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The Influence of Ethnicity on the Impact of Cyberbullying Among Adults

Sarah Young
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Walden University

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Sarah Young

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Walden University
2020

Abstract

The Influence of Ethnicity on the Impact of Cyberbullying Among Adults

by

Sarah Young

MS, The College of Saint Rose, 2011

MS, Walden University, 2017

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

November 2020

Abstract

Ethnicity is a factor that predicts how a person is impacted by cyberbullying, but to date little research has been conducted to investigate this phenomenon. Some researchers have reported that individuals belonging to ethnic minorities may have a greater overall resistance to bullying behavior and bias due to stress inoculation. The purpose of this study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults. This research study was guided by inoculation and socio-ecological systems theories. A convenience sample of 618 American adults who use social media at least 3 hours per week was used. The Cyberbullying Victimization Scale was used to measure 3 areas of cyberbullying victimization, and a demographic survey was used to measure gender, age, sexual orientation, ethnicity, income level, religious affiliation, and marital status. Data were analyzed using multivariate multiple regression to identify if ethnicity and the covariates are related to the experience of cyberbullying victimization. The results of the present study lent support to the socio-ecological systems theory, suggesting that participants' various socio-ecological systems impacted their experience with cyberbullying victimization. However, the results of the statistical analyses provided conflicting results with regard to inoculation theory and stress inoculation. The aim of this study has been to promote awareness of this growing social problem among adults and to encourage more rapid and effective intervention to cyberbullying. Increased awareness and potential interventions developed as a result of the findings in this study could promote positive social change by helping adult cyberbullying victims to recover more quickly and offer them better coping strategies in the future.

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Dedication

This dissertation is dedicated to my mother who always believed in me and encouraged me through this journey. She has always been ready to listen to what I am learning. I also dedicate this dissertation to my father who has been with me in spirit throughout this journey, and giving me the strength I needed when I had moments of doubt. Finally, I dedicate this dissertation to Alex for telling me to, “Go for it.” He always had confidence that I was strong enough to complete this journey.

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I wish to acknowledge the contributions of my committee chair, Dr. Tracy Marsh and committee member, Dr. Steven Little during this journey. Their guidance, patience, and encouragement made it possible for me to complete my dissertation. I also wish to acknowledge the individuals who participated in my study for sharing their experiences with cyberbullying. I appreciate their time and the information they gave that helped to add to the current body of scholarly research in the area of adult cyberbullying.

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Chapter 1: Introduction to the Study

In the United States, the popularity of social media sites (SMS) has steadily increased (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Over 79% of Americans reported that they had a Facebook account, and 90% of young adults reported using social media at least once per day (Brody & Vangelisti, 2017; Lin et al., 2016). Researchers studying individuals between 18 and 29 years old in the United States reported that 98% had cellular phones and 83% had a smartphone device (Brody & Vangelisti, 2017). Among adults who spent time online, approximately 75% reported spending time on social networking sites such as LinkedIn (Jones et al., 2016). Jones et al. (2016) estimated that users spent around 2 hours per day on SMS. According to Brody and Vangelisti (2017), the amount of time an individual spent online predicted cyberbullying victimization.

Worldwide estimates of cyberbullying victimization suggest that between 9% and 40% of adolescent individuals have experienced cyberbullying (Raskauskas & Huynh, 2015; Kim et al., 2017; Wong et al., 2018). Researchers polled college students and reported that 50% of those polled had been victims of cyberbullying and that 30% of those victims reported first experiencing cyberbullying after entering college (Brody & Vangelisti, 2017). Other researchers studied the perspectives of 54 college students on cyberbullying and found that between 8% and 21% of college students reported having experienced cyberbullying (Crosslin & Golman, 2014). Still other researchers reported that 73% of surveyed adult internet users had experienced some form of online harassment (Duggan et al., 2015). These findings suggest that cyberbullying not only occurs among children, but has also been widely prevalent among young adults.

Researchers have not sufficiently investigated associations between cyberbullying and ethnicity in the adult population (Due et al., 2009; Görzig & Machackova, 2015; Kim et al., 2017; Poole, 2017). Indeed, researchers have tended to ignore the prevalence and effects of cyberbullying on adults in the United States altogether (Brack & Caltabiano, 2014; Francisco et al., 2015; Hemphill & Heerde, 2014; Rivituso, 2014; Shensa et al., 2016). An investigation of this phenomenon would provide insight for researchers, providers, and policy makers on the impact of this growing social problem. In this chapter, I will introduce this study. After describing the study's background, I will state the problem and the purpose of the study. I will then discuss the study's research question, hypotheses, and theoretical and conceptual frameworks. I will explore the nature of the study, define terms, as well as discuss the assumptions, scope, delimitations, limitations, and significance of the study before summarizing the chapter.

Background

The increasing availability and use of electronic media by adolescents and adults in the United States has become an area of interest to psychological researchers (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Concern has also grown regarding the impacts of social media on cyberbullying victimization of adults in the United States (Lowry et al., 2016; Tennant et al., 2015; Wozencroft et al., 2015; Yubero et al., 2017). Although a number of researchers have examined the positive and negative impacts of social media use on children and adolescents, fewer researchers have investigated the effects of social media use and cyberbullying on adults, and their findings have tended to be inconsistent (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Even

fewer researchers have examined if ethnicity predicts the extent of the negative impacts of cyberbullying on adults (Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Zalaquett & Chatters, 2014). The documented gap in existing literature regarding the effects of ethnicity on cyberbullying in adults is in need of scrutiny (Garland et al., 2017; Kim et al., 2017; Poole, 2017).

Problem Statement

Concern regarding adults' SMS use in the United States increased because of cyberbullying (Lowry et al., 2016). Although many researchers have examined both positive and negative effects of adolescents' use of SMS, few researchers have examined the effects of using SMS and cyberbullying among adults. Furthermore, these researchers have reported conflicting results (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016; Zalaquett & Chatters, 2014). Researchers have reported that adults belonging to ethnic minorities may have greater overall resistance to bullying behavior and bias because of stress inoculation (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). However, very few researchers have examined if ethnicity predicts negative experiences with cyberbullying in adults (Garland et al., 2017; Kim et al., 2017; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014).

Purpose of the Study

The purpose of this quantitative study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. I examined the prevalence of cyberbullying victimization among adults and factors associated with this phenomenon, including if ethnicity predicts one's

response to cyberbullying. The existence of a correlation among relevant variables suggested a relationship between ethnicity among other covariates and the negative impacts of cyberbullying victimization. The independent variable studied was ethnicity, the dependent variable studied was impact of cyberbullying victimization, and the covariates to be studied are gender, socioeconomic status, sexual orientation, age, marital status, and religious affiliation.

Research Question and Hypotheses

A single research question has guided this study: Does ethnicity predict how a person experiences being the victim of cyberbullying when accounting for other demographic variables? The null hypothesis, H_0 , is that ethnicity does not predict how a person experiences being the victim of cyberbullying when controlling for other demographic variables. The alternative hypothesis, H_a , is that ethnicity predicts how a person experiences being the victim of cyberbullying when controlling for other demographic variables.

Theoretical Framework for the Study

Inoculation theory, stress inoculation, and socioecological systems theory provided the theoretical framework for the study. Inoculation theory emerged from 1950s research on persuasion (Vaughan, 2009). Inoculation theory explores the ways in which messages can inoculate recipients against attacks on their beliefs (Banas & Rains, 2010; McGuire, 1961; Vaughan, 2009). McGuire's (1961) inoculation theory suggests that the recipients of persuasive messages become resistant to attacks on their beliefs and attitudes, similar to the way that the human body can become immunized against a viral attack (Vaughan, 2009). McGuire suggested that biological inoculation is analogous to a

process in which small challenges to long held attitudes, beliefs, and behaviors build tolerance to further attacks (Vaughan, 2009). Stress inoculation strengthens an individual's readiness for external stressors and helps the individual to develop a sense of mastery over those stressors (Meichenbaum, 2017). Researchers have further concluded that stress inoculation can also lead to the development of resilience and resolve in response to experienced oppression (Ghabrial, 2017; Meyer et al., 2011). I will discuss inoculation theory and stress inoculation in greater detail in Chapter 2.

Applying inoculation theory to this study suggests that individuals belonging to ethnic minorities should experience cyberbullying less negatively than others because of their experience dealing with racist actions and microaggressions in the nondigital world (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). In other words, individuals from minority groups have been inoculated with doses of racism and micro-aggressions throughout their development, thereby preparing them for cyberbullying in the online environment (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whiteman & Nadal, 2015). This could impact how those individuals experience cyberbullying.

Socioecological systems theory explains how the innate qualities of individuals and their environments work together to impact development throughout life (Bronfenbrenner, 1977, 1979). This theory emphasizes the study of individuals across multiple environments or ecological systems (Bronfenbrenner, 1977, 1979). Several researchers have found that a set of interrelated socioecological factors affect the mental health of individuals in different systems (Bronfenbrenner, 1977, 1994).

Socioecological systems theory suggests that cyberbullying victimization occurs as a result of the complex interactions between various factors of victims' socioecological systems (Görzig & Machackova, 2015; Navarro et al., 2016). According to Espelage et al. (2012), the increased popularity of social media and texting over time impacted cyberbullying. Socioecological theory related to this study because factors within an individual's ecological system could be either protective factors or risk factors for the individual's development (Hemphill & Heerde, 2014). Individuals with certain risk factors (such as family risk factors including ethnic minority status) could be more susceptible to cyberbullying (Hemphill & Heerde, 2014).

Conceptual Framework for the Study

This study involves the concepts of bullying, cyberbullying, and social media. Bullying is physical or emotional aggression or hostility directed at a victim by a peer or group of peers perceived as physically or psychologically stronger than the victim (Brody & Vangelisti, 2017; Due et al., 2009; Garland et al., 2017; Zych et al., 2015). Bullying behavior is deliberate and repeatable over a long period of time (Due et al., 2009; Zych et al., 2015). For the purposes of this study, I defined cyberbullying as bullying that occurs with the aid of electronic media. Authors writing on the subject have yet to agree on a single definition of cyberbullying, but they have described a number of cyberbullying behaviors: sending malicious messages via text messaging, e-mail, or social media; spreading rumors via social media or e-mail; and, circulating sexually suggestive photographs or messages without the permission of the subject of the photograph or message (Balakrishnan, 2015, 2017; Barlett, 2017; Barlett & Chamberlin, 2017; Chamberlin et al., 2017; Chan & Wong, 2017; Doane et al., 2013; Jenaro et al., 2018;

Kail, 2016; Müller et al., 2018; Navarro et al., 2016). Researchers have noted that there are various types of cyberbullying, including hostility, humiliation, obsessive monitoring or stalking, deception, and exclusion (Ramos & Bennett, 2016). SMSs are internet sites accessible via mobile devices (e.g., cell phones or tablets) or other internet-enabled devices (e.g., computers or laptops) and are substantially collaborative platforms on which individuals can join online communities to share information, have discussions, and interact with others (Kietzmann et al., 2011). In addition to social media, other forms of interactive electronic media include text messaging and e-mail (Ramos & Bennett, 2016). SMS are also a means by which people can be cyberbullied. I will discuss the conceptual framework in greater detail in Chapter 2.

Nature of the Study

This study was correlational in nature and involved the measurement of independent, dependent, and covariate variables to assess if relationships existed among those variables (Creswell, 2014). Correlation was an appropriate technique to identify if ethnicity predicts negative impacts of cyberbullying on adults in the United States when accounting for other demographic variables. In this study, the independent variable was ethnicity, the dependent variable was the impact of cyberbullying victimization, and the covariates were gender, SES, sexual orientation, age, marital status, and religious affiliation. I used a convenience sample. Data collection consisted of participants answering online surveys with questions pertaining to the variables previously identified. I conducted a multivariate multiple regression analysis to identify if ethnicity and the covariates impact cyberbullying victimization.

Definitions

Cyberbullying victimization: Spoken or written victimization, visual or sexual victimization, or social-exclusion victimization online (Balakrishnan, 2015, 2017; Barlett, 2017; Barlett & Chamberlin, 2017; Chamberlin et al., 2017; Chan & Wong, 2017; Doane et al., 2013; Jenaro et al., 2018; Kail, 2016; Müller et al., 2018; Navarro et al., 2016).

Ethnic minority: “A group of people of a particular race or nationality living in a country or area where most people are from a different race or nationality” (“Ethnic minority,” n.d.).

Social media sites: Internet sites designed to facilitate online social interactions among individuals (Keitzman et al., 2011). SMS vary in their scope and functionality (e.g., socializing, professional networking, or media sharing; Keitzman et al., 2011). On some SMS, users willingly identify themselves; on other SMS, users interact anonymously (Ashktorab et al., 2017).

Socioecological systems theory: A theory that explains how the innate qualities of individuals and their environments work together to impact development throughout life (Bronfenbrenner, 1977, 1979). Socioecological systems can become either protective factors or risk factors to individuals navigating the environment of social media. Individuals with certain risk factors may have a greater risk of becoming a cyberbullying victim (Hemphill & Heerde, 2014).

Stress inoculation: A theoretical construct derived from 1950s research on persuasion that became the basis for McGuire’s (1961) inoculation theory (Banas & Rains, 2010; Vaughan, 2009). Stress inoculation strengthens an individual’s readiness for external stressors and helps the individual develop a sense of mastery over those stressors

(Ghabrial, 2017; Meyer et al., 2011). Stress inoculation can lead to the development of resilience in response to experienced oppression (Ghabrial, 2017; Meyer et al., 2011).

Assumptions

The main assumption within this study has been that individuals belonging to ethnic minorities experience cyberbullying differently than Caucasian individuals do. Inoculation theory and stress inoculation, as discussed in the Theoretical Framework section, suggested that this assumption was true (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Meyer et al., 2011; Whitman & Nadal, 2015). A second assumption was that the sampled participants truly represented the target population, which is the US population. A third assumption was that participants provided honest answers to the surveys used to collect data for the study.

Limitations

One potential limitation of my study was the use of a convenience sample. Convenience sampling can be a threat to external validity because it affects if a study's results can be applied to the entire population. It is difficult to gather a representative sample of members of the US population who use social media (Frankfort-Nachmias & Nachmias, 2008). I addressed this in my study by monitoring the data collected to see if the ethnicities in the sample are representative of the US population.

Another limitation was reactive effects. Reactivity in research occurs when participants behave differently during an experiment than they would in real life because they are aware of the experiment (Ihantola & Kihn, 2011). A disadvantage of using surveys for data collection is that participants may give untruthful responses to appear socially desirable (Patton, 2011). In addition, reactive participants may wish to appear

more responsive or responsible to the researchers or may not want to admit to behaving in certain ways. In this study, participants may not have wanted to admit to being victims of cyberbullying and may have over or underreport their experiences because they knew they were in an experiment. This threat to validity is difficult to avoid entirely, because that would depend on participants being 100% honest in their survey responses.

A final limitation relates to history and maturation. The timing of the survey may have impacted participants' responses. This may happen, for example, if a major news story broke regarding cyberbullying around the same time that participants received their surveys. Such an event can make participants more reactive to cyberbullying and its effects than if the topic had not received recent publicity.

Scope and Delimitations

There were two delimitations to this study. I initially considered surveying cyberbullies. However, I chose not to use this sample because of the potential difficulty in obtaining the data needed to answer the research question from cyberbullies. Instead, I decided that cyberbullying victims would be better able to provide information regarding the ways that ethnicity impacts cyberbullying. Elucidating any relationships between participants' ratings of their experiences of being cyberbullied and the information they provide with regard to the covariates was the best way to answer the research question. Another delimitation of the study was the exclusion of certain covariates. It is impossible to include all variables that may confound the results of the study. Therefore, I decided to focus on the following covariates: age, ethnicity, gender, income level, marital status, religious affiliation, and sexual orientation. If the survey measured other covariates,

participants could experience test fatigue and leave information out of their responses, which would impact the study's results.

Significance

Findings regarding the prevalence and effects of cyberbullying among adults in the United States will provide insight for researchers, providers, and policy makers on the impact of this growing social problem and help them to address and prevent cyberbullying. The findings could also provide scholarly support for legislation aimed at reducing cyberbullying. Through this study, I promote awareness of this growing social problem among the adult population and encourage more rapid and effective cyberbullying intervention. Interventions based on the findings of this study could help adult cyberbullying victims to recover more quickly and offer them better coping strategies to use in the future.

Summary

Electronic media use in the United States has steadily increased and has become an area of interest to psychological researchers (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Interest in this topic has also increased due to concern regarding the links between social media use and cyberbullying in the United States (Lowry et al., 2016; Tennant et al., 2015; Wozencroft et al., 2015; Yubero et al., 2017). Researchers that investigated the impacts of cyberbullying typically focused on children and adolescents (Gahagan et al., 2015; Rivituso, 2014; Tennant et al., 2015; Zych et al., 2015). Few have investigated cyberbullying in adults or if ethnicity impacts how individuals experience cyberbullying, particularly in the United States

(Garland et al., 2017; Kim et al., 2017; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014).

Stress inoculation strengthens a person's readiness to experience external stressors and can lead an individual to develop resilience in response to experienced oppression (Ghabrial, 2017; Meichenbaum, 2017; Meyer et al., 2011). Socioecological systems can become either protective factors or risk factors for individuals navigating social media. Individuals with certain risk factors may experience cyberbullying victimization at a greater rate than other individuals (Hemphill & Heerde, 2014). By understanding how a person becomes a cyberbullying victim, researchers may discover new ways to treat cyberbullying victims that are more effective than existing methods. In Chapter 2, I will thoroughly review existing literature regarding cyberbullying, ethnicity, the theoretical framework, and the conceptual framework.

Chapter 2: Literature Review

Introduction

Research has found that the popularity of SMS in the United States has steadily increased (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Individuals often look at their electronic devices to check for updates to their SMS. There have been increasing concerns regarding the impact of SMS use on adults in the United States due to the frequent occurrence of cyberbullying in this population (Lowry et al., 2016). Although many researchers have conducted studies examining both positive and negative effects of SMS use in adolescents, few researchers have examined the effects of SMS use and cyberbullying in adults. Furthermore, the scant research generated conflicting results (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016; Zalaquett & Chatters, 2014). Researchers have documented the ways in which adults belonging to ethnic minorities may have a greater overall resistance to bullying behavior and bias due to stress inoculation (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). However, very few researchers have examined if ethnicity is predictive of negative experiences with cyberbullying in adults (Garland et al., 2017; Kim et al., 2017; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014).

Recent peer-reviewed research included the identification of some common themes related to cyberbullying, including the lack of research on the associations between cyberbullying and ethnicity in the adult population (Due et al., 2009; Görzig & Machackova, 2015; Kim et al., 2017; Poole, 2017). Additionally, researchers have not

focused on the prevalence and effects of cyberbullying on adults in the United States (Brack & Caltabiano, 2014; Francisco et al., 2015; Hemphill & Heerde, 2014; Rivotuso, 2014; Shensa et al., 2016).

The purpose of this study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. In the present research, I examined the prevalence of cyberbullying victimization among adults as well as factors associated with this issue, including if ethnicity is predictive of experiences with cyberbullying. A correlation among the variables suggested a relationship between ethnicity along with some of the covariates and the negative experience of cyberbullying victimization. In this chapter, I provide a review of the literature relevant to the topic of the present study. After describing the literature search strategy, I discuss the theoretical foundation and the conceptual framework supporting the study. Through an exhaustive review of the current literature, I explore bullying and cyberbullying and offer a rationale for the current study, its variables, and the research question. The chapter ends with a summary and conclusions based on the review of the literature.

Literature Search Strategy

I found and collected peer-reviewed literature for this study by searching EBSCO and using PsycARTICLES and PsycINFO. I conducted additional searches using Google Scholar with a focus on peer-reviewed literature and in books on the topic of cyberbullying. Additional sources emerged during a review of citations and references from peer-reviewed articles and books. I used the following key words in various combinations during my search for peer-reviewed literature: “cyberbullying AND

adults,” “cyberbullying AND perception,” “adult cyberbully,” “cyberbullying AND demographics,” “cyberbullying AND ethnicity,” and “cyberbullying.” Most of the literature that I reviewed for this study was published between 2015 and 2019.

Theoretical Foundation

Inoculation Theory and Stress Inoculation

Inoculation theory derived from research on persuasion from the 1950s (Vaughan, 2009). Researchers studying persuasion found that participants who received both sides of an issue were more resistant to later arguments (Vaughan, 2009). Later, McGuire used persuasion research as a basis for his inoculation theory in 1964 (Banas & Rains, 2010; Vaughan, 2009). Inoculation theory explored the ways in which various messages may inoculate recipients from attacks on their beliefs (Banas & Rains, 2010; McGuire, 1961; Vaughan, 2009).

McGuire’s (1961) inoculation theory suggested that the recipients of persuasive messages become resistant to attacks on their beliefs and attitudes similar to the way that the human body can become immunized from a viral attack (Vaughan, 2009). An immunization introduces a low dose of a virus into the body and activates that individual’s immune system (McGuire, 1961; Vaughan, 2009). Too much of a dose can override the immune system; lower doses are typically ideal (Banas & Rains, 2010). McGuire suggested that the concept of biological inoculation involves small challenges to long held attitudes, beliefs, and behaviors in order to build a tolerance to further attacks (McGuire, 1961; Vaughan, 2009). If an individual does not need to defend their attitudes, beliefs, and behaviors, they are more likely to change their opinions when new or conflicting information is presented, because they do not have experience defending

themselves from outside arguments or challenges (Banas & Rains, 2010; Vaughan, 2009). Stress inoculation strengthens an individual's readiness for external stressors and helps them develop a sense of mastery over those stressors (Meichenbaum, 2017). Stress inoculation can also lead to the development of resilience and resolve in response to experienced oppressions (Ghabrial, 2017; Meyer et al., 2011). Various specialists have used the ideas of resistance to persuasion, inoculation theory, and stress inoculation in courtrooms, in the marketing of products and services, in political advertising, and in public relations work (Banas & Rains, 2010; Vaughan, 2009).

Although a significant number of researchers have supported inoculation theory, some have resisted it (Banas & Rains, 2010; Vaughan, 2009). Researchers have argued against inoculation theory for several reasons including: inoculation theory is not a cause of resistance; inoculation theory only works in certain situations; and, inoculation is no more or less effective than other forms of message delivery (Banas & Rains, 2010). However, inoculation theory still forms the basis for many studies.

In the present study, I explored if individuals from minority groups experience cyberbullying less negatively than others because they have dealt with racist actions and micro-aggressions in the nondigital world. In this case, individuals from minority groups have been inoculated with doses of racism and micro-aggressions throughout their development, which have prepared them for cyberbullying in the online environment (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). This could impact how those individuals experience cyberbullying. In research examining the lived experiences of ethnic minority individuals who also identify as lesbian, gay, bisexual, or transgender (LGBT), it has been found that—despite dealing

with more stressors and having fewer resources available to them than Caucasian LGBT individuals—they do not necessarily have lower self-esteem or greater amounts of mental health disorders when compared to Caucasian sexual minorities and Caucasian heterosexuals (Ghabrial, 2017; Meyer et al., 2008; Whitman & Nadal, 2015). However, no researcher has yet assessed if cyberbullying differently impacts predominant ethnicities than people from minority ethnicities.

Socio-Ecological Systems Theory

The socio-ecological systems theory, originally developed by Bronfenbrenner, explains how the innate qualities of individuals and their environments work together to impact development throughout life (Bronfenbrenner, 1977, 1979). This theory stresses the importance of studying individuals across multiple environments or ecological systems and in conjunction with those ecological systems. Within these ecological systems, various factors impact an individual, such as the immediate environment (e.g. housing); connections to other people (e.g., family, peers, co-workers); social and cultural values (e.g., ethnicity); and changes over time. The theory additionally included descriptions of various ecological systems, including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1977, 1979, 1994; Espelage et al., 2012; Görzig & Machackova, 2015). A number of studies have found that a set of interrelated socio-ecological factors affect the mental health of individuals within their different systems (Bronfenbrenner 1977, 1994).

The socio-ecological systems theory suggests that cyberbullying victimization occurs as a result of the complex interactions between varying levels of or factors within the victims' socio-ecological systems (Görzig & Machackova, 2015; Navarro et al.,

2016). Researchers believe that the increasing popularity of social media and texting over time has impacted cyberbullying (Espelage et al., 2012). Within the socio-ecological systems model, this could be explained by the chronosystem's indirect impact (e.g., the increasing availability of technology more generally over time) on an individual's experiences with cyberbullying (Espelage et al., 2012).

The socio-ecological theory relates to the present study as certain factors within each participant's ecological systems can become either protective factors or risk factors for their development (Hemphill & Heerde, 2014). In the present work, individuals with certain risk factors (such as family risk factors including minority status) could be at higher risk of becoming a victim to cyberbullying (Hemphill & Heerde, 2014). Many past studies of cyberbullying victimization have focused on child and adolescent populations (Due et al., 2009; Görzig & Machackova, 2015; Kim et al., 2017; Poole, 2017). Researchers have found increased cyberbullying victimization in children and adolescents from racial minority groups as well as individuals who identify as LGBT (Bauman & Baldasare, 2015; Lee, 2016; MacDonald & Roberts-Pittman, 2010; Molluzzo & Lawler, 2012; Smith & Yoon, 2013; Washington, 2014; Zalaquett & Chatters, 2014). Further, racial minority students often face bias and aggression from non-minority students (Lund & Ross, 2017). The negative cyberbullying experiences of children and adolescents from minority groups may also occur in adults, but there is insufficient evidence to support that assumption. The socio-ecological systems theory accounts for how various aspects of an individual's ecological systems interact, resulting in cyberbully victimization.

Conceptual Framework

Bullying

There are various definitions of bullying, and the specific qualities of bullying in research vary by study (Zych et al., 2015). However, the act of bullying is generally defined as physical or emotional aggression or hostility enacted upon a physically or psychologically weaker victim (Brody & Vangelisti, 2017; Due et al., 2009; Garland et al., 2017; Zych et al., 2015). Some research has indicated that the relationship between the bully and the victim involves a power imbalance that is caused by the intent and repetition of the bullying behavior (Peter & Petermann, 2018). Bullying behavior is deliberate and can occur over a long period of time (Due et al., 2009; Zych et al., 2015). For the purposes of this study, I will use the term bullying to show the evolution of this behavior into cyberbullying with the advancement of electronic media.

Cyberbullying

Although there is no single, agreed-upon definition for cyberbullying in the literature, the following behaviors are generally considered cyberbullying: sending malicious messages via text messaging, email, or social media; the spread of rumors via social media or email; and the circulation of sexually suggestive photographs or messages without the permission of the person in the photograph or involved in the message (Balakrishnan, 2015, 2017; Barlett, 2017; Barlett & Chamberlin, 2017; Chamberlin et al., 2017; Chan & Wong, 2017; Doane et al., 2013; Jenaro et al., 2018; Kail, 2016; Müller et al., 2018; Navarro et al., 2016). Together these behaviors suggest that cyberbullying is a repeated hostile or aggressive action (e.g., teasing, insulting, threatening, harassing) that is taken by an individual or group of people via any electronic or digital means (i.e., cell

phone, tablet, computer, internet gaming system) with the intent of causing discomfort or harm to another person or people (Balakrishnan, 2017; Barlett & Chamberlin, 2017; Chamberlin et al., 2017; Chan & Wong, 2017; Doane et al., 2013; Francisco et al., 2015; Jenaro et al., 2018; Kail, 2016; Leduc et al., 2018; Watts et al., 2017; Yubero et al., 2017). Individuals who engage in cyberbullying may do so for reasons as minute as differences in technological expertise (Kowalski et al., 2016). Researchers have noted there are various types of cyberbullying, including hostility, humiliation, obsessive monitoring or stalking, deception, and exclusion (Ramos & Bennett, 2016). For the purposes of this study, I will use the term cyberbullying to describe how victims of these actions are treated in the online environment.

Social Media

Social media refers to internet sites that can be accessed via mobile devices (e.g., cell phones, tablets) or other internet-enabled technology (e.g., desktop computers, laptops) that are designed to be substantially collaborative platforms in which individuals can become members of online communities to share information, have discussions, and interact with others (Kietzmann et al., 2011). Common forms of social media are Facebook, Twitter, ASKfm, Formspring, Whatsapp, and Instagram (Ashktorab et al., 2017; Balakrishnan, 2017; Brack & Caltabiano, 2014; Chan & Wong, 2017; Kietzmann et al., 2011; Nycyk, 2015; Volkan-Sari, 2016). In addition to social media, other forms of interactive electronic media include text messaging and email (Ramos & Bennett, 2016). Social media has become a basic way for people to connect with family members and friends, share information, and stay informed about trends (Lin et al., 2016). The ways

that social media platforms are a means in which people may become victims of cyberbullying is especially relevant to this study.

Literature Review

Bullying

Before the use of electronic media became common, research focused on face-to-face bullying behaviors. Some of the first bullying studies appeared in Scandinavia in the 1970s (Zych et al., 2015). A majority of those studies were conducted with children or adolescents (Balakrishnan, 2015; Balakrishnan, 2017; Brack & Caltabiano, 2014; Cassidy et al., 2017; Doane et al., 2013; Gahagan et al., 2015; Garland et al., 2017; Gibb & Devereux, 2014; Hemphill & Heerde, 2014). As such, very few researchers have investigated adult subjects as bullies and even fewer have examined adults' perceptions or experiences as bullying victims (Garland et al., 2017). Many past studies investigating bullying examined which types of individuals fill the role of bully, victim, or bystander (Zych et al., 2015).

Past research has found that some cultures consider bullying to be a normal part of development and thus, adults normalized the act of children's bullying (Garland et al., 2017). Parents, teachers, or caretakers often encouraged the victims of bullying to be tough or to simply ignore the behavior. At times victims were even blamed for being bullied (Garland et al., 2017). However, research on bullying has clarified that it has negative impacts on the victims' physical and mental health, including physical harm from the bully, increased anxiety, depressed mood, and greater incidence of negative behaviors (Garland et al., 2017; Zych et al., 2015). The steady growth of this literature

resulted in a call for anti-bullying campaigns and intervention strategies (Garland et al., 2017).

Cyberbullying

Research on bullying gained further visibility with the invention of the internet, which became more readily available in the 1990s (Zych et al., 2015). Researchers and media outlets began to refer to this new type of bullying as “online bullying” and eventually, cyberbullying (Zych et al., 2015, p. 189). There continues to be considerable overlap between the definition of bullying and cyberbullying, and researchers have documented some cases in which a victim has been bullied and cyberbullied (Brody & Vangelisti, 2017). However, cyberbullying offers perpetrators the addition of anonymity on certain platforms, which can affect victims in different ways than traditional bullying, as they are unable to ascertain the identity of their bully or where their bully comes from (Francisco et al., 2015; Ramos & Bennett, 2016; Seray-Ozden & Icelliglu, 2014; Tennant et al., 2015). As researchers began to attribute teen suicides and school shootings to victims of bullying and/or cyberbullying, the visibility and prevalence of bullying and cyberbullying research steadily grew (Zych et al., 2015).

Prior Studies in Cyberbullying

Prevalence. Worldwide estimates of cyberbullying victimization suggest that between 9% and 40% of the adolescent population experiences cyberbullying (Raskauskas & Huynh, 2015; Kim et al., 2017; Wong et al., 2018). The amount of time that an individual spends in the online environment may be a predictor of cyberbullying victimization (Brody & Vangelisti, 2017). Over 79% of Americans reported having a Facebook account, and 90% of young adults reported using social media at least once per

day (Brody & Vangelisti, 2017; Lin et al., 2016). Researchers conducted a study of individuals in the United States between the ages of 18 and 29 and found that 98% had cellular phones and 83% had a smartphone device (Brody & Vangelisti, 2017). Among adults who spent time online, approximately 75% reported spending time on social networking sites such as LinkedIn (Jones et al., 2016). Researchers have estimated that users spend around two hours per day on social networking platforms (Jones et al., 2016). In a poll of college students, researchers reported that 50% of those polled had been victims of cyberbullying, and that of those 50%, 30% reported that they first experienced cyberbullying after entering college (Brody & Vangelisti, 2017).

Researchers examining cyberbullying among college students and young adults noted that the number of young adults (aged 18 to 29 years old) who use social media dramatically increased from 9% in 2004 to approximately 89% in 2014 to 88% in 2018 (Gahagan et al., 2015; Smith & Anderson, 2018). According to additional research, the most popular social media platform for adults throughout the years studied was Facebook, followed by YouTube, Snapchat, and Instagram (Gahagan et al., 2015; Smith & Anderson, 2018). Researchers found Facebook to be popular across all demographic groups with three-quarters of users conceding to visiting the site at least one time per day (Gramlich, 2019). Approximately 92% of young adults have also reported using social media platforms that allow video sharing, such as YouTube (Gahagan et al., 2015; Smith & Anderson, 2018). It has become common for social media users to have accounts on two or more social media platforms (Gahagan et al., 2015; Smith & Anderson, 2018). Approximately 46% of students in a survey admitted that they had witnessed another person being bullied online, and 61% of those who witnessed another student being

cyberbullied did nothing to intervene (Gahagan et al., 2015). The students' opinions on if a witness to cyberbullying is responsible to intervene or not differed (Gahagan et al., 2015).

The Pew Research Center found that adults reported witnessing or personally experiencing six types of online harassment: being called offensive names, experiencing embarrassment, being physically threatened, being harassed for a sustained period, being sexually harassed, and being stalked (Duggan et al., 2015). Researchers suggested that young adults experience the most cyberbullying among the adult population and that women are more likely to be targeted than men (Duggan et al., 2015). Researchers who conducted a study of 54 college students' perspectives of cyberbullying found that between 8% and 21% of college students reported having been affected by cyberbullying (Crosslin & Golman, 2014). Other researchers have reported that 73% of surveyed adult internet users experienced some form of online harassment (Duggan et al., 2015). As a whole, this research suggests that cyberbullying not only occurs among to children, but that it is also highly prevalent among young adults.

Controversy defining cyberbullying. Researchers focusing on cyberbullying have defined the problem in various ways, leading to several concerns for further field studies. Olweus and Limber (2018) argued that previous cyberbullying research included inconsistencies and overstated claims. They suggested that the root of these inconsistencies is the broad definition of cyberbullying, as some studies have used overly subjective terms (Olweus & Limber, 2018; Peter & Petermann, 2018). Other researchers have debated if cyberbullying is part of traditional bullying, or if it is its own phenomenon (Olweus & Limber, 2018). A related area of concern for researchers is the

overlap of bullying and cyberbullying (Olweus & Limber, 2018). Individuals who have experienced cyberbullying also may have experienced traditional bullying, therefore it is difficult to ascertain which type of event precipitated the outcomes that were measured (e.g., negative impacts on mental and physical health; Olweus & Limber, 2018). One possibility is that the subjective nature in which individuals experience cyberbullying victimization makes determining a scientific definition impractical.

Types of cyberbullying. Researchers have identified eight main categories of behaviors related to cyberbullying: impersonation, denigration, cyberstalking, exclusion, outing, flaming, harassment, and trickery (Na et al., 2015). Na et al. (2015) defined impersonation in the online environment as the act of pretending to be another person in order to embarrass or produce negative consequences for the individual being impersonated. The authors described online denigration as the act of unfairly criticizing a person. *Cyberstalking* refers to the repeated use of social media to frighten or harass an individual, whereas exclusion is the act of one individual or social group ignoring another individual. The authors defined online outing as one individual disseminating information about another individual that the victim did not want presented to others, such as sexual orientation or medical diagnosis. Similarly, flaming involves one or more individuals engaged in an online argument in which they initiate unfounded personal information attacks on each other. Na et al. defined harassment as the use of aggressive pressure or intimidation in the online environment. Finally, the authors noted that trickery is the use of deception online to cause a victim to falsely believe that they are interacting with a particular person or that they have won a prize, or taking another action that will ultimately hurt the victim (Na et al., 2015).

Impact of cyberbullying. Some researchers have suggested that the experience of bullying or cyberbullying may be a precursor to physical and mental health problems in childhood (Brody & Vangelisti, 2017; Due et al., 2009; Garland et al., 2017; Rivituso, 2014). Many victims of cyberbullying have also been targeted in traditional bullying (Görzig & Machackova, 2015). Researchers in one study investigating cyberbullying found that victims reported feeling hurt, embarrassed, sad, depressed, and angry after the incident (Brody & Vangelisti, 2017). Other researchers found that exposure to cyberbullying over time can lead to an increased risk for the development of anxiety disorders (Due et al., 2009).

Many researchers have voiced the need for further study of adult cyberbullying, due to the high rates of cyberbullying victimization in the adult population (Tennant et al., 2015; Wozencroft et al., 2015; Yubero et al., 2017). Internationally, cyberbullying research has primarily focused on young adults (ages 18 to 29 years old) and college students (Lin et al., 2016; Na et al., 2015; Tennant et al., 2015; Wu et al., 2017; Yubero et al., 2017). Researchers often employ online surveys to collect data for studies involving college student participants (Wong et al., 2018; Wozencroft et al., 2015). Some studies investigating cyberbullying in young adults have examined gender differences, the effects of perception of social support, the need for change to social policy, antecedents to online disinhibition, and the perception of cyberbully victimization (Shensa et al., 2016; Tennant et al., 2015; Wong et al., 2018; Wozencroft et al., 2015; Wu et al., 2017). College students who experienced bullying and were subsequently cyberbullied demonstrated the worst outcomes related to overall well-being (Tennant et al., 2015; Wozencroft et al., 2015). Researchers have observed that young adult victims of cyberbullying suffer

similar negative effects to child and adolescent victims, such as emotional distress, social anxiety, depressed mood, behavioral difficulties, psychosomatic problems, and suicidal ideation (Wong et al., 2018; Wozencroft et al., 2015). There is conflicting information regarding whether cyberbullying acts increase or diminish with age (Wong et al., 2018; Wozencroft et al., 2015). There are also conflicting reports regarding the impact of gender on cyberbullying victimization and perpetration (Wong et al., 2018). Past research has not sufficiently assessed the factors (e.g., ethnicity, gender, sexual orientation) that best predict the negative impact of cyberbullying experiences (Cassidy et al., 2017; Lee, 2016; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Yubero et al., 2017; Zalaquett & Chatters, 2014).

Researchers have speculated that social media use may be associated with sleep disturbance in adults (Levenson et al., 2016). Sleep disturbance can be a symptom of a mental health issues (e.g., depression, anxiety), and may be a direct result of negative interactions online. When controlling for sociodemographic covariates, sleep disturbance researchers found that adults who endorsed higher levels of social media use were also more likely to report sleep disturbances (Levenson et al., 2016). However, controlling for sociodemographic covariates may have been a limitation for this research, as those factors may have also contributed to sleep disturbance. Future research should examine the effects of sociodemographic factors on sleep disturbance (Levenson et al., 2016).

Low amounts of perceived social and emotional support are associated with negative health outcomes such as depression and anxiety (Shensa et al., 2016).

Researchers have suggested that face-to-face communication tools available in some social media networks can increase social and emotional supports for individuals (Shensa

et al., 2016). Similarly, frequency of social networking use has been positively associated with levels of social capital (Shensa et al., 2016). Future research on the frequency of social media use, perceived feelings of social and emotional support, and demographic data (i.e., age, gender, ethnicity) could potentially clarify whether social media networking has positive or negative effect on individuals (Shensa et al., 2016). For example, one past study demonstrated that people may feel less, not more, social and emotional support from SMS (Shensa et al., 2016). If reliable, this finding could impact the way users view SMS.

Demographic variables and cyberbullying. Historically, researchers studying cyberbullying focused on children and adolescents, and examined the nature and dynamics of the phenomenon; variables related to the phenomenon; the occurrence of the phenomenon in minority populations with children and adolescents; and, prevention and intervention of the phenomenon (Gahagan et al., 2015; Rivituso, 2014; Tennant et al., 2015; Zych et al., 2015). Furthermore, researchers have produced little work examining the effects of demographic factors—such as the effect of ethnicity on cyberbullying in adults (Due et al., 2009; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014). Demographic and socio-ecological factors such as SES, age, ethnicity, sexual orientation, and gender have been identified as factors that may contribute to the risk of cyberbullying victimization in adolescents (Due et al., 2009; Garland et al., 2017). Researchers in Denmark found that children from lower SES families had greater instances of bullying than their peers from higher SES families (Due et al., 2009). Other researchers have suggested that while gender and age have been frequently studied in children and adolescents, more attention needs to be focused on SES, ethnicity, and sexual orientation

as potential factors that contribute to cyberbullying victimization in children and adults (Garland et al., 2017). Ethnicity is a factor that may impact the relative or perceived power among individuals in various communities (including those online), which may influence individuals' experiences of cyberbullying (Bronfenbrenner, 1979; Cassidy et al., 2017; Navarro et al., 2016).

Since most previous research on cyberbullying focused on children and adolescents, college students from special populations are a demographic that has been largely overlooked, including those with developmental disabilities (Kowalski et al., 2016). In research that has examined cyberbullying in this population, college students with developmental disabilities demonstrated an increased risk for cyberbullying victimization. Developmentally disabled adults who are victims of cyberbullying suffer increased instances of depressed mood and lower self-esteem. The research found that for people with developmental disabilities, experience with traditional bullying victimization, the amount of time students spent online, and the noticeability of the individual's disability predicted the likelihood of cyberbullying victimization (Kowalski et al., 2016).

Frequency of social media use. It has not yet been established if frequency of social media use leads to cyberbullying victimization (Müller et al., 2018). Past work has suggested that cyberbullying may be associated with frequency of social media use, amount of time spent online, and demographic variables (e.g., ethnicity, gender, age; Kowalski et al., 2016; Müller et al., 2018). In one study, researchers followed 1,199 German school students between the ages of nine and 17 and found that their frequency of social media use was not predictive of cyberbullying victimization (Müller et al.,

2018). However, the data did demonstrate a correlation between the way that adolescents used social media, cyberbullying perpetration, and victimization (Müller et al., 2018).

Summary

The increased availability and use of electronic media by adolescents and adults in the United States has become an area of interest to psychological researchers (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Concern about the impacts of social media on cyberbullying victimization in adults in the United States also has increased (Lowry et al., 2016; Tennant et al., 2015; Wozencroft et al., 2015; Yubero et al., 2017). While there have been a number of studies examining the positive and negative impacts of social media use for children and adolescents, considerably fewer studies have examined the effects of social media use and cyberbullying in adults, and their findings tend to be less consistent (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016). Even less research has examined if ethnicity predicts the negative impact of cyberbullying experiences on adults (Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Zalaquett & Chatters, 2014). Thus, there is a documented gap in the literature regarding the effects of ethnicity on cyberbullying in adults that future researchers should address (Garland et al., 2017; Kim et al., 2017; Poole, 2017).

Given this gap in the literature, the purpose of the present study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. I achieved this by examining the prevalence of cyberbullying victimization among adults and the association between cyberbullying experiences and demographic factors, specifically ethnicity. I also used surveys to collect

data regarding SMS use, demographic information including ethnicity, and perceived level of cyberbullying victimization.

Chapter 3: Research Method

Introduction

There has been increasing concern regarding the impact of SMS use on adults in the United States due to the frequent occurrence of cyberbullying among this population (Lowry et al., 2016). Although researchers have examined both the positive and negative effects of SMS use among adolescents, few researchers have examined the effects of SMS use and cyberbullying among adults. Furthermore, the limited research conducted in this area has produced conflicting results (Cassidy et al., 2017; Hemphill & Heerde, 2014; Kail, 2016; Kim et al., 2017; Lowry et al., 2016; Zalaquett & Chatters, 2014). Researchers have documented how ethnic minority adults may have a greater resistance overall to bullying behavior and bias due to stress inoculation (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). However, few researchers have examined if ethnicity is predictive of negative experiences of cyberbullying among adults (Garland et al., 2017; Kim et al., 2017; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014).

The purpose of this study is to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying among adults in the United States. I examined the prevalence of cyberbullying victimization among adults as well as factors associated with this issue. A correlation among the variables may suggest a relationship between ethnicity and the negative experience of cyberbullying victimization. In this chapter, I discuss the research design and rationale. I describe the methodology, including the population, sampling procedures, instrumentation, data

collection, operationalization, and data analysis plan. I then discuss potential threats to validity and ethical procedures. Finally, I conclude with a summary reviewing the information presented.

Research Design and Rationale

The research question for the study was: does ethnicity predict how a person experiences being the victim of cyberbullying while also accounting for other demographic variables? The research design was correlational in nature and involved the measurement of the independent, dependent, and covariate variables in order to assess if a relationship occurs among or between those variables. Correlational research assesses the relationship between or among variables (Creswell, 2014). Correlational research was appropriate to identify if ethnicity predicts the likelihood of negative experiences with cyberbullying in adults in the United States while also accounting for other demographic variables. In this study, the independent variable was ethnicity, the dependent variable was the experience of cyberbullying victimization, and the covariates were gender, SES, sexual orientation, age, marital status, and religious affiliation. I conducted a multiple regression analysis to identify if ethnicity and the covariates impact the experience of cyberbullying victimization.

Methodology

Population

The target population for this study was adults living in the United States who use social media at least 3 hours per week. According to the US Census Bureau (2018), the population of the United States as of July 2018 was 327,167,434 people. Of those people, approximately 60% were White, 18% were Hispanic or Latino, 13% were African

American or Black, 6% were Asian, 1.3% were Native American or Alaskan Native, and 2.7% were two or more races (US Census Bureau, 2018). As of July 2018, the adult portion of the population (individuals over the age of 18) in the United States was 77.6% (US Census Bureau, 2018).

Sampling and Sampling Procedures

I used convenience sampling for the purposes of this study. This type of sampling is frequently used in quantitative studies. Convenience sampling is often used to reduce the potential for bias within a study by avoiding researchers' judgement of participants. I recruited the sample online via Prolific and the participants were routed to the survey at the SurveyMonkey website. The inclusion criteria were persons: (a) over the age of 18 and (b) living in the United States. I used G*Power to calculate the sample size for this study (Faul et al., 2009). The generally accepted values are .80 for power and .05 for alpha, as applied in this study. For a correlational coefficient, the following effect sizes are generally accepted: small = .10, medium = .30, and large = .50. The expected effect size for this study was small, so an effect size of .10 was appropriate. According to G*Power, the target sample size for this study was 614 (Faul et al., 2009).

Procedures for Recruitment, Participation, and Data Collection

As stated above, I recruited the sample via Prolific and routed the participants to the survey at the SurveyMonkey website. Participants provided implied informed consent by clicking on the link in Prolific that took them to the SurveyMonkey website. Participants completed all aspects of the survey, including informed consent, through SurveyMonkey. I then analyzed the data using IBM SPSS Version 25 software. Upon

completion of the survey, I thanked participants for their participation and encouraged them to ask any questions using the contact information provided.

Instrumentation

The Cyberbullying Victimization Scale (CVS) is a 27-item scale to measure three areas of cyberbullying victimization: verbal/written victimization, visual/sexual victimization, and social exclusion victimization (Lee et al., 2015). This scale was appropriate for the current study because it provided the opportunity to measure how negative a participant's experience with cyberbullying victimization was. Each item was measured on a five-point Likert scale, where 1 = not at all and 5 = very often, for example, "someone has blocked me on an instant messenger to upset me – 1 2 3 4 5." (Lee et al., 2017). Individual items were tallied and scored first in their sub-scale categories and finally in total for the entire measure. This measure was obtained through PsycTESTS via the Walden University Library. Permission to use the measure was provided therein: "Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission" (Lee et al., 2017, p. 1). According to Lee et al. (2015), the CVS has excellent reliability ($\alpha = .95$) and strong convergent validity. The measure was validated using a sample of 286 undergraduate students aged 18 to 25 (Lee et al., 2015).

Participants completed a questionnaire for the purpose of establishing demographic information (e.g., gender, age, sexual orientation, ethnicity, income level, religious affiliation, marital status). The demographic questions will provide data for the independent variable and covariates in the study. A search in PsycTESTS did not produce a general template for these questions.

Operationalization of the Constructs

For the purposes of this study, I quantified *ethnicity* as: Hispanics of any race, American Indian or Alaskan Native, Asian, Black or African American, Hawaiian or other Pacific Islander, White, and two or more races. I defined the covariates as follows. For *age*, each participant entered their current age. *Gender* included woman, man, transgender, and other gender identities. *Sexual orientation* offered bisexual, gay, lesbian, heterosexual, queer, and questioning identifiers. *Marital status* offered single, in a relationship, married, separated, divorced, and widowed identifiers. *Income level* offered annual income levels beginning with less than \$10,000 per year up to over \$100,000 per year identifiers. Finally, *religious affiliation* offered agnostic, atheist, Christian, not religious but spiritual, Buddhist, Hindu, Protestant, Muslim, Jewish, Orthodox (Greek or Roman), Mormon, Roman Catholic, Seventh-Day Adventist, Christian Scientist, and Other identifiers. *Cyberbullying victimization* refers to the experience of verbal/written victimization, visual/sexual victimization, and social exclusion victimization in the online environment.

Data Analysis

I used IBM SPSS Version 25 software for data analysis. The statistical test I performed was multiple regression. The reason for including the covariate variables was to go beyond the examination of ethnicity and experience of cyberbullying to identify if other demographic variables imply relationships that explain why some individuals experience cyberbullying more negatively than others. Inoculation theory implies that ethnic minority individuals will have a less negative experience with cyberbullying than White people due to their exposure to racism and bias by others in their environment.

This may also apply to the other demographic variables because the argument could be made that some gender, sexual orientation, and religious minorities also experience discrimination and unequal treatment from majority identities (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). Thus, I used these other demographic factors (age, gender, sexual orientation, marital status, income level, and religious identity) as control variables to test for the effect of ethnicity on cyberbullying experience above and beyond these other factors.

Research Question

The research question and associated hypotheses are:

RQ: Does ethnicity predict how a person experiences being the victim of cyberbullying while also accounting for other demographic variables?

H_0 : Ethnicity will not predict how a person experiences being the victim of cyberbullying while controlling for other demographic variables.

H_a : Ethnicity will predict how a person experiences being the victim of cyberbullying while controlling for other demographic variables.

Threats to Validity

External Validity Threats

Population validity. A potential threat to external validity for this study concerns applicability to the entire population or population validity. I utilized a convenience sample. If the data collected did not come from a sample representative of the US population who use social media, it could have compromised external validity. In order to avoid this, I monitored the data collected to see if the ethnicity of the sample was representative of the US population. The use of a participant pool such as Prolific can

help to decrease issues regarding external validity as the program is able to recruit a representative sample based on the following three demographics: age, sex, and ethnicity.

Reactive effects. Reactivity in a study may occur as a result of differing behaviors of participants during an experiment. That is, the participants may behave differently than they would in real life because they know they are in an experiment (Ihantola & Kihn, 2011). This may occur because the participants want to appear more responsive or responsible to the researchers, or because participants do not want to admit to behaving in certain ways. This threat to validity was difficult to avoid as it depends on the participants being 100% honest in their self-reporting in the online surveys and questionnaires.

Internal Validity Threats

Experimental Mortality. Attrition or experimental mortality occurs when the participants who withdraw or drop out of a study are different than the participants who remain; these differences alter the outcome of the study (Slack & Draugalis, 2001). This type of internal validity threat most usually occurs in longitudinal studies (Slack & Draugalis, 2001). Since this study was not longitudinal in nature, this threat to internal validity was not a concern.

History and Maturation. The concepts of history and maturation are similar because they may be used to justify what occurs naturally over time. Within a study, researchers may falsely interpret this as a change that occurs due to an intervention made within the study. For the purposes of the current study, history and maturation were not an issue, as there was no intervention used or pre or post testing. However, there may have been an impact depending on when participants received the online surveys. An

example of this is if a major event surrounding cyberbullying occurred and received publicity in the news. In such an event, participants may have become more reactive to cyberbullying and its effects than they would be if such a news story were not recently published and publicized.

Statistical Regression. This threat to internal validity occurs when people who have been identified as having extreme scores are retested on the same or related variables and then have fewer extreme scores (Taylor & Asmundson, 2008). An example of this may occur when participants who have extreme pretest scores score closer to the mean on a posttest (Taylor & Asmundson, 2008). In this study, I did not use a pretest or posttest and did not apply a treatment, so this threat to internal validity was not a concern.

Ethical Procedures

I did not commence the research until I received approval from the Walden University Internal Review Board. All data collected was anonymous and I did not identify participants. Prolific and SurveyMonkey provide participants the opportunity to turn off specific tracking software so participants do not share their identifying information or IP addresses with the researcher. Participants provided implied informed consent by clicking the link to be sent to the SurveyMonkey website, and agreed to participate with the understanding they could discontinue participation at any time. The informed consent page on the SurveyMonkey website also provided information for support available should any participant become upset or triggered by the subject matter (i.e., cyberbully victimization), such as the National Suicide Prevention Hotline, STOMP Out Bullying, and the Cyber Civil Rights Initiative Crisis Helpline.

I was the only individual accessing the collected raw data. I stored the data on password-protected technology. The dataset may be shared with Walden University faculty as appropriate and will be kept for a minimum of seven years.

Summary

I used a correlational research design to measure the independent, dependent, and covariate variables in order to assess if a relationship occurred among or between those variables. I used convenience sampling to recruit participants online via Prolific and routed the participants to the survey at the SurveyMonkey website. Participants provided implied informed consent by agreeing to be routed to the survey on the SurveyMonkey website where they read the informed consent document, and then answered a demographic questionnaire and the CVS measure. The participants were informed that they could discontinue their participation at any time. I stored the data on password-protected technology, and participants remained anonymous. I analyzed data via IBM SPSS Version 25 and conducted multiple regression analysis. I addressed threats to internal and external validity by any means needed during the data collection and analysis process. In the next chapter, I will present the results of the analysis.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. The independent variable was ethnicity, the dependent variable was the impact of cyberbullying victimization, and the covariates were gender, SES, sexual orientation, age, marital status, and religious affiliation. A single research question guided the study: Does ethnicity predict how a person experiences being the victim of cyberbullying when accounting for other demographic variables? The null hypothesis, H_0 , was that ethnicity does not predict how a person experiences being the victim of cyberbullying when controlling for other demographic variables. The alternative hypothesis, H_a , was that ethnicity predicts how a person experiences being the victim of cyberbullying when controlling for other demographic variables. In this chapter, I will fully detail the data collection information, as well as the results of the statistical analyses completed.

Data Collection

I collected data in April of 2020. The data collection began on the 23rd of April 2020 and was completed on the 25th of April 2020. I used a convenience sample of individuals over the age of 18 and living in the United States from the participant pool via Prolific. Prolific has the ability to recruit a representative sample of the United States population from their 128,662 participants on the following three demographics: age, sex, and ethnicity. There were 28,202 participants that fit within those characteristics. The Prolific-recruited participants were directed to a survey created in SurveyMonkey. A total

of 625 participants answered the link sent to them by Prolific to participate in the study. A total of 618 participants completed the survey in its entirety. The seven participants who did not complete the survey in its entirety either opted out (as was their choice) or timed out, in which case I removed them from consideration. Due to missing data, I removed those seven participants from the analysis. Prolific compensated all participants for their participation whether they completed the survey in its entirety or not.

Ethnicity

Participants were able to choose from the following seven categories of ethnicity: Hispanics of any race, American Indian or Alaska Native, Asian, Black or African American, White, Native Hawaiian or Other Pacific Islander, or two or more races. Thirty-three participants (5.3%) identified as Hispanics of any race, 2 (0.2%) identified as American Indian or Alaska Native, 43 (7%) identified as Asian, 82 (13.3%) identified as Black or African American, 437 (60%) identified as White, no participants identified as Native Hawaiian or other Pacific Islander, and 21 (3.4%) identified as two or more races.

The responses yielded quite a diverse participant sample, with slightly more Asian participants (7% versus 6%), Black or African American participants (13.3% versus 13%), and two or more races participants (3.4% versus 2.7%) than the 2018 United States Census Bureau estimates. There were more White participants (70.7% versus 60%) than the 2018 United States Census Bureau estimates. There were less American Indian or Alaska Native participants (0.3% versus 1.3%), and Hispanics of any race participants (5.3% versus 18%), than the 2018 United States Census Bureau estimates. Finally, there were no Native Hawaiian or other Pacific Islander participants. The United States Census Bureau estimates are based on the total population, accounting for children and

adolescents as well; this could impact the expected percentages of each ethnicity.

According to the United States Census Bureau (2018), adults make up over three quarters (77.6%) of the entire population of the United States. Since this study includes only participants over the age of 18, the numbers reported in this study could be more reflective of the adult population of the United States.

For the purposes of statistical analysis, I created a new variable, "OtherEth," to encompass the two participants who identified as American Indian or Alaskan Native, and the 21 participants who identified as two or more races. In any category within any variable with less than 5% identifying participants, I combined those categories into a new variable, such as described above. This limited the number of predictors in the analyses in order to meet assumptions. I also used dummy coding for the purposes of statistical analysis because nominal variables such as ethnicity with categories such as Asian or White need to be transformed into data that a regression analysis can treat as a high (e.g., 1) or a low (e.g., 0) score.

Cyberbullying Victimization Scale

There are three subscales to the CVS. They are visual/sexual victimization with 10 items, social exclusion victimization with seven items, and verbal/written victimization with 10 items. All 618 participants answered all items for each of the three subscales. I compiled scores on the three subscales, as well as an overall cyberbullying victimization score. I measured each item on a five-point Likert scale, where 1 = not at all and 5 = very often. For the verbal/written victimization, the mean answer was 1.78; for visual/sexual victimization, the mean answer was 1.52; for social exclusion victimization,

the mean score was 1.69; and, for the overall cyberbullying victimization, the mean score was 1.66.

Three items on the scale had a reverse direction with regard to how the item was worded. Reverse wording occurs on scales to ensure that there is a fuller measurement of an attitude or opinion. Researchers use it to measure if participants are answering carelessly and to help correct for agreement bias. Before I could meaningfully combine all responses for the subscales or scale into a total score, all items needed to be going in the same direction. One item on each subscale was reverse worded, so I had to reverse score the following before completing the total scores for statistical analysis: item 5: “Someone has never said mean things about me to my friends on instant messengers or in chat rooms to damage my relationship;” item 14: “I have never received sexually explicit things from someone via e-mail or text message which embarrassed me;” and, item 24: “I have never been excluded from online group activities which made me feel left out.”

Covariates

Age. Each participant entered their age into the response box. Participant ages ranged from 18 to 77 years old. The mean age of the 618 participants was 44.97. In the statistical analyses, I treated age as a continuous variable and changed to scale.

Gender. Two hundred ninety-seven participants (48.1%) identified as men, 310 (50.2%) identified as women, five (0.8%) identified as transgender, and six (1%) identified as other. As noted previously, I combined any category with less than 5% of the sample to limit the number of predictors in the analyses in order to meet assumptions. Under gender the category, I created “OtherGen” to encompass the transgender and other categories. I used dummy coding for statistical analysis purposes where categories

needed to be transformed into data that a regression could treat as a high (e.g., 1) or a low (e.g., 0) score.

Sexual Orientation. Forty-eight (7.8%) participants identified as bisexual, 18 (2.9%) identified as gay, 7 (1.1%) identified as lesbian, 533 (86.2%) identified as heterosexual, 8 (1.3%) identified as queer, and 4 (0.6%) identified as questioning. According to the National Center for Health Statistics (2018), the breakdown of sexual orientation in the United States is as follows: men who identify as gay make up 1.9% of the total population, men who identify as heterosexual make up 97.3% of the total population, and men who identify as bisexual make up 0.8% of the total population of men; women who identify as lesbian make up 1.4% of the total population, women who identify as heterosexual make up 96.8% of the total population, and women who identify as bisexual make up 1.8% of the total population of women (National Center for Health Statistics, 2018).

The responses yielded a diverse participant sample with more individuals identifying as bisexual, gay, queer, and questioning than the National Center for Health Statistics estimates from 2018. Within the survey, fewer participants identified as heterosexual than the National Center for Health Statistics estimates from 2018. Underreporting of sexual orientation other than heterosexual in the National Center for Health Statistics estimates by individuals who do not wish to face bias or discrimination based upon this identifying characteristic may impact these numbers. As noted previously, I combined any categories with less than 5% of the sample to limit the number of predictors in analyses in order to meet assumptions. Under sexual orientation, I created a category “OtherSexOrien” to encompass the gay, lesbian, queer, and

questioning categories. I used dummy coding for statistical analysis purposes (as with previously discussed variables) where categories needed to be transformed into data that a regression could treat as a high (e.g., 1) or a low (e.g., 0) score.

Marital Status. One hundred ninety-three (31.2%) participants identified as single, 128 (20.7%) participants identified as in a relationship, 204 (33%) participants identified as married, 8 (1.3%) participants identified as separated, 70 (11.3%) participants identified as divorced, and 15 (2.4%) participants identified as widowed. As noted previously, I combined any category with less than 5% of the sample to limit the number of predictors in analyses in order to meet assumptions. Under marital status, I created the category “SingleAgain” to encompass the widowed, divorced, and separated categories. Under marital status, I included one category with more than 5% in order to keep all categories that represented being single again together. I used dummy coding for statistical analysis purposes (as with previously discussed variables) where categories needed to be transformed into data that a regression could treat as a high (e.g., 1) or a low (e.g., 0) score.

According to the United States Census Bureau (2018) statistics, American men identified as the following: 37% never married; 49.3% married; 1.6% separated; 9.5%, divorced; and, 2.6% widowed. American women identified as the following: 30.7% never married; 46.3% married; 2.2% separated; 12.1% divorced; and, 8.7% widowed (United States Census Bureau, 2018). The amount of people who respond to the United States Census can impact statistics concerning marital status, thus affecting the data’s reliability.

Income. I treated income as a continuous variable and changed it to scale, similarly to age. Eighty (12.9%) participants identified as making less than \$10,000 per

year, 72 (11.7%) participants identified as making \$10,001 to \$20,000 per year, 81 (13.1%) participants identified as making \$20,001 to \$30,000 per year, 71 (11.5%) participants identified as making \$30,001 to \$40,000 per year, 61 (9.9%) participants identified as making \$40,001 to \$50,000 per year, 51 (8.3%) participants identified as making \$50,001 to \$60,000 per year, 54 (8.7%) participants identified as making \$60,001 to \$70,000 per year, 35 (5.7%) participants identified as making \$70,001 to \$80,000 per year, 24 (3.9%) participants identified as making \$80,001 to \$90,000 per year, 24 (3.9%) participants identified as making \$90,001 to \$100,000 per year, and 65 (10.5%) participants identified as making \$100,000 or higher per year.

Religion. One hundred four (16.8%) participants identified as agnostic, 107 (17.3%) participants identified as atheist, 207 (33.5%) participants identified as Christian, 75 (12.1%) participants identified as not religious but spiritual, 13 (2.1%) participants identified as practicing Buddhism, 2 (0.3%) participants identified as practicing Hinduism, 18 (2.9%) participants identified as Protestant, 3 (0.5%) participants identified as Muslim, 23 (3.7%) participants identified as Jewish, 3 (0.5%) participants identified as Greek or Roman Orthodox, 5 (0.8%) participants identified as Roman Catholic, 1 (0.2%) participant identified as Christian Scientist, 20 (3.2%) participants identified as other, and no participants identified as Seventh Day Adventist. As noted previously, I combined any category with less than 5% of the sample to limit the number of predictors in analyses in order to meet assumptions. Under religion, I created the category “OtherReligion” to encompass Buddhism, Hinduism, Protestant, Muslim, Jewish, Orthodox, Mormon, Christian Science, and other categories. I used dummy coding for statistical analysis purposes (as with previously discussed variables) where categories needed to be

transformed into data that a regression could treat as a high (e.g., 1) or a low (e.g., 0) score.

Research Question

The research question, as well as the null and alternative hypotheses were as follows:

RQ: Does ethnicity predict how a person experiences being the victim of cyberbullying while also accounting for other demographic variables?

H_0 : Ethnicity will not predict how a person experiences being the victim of cyberbullying while controlling for other demographic variables.

H_a : Ethnicity will predict how a person experiences being the victim of cyberbullying while controlling for other demographic variables.

Analyses

To assess the hypotheses, I conducted an initial set of multivariate multiple regression analyses using SPSS GLM multivariate analysis. Each subscale of the CVS was separately tallied and included as an outcome. In the first model, ethnicity was the only predictor. The second model included all covariates (age, gender, sexual orientation, marital status, income, and religion). Following this, I conducted two additional multivariate multiple regressions with overall CBV tallied score as the outcome. For all analyses, I utilized the following reference categories: White for ethnicity, man for gender, married for marital status, heterosexual for sexual orientation, and Christian for religion. Therefore, all comparisons are made with a white, married, heterosexual, Christian man. Because I did not test any interactions, I cannot discuss any patterns of interactions.

Assumptions. For the four multivariate multiple regression analyses conducted, I utilized a large sample size of 618 participants, thus meeting the prior G*Power analysis conducted. I tested all other assumptions when the individual analyses were conducted and for each, there were no issues in multicollinearity from the VIF values. PP plots revealed normal data, and scatter plots of residuals confirmed that the data is homoscedastic, meeting all required assumptions.

First analysis. I conducted an initial multivariate regression using SPSS GLM multivariate analysis. As mentioned earlier, I dummy coded ethnicity, resulting in the following predictors: Hispanic, Asian, Black and other ethnicity. White was the reference category. Multivariate analyses revealed that ethnicity significantly predicts the three subscales, specifically Hispanics, $F(3, 611) = 2.81, p = .039$; Wilks $\Lambda = .99$, partial $\eta^2 = .01$, and Black/African Americans, $F(3, 611) = 2.88, p = .035$; Wilks $\Lambda = .99$, partial $\eta^2 = .01$.

Further examination revealed a significant effect of ethnicity on the verbal/written victimization subscale, $F(4, 613) = 2.58, p = .037, R^2 = .017$ and visual/sexual victimization subscale, $F(4, 613) = 3.14, p = .014, R^2 = .02$. There was no effect on social exclusion victimization, $F(4, 613) = 1.63, p = .16, R^2 = .011$. Compared to Whites, Black or African Americans were more likely to report a .23 increase in negatively experiencing verbal or written victimization. Additionally, compared to Whites, Hispanics were more likely to have a .21 increase in negatively experiencing visual or sexual victimization. Similarly, Black or African American participants were more likely to have a .18 increase in negatively experiencing visual or sexual victimization than White individuals (see Table 1).

Table 1

Parameter Estimates of Multivariate Regression Analysis (Only Ethnicity as Predictors)

	B	SE	t	p	R²	Adj R²	F	Sig.	Partia l η^2
Verbal/written victimization									
Constant/ Intercept	1.748	0.033	52.33 8	< .001	0.017	0.01	2.576	0.037	0.017
Hispanic	0.046	0.126	0.362	0.717					
Asian	-0.088	0.112	-0.787	0.432					
Black	0.23	0.084	2.734	0.006					
Other Ethnicity	0.213	0.149	1.423	0.155					
Visual/sexual victimization									
Constant/ Intercept	1.478	0.027	54.80 9	< .001	0.02	0.014	3.141	0.014	0.02
Hispanic	0.21	0.102	2.062	0.04					
Asian	0.036	0.09	0.399	0.69					
Black	0.178	0.068	2.625	0.009					
Other Ethnicity	0.226	0.121	1.877	0.061					
Social exclusion victimization									
Constant/ Intercept	1.663	0.035	47.80 4	< .001	0.011	0.004	1.632	0.164	0.011
Hispanic	-0.039	0.131	-0.299	0.765					
Asian	-0.061	0.116	-0.528	0.598					
Black	0.139	0.087	1.586	0.113					
Other Ethnicity	0.294	0.156	1.889	0.059					

Note. Reference categories are White, Christian, heterosexual, married, men (Constant/Intercept). B is the unstandardized coefficient.

Second analysis. I conducted a second multivariate multiple regression analysis by adding age, income, religion, marital status, sexual orientation, and gender as covariates. I dummy coded all variables as described above. Ethnicity remained a significant predictor in the overall multivariate analysis, specifically Hispanics, $F(3, 597) = 3.26, p = .02$; Wilks $\Lambda = .98$, partial $\eta^2 = .02$. However, identifying as a Black or African American was no longer a significant predictor, only marginal, $F(3, 597) = 2.18, p = .09$; Wilks $\Lambda = .989$, partial $\eta^2 = .01$. For all multivariate effects, see Table 2. This

suggests that when controlling for these additional factors, ethnicity may not be driving the effect.

Table 2

Multivariate Effects for Multivariate Multiple Regression Analysis (All Predictors and Covariates)

Effect	Wilks' Λ	F	Sig.	Partial η^2
Intercept	0.67	97.941	< .0001	0.33
Hispanic	0.984	3.26	0.021	0.016
Asian	0.993	1.467	0.222	0.007
Black	0.989	2.187	0.088	0.011
Other Ethnicity	0.994	1.253	0.29	0.006
Age	0.947	11.13	< .0001	0.053
Income	0.997	0.508	0.677	0.003
Women	0.955	9.287	< .0001	0.045
Transgender, Other	0.984	3.234	0.022	0.016
Bisexual	0.998	0.308	0.82	0.002
Gay, Lesbian, Queer, Questioning	0.996	0.879	0.452	0.004
Single	0.997	0.684	0.562	0.003
Relationship	0.982	3.57	0.014	0.018
Widowed, Divorced, Separated	0.999	0.208	0.891	0.001
Agnostic	0.985	3.033	0.029	0.015
Atheist	0.995	0.927	0.427	0.005
Spiritual	0.972	5.753	0.001	0.028
Other Religion	0.994	1.274	0.283	0.006
Catholic	0.996	0.86	0.462	0.004

Note. $df_{hypothesis} = 3$ and $df_{error} = 597$.

Further examination revealed that when adding and controlling for all covariates, the overall model significantly predicted verbal/written victimization, $F(18, 599) = 3.07$, $p < .0001$, $R^2 = .085$, visual/sexual victimization, $F(18, 599) = 4.36$, $p < .0001$, $R^2 = .116$, and social exclusion victimization, $F(18, 599) = 4.07$, $p < .0001$, $R^2 = .109$.

I will review select effects here; Table 3 displays the data in full. My analysis of the data revealed that Black or African Americans were significantly more likely to report .19 more negative experience with verbal/written victimization than White

individuals. With each increase in age, however, a participant was likely to report a .005 decrease in verbal/written victimization. When controlling for the age, gender, relationship status, religion, and sexual orientation, Black or African Americans were marginally more likely to report .124 more negative experience with visual/sexual victimization compared to White individuals. Similarly, those of Multi-racial or American Indian or Alaskan Natives were likely to have a .208 increase in experiencing visual/sexual victimization compared to White individuals. Lastly, when controlling for age, gender, relationship status, religion, and sexual orientation, compared to White individuals, Asian individuals were marginally .203 less likely to experience social exclusion victimization.

Table 3.

Parameter Estimates for Multivariate Multiple Regression Analysis (All Predictors and Covariates)

Model	B	SE	t	p	R²	Adj R²	F	Sig.	Partial η^2
Verbal/written victimization									
Constant/ Intercept	1.966	0.148	13.318	< .001	0.085	0.057	3.073	< .001	0.085
Hispanic	-0.008	0.127	-0.063	0.949					
Asian	-0.17	0.112	-1.519	0.129					
Black	0.191	0.087	2.207	0.028					
Other Ethnicity	0.203	0.147	1.382	0.168					
Age	-0.005	0.002	-2.488	0.013					
Income	0.001	0.01	0.068	0.946					
Women	0.059	0.057	1.036	0.301					
Transgender, Other	-0.057	0.222	-0.257	0.797					
Bisexual	0.076	0.111	0.682	0.496					
Gay, Lesbian, Queer, Questioning	-0.078	0.124	-0.628	0.53					
Single	0.106	0.082	1.294	0.196					
Relationship	0.214	0.086	2.501	0.013					

Model	B	SE	t	p	R²	Adj R²	F	Sig.	Partial η^2
Widowed, Divorced, Separated	0.073	0.093	0.783	0.434					
Agnostic	-0.122	0.086	-1.414	0.158					
Atheist	0.037	0.086	0.432	0.666					
Spiritual	-0.36	0.094	-3.839	< .001					
Other Religion	-0.156	0.088	-1.769	0.077					
Catholic	-0.16	0.124	-1.289	0.198					
Visual/sexual victimization									
Constant/ Intercept	1.706	0.117	14.534	< .001	0.116	0.089	4.362	< .001	0.116
Hispanic	0.153	0.101	1.52	0.129					
Asian	-0.048	0.089	-0.541	0.589					
Black	0.124	0.069	1.801	0.072					
Other Ethnicity	0.208	0.117	1.784	0.075					
Age	-0.006	0.002	-3.719	0					
Income	0.003	0.008	0.366	0.715					
Women	0.149	0.045	3.299	0.001					
Transgender, Other	0.072	0.177	0.408	0.683					
Bisexual	0.063	0.088	0.708	0.479					
Gay, Lesbian, Queer, Questioning	-0.075	0.099	-0.766	0.444					
Single	0.082	0.065	1.254	0.21					
Relationship	0.187	0.068	2.748	0.006					
Widowed, Divorced, Separated	0.039	0.074	0.531	0.596					
Agnostic	-0.194	0.069	-2.822	0.005					
Atheist	-0.025	0.068	-0.366	0.715					
Spiritual	-0.251	0.075	-3.37	0.001					
Other Religion	-0.108	0.07	-1.538	0.125					
Catholic	-0.152	0.099	-1.544	0.123					
Social exclusion victimization									
Constant/ Intercept	2.377	0.151	15.719	< .001	0.109	0.082	4.072	< .001	0.109
Hispanic	-0.173	0.13	-1.332	0.183					
Asian	-0.203	0.115	-1.767	0.078					
Black	0.043	0.089	0.491	0.624					
Other Ethnicity	0.248	0.15	1.649	0.1					

Model	B	SE	t	p	R ²	Adj R ²	F	Sig.	Partial η ²
Age	-0.012	0.002	-5.491	< .001					
Income	-0.008	0.01	-0.746	0.456					
Women	-0.087	0.058	-1.499	0.134					
Transgender, Other	-0.518	0.228	-2.278	0.023					
Bisexual	0.107	0.114	0.939	0.348					
Gay, Lesbian, Queer, Questioning	0.077	0.127	0.605	0.545					
Single	0.053	0.084	0.63	0.529					
Relationship	0.056	0.088	0.642	0.521					
Widowed, Divorced, Separated	0.037	0.095	0.388	0.698					
Agnostic	-0.181	0.089	-2.042	0.042					
Atheist	-0.084	0.088	-0.949	0.343					
Spiritual	-0.337	0.096	-3.504	< .001					
Other Religion	-0.058	0.09	-0.644	0.52					
Catholic	-0.155	0.127	-1.222	0.222					

Note. Reference categories are White, Christian, heterosexual, married, men (Constant/Intercept). B is the unstandardized coefficient.

Analyses three and four: Overall CBV score. I conducted a final set of multivariate multiple regression analyses to examine if ethnicity predicts the overall CBV score. As with the prior analyses, the initial model included ethnicity as the only predictors (Hispanic, Black, Asian, and Other Ethnicity). In the second model, I added all the covariates. The reference categories remained the same as the previous analyses. Again, I met all assumptions based off of PP plots, residual scatter plots, and VIF values.

Analyses revealed that Model 3 was significant, $F(4, 613) = 2.80, p = .025, R^2 = .02$. Specifically, compared to White individuals, there was a .19 increase in negatively experiencing cyberbullying for Black or African American individuals and a .24 increase in negatively experiencing cyberbullying for those of Multi-racial or American Indian background (see Table 4). When all covariates were added, Model 4 was a better model

predicting cyberbullying victimization, $F(18, 599) = 1.299, p < .0001, R^2 = .11$.

However, ethnicity only marginally predicted overall cyberbullying victimization experience. When controlling for age, gender, sexual orientation, marital status, and religion, compared to White individuals, Black or African American individuals negatively experienced .128 more overall cyberbullying victimization. Multi-racial and American Indian individuals had a .216 more negative experience with cyberbullying victimization, but these differences are only marginal. This suggests that other factors may also play a role in cyberbullying victimization, and ethnicity alone does not explain the pattern.

Table 4

Parameter Estimates of Multiple Linear Regression Analysis on Overall Cyberbullying Victimization Scores

	Unstandardized		Standardized					
	B	SE	β	t	p	R	R ²	Adj R ²
Model 3								
(Constant)	1.63	0.03		59.33	< .001	0.13	0.02	0.01
Hispanic	0.08	0.10	0.03	0.82	0.41			
Asian	-0.04	0.09	-0.02	-0.38	0.70			
Black	0.19	0.07	0.11	2.71	0.01			
Other	0.24	0.12	0.08	1.95	0.05			
Ethnicity								
Model 4								
(Constant)	1.98	0.12		16.57	< .001	0.34	0.11	0.09
Hispanic	0.01	0.10	0.00	0.09	0.93			
Asian	-0.13	0.09	-0.06	-1.48	0.14			
Black	0.13	0.07	0.08	1.83	0.07			
Other	0.22	0.12	0.07	1.83	0.07			
Ethnicity								
Age	-0.01	0.00	-0.20	-4.30	< .001			
Income	0.00	0.01	0.00	-0.08	0.94			
Women	0.05	0.05	0.05	1.19	0.24			

	Unstandardized		Standardized		
Transgender, Other	-0.13	0.18	-0.03	-0.72	0.47
Bisexual	0.08	0.09	0.04	0.88	0.38
Gay, Lesbian, Queer, Questioning	-0.04	0.10	-0.02	-0.37	0.71
Single	0.08	0.07	0.07	1.26	0.21
Relationship	0.16	0.07	0.12	2.36	0.02
Widowed, Divorced, Separated	0.05	0.08	0.03	0.68	0.50
Agnostic	-0.16	0.07	-0.11	-2.35	0.02
Atheist	-0.02	0.07	-0.01	-0.25	0.81
Spiritual	-0.31	0.08	-0.18	-4.14	< .001
Other Religion	-0.11	0.07	-0.07	-1.58	0.11
Catholic	-0.16	0.10	-0.06	-1.56	0.12

Note. Reference categories are White, Christian, heterosexual, married, men (Constant/Intercept).

Summary

The research question asked: does ethnicity predict how a person experiences being the victim of cyberbullying while also accounting for other demographic variables? After examining the results of the two separate multivariate multiple regression analyses that included the independent and dependent variables while controlling for the covariates, there was an implied or at least marginal real effect occurring. Analysis two includes an examination of all three subscales of the CBV scale, ethnicity, and the covariates while Analysis four included an examination of a total score of the CBV scale, ethnicity, and the covariates. In Analysis two, even when controlling for the covariates Hispanic participants had a more negative experience with cyberbullying victimization than White participants, and Black or African American participants had a marginally

more negative experience ($p = .07$) than White participants with cyberbullying victimization. In Analysis 4, when controlling for the covariates, ethnicity marginally impacted the negative experience of cyberbullying victimization with Black or African American and Other Ethnicity participants both with $p = .07$. This implies that there could be some kind of real effect occurring. However, this also suggests that other factors may also play a role in how an individual experiences cyberbullying victimization, and ethnicity alone does not explain the pattern. There is an implied rejection of the null hypothesis in favor of the alternative hypothesis while also suggesting that other demographic variables can contribute to the way an individual experiences cyberbullying victimization. In the next chapter, I will discuss the potential implications of the findings. Additionally, I will detail the limitations of the current study and suggestions for future research. Finally, I will discuss the potential impact on social change.

Chapter 5: Discussions, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. I examined the prevalence of cyberbullying victimization among adults and factors associated with this phenomenon, including if ethnicity predicts one's response to cyberbullying. This study was correlational in nature and involved the measurement of independent, dependent, and covariate variables to assess if relationships occurred among those variables. The existence of a correlation among relevant variables indicates a relationship between ethnicity, some of the covariates, and the negative impacts of cyberbullying victimization. The independent variable was ethnicity, the dependent variable was the impact of cyberbullying victimization, and the covariates were gender, SES, sexual orientation, age, marital status, and religious affiliation. I used a convenience sample, which is commonly used by researchers conducting quantitative studies. Data collection consisted of participants answering online surveys with questions pertaining to the variables previously identified. I conducted a multivariate multiple regression analysis to identify if ethnicity and the covariates impact cyberbullying victimization.

After examining the results of the two separate multiple regression analyses that included the independent and dependent variables while controlling for the covariates, the key findings appeared to suggest that there was an implied or at least marginal real effect occurring. Analysis two included an examination of all three subscales of the CBV scale separately tallied, ethnicity, and the covariates, while Analysis four included an

examination of a total score of the CBV scale, ethnicity, and the covariates. In Analysis two, even when controlling for the covariates Hispanic participants had a more negative experience with cyberbullying victimization than White participants, and Black or African American participants had a marginally more negative experience than White participants with cyberbullying victimization. In Analysis four, when controlling for the covariates, ethnicity appeared to marginally impact the negative experience of cyberbullying victimization with Black or African American and Other Ethnicity participants. This implied that there could be some kind of real effect occurring. However, this also suggests that other factors may also play a role in how an individual experiences cyberbullying victimization, and ethnicity alone does not explain the pattern. There was an implied rejection of the null hypothesis in favor of the alternative hypothesis, while also implying that other demographic variables can contribute to the way an individual experiences cyberbullying victimization.

Interpretation of the Findings

Ethnicity

As stated above, the second analysis included an examination of all three subscales of the CBV scale tallied separately, ethnicity, and the covariates; the results revealed that ethnicity was a significant predictor of cyberbullying victimization for Hispanics participants specifically, and marginally for Black or African American participants. However, when controlling for the additional factors, ethnicity may not be the only factor driving this effect. When further breaking down the CBV subscale information from the analysis, it was revealed that on the verbal/written subscale, Black or African American participants were significantly more likely to report higher

experience of cyberbullying than White individuals. However, with each increase in age an individual was likely to report a decrease in verbal/written victimization. Under the visual/sexual victimization subscale of the CBV information from the analysis revealed that Black/African American participants were marginally more likely to report cyberbullying when compared to White individuals. Similarly, those of multi-racial or American Indian/Alaskan Native ethnicity were more likely to have an increased negative experience with visual/sexual cyberbullying victimization than White individuals. Finally, under the social exclusion subscale, Asian participants were marginally less likely to experience this when compared to White individuals.

The results of the fourth analysis examining the total CBV scale tallied score, ethnicity, and the covariates revealed that ethnicity marginally predicted a more negative experience with cyberbullying victimization for Black or African American participants, multi-racial participants, and American Indian participants when compared to White participants. These effects were marginal, and suggests that other factors may also play a role in how negatively an individual experiences cyberbullying victimization.

Covariates

In the previous section, I noted that other factors may play a role in how a person becomes the victim of cyberbullying victimization. The results of the second analysis revealed that under the verbal/written CBV subscale, there was a greater negative effect of cyberbullying for participants who were in a relationship when compared to married participants and for participants who were spiritual when compared to Christian participants, and a marginal effect for participants who identified as other religion when compared to Christians. These data emphasize how other factors also impact how an

individual experiences cyberbullying victimization. Under the visual/sexual CBV subscale, there was a significant relationship with age where as age increases there is a decrease in the negative experience of cyberbullying victimization, Women when compared to men participants where women had a more negative experience, participants who were in a relationship had a more negative experience with cyberbullying victimization compared to those who identified as married, and participants who identified as spiritual or agnostic had a more negative experience with cyberbullying victimization when compared to Christians. Finally, under the social exclusion CBV subscale, there were significant relationships with each increase in age where older participants had a more negative experience with cyberbullying victimization, participants who identified as transgender and other had a more negative experience when compared to heterosexuals, and participants who were Agnostic and spiritual had a more negative experience when compared to Christians.

The results of the fourth analysis revealed some significant findings regarding the covariates as well. In comparison to the reference categories (White, man, heterosexual, married, and Christian) there were significant relationships with each increase in age where older participants had a more negative experience with cyberbullying victimization, participants who identified as being in a relationship had a more negative experience with cyberbullying victimization than those that identified as married, and participants who identified as being either agnostic or spiritual had a more negative experience with cyberbullying victimization than those who identified as Christian.

Inoculation Theory and Stress Inoculation

Researchers have documented that ethnic minority adults may have a greater overall resistance to bullying behavior and bias due to stress-inoculation (Ghabrial, 2017; McConnell et al., 2018; Meyer et al., 2008; Whitman & Nadal, 2015). However, very few researchers have examined if ethnicity is predictive of negative experiences with cyberbullying in adults (Garland et al., 2017; Kim et al., 2017; Lund & Ross, 2017; MacDonald & Roberts-Pittman, 2010; Navarro et al., 2016; Poole, 2017; Zalaquett & Chatters, 2014). In the present study, I used the CBV scale to measure how negative an experience that participants had with cyberbullying victimization. I was able to determine with marginal significance that some minority groups had a more significantly negative experience with cyberbullying victimization than White participants. This seems to counter inoculation theory and stress inoculation in that the results appear to suggest that participants in this study who identified as White had a less negative experience with cyberbullying victimization than individual participants of some (i.e., Hispanic, Black/African American, Multi-racial, American Indian/Alaskan Native) minority groups. However, under the social exclusion subscale of the CBV scales, Asian participants experienced less of this specific type of cyberbullying victimization than White participants. This facet requires further study, which I will discuss in the recommendations section.

The results of the present study suggest that other factors (such as any of the covariates) can impact how negative a participant's experience was with cyberbullying victimization. This was displayed in the results of both the second and fourth analyses completed in the present study when examining the subscales of the CBV scale

separately and all together. In past research examining the lived experiences of ethnic minority individuals who also identify as LGBT, researchers found that although these individuals experienced more stressors and had fewer resources available to them than White LGBT individuals, they did not necessarily have lower self-esteem or greater amounts of mental health disorders when compared to Caucasian sexual minorities and White heterosexuals (Ghabrial, 2017; Meyer et al., 2008; Whitman & Nadal, 2015). Data from the current study suggested that although ethnicity can play a part in how negative an individual experiences cyberbullying, additional factors also impact how negatively an individual experiences cyberbullying victimization. Again, further exploration of all the factors that impact how an adult individual is impacted by cyberbullying victimization requires additional research; I will discuss this further with the recommendations section.

Socio-Ecological Systems Theory

The socio-ecological systems theory suggests that cyberbullying victimization occurs as a result of the complex interactions between varying levels or factors of the victims' socio-ecological systems (Görzig & Machackova, 2015; Navarro et al., 2016). It is thought that the increasing popularity of social media and texting has impacted the prevalence cyberbullying (Espelage et al., 2012). Within the socio-ecological systems model, the chronosystem's indirect impact (e.g., the increasing availability of technology more generally over time) could explain an individual's experiences with cyberbullying victimization (Espelage et al., 2012).

The socio-ecological theory relates to the present study as certain factors within each individual participants' ecological systems can become either protective factors or risk factors for their development (Hemphill & Heerde, 2014). In the present work,

individuals with certain risk factors (such as family risk factors including minority status) could be at higher risk of being cyberbullied (Hemphill & Heerde, 2014). Many past studies of cyberbullying victimization have focused on child and adolescent populations (Due et al., 2009; Görzig & Machackova, 2015; Kim et al., 2017; Poole, 2017).

Researchers have found increased cyberbullying victimization in children and adolescents from racial minority groups as well as individuals who identify as LGBT (Bauman & Baldasare, 2015; Lee, 2016; MacDonald & Roberts-Pittman, 2010; Molluzzo & Lawler, 2012; Smith & Yoon, 2013; Washington, 2014; Zalaquett & Chatters, 2014). In fact, racial minority students often face bias and aggression from non-minority students (Lund & Ross, 2017). It is evident from the present study that adult participants from all ethnic groups experienced significant levels of cyberbullying. Numerous factors influenced the level of cyberbullying adult participants in the present study experienced (i.e., age, religion, sexual orientation, marital status, and gender). The socio-ecological systems theory accounts for how various aspects or levels of an individual's ecological system can act as protective factors or become risk factors that result in cyberbully victimization. The data from the present study confirmed the socio-ecological systems theory, suggesting that participants' various socio-ecological systems impacted their experience with cyberbullying victimization.

Limitation of the Study

The use of convenience sampling was one of the limitations of the present study. Convenience sampling was a threat to external validity because it affects if a study's results are applicable to the entire population. It is difficult to gather a representative sample of members of the United States population who use social media, because the

United States population is so large and diverse (Frankfort-Nachmias & Nachmias, 2008). This study included a convenience sample of individuals over the age of 18 and living in the United States, recruited from the participant pool via Prolific. Prolific enabled the researcher to recruit a representative sample from 128,662 participants of the United States population on the following three demographics: age, sex, and ethnicity. There were 28,202 participants that fit within those characteristics. Although the sample's demographic statistics were quite similar to the demographic statistics of the United States Census data regarding the United States population for gender, age, and ethnicity, there were some variances. There were also variances among the other variables (i.e., age, income, religion, sexual orientation, and marital status). Careful review of the participant demographic characteristics revealed a comparable sample, suggesting at least some generalizability to the entire population of the United States for individuals over the age of 18 while being mindful that the extent of this limitation cannot be measured.

Another limitation to the present study was reactivity effects. In the present study, participants may not have wanted to admit to being victims of cyberbullying or may have over reported or underreported their experiences because they knew they were participating in a study. The participants could have tailored their answers for social desirability or may have been reactive because they wished to appear more responsive or impacted by cyberbullying to the researcher. This threat to validity was difficult to avoid entirely, because of the need for participants to be 100% honest in survey responses, and this cannot be guaranteed.

Finally, history and maturation limited the present study. The timing of the present study occurred amidst a growing increase in awareness of the historic and ongoing racial and ethnic discrimination towards minority populations. The #BlackLivesMatter movement began before this study, to protest incidents of racial and ethnic discrimination and hate. Movements like #BlackLivesMatter could have made participants more sensitive and aware of cyberbullying based on an individual's minority status. More specifically the deaths of Black or African American people such as Breonna Taylor, Atatiana Jefferson, and Freddie Gray caused by police officers more recently has sparked the need for awareness and action with regard to ending racism and hate.

Another event that has impacted the present study is the worldwide COVID-19 epidemic. This has radically changed the way that people are interacting with each other in all environments (school, work, socially) due to the need for almost all communication and interaction to occur online remotely. People may have been more likely to participate in the present study because they were able to do so online without coming into contact with others thereby risking infection of the deadly virus. Participants may also have been more recently impacted by cyberbullying victimization due to their increased use and interaction in online forums or environments.

Recommendations

Previous researchers have not sufficiently investigated associations between cyberbullying and ethnicity in the adult population in the United States (Brack & Caltabiano, 2014; Due et al., 2009; Francisco et al., 2015; Görzig & Machackova, 2015; Hemphill & Heerde, 2014; Kim et al., 2017; Poole, 2017; Rivituso, 2014; Shensa et al.,

2016). Many researchers have voiced the need for further study of adult cyberbullying, due to the high rates of cyberbullying victimization in the adult population (Tennant et al., 2015; Wozencroft et al., 2015; Yubero et al., 2017). The present study examined the degree of negative experience with cyberbullying victimization and ethnicity with the adult population in the United States, while controlling for other factors. Although the interpretation of the data collected has provided some insights into this phenomenon, there are still many more questions left to examine.

Further research could be conducted with the data collected for the present study. The data from the present study answered the research question and suggested that while ethnicity did have a marginal impact on how negatively participants experienced cyberbullying victimization, there were other factors that also impacted this experience as well. In the present study, the researcher did not test for interactions, and thus, there was no discussion of patterns between such interactions. For example, it is unknown if a more significant relationship exists for a Women African American or Gay married participants who have been cyberbullying victims. Also, the analyses for the present study do not reveal the relationships between categories that are not the reference categories. For example, it is not possible to infer if a relationship occurred between Hispanics vs. Black or African Americans with regard to their experience with cyberbullying victimization because the reference group for this study which all other ethnic groups were compared to was White participants.

A majority of current measures available to researchers that focus on the impact of cyberbullying center on children and adolescents while neglecting the adult population beyond young adults or college students. Future research should examine the need for

more quantitative measures of the experience of cyberbullying victimization and its impacts on adult mental health including the entire lifetime. There is also a need for norming of existing and future measures of cyberbullying victimization across various ethnic and demographic groups to improve the validity and reliability of the data collected from them.

The present study was quantitative in nature and the data came from selections that the participants made on the CBV scale and a demographic questionnaire. Further studies may aim to collect information in a qualitative nature so that researchers can collect more information from cyberbullying victims of various groups. This data could be more descriptive of the negative experience with being a cyberbullying victim. This could inform the current body of research in a more personally descriptive way, as to the experience of cyberbullying victimization so the mental health effects could more qualitatively be described and documented in a scholarly way.

Implications

The results of the present study add to the body of research regarding the prevalence and effects of cyberbullying among adults in the United States. Past researchers have reported that 73% of surveyed adult internet users experienced some form of online harassment (Duggan et al., 2015). A potential impact for positive social change of the present study was to promote awareness of this growing social problem among the adult population and encourage the development of more rapid and effective intervention in cyberbullying. Researchers have observed that young adult victims of cyberbullying suffer similar negative effects as child and adolescent victims, such as

emotional distress, social anxiety, depressed mood, behavioral difficulties, psychosomatic problems, and suicidal ideation (Wong et al., 2018; Wozencroft et al., 2015).

The results of the present study can be used to provide insights for researchers and mental health providers on the impact of this growing social problem and contribute to the development of ways to address and prevent cyberbullying. The findings could also provide scholarly support to politicians and policy makers for legislation aimed at reducing cyberbullying. Some studies investigating cyberbullying among young adults have examined the need for change to social policy (Shensa et al., 2016; Tennant et al., 2015; Wong et al., 2018; Wozencroft et al., 2015; Wu et al., 2017). The data collected for the present study adds to the scholarly research indicating that cyberbullying among the adult population is a significant social problem that should be addressed in future changes to social policies. Finally, future researchers can use the data collected for the present study to examine the impact of cyberbullying on participants belonging to various demographic groups to see how belonging to individual and multiple minority groups impact the experience of cyberbullying victimization.

Summary

The purpose of this study was to determine if ethnic minority status serves as a protective factor against the negative impact of cyberbullying in adults in the United States. In the present research, I examined the prevalence of cyberbullying victimization among adults as well as factors associated with this issue. This included determining if ethnicity is predictive of experiences with cyberbullying. The results of the statistical analyses indicated that there was at least a marginally significant relationship between ethnicity and how a person experiences cyberbullying victimization, when controlling for

other demographic variables. The results also suggested that other factors (age, SES, gender, sexual orientation, religion, marital status) affected how a participant experienced cyberbullying victimization.

The results of the present study lent support to the socio-ecological systems theory, suggesting that participants' various socio-ecological systems impacted their experience with cyberbullying victimization. Many participants with more socio-ecological systems that would be considered risk factors experienced cyberbullying victimization more negatively as opposed to participants who had more socio-ecological systems that would be considered protective factors. However, the results of the statistical analyses provided conflicting results with regard to inoculation theory and stress inoculation. While some minority group participants had a more negative experience with cyberbullying victimization than White participants, only participants in one minority group appeared to have a less negative experience with cyberbullying victimization than White participants.

There are two important final thoughts related to the data collected for the present study. The data indicated that there was a concerning level of cyberbullying victimization occurring among the adult population in the United States. Past research supported this conclusion, which has indicated that cyberbullying among adults is a continually growing social problem. Finally, the data indicated that ethnicity and other demographic factors impact how a person experiences being a victim of cyberbullying. Prior research has shown the negative impacts of cyberbullying victimization and the need for future research and intervention that more adequately address the needs of those who are experiencing this type of victimization. Various sub-systems that form the basis of how

individuals interact with the world around them have an impact on the way those individuals experience cyberbullying victimization. Until researchers have a better comprehension on how those complex sub-systems interact both positively and negatively to the aim of reducing cyberbullying victimization there will continue to be a need for more research in this area.

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Appendix A: Demographic Questionnaire

Demographic Questions

1. Age: What is your age? ____ (enter your age here)
2. Ethnicity (or Race): Please specify your ethnicity:
 - a. Hispanics of any race
 - b. American Indian or Alaska Native
 - c. Asian
 - d. Black or African American
 - e. Native Hawaiian or Other Pacific Islander
 - f. White
 - g. Two or more races
3. Gender: What is your gender?
 - a. Man
 - b. Woman
 - c. Transgender
 - d. Other
4. Sexual Orientation
 - a. Bisexual
 - b. Gay
 - c. Lesbian
 - d. Heterosexual
 - e. Queer

f. Questioning

5. Marital Status: What is your marital status?

- a. Single
- b. In a relationship
- c. Married
- d. Separated
- e. Divorced
- f. Widowed

6. Income: What is your total annual income before taxes?

- a. Less than \$10,000
- b. \$10,001-\$20,000
- c. \$20,001-\$30,000
- d. \$30,001-\$40,000
- e. \$40,001-\$50,000
- f. \$50,001-\$60,000
- g. \$60,001-\$70,000
- h. \$70,001-\$80,000
- i. \$80,001-\$90,000
- j. \$90,001-\$100,000
- k. \$100,000 or higher

7. Religion: What is your religious preference?

- a. Agnostic
- b. Atheist

- c. Christian
- d. Not religious but spiritual
- e. Buddhism
- f. Hinduism
- g. Protestant
- h. Muslim
- i. Jewish
- j. Orthodox (Greek or Roman)
- k. Mormon
- l. Roman Catholic
- m. Seventh Day Adventist
- n. Christian Scientist
- o. Other