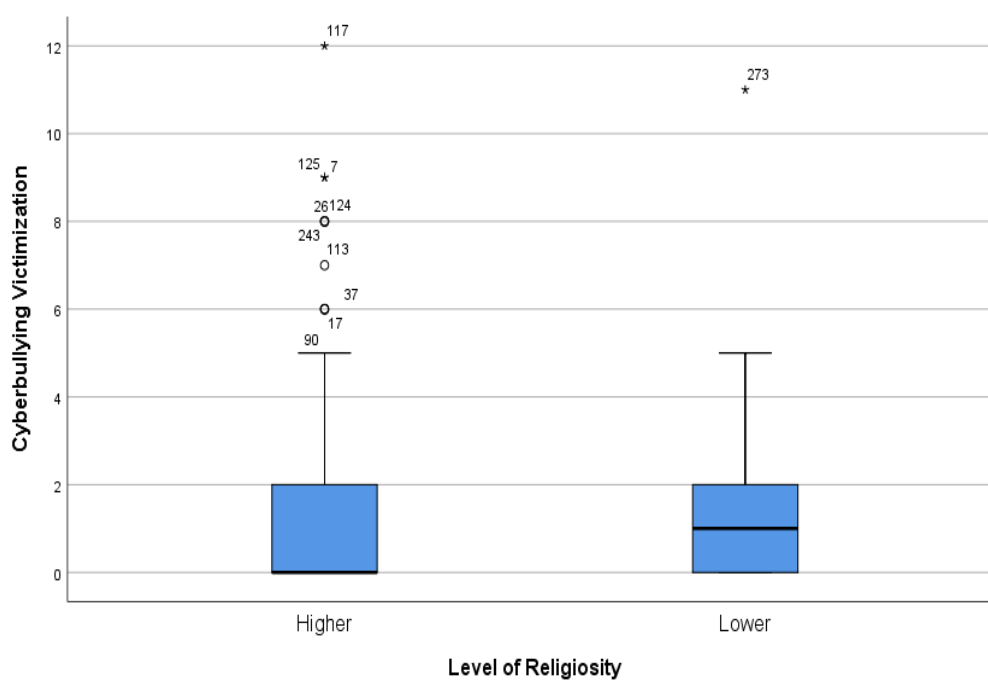


Figure 2. Box-and-whisker plot for cyberbullying victimization and level of religiosity.

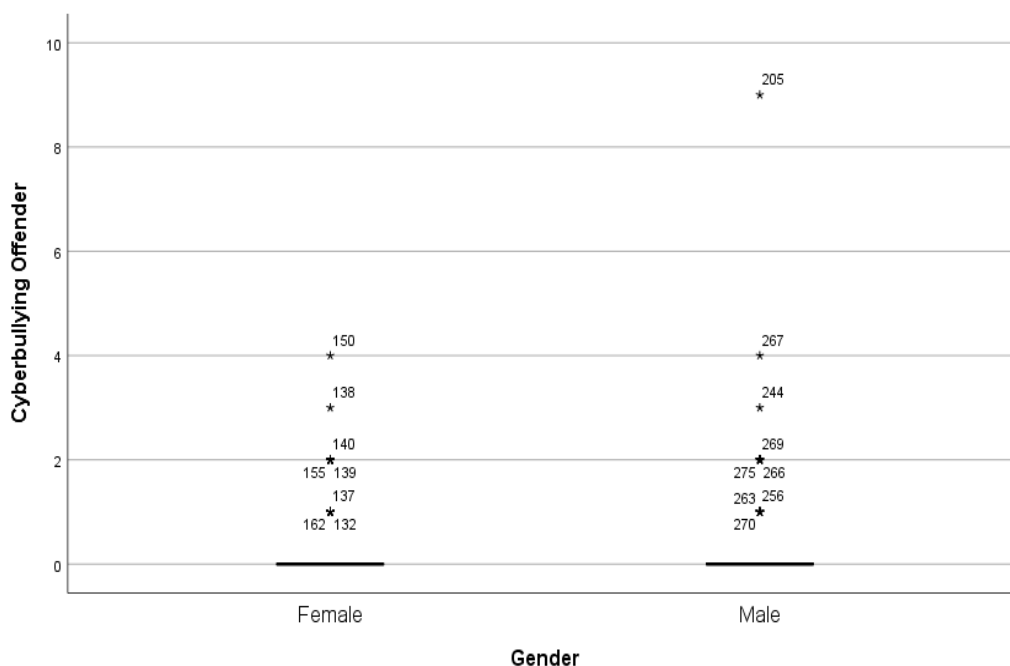


Figure 3. Box-and-whisker plot for cyberbullying offending and gender.

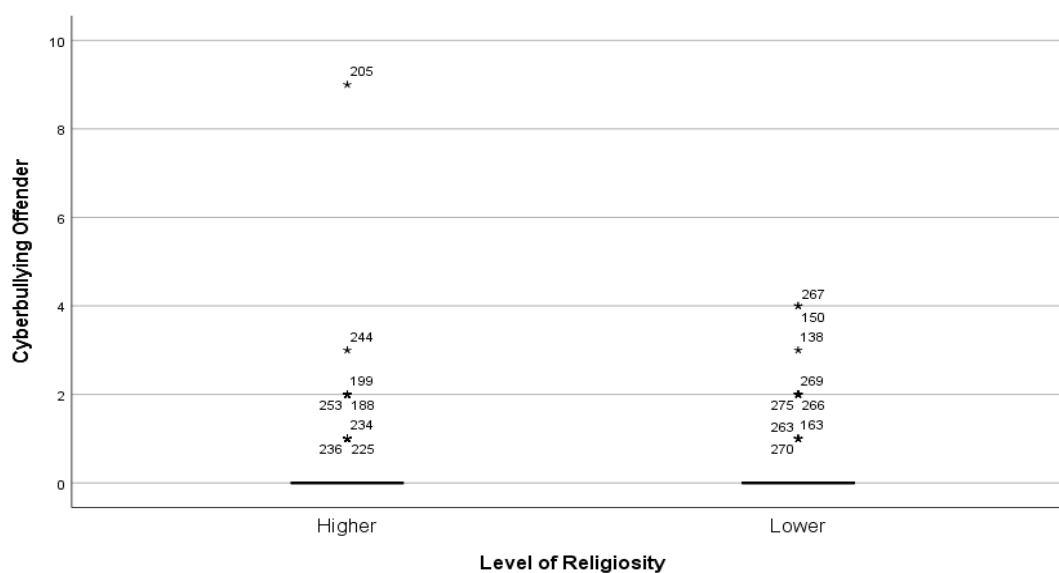


Figure 4. Box-and-whisker plot for cyberbullying offender and level of religiosity.

Assumptions

The assumption of normality was tested using the Kolmogorov-Smirnov test for both independent variables, and the results were significant for all groups; therefore, the null hypotheses were rejected for the assumption of a normal distribution across gender and level of

religiosity (see Tables 3 and 4). Although this assumption was not tenable, the two-way ANOVA analysis is robust enough to handle violations of this assumption (Warner, 2013).

Levene's test of equality of error variances was used to determine homogeneity of variance for both scales. A two-way ANOVA assumes for the dependent variable that the population variances are equal for all groups of the independent variables. For cyberbullying victimization, the test was not significant, $F(3, 280) = 1.20, p = 0.31$. For cyberbullying offending, the test was not significant, $F(3, 280) = 2.27, p = 0.08$. Therefore, the assumption of variances was found to be tenable for this study. Due to running two tests of significance, a Bonferroni correction was used to guard against Type I error. The alpha level was calculated as: $PC\alpha = EW\alpha/k$ where, $PC\alpha$ is the experiment-wise α , typically $\alpha = .05$ and k is the number of significance tests performed, which is 2 in this study. Therefore, $PC\alpha = .05/2$, $PC\alpha = .025$, and rounded to $\alpha = .03$.

Table 3

Tests of Normality: Cyberbullying Victimization Scale

Independent variable	<i>n</i>	Kolmogorov-Smirnov		
		Statistic	<i>Df</i>	<i>Sig.</i>
Gender				
Male	104	.279	104	<.001
Female	180	.303	180	<.001
Level of religiosity				
Higher	209	.314	209	<.001
Lower	75	.233	75	<.001

Table 4

Tests of Normality: Cyberbullying Offending Scale

Independent variable	<i>n</i>	Kolmogorov-Smirnov		
		Statistic	<i>Df</i>	<i>Sig.</i>
Gender				
Male	104	.419	104	<.001
Female	180	.503	180	<.001
Level of religiosity				
Higher	209	.468	209	<.001
Lower	75	.463	75	<.001

Results for Null Hypothesis One

A two-way ANOVA was used to test the first null hypothesis regarding differences in the prevalence of cyberbullying victimization experiences scores between female and male traditional undergraduate students attending faith-based universities (see Table 5). The null hypothesis was not rejected at a 95% confidence level where $F(1, 280) = .215, p = .643, n^2 = .001$. The effect size was small. There was no significant difference in the prevalence of cyberbullying victimization experiences scores between traditional undergraduate female students ($M = 1.25, SD = 0.16$) and traditional undergraduate male students ($M = 1.13, SD = 0.20$) attending faith-based universities.

Results for Null Hypothesis Two

A two-way ANOVA was used to test the second null hypothesis regarding differences in the prevalence of cyberbullying victimization experiences scores based on level of religiosity (higher/lower) among traditional undergraduate students attending faith-based universities (see Table 5). The null hypothesis failed to be rejected at a 95% confidence level where $F(1, 280) = 1.88, p = .172, n^2 = .007$. The effect size was small. There was no significant difference in the prevalence of cyberbullying victimization experiences scores between traditional undergraduate students with a higher level of religiosity ($M = 1.01, SD = 0.13$) and traditional undergraduate

students with a lower level of religiosity ($M = 1.36$, $SD = 0.22$) who attend faith-based universities.

Results for Null Hypothesis Three

A two-way ANOVA was used to test the third null hypothesis regarding the interaction of prevalence of cyberbullying victimization experiences scores based on biological gender (female/male) and level of religiosity (higher/lower) among traditional undergraduate students attending faith-based universities (see Table 5). The null hypothesis failed to be rejected at a 95% confidence level where $F(1, 280) = 1.23$, $p = .267$, $n^2 = .004$. The effect size was small. There was no significant difference between the prevalence of cyberbullying victimization experiences scores for traditional undergraduate female students with a higher level of religiosity ($M = 1.22$, $SD = 2.18$) and the prevalence of cyberbullying victimization experiences scores for traditional undergraduate male students with a higher level of religiosity ($M = 0.81$, $SD = 1.12$) who attend faith-based universities. There was also no significant difference between the prevalence of cyberbullying victimization experiences scores for traditional undergraduate female students with a lower level of religiosity ($M = 1.28$, $SD = 1.36$) and the prevalence of cyberbullying victimization experiences scores for traditional undergraduate male students with a lower level of religiosity ($M = 1.45$, $SD = 2.24$) who attend faith-based universities.

Results for Null Hypothesis Four

A two-way ANOVA was used to test the fourth null hypothesis regarding differences in the prevalence of cyberbullying offending experiences scores between female and male traditional undergraduate students attending faith-based universities (see Table 6). The null hypothesis failed to be rejected at a 95% confidence level where $F(1, 280) = 3.10$, $p = .080$, $n^2 = .011$. The effect size was small. There was no significant difference in the prevalence of

cyberbullying offending experiences scores between traditional undergraduate female students ($M = 0.28$, $SD = 0.08$) and traditional undergraduate male students ($M = 0.49$, $SD = 0.10$) who attend faith-based universities.

Results for Null Hypothesis Five

A two-way ANOVA was used to test the fifth null hypothesis regarding differences in the prevalence of cyberbullying offending experiences scores based on level of religiosity (higher/lower) among traditional undergraduate students attending faith-based universities (see Table 6). The null hypothesis failed to be rejected at a 95% confidence level where $F(1, 280) = 0.92$, $p = .338$, $n^2 = .003$. The effect size was small. There was no significant difference between the prevalence of cyberbullying offending scores of traditional undergraduate students with a higher level of religiosity ($M = 0.33$, $SD = 0.06$) and the prevalence of cyberbullying offending scores of traditional undergraduate students with a lower level of religiosity ($M = 0.44$, $SD = 0.10$) who attend faith-based universities.

Results for Null Hypothesis Six

A two-way ANOVA was used to test the sixth null hypothesis regarding the interaction of prevalence of cyberbullying offending experiences scores based on biological gender (female/male) and level of religiosity (higher/lower) among traditional undergraduate students attending faith-based universities (see Table 6). The null hypothesis failed to be rejected at a 95% confidence level where $F(1, 280) = 0.30$, $p = .586$, $n^2 = .001$. The effect size was small. There was no significant difference in the prevalence of cyberbullying offending experiences scores for traditional undergraduate female students with a higher level of religiosity ($M = 0.19$, $SD = 0.52$) and traditional undergraduate male students with a higher level of religiosity ($M = 0.47$, $SD = 1.24$) who attend faith-based universities. There was also no significant difference

between the prevalence of cyberbullying offending experiences scores for traditional undergraduate female students with a lower level of religiosity ($M = 0.37$, $SD = 0.90$) and the prevalence of cyberbullying offending experiences scores for traditional undergraduate male students with a lower level of religiosity ($M = 0.52$, $SD = 0.99$) attending faith-based universities.

Table 5

Results of Two-Way Analysis of Variance: Cyberbullying Victimization

Source	Type III SS	df	MS	F	Sig.	Partial eta sq.
Corrected model	12.472	3	4.157	1.222	.302	.013
Intercept	294.265	1	294.265	86.493	.000	.236
Gender	.732	1	0.732	0.215	.643	.001
Religiosity level	6.383	1	6.383	1.876	.172	.007
Gender*religiosity	4.200	1	4.200	1.235	.267	.004
Error	952.609	280	3.402			
Total	1337.000	284				
Corrected total	965.081	283				

Table 6

Results of Two-Way Analysis of Variance: Cyberbullying Offending

Source	Type III SS	df	MS	F	Sig.	Partial eta sq.
Corrected model	5.236	3	1.745	2.273	.080	.024
Intercept	30.794	1	30.794	40.112	.000	.124
Gender	2.376	1	2.376	3.095	.080	.011
Religiosity level	0.708	1	0.708	0.923	.338	.003
Gender*religiosity	0.228	1	0.228	0.297	.586	.001
Error	214.961	280	0.768			
Total	250.000	284				
Corrected total	220.197	283				

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this final chapter is to review the findings of this study and provide an analysis of each research question in light of previous research discussed in Chapter Two. The researcher will provide an in-depth analysis comparing and contrasting the present research with prior studies and discuss possible implications of this research study. The chapter will conclude with a discussion of the limitations of the study and recommendations for future research.

Discussion

The purpose of this quantitative, causal-comparative study was to determine whether there are differences in the prevalence of cyberbullying experiences scores (victimization and offending) based on biological gender (female/male) and level of religiosity (higher/lower) among traditional undergraduate students attending faith-based universities. The goal of the study was to provide relevant, up-to-date statistical data to stakeholders at faith-based universities to assist in planning and implementing campus safety protocols that include the construct of cyberbullying. The participants in this study were from two small, faith-based universities in the southern part of the United States, where students are required to attend chapel or convocation as part of their undergraduate studies. Of the 284 ($N = 284$) participants, 180 (63.3%) were females and 66 (36.7%) were males, with 209 (73.5%) students answering questions on the DUREL that indicated a higher level of religiosity, and 75 (26.5%) reporting answers indicating a lower level of religiosity. All of the students completed the 25-question survey with one demographic question asking them to identify their biological gender, female or male, as defined by God (Gen. 1:27). Three students did indicate they preferred not to answer the question of gender; therefore, the scores from those three surveys were not included in the

data set. Scores for all three sections of the survey (COAS for victimization, COAS for offending, and the DUREL) were entered into SPSS, where data were reviewed, descriptive statistics were aggregated, and data were screened for extreme outliers. Data screening revealed extreme outliers for all of the independent variables; however, when the outliers were removed, the significance did not change and the researcher kept the extreme outliers because the two-way ANOVA is robust enough to handle the data with the sample size $N = 284$. A two-way ANOVA was conducted for each research question to determine if the categorical independent variables differed when compared to the continuous dependent variable. Assumption testing was conducted for each research question as well, and the Kolmogorov-Smirnov resulted in $p < 0.05$; therefore, the null hypotheses were rejected for assumption of normality. However, the Levene's test of equality of error variances, which was run for each research question, produced results that validated the assumption of equality of variance was tenable.

The first research question sought to determine if there was a difference in the prevalence of cyberbullying victimization experiences scores, based on biological gender (female/male) and level of religiosity (higher/lower), among traditional undergraduate students attending faith-based universities. The two-way ANOVA showed that there was not a significant difference in the prevalence of cyberbullying victimization experiences scores when testing the main effect of gender ($p = .643$). It also showed that there was no significant difference when testing the main effect of level of religiosity ($p = .172$) or the interaction of the two independent variables, gender and level of religiosity ($p = .267$). When looking at the overall score (lifetime and last 30 days) for prevalence of cyberbullying victimization experiences, 57.2% of females and 53.8% of males indicated they had never been a victim of cyberbullying. Examining the overall victimization scores, based on level of religiosity, revealed that 59.8% of students with a higher level of

religiosity indicated they had never been a victim of cyberbullying, while 45.3% of students with a lower level of religiosity indicated they had never been victims of cyberbullying.

Cyberbullying prevalence rates have varied across studies that have been conducted (Webber & Ovedovitz, 2018). When considering other research, it is also important to look at the percentage of students that did report being cyberbullying victims. Webber and Ovedovitz (2018) conducted a study at a large Catholic university to examine prevalence rates but did not examine level of religiosity. Their study revealed prevalence rates of 4.3% among students while they were attending university, whereas 27.8% indicated having been a cyberbullying victim before attending university. In comparison, the present study showed prevalence rates of 4.9% among students during the last 30 days (while the students were attending university), and in contrast, this study revealed that 41.9% of students reported being a victim of cyberbullying at some point during their lifetime. This study supports the low prevalence rates found by Webber and Ovedovitz (2018) among university students at a faith-based university; however, there is a distinct difference in the lifetime prevalence rates, indicating a need for further research in this area. Zacchilli and Valerio (2011) also conducted a study at a Catholic university, and they found that 1% of freshman reported being a victim and 2.9% of seniors reported the same. This study would reinforce that research, although students in this study were not surveyed based on academic standing.

Pörhöla (2016) conducted a study among university students at a secular university and found that 50% of students reported being cyberbullied during Grades K-12. This study is comparable to that study in that prevalence rates for students who were victims of cyberbullying sometime during their life was 41.9%. More research on prevalence rates among different

demographic groups to compare and contrast factors that influence cyberbullying behaviors is recommended.

Webber and Ovedovitz (2018) also reported victimization by gender. Of their 187 participants, 99 were females and 88 were males. They found that seven females reported victimization while attending university and one male reported being a victim. The present study had 284 ($N = 284$) participants with 180 females and 104 males. Of the 180 females, 10 reported being a victim of cyberbullying in the last 30 days (5.5%), whereas four males reported being a victim (3.8%) in the same time-period. Although there were more females who reported victimization, due to the sample size of the present study, there is not a statistically significant difference.

In addition, this study added to the miniscule body of research on cyberbullying at faith-based universities by examining level of religiosity and cyberbullying victimization. Of the 284 participants, 134 females (74.4%) reported a higher level of religiosity and 46 (25.6%) reported a lower level of religiosity; moreover, 75 males (72.1%) reported a higher level of religiosity and 29 males (27.9%) reported a lower level of religiosity. Of the female students surveyed who had higher levels of religiosity, 38.1% reported being a victim of cyberbullying during their lifetime. The prevalence of cyberbullying victimization experiences (overall score) among female students with lower levels of religiosity was 56.5%. Additionally, 44% of male participants with higher levels of religiosity reported being a victim during their lifetime; furthermore, 51.7% of males with lower levels of religiosity reported they had been a victim. This is a significant finding for this study because it reveals that students are victims of cyberbullying regardless of their religious background or beliefs. Although the victimization rates were small for the last 30 days compared to victimization rates during the student's lifetime, there were still eight students

who reported they had been cyberbullied in this time-period; therefore, this research is important to understanding student behavior and can assist administrators and stakeholders in addressing student safety. Examining the construct among university students, based on academic standing and over a longer period of time, may give clearer insight into the potential scope of the issue. Although the percentages appear to be greater among students with lower levels of religiosity, when considering the sample size, the statistical data did not support rejecting the null hypothesis that gender and level of religiosity did not have an effect of prevalence rates of victimization experiences.

The second research question sought to determine the prevalence of cyberbullying offending experiences, based on biological gender and level of religiosity, among traditional undergraduate students attending faith-based universities. The two-way ANOVA conducted for this research question showed that there was no significant difference in the prevalence of cyberbullying offending experiences scores when testing the main effect of gender ($p = .080$). It also showed that there was no significant difference when testing the main effect of level of religiosity ($p = .338$) or the interaction of the two independent variables, gender and level of religiosity ($p = .586$), on the dependent variable of cyberbullying offending experiences.

In the Webber and Ovedovitz (2018) study, the prevalence of cyberbullying offending experiences among students at a large, Catholic university was 7.5% while attending university and 7.5% reported being a cyberbully prior to attending university. The present study found that 16.9% of participants reported being a cyberbully in their lifetime; however, only 0.07% reported having any cyberbullying offending experiences in the last 30 days (while attending university). Although the prevalence rates for lifetime offending is higher in this study, the sample size is also larger. Based on the data collected from the sample ($N = 284$), the researcher asserts that

students in this study were not actively participating as a cyberbully while attending university during the time-period surveyed. Zacchilli and Valerio (2011) also found small incidents of cyberbullying offending among college students, with prevalence rates of 8.6% among freshman and seniors while attending college; therefore, this study reinforces previous studies that prevalence rates of cyberbullying offending experiences at faith-based universities appear to be low. There are so few studies in this area that further research with larger populations would be beneficial to this field of study.

The examination of levels of religiosity and cyberbullying was unique to this research study. Although the null hypotheses for cyberbullying offending experiences were not rejected, there is valuable information gleaned from this study to help fill the gap in the literature. Of the 284 participants ($N = 284$), 134 females and 75 males had higher levels of religiosity, with 19.4% of females and 18.6% of males indicating they had been a cyberbully in their lifetime. Among the same population, 46 females and 29 males had lower levels of religiosity, with 8.6% of females and 13.7% of males indicating they had been a cyberbully in their lifetime. One might assume that students attending a faith-based institution would make decisions about how to treat others based on Scripture. In Scripture, the second greatest commandment is to love one's neighbor as oneself (Mark 12:31); therefore, the fact that there are higher prevalence rates for students with higher levels of religiosity could indicate disconnected thinking between faith and moral issues. These numbers line up with the research by Hudson and Díaz Pearson (2018) that indicated that only 14% of students who attended a faith-based institution believed that faith played a role in their understanding of morality.

Framed within the TRA and the TPB, cyberbullying is a behavior that the bully can control; however, it also involves the individual's normative beliefs, which take into account the

expectations of others. It is possible that self-reporting of a negative behavior (cyberbullying offending) is difficult because the students understand expectations within a Christian worldview and answered accordingly. The prevalence rate of 0.07% of cyberbullying offending in the last 30 days demonstrates how this may have been a factor in this study. Reporting of cyberbullying victimization was much higher, and although there may be more victims than offenders, the possibility that the student understands that there is empathy for victims may have influenced their willingness to report those behaviors. Within the TRA, this is the person's attitude toward a behavior, which can then influence his or her actions. The research on religiosity and cyberbullying is limited; therefore, the data from this study adds to the body of research to help improve and identify factors that may or may not influence cyberbullying behaviors and reporting.

Implications

Research has been conducted at some secular universities to determine cyberbullying prevalence, and although those rates vary, studies at faith-based universities are scant. This study is unique in adding the level of religiosity as a factor to the overall study of the construct. This research demonstrates that gender and level of religiosity are not significant factors in influencing the prevalence rates of cyberbullying victimization and offending experiences scores; however, it does open the doors for future research to investigate further how one's religious beliefs affect one's behaviors. It also provides confirmation that prevalence rates are low at the few faith-based universities that have been studied for both victims and offenders while they are attending university.

Even though the prevalence rates are low at faith-based universities, students did report being victims of cyberbullying. This information is useful for stakeholders at faith-based

universities who can use this data to reinforce campus safety plans and better understand the challenges facing students before they arrive at college and while they are on campus.

Cyberbullying can cause students of all ages to experience disruption in many areas of their lives (Williford & Depaolis, 2016); therefore, knowing if a student has been cyberbullied in their lifetime can provide relevant statistical data for college counselors to enable them to meet the needs of incoming freshmen. Data related to cyberbullying offending did not indicate that students had been cyberbullying offenders in the last 30 days. This may be a result of the student being hesitant to report aggressive behaviors for fear of being discovered, or it may be an indicator that cyberbullying offending is not a prevalent issue at faith-based universities. More research is needed in this area to make definitive conclusions.

Another implication of this research is the number of students attending the faith-based universities who reported having lower levels of religiosity. Of the 284 participants, 209 (73.5%) indicated they had a higher level of religiosity, which reasons that they believe in God, they participate in organized and non-organized religious activities, and that God influences their behavior and life choices. The other 75 (26.5%) indicated they had a lower level of religiosity, which represents answers indicating that they have little to no participation in organized and non-organized religion and do not believe God influences their lives and life decisions. Of the 209 participants who reported higher levels of religiosity, 134 were female and 75 were male. Of the 75 participants that indicated a lower level of religiosity, 46 were female and 29 were male. This information is valuable because stakeholders at faith-based universities may assume that students who choose to attend have strong levels of faith since they are required to attend chapel or convocation as part of their educational studies. This research shows that 26.5% of the participants in this study do not have a strong faith, and many indicated God does not influence

their behaviors. Focusing on spiritual growth and discipleship can also influence a student's behaviors, how the student acts on campus, in the community, and eventually in the workforce (Quinn & Lewin, 2019). These would all be important aspects for a faith-based university to consider.

Limitations

When conducting research, the opportunities for limitations to arise during the course of the study are inevitable; however, understanding the limitations can give a more accurate picture of the research and provide useful information for future researchers. The first limitation was the number of participating schools. This study was conducted at two small, faith-based universities in the southern part of the United States. The researcher contacted 15 faith-based universities in the same geographic region; however, only two universities were willing to participate. If more schools had participated, there may have been greater opportunity to increase the sample size and gain a broader perspective of the prevalence of cyberbullying experiences (victim and offender) among this demographic.

A second limitation was the sample size. Out of the approximately 2,000 traditional undergraduate students who received the recruitment email, 324 responded; however, only 287 surveys were completed. Of those 287, three had to be removed because the student chose not to share their biological gender; therefore, the final sample size was $N = 284$. The small sample size produced results that were not statistically significant; however, the result may not accurately reflect the prevalence of cyberbullying victimization and offending experiences among all traditional undergraduate students attending faith-based universities. The sample was also not evenly distributed by gender or university. More females (62.7%) completed the survey than males (36.3%), and a greater percentage of students from University A (76.7%) participated

than students from University B (23.3%). This is a limitation because the study sought to determine prevalence based on biological gender. The survey was available via an anonymous link, so there was also no way to reward the students for participating, adding to the potential reasons for the small sample size. Although the survey was anonymous, students may have seen that the survey was on cyberbullying and might have not wanted to take the chance that any information they shared could be traced back to them. The sample size may have been small because of the limited recruitment, as well.

Another limitation was the student recruitment procedures. The students received the survey via an anonymous link in a recruitment email on Monday of week one that the research was scheduled to begin, and a reminder email was subsequently sent on the Monday of week two and week three. The initial recruitment email was long, wordy, and not easy to navigate. The reminder emails did produce results; however, the survey responses were dramatically lower on the days the students did not receive the reminder email. This limitation could be avoided by including some form of chapel announcement on a different day explaining the research and inviting students to participate. Designing a more user-friendly recruitment email would also be beneficial.

The researcher also notes that a limitation exists in that the students only had a three-week window of time to participate in this research. Students at the postsecondary level are busy, and this survey dropped in the middle of the semester when midterms were underway. If the amount of time allotted for research was increased from three to six weeks, there would potentially have been a greater opportunity to recruit more students and avoid overwhelming the students during a particularly busy time of the semester.

The anonymous, self-reported survey is also a limitation for this study. According to Gall et al. (2007), self-reported data leave room for an increase in participant bias and subjectivity. Data falsely reported can also potentially skew results. Bullying is a difficult topic, and admitting to being a bully is not easy (even in an anonymous survey). Students attending faith-based universities tend to have the pressure of the institution's Christian worldview and might struggle to report data accurately because of the pressure to behave as expected.

Finally, the scoring of the DUREL, although accurate, was not divided into the three different sections (organized religious activity, non-organizational religious activity, and intrinsic religiosity) for scoring and evaluation purposes. For this research, the instrument was used to determine a composite score, which was then used to assign a level of religiosity for comparative purposes. This limitation could be avoided in future research by doing a correlational study and scoring the subsections individually, then comparing them to cyberbullying prevalence.

Recommendations for Future Research

This research study examined cyberbullying among university students at faith-based universities. University students as a whole and more specifically university students at faith-based postsecondary institutions are both populations that have been understudied, especially when compared with students in Grades K-12, in cyberbullying research (Khine et al., 2020; Orel et al., 2017; Slovak et al., 2015; Webber & Ovedovitz, 2018). This research added to the gap in the literature; however, there is more that can be done among university students and university students attending faith-based universities. In light of the findings and subsequent limitations of this research study, recommendations for future research in this field include:

1. Investigate the differences in cyberbullying prevalence rates among students who attend secular universities in comparison to students who attend faith-based universities.
Suggested demographic questions are gender, race, religion, and grade point average.
2. Investigate the prevalence of cyberbullying at faith-based universities in different regions of the country to determine if one's geographic region is a mitigating factor.
3. Revisit the participating schools to investigate the students' level of religiosity and investigate if a student's level of religiosity correlates with choosing to attend a faith-based university.
4. Conduct a broader study among students attending faith-based universities to determine if there is a correlation between level of religiosity and prevalence of cyberbullying experiences.
5. Investigate cyberbullying experiences using a qualitative design with focus groups to determine the effect of cyberbullying on college students and which types of cyberbullying are prevalent among this demographic.

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APPENDIX A: CYBERBULLYING AND ONLINE AGGRESSION SURVEY

Cyberbullying Victimization Questions (Hinduja & Patchin, 2019a)

Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person (on purpose to hurt them) online or while using cell phones or other electronic devices.

In the last 30 days, I have been cyberbullied.

Never (0); Once (1); A few times (2); Many times (3)

In the last 30 days, I have been cyberbullied in these ways...

Never (0); Once (1); A few times (2); Many times (3)

1. I have been cyberbullied
2. Someone posted mean or hurtful comments about me online
3. Someone posted a mean or hurtful picture of me online
4. Someone posted a mean or hurtful video of me online
5. Someone created a mean or hurtful web page about me
6. Someone spread rumors about me online
7. Someone threatened to hurt me through a cell phone text message
8. Someone threatened to hurt me online
9. Someone pretended to be me online and acted in a way that was mean or hurtful

Cyberbullying Offending Questions

Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person (on purpose to hurt them) online or while using cell phones or other electronic devices.

In the last 30 days, I have cyberbullied others.

Never (0); Once (1); A few times (2); Many times (3)

In the last 30 days, I have cyberbullied others in these ways...

Never (0); Once (1); A few times (2); Many times (3)

1. I cyberbullied others
2. I posted mean or hurtful comments about someone online
3. I posted a mean or hurtful picture online of someone
4. I posted a mean or hurtful video online of someone
5. I spread rumors about someone online
6. I threatened to hurt someone online
7. I threatened to hurt someone through a cell phone text message
8. I created a mean or hurtful web page about someone
9. I pretended to be someone else online and acted in a way that was mean or hurtful to them

Permission to use Cyberbullying and Online Aggression Survey Instrument

February 17, 2020

Dr. Sameer Hinduja

Cyberbullying Research Center

www.cyberbullying.org

Dear Dr. Hinduja:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for an Ed.D. in Curriculum and Instruction. The title of my research project is Prevalence of Cyberbullying among Traditional Undergraduate Students Attending Faith-Based Universities: A Causal-Comparative Study. The purpose of my research is to determine the prevalence of cyberbullying by examining the construct based on gender and level of religiosity among traditional undergraduate students attending faith-based universities. It will also seek to assist faith-based universities in addressing this timely issue by providing up-to-date, relevant data for the administration and faculty, so they can better facilitate the online safety of their students.

I am writing to request your permission to utilize the Cyberbullying and Online Aggression Survey Instrument designed by Dr. Justin Patchin and yourself. The research will be conducted among traditional undergraduate students attending faith-based universities. Participants will be asked to complete the survey anonymously via a link sent to their assigned university email address. Participants will be presented with informed consent information prior to participating. Taking part in this study will be voluntary, and participants will be welcomed to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement indicating your approval for me to use your instrument and send it to me at [REDACTED]. If I need to write to Dr. Patchin, to gain his approval, please indicate that in your response. I look forward to hearing from you and appreciate your time.

Sincerely,

Susan Hayes-McElroy, Ed.S.
Doctoral Candidate
Liberty University

From: Sameer Hinduja <[REDACTED]>
Sent: Monday, February 17, 2020 6:45 PM
To: McElroy, Susan <[REDACTED]>
Subject: [External] RE: Permission to use Cyberbullying Instrument

Hi Susan,
 You have our permission; please cite our Center, our Center's URL, and any papers, as well as us in your literature review as relevant.

Thanks,

Sameer

Sameer Hinduja, Ph.D.
 Co-Director, Cyberbullying Research Center
 Editor-in-Chief, International Journal of Bullying Prevention
 Professor of Criminology and Criminal Justice
 Florida Atlantic University
 [Redacted]

Permission to publish the Cyberbullying and Online Aggression Survey

From: McElroy, Susan <[REDACTED].edu>
Sent: Thursday, January 21, 2021 5:23 PM
To: Sameer Hinduja <[REDACTED].org>
Cc: Park, Meredith (Doctor of Education) <[REDACTED]>
Subject: Permission to Publish Cyberbullying and Online Aggression Survey

Dear Dr. Hinduja,

On February 17, 2020, you gave permission, via email, for me to use the Cyberbullying and Online Aggression Survey (COAS) for my dissertation research. I have completed my dissertation; however, to be allowed to publish the COAS questions in my appendices, I need your written permission.

If you could reply with a statement that I have your permission to publish the questions with my dissertation, I would be grateful. Please know it would be appropriately cited. If I do not have permission, please let me know, so I can proceed accordingly. Thank you, again!

Sincerely,

Susan Hayes-McElroy
 Doctoral Candidate/Liberty University

From: Sameer Hinduja <[REDACTED]>
Sent: Friday, January 22, 2021 1:18 PM
To: McElroy, Susan <[REDACTED]>
Cc: Park, Meredith (Doctor of Education) <[REDACTED]>
Subject: [External] RE: Permission to Publish Cyberbullying and Online Aggression Survey

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Hi Susan,

You have our permission as long as you provide proper attribution.
Thanks and Congratulations!
Sameer

Sameer Hinduja, Ph.D.
Co-Director, Cyberbullying Research Center
Editor-in-Chief, International Journal of Bullying Prevention
Faculty Associate, Berkman Klein Center, Harvard University
Professor of Criminology and Criminal Justice, Florida Atlantic University

APPENDIX B: DUKE UNIVERSITY RELIGION INDEX (DUREL)

DUREL: Duke University Religion Index (Koenig, Parkerson, & Meador, 1997).

Directions: Circle the number in front of the answer that most accurately describes your usual behavior or belief (circle only ONE answer for each question).

(1) How often do you attend church or other religious meetings?

1. More than once/wk
2. Once a week
3. A few times a month
4. A few times a year
5. Once a year or less
6. Never

(2) How often do you spend time in private religious activities, such as prayer, meditation or Bible Study?

1. More than once a day
2. Daily
3. Two or more times/week
4. Once a week
5. A few times a month
6. Rarely or never

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

(3) In my life, I experience the presence of the Divine (i.e., God).

1. Definitely true of me
2. Tends to be true
3. Unsure
4. Tends *not* to be true
5. Definitely *not* true

(4) My religious beliefs are what really lie behind my whole approach to life.

1. Definitely true of me
2. Tends to be true
3. Unsure
4. Tends *not* to be true
5. Definitely *not* true

(5) I try hard to carry my religion over into all other dealings in life.

1. Definitely true of me
2. Tends to be true
3. Unsure
4. Tends *not* to be true
5. Definitely *not* true

Permission to use Duke University Religious Index (DUREL)

March 6, 2020

Dr. Harold Koenig, M.D.
Duke University Medical Center
Durham, North Carolina

Dear Dr. Koenig:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for an Ed.D. in Curriculum and Instruction. The title of my research project is Prevalence of Cyberbullying Among Traditional Undergraduate Students Attending Faith-Based Universities: A Causal- Comparative Study. The purpose of my research is to determine the prevalence of cyberbullying by examining the construct based on biological gender and level of religiosity among traditional undergraduate students attending faith-based universities. It will also seek to assist faith-based universities in addressing this timely issue by providing up-to-date, relevant data for the administration and faculty, so they can better facilitate the online safety of their students.

I am writing to request your permission to utilize the DUREL: Duke University Religion Index, as part of my research. I am also seeking your permission to publish the DUREL as part of my final dissertation. Participants will be asked to complete the DUREL via a link sent to their assigned university email address. Participants will be presented with informed consent information prior to participating. Taking part in this study will be voluntary, and participants will be welcomed to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement indicating your approval for me to use your instrument and publish the DUREL as part of my final dissertation and send it to me at [REDACTED]. I look forward to hearing from you and appreciate your time.

Sincerely,

Susan Hayes-McElroy

Susan Hayes-McElroy, Ed.S.
Doctoral Candidate
Liberty University

From: Harold Koenig, M.D. <[REDACTED]>
 Sent: Friday, March 6, 2020 5:33:50 PM
 To: McElroy, Susan <[REDACTED]>
 Cc: Park, Meredith (Doctor of Education) <[REDACTED]>
 Subject: [External] RE: Permission for DUREL: Duke University Religious Index

Susan – yes, you have permission to use the DUREL. Best wishes! HK

Harold G. Koenig, M.D.
 Professor of Psychiatry & Behavioral Sciences
 Associate Professor of Medicine
 Director, Center for Spirituality, Theology and Health
 Duke University Medical Center, Durham, North Carolina
 Adjunct Professor, Dept of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia
 Adjunct Professor of Public Health, Ningxia Medical University, Yinchuan, P.R. China
 Visiting Professor, Shiraz University of Medical Sciences, Shiraz, Iran

Permission to publish Duke University Religion Index (DUREL)

From: McElroy, Susan <[REDACTED]>
 Sent: Thursday, January 21, 2021 4:54 PM
 To: Harold Koenig, M.D. <[REDACTED]>
 Cc: Park, Meredith (Doctor of Education) <[REDACTED]>
 Subject: Permission to Publish DUREL Questions

Dr. Koenig,

On March 6, 2020, you gave permission, via email, for me to use the Duke University Religion Index (DUREL) for my dissertation research. I have completed my dissertation; however, to be allowed to publish the DUREL questions in my appendices, I need your permission.

If you could reply with a simple statement that I have your permission to publish the questions with my dissertation, I would be grateful. Please know it would be appropriately cited.

Sincerely,

Susan Hayes-McElroy
 Doctoral Candidate/Liberty University

Harold Koenig, M.D. <[REDACTED]>
Thu 1/21/2021 3:56 PM
To: McElroy, Susan
Cc: Park, Meredith (Doctor of Education)

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

You have permission.

Harold G. Koenig, M.D.
Professor of Psychiatry & Behavioral Sciences
Associate Professor of Medicine
Director, Center for Spirituality, Theology and Health
Duke University Medical Center, Durham, North Carolina
Adjunct Professor, Dept of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia
Adjunct Professor of Public Health, Ningxia Medical University, Yinchuan, P.R. China
Visiting Professor, Shiraz University of Medical Sciences, Shiraz, Iran

APPENDIX C: INSTITUTIONAL REVIEW BOARD PERMISSION**LIBERTY UNIVERSITY**
INSTITUTIONAL REVIEW BOARD

September 10, 2020

Susan McElroy
Meredith Park

Re: IRB Exemption - IRB-FY20-21-69 PREVALENCE OF CYBERBULLYING AMONG
TRADITIONAL UNDERGRADUATE STUDENTS ATTENDING FAITH-BASED UNIVERSITIES: A
CAUSAL COMPARATIVE STUDY

Dear Susan McElroy, Meredith Park:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46: 101(b):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification

of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office

APPENDIX D: STUDENT RECRUITMENT EMAIL

Dear Student:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for the Doctorate in Education degree. The purpose of my research is to determine how common cyberbullying is, based on biological gender or level of religiosity, for students who attend classes at faith-based universities, and I am writing to invite eligible participants to join my study.

Participants must be at least 18 years old, attend a faith-based university, be a traditional undergraduate student who attends classes on campus (full or part-time), and attends chapel or convocation as part of the curriculum. Participants, if willing, are asked to complete an anonymous survey via Qualtrics XM. The survey consists of demographic questions, the Cyberbullying and Online Aggression Survey, and the Duke University Religion Index, and should take approximately 10-15 minutes to complete. Participation is completely anonymous, and no personal, identifying information will be collected.

To participate in this survey, please click on the link provided below to access the Qualtrics XM survey and complete the survey by October 19, 2020:

<https://www.qualtrics.com>_____

The first page of the survey is a consent document. The consent document contains additional information about my research. After you have read the consent form, please click the link to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey. Thank you!

Sincerely,

Susan Hayes-McElroy

Susan Hayes-McElroy
Doctoral Candidate
Liberty University

APPENDIX E: PARTICIPANT CONSENT FORM

Title of the Project: Prevalence of Cyberbullying among Traditional Undergraduates Attending Faith-Based Universities: A Causal-Comparative Study

Principal Investigator: Susan Hayes-McElroy, Ed.S. Doctoral Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be at least 18 years old, attend a faith-based university, be a traditional undergraduate student who attends classes on campus (fulltime or part-time), and who attends chapel, or convocation, as part of your educational requirements. Taking part in this research project is voluntary.

Please take time to read this information and ask questions before deciding whether to take part in this research project.

What is the study about and why is it being done?

The purpose of the study is to determine how common cyberbullying and online aggression are among traditional undergraduate students who attend a faith-based university. Determining how widespread the issue is can potentially give faculty, administrators, and staff valuable information to help make the campus as safe as possible.

What will happen if you take part in this study?

If you agree to participate in the study, I would ask you to do the following things:

1. Take an online survey that consists of demographic questions, the Cyberbullying and Online Aggression Survey, and the Duke University Religion Index that will take approximately 10 – 15 minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive any direct benefits from taking part in this study.

Benefits to society include (1) an increased knowledge on the topic of cyberbullying and (2) providing relevant, up-to-date data for the university administrators at the faith-based institutions involved in this study.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. All participant responses will be anonymous. Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect

your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Susan Hayes-McElroy. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [Redacted], or [Redacted]. You may also contact the researcher's faculty sponsor, Dr. Meredith Park, at [Redacted].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions, or concerns, regarding this study, and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Your Consent

Before agreeing to be part of the research, please be sure you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

APPENDIX F: STUDENT THANK YOU E-MAIL

Student Thank You Email - Appears on the final screen of the survey.

Dear Student,

Thank you for participating in this research study by completing this online survey. Your input will help add to the body of knowledge on this topic. I appreciate you taking the time out of your busy schedule to help with this! God bless!

Sincerely,

Susan Hayes-McElroy

Susan Hayes-McElroy
Doctoral Candidate/Principal Investigator
Liberty University

APPENDIX G: STUDENT RECRUITMENT FOLLOW-UP E-MAIL

Dear Student:

You recently received an email inviting you to participate in a research study investigating the prevalence of cyberbullying and online aggression among undergraduates at faith-based universities. This ***follow-up email*** is to remind you to complete the survey if you would like to participate and have not already done so. The deadline for participation is _____.

If you choose to participate, please complete the anonymous, online survey. It should take approximately 5-10 minutes for you to complete the survey. Your participation will be completely anonymous, and no personal, identifying information will be required. To participate, please click on the link provided below to access the Qualtrics XM survey:

https://www.qualtrics.com_____

The first page of the survey is a consent document. The consent document contains additional information about my research. After you have read the consent form, please click the link to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

If you have any questions about the study, please feel free to contact me at _____ . Thank you!

Sincerely,

Susan Hayes-McElroy

Susan Hayes-McElroy
Doctoral Candidate/Principal Investigator
Liberty University

APPENDIX H: PERMISSION CORRESPONDENCE TO CONDUCT RESEARCH

University A Correspondence

May 18, 2020

[Redacted]

Re: Survey for Dissertation Research

Dear Dr. [Redacted]:

It was great to meet you during Welcome Week at the President's Reception. As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for an Ed.D. The title of my research project is Prevalence of Cyberbullying Among Traditional Undergraduate Students Attending Faith-Based Universities: A Causal-Comparative Study. The purpose of my research is to determine the prevalence of cyberbullying by examining the construct based on biological gender and level of religiosity among traditional undergraduate students attending faith-based universities. It will also seek to assist faith-based universities in addressing this timely issue by providing up-to-date, relevant data for administration and faculty, so that they can better facilitate the online safety of their students.

I am writing to request your permission to conduct my research at [Redacted] University. With your permission, I would like to ask [Redacted] students to participate in an anonymous, online survey that will take approximately 10-15 minutes to complete. Participants will be presented with informed consent information prior to participating. Taking part in this study will be voluntary, and participants will be welcomed to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval and respond by email to [Redacted]. As soon I obtain permission from the Institutional Review Board (IRB) at Liberty University, I will be in contact again to obtain access to your student body email information. Thank you for your consideration of this request. If you have any further questions, please do not hesitate to contact me. You can reach me at the email listed above, or by phone at [Redacted].

Sincerely,

Susan Hayes '88 McElroy
Doctoral Candidate/Liberty University

August 18, 2020

Susan,

By copy of this email, [Redacted] University agrees for its students to participate in the study being conducted by Susan Hayes-McElroy, principal investigator, as part of her doctoral research at Liberty University. The title of the research study is Prevalence of Cyberbullying Among Traditional Undergraduate Students Attending Faith-Based Universities. Dr. [Redacted] will serve as the faculty point of contact for this research.

Let me know when you need me to assist with your data collection.

Dr. [Redacted] Ed.D., MSW
Chairperson, IRB Committee
DEPARTMENT OF SOCIAL WORK
[Redacted] UNIVERSITY
[Redacted]

University B Correspondence

May 18, 2020

[Redacted]

Dear Dr. [Redacted],

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for an Ed.D. The title of my research project is Prevalence of Cyberbullying Among Traditional Undergraduate Students Attending Faith-Based Universities: A Causal-Comparative Study. The purpose of my research is to determine the prevalence of cyberbullying by examining the construct based on biological gender and level of religiosity among traditional undergraduate students attending faith-based universities. It will also seek to assist faith-based universities in addressing this timely issue by providing up-to-date, relevant data for administration and faculty, so that they can better facilitate the online safety of their students.

I am writing to request your permission to conduct my research at [Redacted] University. With your permission, I would like to ask [Redacted] students to participate in an anonymous, online survey that will take approximately 10-15 minutes to complete. Participants will be presented with informed consent information prior to participating. Taking part in this study will be voluntary, and participants will be welcomed to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval and respond by email to [Redacted]. As soon I obtain permission from the Institutional Review Board (IRB) at Liberty University, I will be in contact again to obtain access to your student body email information. Thank you for your consideration of this request. If you have any further questions, please do not hesitate to contact me. You can reach me at the email listed above, or by phone at [Redacted].

Sincerely,

Susan Hayes-McElroy
Doctoral Candidate/Liberty University

March 27, 2020

Ms. Hayes-McElroy:

After discussing with [Redacted] University's president, Dr. [Redacted], I offer this formal letter of permission for you to conduct your doctoral research with [Redacted] student body. I will look forward to hearing more from you and assisting you.

Sincerely,

Dr. [Redacted], D.Ed.Min.