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Generation Z Predictors of Attitudes Towards Mental Health Services and Perceptions of Stress

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This is to certify that the doctoral dissertation by

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Abstract

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by

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MS, Walden University, 2018

MA, Monmouth University, 2015

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Abstract

Race and gender have been noted to be related to attitudes toward mental health services and perceptions of stress. Generation Z, or individuals born between 1997 and 2013, has unique characteristics and an ethnic makeup that may impact how they consider both mental health services and stress, and to date there has been no published research on this topic with individuals in this generation. The theoretical framework of the public health critical race praxis grounded this quantitative survey study to examine the predictive value of race and gender regarding attitudes towards mental health services and perceptions of stress in members of Generation Z. Secondary data from a nationwide survey were used to examine the state of stress across the country and its impact A total of 4,550 surveys were completed in the original research, and the current study included archived data from the 1,323 older members of Generation Z who participated in that initial research. Two multiple linear regressions were conducted, and the results indicated significant associations for the collective impact of race and gender in predicting both attitudes toward mental health services and perceptions of stress. Gender and race significantly predicted attitudes toward mental health services, while gender but not race significantly predicted perceptions of stress. It was noted that the way gender and race categories were listed should address the diversity of this population when collecting demographic information. The findings may help promote positive social change by offering data that can be used to effectively train mental health practitioners working with this population and help advocate for the development of sustainable systemic health care policies that meet the needs of Generation Z.

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Chapter 1: Introduction to the Study

Untreated mental health issues impact the overall quality of life of an individual and society at-large (Center for Behavioral Health Statistics and Quality, 2016). These mental health issues may be experienced differently based on the individual's generational cohort because each generation possesses their own set of unique characteristics that make them collectively distinct. Individuals born between 1997 and 2013, known as Generation Z, experience their own unique barriers to accessing mental health care (Treadwell, 2020). Researchers who have studied generations prior to Generation Z have identified race, gender, and socioeconomic status (SES) as factors that correlate with attitudes toward mental health services and perceptions of stress (Narendorf et al., 2018; Ursache et al., 2017). Generation Z's racial and ethnic background is substantially different from their predecessors and much more diverse (Parker & Igielnik, 2020). I conducted this study to address the factors (i.e., race, SES, and gender) that predict attitudes of mental health services and perceptions of stress in previous generations to examine how they relate to Generation Z attitudes toward mental health services and perceptions of stress. This study may promote positive social change by offering relevant data for educators to use to effectively train mental health practitioners working with the Generation Z population. Additionally, advocacy surrounding this topic may be used to identify a path to resolve racial health disparities that may be identified in this research and similar studies (see Merced et al., 2020).

In this chapter, I present the scope and rationale for the study by providing the background of the study, problem statement, research questions and hypotheses,

theoretical framework, nature of the study, operationalized definitions of the terms used in the study, assumptions, delimitations, and limitations for the study. The chapter concludes with a discussion of the significance of the study and implications regarding positive social change.

Background

As life presents increasingly challenging situations that impact the emotional wellness of individuals, it is imperative that agents of social change acknowledge the implications of those challenges on mental health and identify solutions that may improve quality of life (Han et al., 2015). Each generation is challenged with their own set of life circumstances that influence their understanding of the world and how they navigate through it (Narendorf et al., 2018). Researchers studying previous generations of individuals in the United States have identified contributing factors regarding how these individuals view their mental health and in what way they view their level of stress, and those factors appear to be similar regardless of age cohort across several decades (Donovan & West, 2015). By understanding how perceptions of experience and attitudes regarding the mental health field in general impact individuals, scholars and stakeholders can address possibly mistaken perceptions and encourage individuals to access support that may be beneficial to them.

Previous researchers have identified race, gender, and, in many instances, SES as factors that correlate with attitudes toward mental health services and perception of stress in generations prior to the current cohort of teens and young adults (MacDonald et al., 2021; Narendorf et al., 2018; Ursache et al., 2017). Differences in the relationship

between attitudes towards mental health services and race-related concepts were often noted in the literature in individuals of color in relation to their White counterparts (Narendorf et al., 2018). One of the most discussed barriers to mental health services seeking behavior was mental illness stigma (Itkowitz, 2016). Understanding culture, group identity, and other contextual factors can be helpful when working with individuals from different racial backgrounds due to socialization and other contributing factors (Donovan & West, 2015). Given the history of racial differences in attitudes toward mental health issues, the public health critical race (PHCR) praxis served as the theoretical framework and context that this study was viewed through (see Ford & Airhihenbuwa, 2010).

In this study, I explored whether race, gender, and SES are predictors of attitudes towards mental health services and perceptions of stress in members of the Generation Z cohort. These variables were selected for the current study due to the gap identified in the literature on young adults and teens regarding the proposed predictors (see Narendorf et al., 2018). The Generation Z cohort is the most representative population of those unrepresented in the literature (Treadwell, 2020).

Generation Z have unique characteristics that make them an important population of focus. Generation Z tends to have a more progressive political mentality and college-educated parents (Parker & Igielnk, 2020). Their knowledge and comfort with technology and information is enhanced due to the length of time and exposure to the internet. They are also more racially and ethnically diverse in comparison to previous generations (Parker & Igielnik, 2020). Understanding the predictors that impact how Generation Z

perceives their stress and their attitudes towards mental health services may offer relevant information for educators and practitioners to work more effectively with this population.

Problem Statement

Recently, racially centered violence and the political climate have drastically polarized the experiences of individuals living in the United States (Treadwell, 2020). There has been an increased exposure to death and loss associated with the COVID-19 virus as well as the deaths of Black and Brown individuals in the media that has a direct and generational impact (Keller et al., 2012). Racial and socioeconomic health disparities also significantly impact the lives of a large percentage of the world's population (Office of Disease Prevention and Health Promotion, 2020). The current coronavirus pandemic has amplified the disproportionate impact on health disparities as it relates to both race and gender (Treadwell, 2020). For example, Black men have been disproportionally impacted by the virus compared to other populations (Schroth, 2019). Given the ethnic diversity of Generation Z compared to previous age cohorts (Parker & Igielnik, 2020), Generation Z may collectively have attitudes that are quantitatively and qualitatively different from older generations, and I conducted the current study to investigate whether that is the case.

The gap in the literature that this study addresses focuses on attitudes of mental health service use and perceptions of stress in young adults and teens, which constitutes many of the individuals who are identified as belonging to Generation Z. Past research has focused on other generational cohorts. Exploring the experiences had by Generation Z in their formative years helps to understand how to effectively meet their wellness

needs (Narendorf et al., 2018). Assessing the attitudes and perceptions of Generation Z individuals was critical because their experiences vary greatly from that of their predecessors. Generation Z consists of individuals born between 1997 and 2013 (Treadwell, 2020). Understanding these aspects of this generational cohort's experiences assisted in gaining insight into how to best advocate for their wellness needs, especially because traumatic events are easily accessible to this group via various technological means.

Purpose of the Study

The purpose of this quantitative study was to better understand the predictors of attitudes towards mental health services and perceptions of stress for Generation Z. This topic was critical to explore due to the unique characteristics of Generation Z and their ethnic background. Similar research with previous generations has identified race as a factor impacting both attitudes toward mental health services and perceptions of stress (Parker & Igielnik, 2020). In the current study, I utilized secondary data from an annual mind/body/health campaign on the impact of stress in America to obtain objective participant responses regarding their health and attitudes (see American Psychological Association, 2018). This study was unique because it addressed an under researched population in connection with the independent variables of race, gender, and SES and the dependent variables of attitudes towards mental health services and perceptions of stress.

Research Questions and Hypotheses

RQ1: What is the combined effect of race, SES, and gender in accounting for variance in attitudes towards mental health services among individuals in Generation Z?

$H_0$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be 0.

$H_1$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be greater than 0.

RQ2: What is the combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z?

$H_0$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be 0.

$H_1$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be greater than 0.

RQ3: What is the relative variance of each of the variables of race, SES, and gender in relation to attitudes toward mental health services among individuals in Generation Z?

$H_0$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be 0.

$H_1$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be greater than 0.

RQ4: What is the relative variance of each of the variables of race, SES, and gender in relation to perceptions of stress among individuals in Generation Z?

$H_0$4: The relative effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be 0.

$H_1$4: relative effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be greater than 0.

Theoretical Framework

The PHCR praxis (Ford & Airhihenbuwa, 2010) was the theoretical framework used in this study. This framework has its origins in critical race theory (CRT), which was developed to help to provide a race-conscious approach for researchers and practitioners to examine structural racism, particularly as it relates to legal matters (Crenshaw et al., 1995). The PHCR praxis helps to provide guidance to achieve racial equity in the public health field (Ford & Airhihenbuwa, 2010).

There are four phases within this framework with race consciousness serving as the overarching pillar: contemporary patterns of racial relations, knowledge production, conceptualization, and measurement and action (Ford & Airhihenbuwa, 2010). Each phase identifies principles to be incorporated while engaging in the research. Public health critical race theorists provide the context through which studies consider the influence of racial inequities and toward their elimination (Ford & Airhihenbuwa, 2010). A more detailed explanation of this theoretical framework can be found in Chapter 2.

The exploration of the influence of race as a predictor of attitudes towards mental health services and perception of stress is timely given the shift in accessibility to mental health services via online platforms (Miu et al. 2021). Generation Z has also been identified as being more racially and ethnically diverse in relation to previous generation cohorts (Parker & Igielnik, 2020). This framework was applicable to the current study because it helped to provide a guide to conduct research to examine the connection between race and the dependent variables in the study. The framework also helped in the selection of the other predictors used in the study and establishing the context racism plays in conducting the study and constructing the hypotheses (see Ford & Airhihenbuwa, 2010). The PHCR praxis helped with the prediction outcome through using elements of the four phases in the model to process how race consciousness may influence perception and attitudes. The third and fourth phases of this theory support the other variables as predictors because of the considerations of the intersectionality of the individuals and how their socialization based on these intersectionalities may influence their cognition.

Nature of the Study

In this study, I employed a quantitative, correlational research design. This design was selected because the study was nonexperimental and was conducted to examine the relationship between two or more variables. The independent variables of race, gender, and SES were assessed as predictors in relation to the dependent variables of attitudes of mental health services and perceptions of stress for Generation Z. A more detailed description of the variables used in this study is provided in Chapter 3. I utilized secondary data that were collected using an online questionnaire. A multiple linear regression was used to analyze the data.

Definitions

Attitude towards mental health services: The degree to which an individual believes a psychologist can help with a list of mental health related issues (American Psychological Association, 2018).

Gender: A socially and culturally constructed range of identities denoting characteristics of femininity and masculinity (American Psychological Association, 2018).

Generation Z: Individuals born between 1997 and 2013 (Treadwell, 2020).

Mental health: The state of well-being that a person has that helps them recognize and utilize their abilities to cope with the normative stresses of life, work, and contributing to their community (Fink-Samnick, 2021).

Mental health services: Programs or interventions provided by trained mental health professionals to enhance the well-being of an individual (American Psychological Association, 2018).

Perceptions of stress: An individual's perceived level of stress for the past month, action towards managing stress, and shift in stress level for the past year (American Psychological Association, 2018).

Race: A social construct used to group people into groups based on physical and social characteristics. Ethnicity denotes people from a common cultural background. For the purposes of this study, race was defined as both race and ethnicity because the data were coded as the same concept in the data set (see American Psychological Association, 2018; Crenshaw et al., 1995).

Socioeconomic status: Self-reported household income in thousands of UNITED STATES dollars and highest level of parental education reached (American Psychological Association, 2018).

Stress: The psychological or physiological response to internal or external stimuli that produces discomfort or distress (American Psychological Association, 2022).

Assumptions

I assumed that the participants who completed the questionnaire answered honestly, factually, and to the best of their ability. The anonymity of the participants was maintained to enhance data validity so that participants would not answer dishonestly. Another assumption was that the questionnaire itself was determined to be valid and accurately measure the intended variables.

Scope and Delimitations

The purpose of the study was to examine how race, gender, and SES relates to the attitudes of mental health services and perceptions of stress of individuals in the Generation Z cohort. Generalizability may be impacted based on the language of the questionnaire and how it was administered. The timeframe in which the questionnaire was administered may also impact external validity dependent on the age of the Generation Z members assessed because given the timing of the administration of the questionnaire, younger members of this cohort were not included.

Limitations

The use of secondary data is a potential limitation of this study. I had no control of how the data was collected, the measure chosen for use, and the population that received the measure. The data were collected using an online survey that required participants to have internet access. Due to the need to utilize the data as they were, I assumed that the dependent variables were collected through reliable and valid means. The findings of the study may not apply to other generations. Another limitation was that detailed data about the participants' attitudes and perceptions were not accessible because a quantitative approach was used in the current study.

Significance

As the emerging generation of individuals entering the labor market, upcoming professionals, and active participants in the world, it is essential that Generation Z be considered and understood to help to better work with this population to meet their clinical/health related needs and benefit the greater society (Schroth, 2019).

Understanding predictors of attitudes of mental health service and perceptions of stress can assist in providing appropriate training for clinicians and other health care providers that will work with this population. Generation Z could also benefit from the results of this study because it may provide a greater understanding of the best methods of engaging in self-care and the mental health services and resources that could be most beneficial to them. Generation Z has a distinct view on the world in contrast with other generations, being the only cohort that has not seen the world without the internet. Technology and access to information play large roles in their understanding of the world (Chillakuri, 2020). The findings of this study could also assist in establishing sustainable systemic change that will work towards shifting the experiences of this population via changes in health care policy. This examination can have both immediate and generational implications such emotional intelligence and community care that will result in a more equitable health system. Despite one of the independent variables not being predictive of the dependent variables for Generation Z, this would also be helpful to further the literature on the best ways to work with this cohort and the need to explore other variables as potential predictors.

Summary

In this chapter, I introduced the topic of study and provided background literature, the purpose of the study, and its significance. The research questions, hypotheses and brief summary of the theoretical framework were presented. Chapter 1 also included a discussion of the potential limitations and assumptions of the study as well as the nature of the study. Commonly used terms were operationally defined.

Despite previous research on attitudes towards mental health services and perceptions of stress and factors that predict these experiences, I identified a gap on this topic as it relates to the Generation Z cohort. Race, gender, and SES have been identified as factors that influence mental health services and perceptions of stress in other older generations (Narendorf et al., 2018; Ursache et al., 2017). Understanding how Generation Z views their mental health treatment and management of stress is critical to establishing best practices to work with this population (Treadwell, 2020). In Chapter 2, I will review the extant literature on this topic and the dependent and independent variables while also providing a more thorough description of the theoretical framework.

Chapter 2: Literature Review

A considerable number of young adults, specifically those within the age cohort referred to as Generation Z, are challenged with mental health issues that are left untreated due to barriers in accessing mental health services (Center for Behavioral Health Statistics and Quality, 2016). Generation Z has been exposed to substantial acute and chronic stressors during their formative years that may have been influenced by their perception of stress and their attitudes towards mental health treatment (Treadwell, 2020). Researchers who have focused on older generations in the United States have identified race, gender, and SES as variables that correlate with attitudes toward mental health services and perceptions of stress (Narendorf et al., 2018; Ursache et al., 2017). It is not known if previous research can be generalized to younger individuals, who have grown up in a qualitatively different world in comparison to older adults.

Generation Z is more racially and ethnically diverse than generations past (Parker & Igielnik, 2020). The shift in the United States's racial and ethnic makeup is largely in part to Generation Z. The Generation Z cohort comprises 52% non-Hispanic White, 25% Hispanic, 14% Black, 6% Asian, and 5% other races or a combination of races. These numbers vary significantly from their millennial, Generation X, and early boomer counterparts (Parker & Igielnik, 2020).

The aim of the current study was to explore race, gender, and SES as predictors of attitudes towards mental health services and perceptions of stress among United States Generation Z members, which represents a group of diverse individuals who have experienced unique stressors (see Narendorf et al., 2018). In this chapter, I review

literature pertinent to the variables in this study. This review of the literature permitted an examination of the gap related to the problem that was the focus of the study. In this chapter, I describe the literature search strategy used to locate the literature reviewed. Additionally, the theoretical foundations supporting this study and an integration of these theories is provided. In this chapter, I discuss the extant literature focused on Generation Z, including their attributes, mental health knowledge, racial makeup, barriers to mental health services, and the associations between mental health services and perceptions of stress. The chapter concludes with a summary of the review.

Literature Search Strategy

I reviewed journal articles available from online aggregated sources, including the PsycArticles, Academic Search Complete, PsycInfo and Thoreau databases that were accessed through the Walden University Library. The articles obtained included seminal literature and other research published from 1995 to 2020. I placed an emphasis on selecting peer-reviewed literature that was published within the past 5 to 8 years. The reference lists from the articles reviewed were also used as a source for additional articles. Scholarly literature acquired through Google, Amazon, and local libraries was also included in this review.

I reviewed articles related to mental health services attitudes, perceptions of stress, and Generation Z. The keywords used for the literature search relating to Generation Z included *Generation Z, Gen Z, igen, post-millenials, and igeneration.* Terms related to mental health services attitudes included *mental health, mental health services, attitudes of mental health services, mental health care, psychiatric services,* and

mental health support. Keywords used to locate literature related to the hypothesized predictors of race, SES, and gender included: *racial differences, race, ethnic differences, gender, gender differences, socioeconomic status, social class,* and *social status.* Other pertinent search terms used were *age, stigma, bias, generational differences, perceptions of stress, critical race theory,* and *theoretical framework.* My search of the literature was focused on research published in the past 5 years and seminal sources regarding the theoretical foundations of this study.

Theoretical Foundation

The theoretical basis for this study was Ford and Airhihenbuwa's (2010) theory of PHCR praxis. This theory is grounded in CRT, which has been the primary influence on racial literature since the 1980s (Crenshaw et al. 1995). CRT is a theoretical framework that offers researchers and practitioners a race-conscious approach for examining structural racism in social systems and its relationship with race, law, and equitable law regulation (Crenshaw et al., 1995). CRT contains the assertation that law and legal institutions are inherently racist and intended to advance White supremacy (Crenshaw et al., 1995). The common interests that align the works by the originating scholars of CRT are the comprehension of how a regime of White supremacy and perception of subservience of people of color was established and maintained in the United States.

CRT had its origins in the field of law and systemic institutional equity (Crenshaw et al., 1995). Several key contributors have influenced the development of CRT over the years, including Derrick Bell, Kimberlé Crenshaw, Dr. Camara Jones, Richard Delgado, and Patricia Williams (Crenshaw et al., 1995). Each contributor

brought a unique perspective to the conversation that enriched the critical discourse on the topic. Some common themes that are typical of CRT include standpoint epistemology, intersectional theory, and the critique of liberalism (Crenshaw et al., 1995; Delgado & Stefancic, 2013). These themes are critical to the discourse because they establish the importance of the amplification of the individual's experience while honoring the impact of the complexity of social identity (Crenshaw et al., 1995; Delgado & Stefancic, 2013).

There are at least four distinguishing characteristics that are central to CRT: racialization, race consciousness, social location, and elimination of racial inequities (Ford & Airhihenbuwa, 2010). Racialization is at the core of these characteristics and describes how the social construction of ethnic and racial categories group individuals in society (Brown et al., 2003). Race consciousness signifies the acknowledgment and intentional study of racial dynamics in an individual's personal life and society-at-large (Ford & Airhihenbuwa, 2010). Social location refers to the status or social hierarchy assigned to a group, and understanding these distinguishing characteristics provides context (Ford & Airhihenbuwa, 2010). The elimination of racial inequities is the fourth characteristic of CRT where the acquired knowledge is used to create strategies to address the injustices (Ford & Airhihenbuwa, 2010).

Prior to the introduction of CRT, racial justice was perceived in the UNITED STATES mainstream as rejecting radical challenges to the status quo, which conceptualized the use of racial power as atypical rather than infused and systemic (Crenshaw et al., 1995). This logic aligns with Alan Freeman's racism definition as a

"perpetrator perspective" (Crenshaw et al., 1995, p. xiv). This perceptive also describes racism as intentional and conscious actions that relate to power, wealth, and distribution of jobs (Crenshaw et al., 1995). In CRT, these conscious decisions are both irrational and irrelevant because they are based solely on race (Crenshaw et al., 1995). This narrow perspective can be harmful because it is dismissive of various aspects of racial identity and contextual meanings of cultural and social situations.

The concept of color blindness emerged from this limited view of racial identity and racial discrimination and soon became the moral compass of social insight regarding race (Crenshaw et al., 1995). Appropriated use of Dr. King's speech, which asserted the importance of a person being judged on the content of their character as opposed to the pigment of their skin, was used to shift progress made on legislation, like Affirmative Action, due to the mention of race (Crenshaw et al., 1995). This was conceptualized in conjunction with the dominant ideology of American meritocracy and perceived equal opportunity (Crenshaw et al., 1995). Acknowledging the implications of structural and systemic racism as well as conscious or unconscious avoidance of race is critical to ensuring a comprehensive understanding of the experience of minoritized people as a means to best serve this population in whatever capacity is needed.

As mentioned above, CRT's origins are legal in nature (Crenshaw et al., 1995; Delgado & Stefancic, 2013). The theory has served as a foundation for how views on race and racism permeate the structures and institutions of society (Crenshaw et al., 1995). Applying this knowledge to health and wellness helps provide a clearer understanding of the pertinence of race as a factor in health due to systemic social

determinants. Despite CRT advancing understanding of racism as a social determinant, the theory does not align with the public health approach of research, which has a scientific approach and focus on practical application (Ford & Airhihenbuwa, 2010).

PHCR Praxis

The PHCR praxis directs racial equity approaches to research in public health (Ford & Airhihenbuwa, 2010). The PHCR praxis was created as a means to provide ease and fidelity for application of CRT in health equity research (Ford & Airhihenbuwa, 2010). This praxis assists in magnifying racial phenomena and unintentionally reinforced disciplinary conventions of social structures as well as provides tools for increased knowledge on racial equity approaches in health (Ford & Airhihenbuwa, 2010).

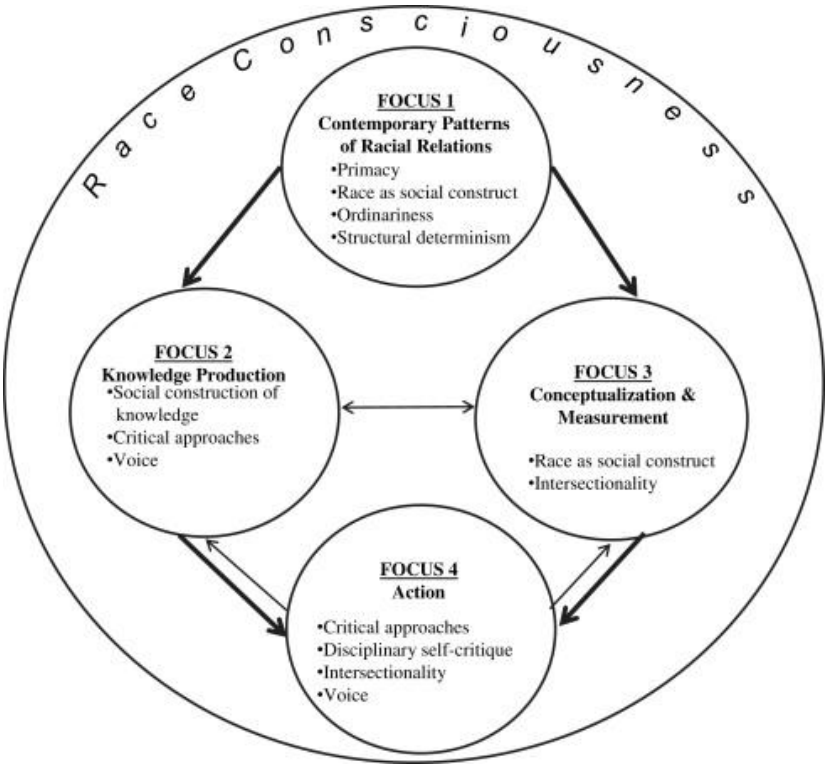
Although the research on the identification of racial health inequities has grown significantly, the PHCR framework advances research from documentation of inequities toward the elimination of those inequities (Ford & Airhihenbuwa, 2010; Office of Disease Prevention and Health Promotion, 2020). Subsequent research and application of the PHCR praxis provides guidance on ways to mitigate health differences based on race (Ford & Airhihenbuwa, 2010).

The PHCR praxis uses a method of conducting research that stays congruent with issues of racial equity and systemic integrity (Ford & Airhihenbuwa, 2010). In the praxis, an iterative process is used that merges experiential knowledge, theory, and science to address inequities (Ford & Airhihenbuwa, 2010). It also helps to discern how racialization impacts disciplinary standards and processes that reinforce health inequities (Ford & Airhihenbuwa, 2010).

Researchers can use the PHCR schematic (see Figure 1) as a guide to conduct research in a variety of fields where issues of race and ethnicity in a system are a focus. The praxis serves as a visual aid to illustrate the order to navigate through the research process. There are four main phases in the process along with relevant principles to incorporate (Ford & Airhihenbuwa, 2010). Research typically moves sequentially between phases as illustrated by the thick arrows in Figure 1 as well as in occasional opposing direction as indicated by thin arrows. Researchers systemically address each focus by devoting their energy to addressing the listed principles, which are the purposes of the focus (Ford & Airhihenbuwa, 2010).

Figure 1

Race Consciousness, the Four Focuses, and 10 Affiliated Principles



Note. This figure illustrates the PHCR praxis model and process. From "The Public Health Critical Race Methodology: Praxis for Antiracism Research," by C. L. Ford and C. O. Airhihenbuwa, 2010, *Social Science & Medicine, 71*, p. 1391. Copyright 2010 by Elsevier with permission from Elsevier.

Race consciousness serves as the overarching pillar of the PHCR praxis in the investigation of the impacts of racism in health outcomes by acknowledging and comprehending racialization (Ford & Airhihenbuwa, 2010). As a foundation, race consciousness supports the four foci of PHCR. The first focus addresses contemporary racial relations (Ford & Airhihenbuwa, 2010). Racism is fixed in racialized societies although its presentation may appear different based on time in history (Ford & Airhihenbuwa, 2010). Public health critical race theorists, commonly known as Healthcrits, are tasked with the responsibility of conceptualizing racism's effect on health in accordance with the time period the study is being conducted (Ford & Airhihenbuwa, 2018). For example, the post-Civil Rights era demonstrated racialization of racism in the United States as more structural than overt (Bonilla-Silva, 2006). Some exploratory considerations could include the type of mechanisms through which racism occurs and identification of the marginalized populations (Ford & Airhihenbuwa, 2010). Four principles are used in this first focus to characterize the overarching focus of contemporary racialization: primacy, race as a construct, ordinariness, and structural determinism (Ford & Airhihenbuwa, 2010). Describing these principles within context helps researchers determine the selection of either a qualitative or quantitative research design (Ford & Airhihenbuwa, 2010).

The second focus of the model is knowledge production, which helps to understand how racialization structures a project and how the project can be reinforced by current perceptions about groups and phenomena (Bonilla-Silva, 2006). Many individuals who conduct public health research believe that the scientific method and objectivity precludes bias from impacting the research, which can blind these researchers from inadvertently influencing the research (Ford & Airhihenbuwa, 2010).

Conceptualization and measurement is the third focus of PHCR, and the intention of this focus is to identify the race- or racism-related constructs involved in the study and the social contexts that are relevant to the observed relationships (Ford & Harawa, 2010). The two principles that are fundamental to this focus are social construction and intersectionality (Ford & Airhihenbuwa, 2010).

The fourth and final focus of the PHCR is action, and this stage of the process revolves around the utilization of the knowledge obtained in their research studies to create a change in the identified inequities (Ford & Airhihenbuwa, 2010). There are several different action-oriented steps that can be taken to assist in generating the discussed change, including challenging the identified injustices and shifting the language used to more effectively articulate the racial dynamics involved (Airhihenbuwa & Liburd, 2006).

The PHCR praxis has been used in previous research as a framework to conceptualize the cause and contributions of racial health disparities. For example, Gilbert and Ray (2015) examined the death of Black males by means of legal intervention and the systemic implications, reporting that Black men are 21 times more likely to be

killed by legal intervention than their White male counterparts. Understanding the varied and diverse layers of this phenomenon is critical to the study of Generation Z. As mentioned, Generation Z is the most racially and ethnically diverse generation to date (Parker & Igielnik, 2020) and may experience both vicarious and firsthand emotional reactions to the current study's conclusions.

The intentional use of the PHCR praxis was indicated as a means to improve research and interventions to identify disparities in "justifiable homicides" from an intersectional perspective that considers health, social, and legal ramifications. Gilbert and Ray (2015) examined the intersection of race and gender using the PHCR praxis as the fundamental framework for exploratory inquiry. The authors concluded that the current field of public health has made some progress in how health disparities are conceptualized and addressed, and they provided policy recommendations to shift racial disparities and the social and legal impact experienced by Black bodies (Gilbert & Ray, 2015).

Muhammad et al. (2018) conducted a study to understand how Black youth aged 13 to 17 years (in 2016) considered, interpreted, and responded to perceived racism contributing to the Flint Water Crisis (FWC). The authors used CRT to develop an interview protocol while PHCR praxis was the framework used during the qualitative data analysis (Muhammad et al., 2018). The researchers' findings indicated a difficulty in coping with FWC for some of the Black youth. Two themes emerged from the research. The first was that youth who viewed the FWC from a racially conscious perspective identified Flint as a predominantly Black city where the people are racially stratified,

while the second was that the contamination of the water was deemed a genocide targeting Black people (Muhammad et al., 2018). PHCR helped to organize these findings based on the history of structural racism in Flint. The authors recommended future research to explore the impact of youth who have experienced anger, anxiety and distress due to perceived racism and the potential benefit racism-related trauma interventions (Muhammad et al., 2018).

This framework applied to this research as I examined the association between race and the perception of stress as well as attitudes toward mental health services in Generation Z individuals who live in the United States, as it assisted in the development of hypotheses for the research study. This model also assisted in the selection of the predictors of attitudes towards mental health services and perceptions of stress given the impact race and other contextual factors (such as SES, age, and gender) have on health experiences (Ford & Airhihenbuwa, 2010). It was also helpful as it acknowledges the importance of context as it relates to racism. Context in this case could include things like time, population, and location. Observing the contextual nuances of a situation is critical as it can affect the perceived impact of racial effects rather than another variable like geographical location.

Key Concepts

Race

As mentioned, PHCR helps to understand the impact racism has on public health in order to more effectively conduct research in context (Ford & Airhihenbuwa, 2010). Highly publicized murders and harm caused to Black people in the UNITED STATES

have generated substantial outrage that has been demonstrated in protests and calls for change in the country (Paggi & Clowes, 2021). The deaths of George Floyd, Breonna Taylor and Ahmaud Arbery in 2020 helped to resurface an important discussion about race, racism, and its impact on society in a tangible way (Paggi & Clowes, 2021). Systemic racism has its roots in implicit bias (Crenshaw et al., 1995). This is an unconscious attitude or perception of a person or group of people based on a stereotype. Implicit bias and other socially related cognition influence our perception and experience of ourselves and the environment we find ourselves (Crenshaw et al., 1995). Some researchers regard implicit bias as individually driven (Crenshaw et al., 1995) while others assert that it is the ongoing forecast of environmentally produced consistency (Payne & Hannay, 2021). Despite these nuances, implicit bias is consistently discussed in relation to systemic inequalities (Payne & Hannay, 2021).

Studies have identified race as a variable that impacts wellness (Narendorf et al., 2018; Donovan & West, 2015). Narendorf et al. (2018) examined race and gender differences as contributors to perceptions of illness and attitudes toward treatment in 60 young adults with mood disorders who had all received Medicaid-funded mental health services from a public system of care during their childhood (prior to age 18), had received services from a public system of care such as child welfare, and who were struggling with their moods at the time of the research. Women of color in the sample expressed lower levels of illness coherence (defined as an understanding of their illness) compared to other groups (Narendorf et al., 2018). Men of color considered their symptoms less chronic and indicated lower rates of perceived need for treatment

compared to other groups. Men of color also had significantly lower rates of psychological openness, and youth of color of all genders endorsed a belief of mental health stigma that in turn impacted their attitudes towards mental health services (Narendorf et al., 2018). The study had a larger number of participants from a more diverse geographical location as well as more variability in socioeconomic status, which will assist in establishing generalizability.

Donovan and West (2015) also identified race as an important variable in the research of perception of stress. These researchers examined the relationship between the Strong Black Woman (SBW) stereotype endorsement, stress, anxiety, and depressive symptoms in a sample of 92 Black female college students. The researchers concluded that embracing the SBW stereotype can increase Black women's vulnerability to depressive symptoms associated with stress. The researchers examined stress as it relates to a key internalized construct that may impact a portion of the population for my study. These researchers opined that to improve stigma towards mental health challenges, it is essential for seeking help to be redefined as a strength rather than a weakness (Donovan & West, 2015). The importance of race as a variable was identified with participants that were members of Generation Z in this study (Donovan & West, 2015).

Generation Z

Generation Z is a term used to describe the demographic cohort of individuals born in the mid-to-late 1900s and typically ends in the early 2010s (Treadwell, 2020). The literature varies slightly with these dates. Specifically, the year range varies in some cases from 1996 to 2015 (The center for generational kinetics, 2020; Treadwell, 2020).

For the purposes of this research, Generation Z was defined as individuals born between the years 1997 and 2013 as these are the dates that are available in the secondary dataset that were employed in the research. This term continues the alphabetical sequence of the generation succeeding it known as Generation Y or Millennials and preceding Generation X (Scroth, 2019).

Individuals are grouped into these generational cohorts for several reasons (Scroth, 2019; The Center for Generational Kinetics, 2020). They tend to exhibit attributes, values, and preferences that are similar in nature to each other over the course of their lifetimes (Scroth, 2019; The Center for Generational Kinetics, 2020). Generational cohorts have similar characteristics such as motivation preference and communication (The Center for Generational Kinetics, 2020). Each generation has key differences that are unique to the cohort; however, there are also differences within the cohort based on geographical location (Scroth, 2019; The Center for Generational Kinetics, 2020). Millennials as a generational cohort are the most consistent regarding their characteristics globally, although they also have crucial differences that can be seen based on environments like urban versus rural residence (The Center for Generational Kinetics, 2020). For example, a defining experience for Millennials was the September 11 terrorist attacks that took place in 2001, which Generation Z was not able to independently process the significance of: this event would be more historical in nature for them. It is essential to identify the unique attributes of Generation Z, as this will help to inform the context of their experience.

Generation Z Attributes

Gen Z was expected to come into a strong economic culture and significantly low unemployment rates compared to previous generations (Fry, & Parker, 2019). The COVID-19 pandemic, however, has made a substantial negative impact on the socio-political and economic climate (Parker & Igielnik, 2020). This generation tends to be more progressive politically and are pro-government (Parker & Igielnik, 2020). Gen Z members are also more likely to have college educated parents in comparison to generations before them (Parker & Igielnik, 2020). They express a desire to have a government that serves in an activist capacity and are more racially and ethnically diverse in comparison to generations that precede them. Ethnic and racial diversity is viewed as a positive thing in Gen Z (Parker & Igielnik, 2020).

Gen Z is the first cohort to grow up with access to portable technology and the Internet from a young age (Parker & Igielnik, 2020). They are considered digital natives and often do not recall a time before smartphones (Parker & Igielnik, 2020). Gen Z's access to information, social media, and other public campaign platforms can be used to illustrate help seeking behavior. Social media campaigns have assisted in gaining attention to normalize the experience of mental health issues and thereby change stigmas and attitudes regarding mental health issues (Itkowitz, 2016). The #ImNotAshamed campaign, for example, was created as an opportunity for individuals to share reasons their reasons why they are not ashamed about mental health conditions on social platforms (Parker & Igielnik, 2020). Project Semicolon is a movement committed to presenting hope to those struggling with addiction, mental health, suicide, and self-injury.

Individuals either draw or tattoo the semicolon symbol on a visible portion of their body to spread the word to eliminate mental health stigma (Itkowitz, 2016).

Many celebrities and citizens of color have also added their voices to the cause of eliminating mental health stigma and promoting help-seeking behavior. For example, Michelle Williams, who was a member of the American girl group Destiny's Child, revealed her own personal struggles with depression and contemplating suicide during the group's height in popularity on a well-known television show called The Talk (Lang, 2017). Mental health providers can use such examples to orient young people to the advantages of receiving mental health treatment (Narendorf et al., 2018). Strategically using images of other young people who are effectively managing their conditions and highlighting them as both independent and strong can be especially beneficial for youth of color experiencing internalized mental health stigma (Narendorf et al., 2018). Understanding the unique attributes of Gen Z can be helpful to understand potential predictors of attitudes towards mental health services and perceptions of stress. This type of understanding can aid in efforts to overcome stigma and encourage treatment seeking in members of Gen Z.

Attitudes Toward Mental Health Services

Adolescence and young adulthood is when many mental health challenges peak (Kessler et al., 2007). Generation Z tends to have a higher awareness of mental health challenges compared to older generational cohorts and are more likely to have been diagnosed with psychiatric or intellectual disabilities (Narendorf et al., 2018). Identifying these challenges and seeking prompt treatment is critical to preventing diminished

treatment outcomes, increased relapse rates and a higher risk of comorbidities and complexity in symptomology (MacDonald et al., 2021).

Effectively managing mental health challenges is dependent on both the timeliness of the individual seeking mental health services as well as the succinct and appropriate response by the mental health system (MacDonald et al., 2021). Additionally, there are other systemic considerations that influence the path to mental health care including social and cultural factors. Changing the messaging about mental health in the public eye to an empowering and encouraging one as well as using culturally responsive providers is critical when working with young people of color (Narendorf et al., 2018).

Narendorf et al. (2018) used a mixed-methods approach to assess illness perceptions and attitudes and connection between race and gender in marginalized young adults. Young adults who were diagnosed with a mood disorder during their childhood and received Medicaid funded mental health treatment and expressed struggling with their temperament were interviewed for the study. The authors endorsed the importance of utilizing an approach that considered both race and gender when addressing help seeking mental health services among marginalized young adults. They noted that male youth of color had lower rates of mental health service use compared with other groups (Narendorf et al., 2018).

Larrabee (1986) noted that young people of color have a seemingly paradoxical belief system towards treatment: they seek to believe in their own ability to solve their own problems, yet also acknowledge the benefit of mental health services to address various challenges they may experience. This paradox has been identified in both young

men and women of color (Larrabee, 1986). Young men of color appear to benefit from services that address the environment's impact on behavior while honoring culture and placing less importance on the intrapsychic processes (Gunnings & Lipscomb, 1986). Exploring the impact of the environment and systems that the individual lives in is essential to understanding context while deemphasizing the intrapsychic process and focusing greater attention on culture and group identity. Framing use of mental health services as a strength rather than weakness is critical to establishing buy-in from the client (Donovan & West, 2015).

Young women of color tend to benefit more from approaches that are group-centered, as social support is greatly valued in this demographic (Donovan & West, 2015). An example of this approach could include a support group focused on specific topics. Tailoring the group approaches to address illness management and recovery has been significantly effective in reduction of hospitalization and increasing medication adherence (Donovan & West, 2015). Narendorf et al. (2018) found that young women of color reported lower levels of understanding of their symptoms in comparison to other reviewed groups while young men of color considered their symptoms less chronic and reported a lower rate of need for maintenance in the future.

Narendorf et al. (2018) observed that psychoeducation as an intervention strategy with the focus of illness management and recovery was most consistent with the attitudes of young white people. The use of centering symptoms as a guide for treatment rather than diagnosis may be a helpful strategy when working with young men of color (Narendorf et al., 2018). This provides a focus on individual experience and lessens the

potential stigma associated with the diagnosis. Treatment provided in nontraditional settings such as the home would be more acceptable and less stigmatizing for young men of color (Narendorf et al., 2018).

Using race and gender as indicators for treatment approach may be an effective method to engage clients in treatment, as age or generational cohort may also be significant predictors of attitudes toward mental health treatment (Narendorf et al., 2018). Narendorf et al. (2018) recommended the use of cognitive interviewing for future studies in order to understand how participants perceive specific questions and ultimately their illness perceptions. It was noted by the authors, however, that the study was conducted in 2018 when there was less use of social media, and the findings may not be generalizable to a cohort of individuals who are immersed in that media (Narendorf et al., 2018). The study used data collected at a time where the use of mental health services had a larger public platform.

The integration of non-traditional settings, such as churches or other religious institutions, in mental health treatment might be less stigmatizing for individuals of color. It also supports the aspect of paradoxical counseling with this group that asserts a desire to be self-reliant. This is done by empowering the individual to believe in their capacity to resolve their own challenges while also recognizing the effectiveness of mental health services in the resolution of those challenges.

There is some indication that mental illness stigma in minority populations has become less of an issue over time in the United States. Ward et al. (2013) surveyed 272 African Americans aged 25 to 72 years about their beliefs about mental illness,

preferences of coping behaviors, and attitudes toward seeking mental health services. Depression was the most common mental illness reported (Ward et al., 2013). The authors noted a lack of openness in acknowledging psychological problems in the participants, who indicated that they were concerned about mental illness stigma (Ward et al., 2013). Older participants (age 60+ years) were less open to discussing psychological issues than younger participants (25 to 45 years). The current study focused specifically on a cohort younger than those included in the Ward et al. study and examine attitudes towards mental health services in a diverse and younger group of individuals, which would contribute to the literature regarding whether the trend of decreased mental illness stigma continues into the next younger generation.

Telemedicine platforms have become more prevalent particularly since social distancing was implemented during the COVID-19 pandemic. Teletherapy permits individuals to receive therapeutic treatment from trained mental health professionals from a different location using a secure technology platform. Given that Gen Z is the generational cohort most comfortable in an online environment, the emergence of telehealth as a treatment modality may also impact this group differently compared to older individuals. Research on the use of telehealth in therapy is starting to be published. For example, Miu et al. (2021) found that individuals with serious mental illness used teletherapy regularly and adapted well to the conversion from in-person therapy to teletherapy. There has been an increase in demand for mental health treatment over most recent years, and the availability of teletherapy services makes necessary treatment more accessible (Busch et al., 2021). How this might impact attitudes toward therapy in Gen Z

is unknown and beyond the scope of this research, but it is a promising technology that Gen Z is likely to adapt to readily.

Factors Associated with Access to Mental Health Services

A common barrier to mental health services is SES. Low SES is a risk factor for depression and anxiety (Murali & Oyebode, 2004). Individuals with low SES often experience a multitude of stressors such as overcrowded homes, financial insecurity, and higher rates of overall volatility in their lives (Murali & Oyebode, 2004). Ursache et al. (2017) found that lower parental education and socioeconomic disadvantage was correlated with higher parent Hair Cortisol Concentration (HCC) and socioeconomic disadvantage related to the child's HCC (Ursache et al., 2017). An association between SES and parental anxiety was significantly mediated by perceptions of stress and SES and parental anxiety were marginally mediated by parental HCC (Ursache et al., 2017). The relation between stress, SES, and mental health is critical to examine, as socioeconomic disparities relate to adult anxiety. The current study took socioeconomic status and perceptions of stress into account along with race and gender. It is especially critical to examine the impact of race consciousness in the 21st century, as racial injustices are often solely related to non-racial factors such as SES (Ford & Airhihenbuwa, 2010).

Vidourek et al. (2014) assessed 682 college students' perceptions of barriers and benefits to obtaining mental health treatment and attitudes related to the stigma of mental health issues. The researchers found that women had lower stigma-related attitudes than men and perceived a greater number of benefits of mental health services in comparison

to men (Vidourek et al., 2014). This study identifies gender as a justifiable predictive variable when assessing attitudes towards mental health services. The current study examined attitudes towards mental health services and gender as a predictor but would focus on one specific cohort as the targeted population and other predictors such as race and SES.

MacDonald et al. (2021) conducted a meta-synthesis of qualitative literature using 31 studies focusing on the perceptions of both youth and their caregivers and their experiences navigating the pathways of mental health care. Three themes emerged from the analysis of these studies including the commencement of contact with mental health services, appraisal of mental health services by the youth and their caregivers, and the response characteristics of the service providers themselves. Subthemes for contacting mental health services were mental health literacy, social support, and systemic barriers (MacDonald et al., 2021). Challenges in the responses from the mental health services included waitlists, strict eligibility criteria, and disjointed provision of services.
The researchers identified several needs to improve mental health access. These included a focus on youth who may have less access to care such as gender minorities, education, lack of employment, and education. Understanding the perceptions and needs of young care-seekers is important, because care providers can adjust their strategies to provide needed services in a way that will encourage this cohort to address their mental health needs. The current study sought to add information regarding the attitudes of this population toward mental illness and mental health services to contribute to this vital field of research.

Perceptions of Stress Among Generation Z

Stress as a concept is one of the most widely explored topics in the research field due to its cost to communities, individuals, and economies (Cooper & Dewe, 2004). This cost has been identified as the impact on a person's wellbeing, health, and overall quality of life. Its origins are both one of confusion and controversy. Its exploration has evoked powerful debate and dispute throughout the years (Cooper & Dewe, 2004). To best explore this topic, one must first have a clear understanding of the history of stress research, the definition of stress, the influence of perceived stress and Gen Z's collective perception of stress.

Historical perspective provides a framework to understand how stress has been conceptualized and explored throughout the years. These perspectives can be analyzed from a contextual and developmental lens. The historical perspective of stress from a contextual lenes allows us to anchor our understanding in recognizing the impact of the context or circumstance as well as culture as an influence on research. This perspective helps to prevent disproportionate assumptions of significance and adequately assess trends and critical discourse on the topic. The historical perspective of stress from a developmental lens builds upon the contextual perspective, which emphasizes that our knowledge grows, and transforms based on previous insights (Cooper & Dewe, 2004; Maree, 2021). Understanding the importance of both lenses can help to guide our understanding of stress.

Stress is a common phenomenon. It occurs when the demands of an individual's environment or situation are viewed by the individual as exceeding their available

resources to manage the stimuli or discomfort that leads to feelings of distress or being overwhelmed. Factors such as work pressures, lifestyle changes and technological advances have been identified to often impact the experience of stress in people particularly adolescents, youth, and the Gen Z cohort (American Psychological Association [APA], 2018; Ningthoujam et al., 2021). The APA's (2018) report on Stress in America related to Gen Z although address Gen Z's experience of stress does not consider the unique composition of Gen Z and specifically identify that race and other predictors to be explored in the intended study. Stress is also commonly defined as the psychological or physiological response to internal or external stimuli that produces discomfort or distress (APA, 2022).

Early researchers on the topic of stress once believed there was a single cause to produce a single illness which has shifted across the course of time to reflect the belief that the adaptive ability of an individual and the way they engage with their environment are substantial considerations in the causes of illness. In addition to understanding how illnesses arise, adaptive processes engaged by individuals can be critically analyzed (Cooper & Dewe, 2004). Understanding the stress process increases the probability that effective strategies can be developed to minimize human suffering.

It is critical to understand the influence of perceived stress on Gen Z as they may navigate through their experiences differently than their generational predecessors. As the youngest cohort of adults, Gen Z has begun to drive trends and has impacted attitudes on sustainability and environment across the greater population. According to a study by the International Food Information Council's 2022 Food and Health Survey, stress has a

considerable impact on the way individuals eat in the present day and the buying power of Gen Z has become even more relevant (Cooper & Dewe, 2004). Younger generations like Gen Z indicate feeling “very stressed” in comparison to their predecessors who indicate this to a lesser degree. Stress eating has been identified as a common occurrence for many American adults as 1 in 4 indicate that they always or often eat when they feel stressed (Cooper & Dewe, 2004). The sources of stress that are most associated as impacting individuals of the Gen Z cohort include career, finances, interpersonal factors, adjustment to new environments and current affairs/politics (Ningthoujam et al., 2021).

Summary

This chapter provided an explanation of the pertinent literature regarding variables used in this study. The research gap on attitudes of mental health services and perceptions of stress in Gen Z was also introduced. Its exploration will help to better work with this population as well as benefit the greater society (Schroth, 2019) by understanding the factors to consider to ultimately assist in determining the best approach for clinicians and other health care providers to work with this population. The literature review included article reviews, empirical studies, and other related data. Research provided an overview of Gen Z and justification of use and exploration of variables for the study. This review also illustrated the importance of understanding attributes of Gen Z, barriers to mental health services and influence of race and other predictor considerations. Gen Z have different characteristics than their predecessors. These characteristics have been impacted by the socio-economic and political climate of their upbringing which ultimately impacts their attitudes toward mental health (Treadwell,

2020). Researchers in the United States have identified race, gender, and socioeconomic status as variables that correlate with attitudes toward mental health services and perceptions of stress (Narendorf et al., 2018; Ursache et al., 2017). Although younger generations tend to be more open to mental health services, individuals of color tend to be less open. Research to identify factors contributing to attitudes of mental health services and perceptions of stress in Gen Z would be a helpful addition to the literature given Gen Z being more racially and ethnically diverse than their predecessors (Parker & Igielnik, 2020).

Chapter 3 will provide an outline of the intended research design, approach and introduction of the secondary dataset, statistical analysis and provide a narrative summary.

Chapter 3: Research Method

Introduction

The purpose of this quantitative study was to develop an understanding if demographic factors serve as predictors of attitudes regarding mental health services and perceptions of stress in teenagers and young adults (ages 15 to 21) who are members of Generation Z. Multiple linear regression was used to test the hypotheses. This study was critical because Generation Z is the most ethnically diverse cohort in relation to previous generations, and little is known about their attitudes towards mental health services, despite the fact that this group is significantly impacted by mental illness (see Parker & Igielnik, 2020).

The literature reviewed for this study was focused on the attitudes towards mental health services and perceptions of stress among Generation Z and prior generations. The vast majority of research in this area has focused on generations before Generation Z. Addressing the gap in the literature included determining if the demographic variables of race, gender, and SES that have been noted in previous research as predictors of attitudes towards mental health are also predictors of attitudes about mental health services and stress in Generation Z (see Narendorf et al., 2018; Treadwell, 2020).

In this chapter, I describe the research design and appropriateness of the methods chosen to investigate the research questions. The methodology and potential threats to the validity of the study are also discussed. The methodology section of this chapter includes descriptions of how the original data were collected and the instruments used to collect

that data. In addition, I will discuss how I obtained the data and the methods used to test the current study hypotheses. The ethical protections for the study are also provided.

Research Design and Rationale

In this study, I employed a quantitative survey design using archived data. The purpose was to identify predictors of attitudes towards mental health services and perceptions of stress in Generation Z. I chose a quantitative approach because it aligned with the focus of the study. The data that were used to test the hypotheses was available from a previously conducted, large-scale survey. The variables that were used in the current study were all quantifiable and available in the large data set.

The Stress in America survey that was conducted by Harris Poll on behalf of the APA (2018) was the source of the secondary data used to examine the research questions in this current study. This survey was gathered electronically and was part of an annual nationwide survey was part of a Mind/Body/Health campaign to examine the state of stress across the country and its impact (APA, 2018). A preview of the questionnaire and codebook was available through the Institute for Social Research (APA, 2018).

The independent predictor variables in the current study were race, gender, and SES. SES was assessed using family income. The dependent variables were attitudes toward mental health services and perceptions of stress, which were assessed in the original survey using Likert scale questions. All the dependent and independent variables were available in the data set.

Methodology

Population and Sampling

Participants in this study consisted of respondents who agreed to participate in the Harris Poll surveys, which were conducted on behalf of the APA (2018). The Harris Poll is a marketing, research, and consulting firm that operates globally and uses developed software platforms to collect data using participant pools. The Harris Poll (n.d.) has a well-established track record of supporting big and small companies alike with their research initiatives, and subsequently, survey and poll millions of people yearly on various trends impacting the world. The survey used in the current study was part of a larger longitudinal study focused on understanding stress and its impact on inhabitants of the United States. Participants were recruited from the general population of the United States from various geographic locations, generational cohorts, genders, race/ethnicities, and political party associations.

The participants in the current study were at least 15 years old and were recruited from all regions of the United States. Data were collected between 2007 and 2018 for the Harris Poll. Only data collected from individuals considered to be in Generation Z were used in the current study. A total of 4,550 surveys were completed for the Harris Poll, and 1,323 participants in that original study were from Generation Z. Because of the years of data collection, the youngest Generation Z participants in the data set were born in 2003; thus, the sample only included the older half of what is considered Generation Z. The Harris Poll surveys were in both Spanish and English. The Stress in America survey measured attitudes, perceptions of stress, leading sources of stress, common behaviors

used to manage stress, and its impact (APA, 2018). Thirteen waves of studies were conducted, each with a different topic and population, and those studies were compiled into a single large data set. A larger data set of this longitudinal study is available that surveyed a total of 43,007 respondents. The data for each participant are anonymous with no identifying information. The sample for the current study consisted of the data provided solely from the 2018 Stress and Gen Z subset.

I conducted a power analysis using G*Power to determine the needed sample size (see Faul et al., 2007). The effect size was set to 0.02, which permitted the detection of a relatively small effect size, given that the database has a large number of cases. The alpha level was set at 0.05 and the power level was set at 0.80. I determined a sample size of 550 cases to be sufficient to detect significant predictive power. A slightly larger power level of 0.95 would have resulted in a need for 863 cases, which would have permitted any missing values or other errors discovered during the cleaning process to not impact the results of the power analysis (University of California, Los Angeles, n.d.).

The data set used in the current study was not publicly available but was accessible to researchers and required permission from the principal investigator following approval by the Walden University Institutional Review Board (IRB). Upon receiving IRB approval, I registered with the Inter-university Consortium for Political and Social Research (ICPSR) to access the restricted data. My Dissertation Chair acted as a principal investigator (PI) on my application in addition to submitting the project description given to the Walden University IRB along with a security plan. The security plan template used was offered by the ICPSR.

Instrumentation and Operationalization of Constructs

Researchers from the primary study from which I took archival data were commissioned by Harris Poll on behalf of the APA (2018) as an annual nationwide survey that was part of a Mind/Body/Health campaign to examine stress across the United States and its impact.

Independent Variables

Race. Race was a categorical variable. Race was determined with the question "What is your race?" Participants had the option of selecting one of 14 options, including a specific race, mixed race, some other race, and prefer not to answer. Given that the database contained a large number of categories, I condensed this variable into fewer categories based on the distribution of participant responses.

Gender. Gender was also a categorical variable. Participants answered the question "How do you describe yourself?" by selecting "male, female, transgender, other or non-binary/genderqueer/gender fluid" to identify their gender.

SES. SES was assessed using self-reported household income in thousands of UNITED STATES dollars, which was an ordinal variable. Participants answered the question, "Which of the following income categories best describes your total 2017 household income before taxes?" with 38 options with various ranges.

Dependent Variables

Attitudes Toward Mental Health Services. The participants of the archived study answered the question, "How much do you think a psychologist can help with the following?" Participants were given a list of mental health and wellness related

challenges: coping with a chronic illness, lifestyle behavioral changes, mental health, coping with grief, stress management, work-life balance, relationship issues, addiction, treatment planning, psychological testing, coping with chronic pain, and trauma. Each of the questions were answered on a 5-point Likert scale ranging from *not at all* to *a lot or a great deal*. The total of the value of the subquestions was used to represent this variable.

Perceptions of Stress. Participants were also given three questions about their perception of stress. One question was "On a scale of 1 to 10, where 1 means you have 'little or no stress' and 10 means you have 'a great deal of stress' how would you rate your average level of stress during the past month?" and another was "Do you feel you are doing enough to manage your stress?" Participants answered by indicating yes, no, or not sure. The third question was "And now thinking about the past year, would you say the level of stress in your life has increased, decreased, or has it stayed the same?" Participants answered by selecting their choice of decreased, stayed the same, or increased. The variable was calculated by adding up values from these items. The first question was scaled and did not require dummy coding. Dummy codes were used for the second (yes = -1 not sure = 0, and no = 1) and third questions (increased = 1, decreased = -1, and stayed the same = 0).

Data Analysis Plan

I examined and analyzed the data using the Statistical Package for the Social Sciences (SPSS) software. The first step of data analysis comprised the data being cleaned and screened. This involved checking the accuracy and completeness of the data. Assessing the distribution of the data and the validity and reliability of the measures were

also critical aspects of this process. The first procedure of this process was to replace missing values. I ran a frequency analysis while checking for minimum and maximum dispersion. Next, the replace missing values transformation was completed using the series mean method with the variables identified as having missing values. These new values were used as a replacement for the missing values. Any questions with reverse coding were transformed using the recode to same variable function (Cognitive Performance Group, 2013).

Prior to testing the hypothesis, I examined the data to determine if they met the assumptions of the analysis. The normal distribution assumption was assessed using the Shapiro-Wilk test of normality, while linearity and the presence of outliers were assessed using a scatterplot diagram. The dependent variables and independent variables were both nominal and categorical, which satisfied another assumption. The assumption of an absence of multicollinearity can be assessed by creating dummy variables for the categorical variables and calculating correlations (Laerd Statistics, 2018). Violations of these assumptions would result in the transformation of variables as appropriate depending on the occurring violation.

Based on the type of variables being investigated and my interest in being able to predict an outcome, I conducted a multiple linear regression upon review of the assumptions (see Laerd Statistics, 2018). All the predictor variables were entered into the models together, and two linear regression equations were calculated, one for each dependent variable. I conducted *F* tests to determine if the entire model was significant and to report the multiple correlation coefficient. Beta coefficients were used to

determine how predictive each of the independent variables were in relation to the dependent variables.

Research Questions and Hypotheses

RQ1: What is the combined effect of race, SES, and gender in accounting for variance in attitudes towards mental health services among individuals in Generation Z?

$H_0$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be 0.

$H_1$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be greater than 0.

RQ2: What is the combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z?

$H_0$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be 0.

$H_1$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be greater than 0.

RQ3: What is the relative variance of each of the variables of race, SES, and gender in relation to attitudes toward mental health services among individuals in Generation Z?

$H_0$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be 0.

$H_1$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services among individuals in Generation Z will be greater than 0.

RQ4: What is the relative variance of each of the variables of race, SES, and gender in relation to perceptions of stress among individuals in Generation Z?

$H_0$4: The relative effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be 0.

$H_1$4: relative effect of race, SES, and gender in accounting for variance in perceptions of stress among individuals in Generation Z will be greater than 0.

Internal Threats to Validity

Potential limitations for this study existed due to the use of secondary data. I had no control over how the data were collected, the measures chosen for use, and the population that received the measure. The data were collected using an online survey that required participants to have internet access, which also limited the population who

responded to the survey. I selected participants for the current study from those who agreed to respond in Harris Poll surveys. In addition, my dependent variables were not assessed using a questionnaire that had been demonstrated to be reliable and valid.

External Threats to Validity

External validity addresses the generalizability of the study to the larger population. One threat to external validity is that the geographical location of the participants may have had an impact on the generalizability of the sample (see Scroth, 2019). The findings may not be generalizable outside of the United States. In addition, because of the dates of data collection and the minimum age at which participants completed the survey, only those members of Generation Z that were born after 2003 were represented in the current study, so the findings do not necessarily represent the entire generational cohort.

Ethical Procedures

The data collected on participants of this study were archived by Harris Poll group on behalf of the APA (2018). The collected archived data did not contain personal or identifiable information. However, the archived data did include the demographic information collected for the purpose of describing the participants. I obtained access to the data set upon receiving Walden University IRB approval with approval number - 01-31-23-0706116. The archived data were downloaded into a Microsoft Excel file with password protection that was accessible to only me as the researcher. A copy of the datafile was kept on a USB drive kept in a locked drawer that only I have access to. Five years after the publication of my dissertation, the data file will be deleted.

Individuals who participated in the archived study did so on a voluntary basis and were made aware that the results of the study would be used to expand the present knowledge on the influence of stress and the attitudes of mental health services. Once the Walden University's IRB reviewed and approved the study, they assigned me an approval number. I also completed a web-based training course that provided guidance on working with archived data and protecting human research participants.

Summary

The purpose of this study was to explore the correlation between race, gender, and SES as predictors of attitudes toward mental health services and perceptions of stress in Generation Z. In this chapter, I provided detailed information about the research design and rationale, methodology, and threats to validity. In Chapter 4, I will use descriptive statistics to present demographic data and the results of the multiple linear regression analysis to examine the relationship between the independent and dependent variables.

Chapter 4: Results

Introduction

In this chapter, I present the research questions and hypotheses, the data collection process, descriptive statistics, and the results of the multiple linear regression analyses. The chapter concludes with a concise summary and transition to the interpretation of the results in Chapter 5. The purpose of this quantitative study was to examine race, gender, and SES as predictors of attitudes toward mental health services and perceptions of stress in Generation Z. The independent variables used in this study were race, gender, and SES. The archival data that was used for the current study was part of a longitudinal study conducted by the Harris Poll Group (APA, 2018).

The four research questions and corresponding hypotheses that guided this study were:

RQ1: What is the combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services with individuals in Generation Z?

$H_0$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services with individuals in Generation Z will be 0.

$H_1$1: The combined effect of race, SES, and gender in accounting for variance in attitudes toward mental health services with individuals in Generation Z will be greater than 0.

RQ2: What is the combined effect of race, SES, and gender in accounting for variance in perceptions of stress with individuals in Generation Z?

$H_0$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress with individuals in Generation Z will be 0.

$H_1$2: The combined effect of race, SES, and gender in accounting for variance in perceptions of stress with individuals in Generation Z will be greater than 0.

RQ3: What is the relative variance of each of the variables: race, SES, and gender in relation to attitudes toward mental health services with individuals in Generation Z?

$H_0$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services with individuals in Generation Z will be 0.

$H_1$3: The relative effect of race, SES, and gender in accounting for variance in attitudes toward mental health services with individuals in Generation Z will be greater than 0.

RQ4: What is the relative variance of each of the variables: race, SES, and gender in relation to perceptions of stress with individuals in Generation Z?

$H_0$4: The relative effect of race, SES, and gender in accounting for variance in perceptions of stress with individuals in Generation Z will be 0.

$H_1$4: relative effect of race, SES, and gender in accounting for variance in perceptions of stress with individuals in Generation Z will be greater than 0.

Data Collection

To address the research questions, I utilized data from the 2018 Stress and Generation Z data set archived in ICPSR. The data were downloaded after I obtained approval from the Walden University IRB. There was a total of 616 cases in the archived data that met the inclusion criteria for the current study. The sample for the current study was chosen by extracting data for adult Generation Z individuals between the ages of 18 and 21 years old. Each case was free of personal identifiers and was assigned a 10-digit numerical code.

It was necessary to change the data analysis plan reported in Chapter 3. The numeric value for each gender was recoded for male, female, and other, and the sum of the values was used for the gender variable to determine if a participant identified as more than one gender. The second change involved the race variable, which I recoded from 13 groups to seven groups to condense groups that had few members in them. The third change involved the SES variable. My original plan as discussed in Chapter 3 was to calculate SES by creating a composite score using household income and the highest parental education level. The archival data did not include parental education. I considered the use of family income alone to represent SES until the data reported on family income was reviewed, and because the data were inconsistent, it was not usable for this purpose. In over 26% of the cases, the reported family income that was indicated

by the participants was in the lowest range possible (i.e., less than $15,000/year), which indicated that individuals likely responded with their personal income rather than their family income. Given the skewed data, this variable was also not normally distributed. As a result, I removed SES was removed as a variable in the analysis and could not consider it as a predictive factor. Table 1 presents the demographic information for the sample, including the income data; Table 2 presents the gender and race breakdown for the sample; and Table 3 presents the means of gender and race in relation to the dependent variables, attitudes towards mental health services, and perceptions of stress.

Table 1

*Frequencies and Percentages for Study Variables (*N *= 616)*

Variable	*N*	%*
Gender		
Male	265	43.0
Female	331	53.7
Other (transgender/nonbinary/fluid)	20	3.2
Income		
Less than $15,000	140	22.7
$15,000–$24,999	77	12.5
$25,000–$34,999	79	12.8
$35,000–$49,999	57	9.3
$50,000–$74,999	74	12.0
$75,000- $99,999	44	7.1
$100,000 or more	68	11.0
Prefer not to answer	77	12.5
Race		
White	145	23.5
Black	301	49.9
Native American/Alaskan Native	14	2.3
Asian	37	6.0
Mixed race	47	7.6
Other	73	11.7

*Percentages may not add up to 100% due to rounding.

Table 2

Gender and Race Count for the Sample

Race	Male	Female	Other (Transgender/nonbinary/fluid)
White	61	80	4
Black	144	149	8
Native American/ Alaskan Native	3	11	0
Asian	10	25	2
Mixed race	16	28	3
Other	31	31	3

Table 3

Group Means of Dependent Variables

Group	Mean attitude toward mental health services (*SD*)	Mean perception of stress (*SD*)
Gender		
Male	33.78 (12.61)	4.39 (3.0)
Female	37.11 (12.41)	5.84 (3.00)
Other (transgender, nonbinary, or fluid)	38.85 (11.47)	6.95 (2.82)
Race		
White	38.08 (12.32)	5.63 (2.96)
Black	34.77 (12.46)	5.00 (3.11)
Native American/Alaskan	41.14 (13.38)	5.93 (3.02)
Asian	31.24 (12.79)	5.22 (3.23)
Mixed race	33.85 (11.52)	5.79 (3.06)
Other	37.53 (12.87)	5.07 (3.16)

Results

For statistical analysis, I conducted two multiple linear regression equations to address the four research questions for this study. Before conducting the analyses, the assumptions of regression analysis were tested. Linearity was assessed by partial regression plots and a plot of studentized residuals against the predicted values. I assessed homoscedasticity by visually inspecting a plot of studentized residuals in comparison to

unstandardized predicted values. No evidence of multicollinearity was identified as noted by tolerance values of greater than 0.1. No studentized deleted residuals were greater than ±3 standard deviations, leverage values were not greater than 0.2, and the Cook's distance values were greater than one. The Q-Q plot was used to determine that the assumption of normality was met.

Research Question 1

I conducted a multiple linear regression to predict the combined effect of race and gender accounting for variance in attitudes toward mental health services in Generation Z. The results indicated a significant association between race and gender regarding attitudes toward mental health services (F [7, 608] = 4.254, $p < .001$, adj. $R^2 = .036$). Although the findings were significant, the extent to which the variables predicted the dependent variable was low. The null hypothesis indicating that there is no combined association with race and gender in predicting attitudes toward mental health services was rejected. Tables 4 and 5 present the results of the analysis.

Table 4

Regression Results: Attitudes Toward Mental Health Services

Model	Sum of Squares	*df*	Mean Square	*F*	Significance
Regression	4,536.472	7	648.067	4.254	<.001
Residual	92,633.397	608	152.358		
Total	97,169.869	615			

Table 5

Attitudes Toward Mental Health Services Model Summary

Model	*R*	*R* square	Adjusted *R* square	Std. Error of the Estimate	Durbin-Watson

1	.216	.047	.036	12.34332	2.124

Research Question 2

I conducted a multiple linear regression to examine the combined effect of race and gender in predicting perceptions of stress in Generation Z. The equation was significant (F [7, 608] = 6.582, $p < .001$, adj. R^2 = .060). The null hypothesis indicating that there is no relationship between race and gender in relation to perceptions of stress was rejected. The findings are presented in Tables 6 and 7.

Table 6

Regression Results: Perceptions of Stress

Model	Sum of Squares	*df*	Mean Square	*F*	Significance
Regression	412.640	7	58.949	6.582	.001
Residual	5445.358	608	8.956		
Total	5857.998	615			

Table 7

Perceptions of Stress Model Summary

Model	*R*	*R* square	Adjusted *R* square	Std. Error of the Estimate	Durbin-Watson
1	.265	.060	.060	2.99269	1.147

Research Question 3

To address this research question, I examined each of the predictor variables. Gender was a significant predictor of attitudes toward mental health services (F [2, 628] = 7.119, $p < .001$, adj R^2 = .019), and race was also a significant predictor (F [5,625] = 3.241, $p < .007$, adj R^2 = .017). Although both gender and race were significant predictors

of attitudes toward mental health services, they did not account for much of the variance in the dependent variable. In this case, I rejected the null hypothesis because both gender and race had a relative variance greater than 0.

The coefficients for gender demonstrated differences between men and women (i.e., women [$p < .001$]) as well as between men and transgender/nonbinary/fluid individuals ($p < .001$). Women and individuals in the "other" category reported the most positive attitudes toward mental health services. Table 8 presents the coefficient information.

Table 8

Coefficients for Gender: Predicting Attitude Towards Mental Health

	Unstandardized ß	Coefficients Std. Error	Standardized coefficients beta	*t*	Significance
Constant: Male	33.605	.759		44.283	<.001
Female	3.595	1.018	.142	3.532	<.001
Other (Transgender/ nonbinary/fluid)	5.681	2.830	.081	2.007	<.001

The coefficients for race are presented in Table 9. Both the Black and Asian groups reported negative attitudes about mental health services compared to the individuals in the White group ($p = .013$ and $p = .004$, respectively)

Table 9

Coefficients for Race: Predicting Attitude Towards Mental Health

	Unstandardized ß	Coefficients Std. Error	Standardized coefficients beta	*t*	Significance
Constant (White)	37.825	.988		38.268	<.001

Black	-3.054	1.223	-.121	-2.497	.013
Native American/ Alaskan Native	3.318	3.485	.039	.952	.341
Asian	-6.582	2.281	-.123	-2.886	.004
Mixed race	-3.974	2.074	-.083	-1.916	.056
Other	-.297	1.774	-.007	-.168	.867

Research Question 4

To address this research question, I examined each of the predictor variables. Gender was a significant predictor of perceptions of stress (F [2, 628] = 19.937, $p < .001$, adj $R^2 = .057$), while race was not a significant predictor (F [6,624] = 1.892, $p = .08$). In this case, I failed to reject the null hypothesis because gender had a relative variance greater than 0 and race's relative variance was less than 0.

The coefficients for gender demonstrated differences between men and women ($p < .001$) as well as between men and transgender/nonbinary/fluid individuals ($p < .001$). Women and individuals in the "other" category perceived themselves as experiencing significantly more stress than men. Table 10 presents the coefficient information.

Table 10

Coefficients for Gender: Predicting Perceptions of Stress

	Unstandardized ß	Coefficients Std. Error	Standardized Coefficients Beta	*t*	Significance
Constant (Male)	4.358	.183		23.847	<.001
Female	1.439	.245	.232	5.868	<.001
Other (transgender/ nonbinary/fluid)	2.356	.681	.137	3.458	<.001

Summary

I explained the rationale for the elimination of SES as a predictor variable to provide clarity about the results of the analyses. Multiple linear regressions were conducted to address the four research questions. The results of the first linear regression addressed Research Questions 1 and 3 and indicated that the combined effect of race and gender accounted for significant variability in the dependent variable of attitudes toward mental health services in Generation Z. Although significant, the low R squared results also indicated that both race and gender were predictive, but the variability in the responses severely limit the predictive power of either predictive variable for the dependent variable. Women and individuals in the "other" category reported more positive attitudes toward mental health services. Individuals in the Black and Asian categories reported fewer positive attitudes toward mental health services.

The second linear regression addressed Research Questions 2 and 4 and indicated that both gender and race were significantly predictive of perceptions of stress, although both variables only accounted for a very small amount of variance for the dependent variable. Women and individuals in the "other" category reported more stress than men, and individuals in the Black and Asian categories reported less stress than individuals in the White group.

The results will be described in greater detail in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to examine whether race, SES, and gender are predictors of perceptions of stress and attitudes toward mental health services for the Generation Z cohort. Secondary data collected by the Harris Poll Group on behalf of the APA were analyzed in the current study. This study was part of a longitudinal annual study on stress in the United States (APA, 2018). Unfortunately, I had to change the analyses in the current study because the variable of SES could not be calculated based on the data available. The results of the current study indicated significance for a combined effect of gender and race on both perceptions of stress and attitudes toward mental health services in Generation Z. Although a significant value was identified for gender and race as it relates to perceptions of stress and attitudes toward mental health services, a low correlation value was indicated, which may be accounted by some other factors; therefore, the null hypotheses were rejected.

Interpretation of the Findings

The PHCR praxis was the theoretical framework used to investigate the predictive variables of race and gender in relation to Generation Z and their perception of stress and attitudes toward mental health services in the current study. Healthcrits, or health researchers who investigate CRT, have used this framework to direct racial equity research in public health from an overarching lens of race consciousness (Ford & Airhihenbuwa, 2010).

The findings of the study indicated race as a contributing predictor alongside gender for a combined effect in relation to perceptions of stress and attitudes toward mental health services in Generation Z. The PHCR praxis served as the lens to examine all aspects of the research process while centering the known relevance of race consciousness in eradicating racial health inequities. The PHCR schematic served as a guide throughout the research process from identifying the current patterns related to race and racial equity to understanding that as the researcher, I may have particular biases based on my background that could have impacted the way is the study was conducted. The third schematic focus was addressed as the consideration of the layered identities of the participants in terms of their race and gender and the impact these results could provide for action toward eradicating racial health inequities was also considered (see Ford & Airhihenbuwa, 2010; Office of Disease Prevention and Health Promotion, 2020).

Another important consideration related to the application of this theoretical framework in relation to the study was the large number of cases of minoritized participants as compared to their White counterparts. In the PHCR praxis, Ford and Airhihenbuwa (2010) expressly identified the importance of the consideration of race in all aspects of the research process. I expected that race would have had both a collective impact with gender for both perceptions of stress and attitudes toward mental health services as well as have a relative variance greater than 0, although the latter was not the case for perceptions of stress, while it was the case for attitudes toward mental health services. This finding aligns with the theory that race is a necessary consideration when conducting health research to assess ways to increase equity in treatment, although this

result may also indicate that there are other unassessed factors that could be accounting for aspects of the variance contribution.

The purpose of Research Question 1 was to determine whether race and gender could collectively predict attitudes toward mental health services in Generation Z. Although the regression equation showed significance, the low value of R^2 indicates that the model may only account for a minimal amount of variation in the data. This means that both race and gender provide valuable information about predicting attitudes toward mental health services, although there may be other factors that impact these results and contribute to the noise in the variability. Race and gender combined were predictive of attitudes toward mental health services in Generation Z. These results indicate that variation in attitudes towards mental health services are based on race and gender. Generation Z Native American/Alaskan and White members reported higher belief in the effectiveness of mental health services in comparison to Asian and mixed-race members who reported the lowest levels in the racial groups assessed. In terms of gender, individuals who identified as other reported more belief/attitude on the value of mental health services, while male Generation Z members reported less value or belief/attitude toward mental health services.

The significant results for Research Question 1 align with the results provided from previous studies that found an association between race and gender with attitudes toward mental health services. It is important to note that past studies had fewer racial groups and fewer gender groups to compare. Studies typically examined White and Black participants or individuals of color compared to their White counterparts (Narendorf et

al., 2018). The previous studies examined the relationship between the variables and older generational cohorts, while the current study identified the collective association of the predictive variables of gender and race, which is noted as similar to older generations to Generation Z.

Narendorf et al. (2018) also identified race and gender as contributors to attitudes toward mental health treatment. Although the same variables were identified as predictors, the populations differed because in the current study, I assessed adult Generation Z members, while Narendorf et al. examined young adults who specifically had a mood disorder and who were on Medicaid. Individuals in the Narendorf et al. study would be more likely to be considered low income given their Medicaid enrollment, and I was unable to examine the role of income given the skewed data that were collected in the archived data set used. Information on family income would have been helpful to assess the collective predictive function of SES with race and gender in relation to attitudes toward mental health services. Narendorf et al. as well as Donovan and West (2015) identified race as a significant factor in perceptions of stress. Gender was not directly examined by Donovan and West.

Although the findings of the current study resulted in the rejection of the null hypothesis for the first research question and supported the PHCR praxis, the predictive value, as reflected by R squared, was relatively low. This may reflect a generational change in that, while gender and race both still are related to attitudes toward mental health services, they are becoming less of an influence in Generation Z compared to previous cohorts.

The third research question examined the relative variance for race and gender as predictors of attitudes toward mental health services in Generation Z. The regression analysis indicated a relative variance for both gender and race. Similar to Donovan and West (2018) and Narendorf et al. (2018), I found that gender was identified as a predictor of attitudes toward mental health services. Narendorf et al. and Ursache et al., (2017) also both identified gender as predictive of attitudes toward mental health services. Narendorf et al. indicated that men of color had more negative attitudes toward help seeking, viewed their symptoms as less chronic, and managed their mindset rather than utilized formal treatment. Women of color reported feeling more positively than men of color about mental health treatment, while White participants had the most positive attitudes toward mental health services and treatment.

The purpose of the second research question was to determine whether race and gender could collectively predict perceptions of stress in Generation Z. The findings for this research question were significant, although similar to the findings in the first research question, the R^2 value was low. Together, race and gender were significant predictors of perceptions of stress; however, the predictive value was minimal. These results align with the previous findings of race and sex predicting reports of stress (see Cooper & Dewe, 2004; MacDonald et al., 2021; Ningthoujam et al., 2021; Ursache et al., 2017). This indicates that Generation Z may be similar to their older generational cohorts in that race and gender are predictors of attitudes toward mental health services; however, given the variability of responses, this predictive value may be decreased in comparison. Individuals who belonged to most of minoritized populations reported less stress than

White individuals in comparison to Native American/Alaskan participants. Black participants reported the least stress of any other race group and were less favorable toward mental health services. Past research indicated Black individuals reported higher rates of psychological distress than Whites (see Cooper & Dewe, 2004; MacDonald et. al., 2021; Ningthoujam et al., 2021; Ursache et al., 2017). Other studies indicated White participants had higher levels of depressive- and anxiety-related symptoms compared to Black participants who reported lower levels of psychological well-being, like satisfaction and happiness, but higher rates of the absence of mental disorders (Williams, 2018). Although stress levels were reported as lower for Black individuals in the current study, which differed from previous findings, their attitudes toward mental health services were consistent with previous findings (see Cooper & Dewe, 2004; MacDonald et. al., 2021; Ningthoujam et al., 2021; Ursache et al., 2017).

The results of the current study support the work of previous authors who identified race and gender as predictors of stress, although they examined the predictive nature of each variable separately and not together (i.e., Cooper & Dewe, 2004; Ningthoujam et al., 2021). In the current study findings, there was a significant difference between men and women as well as men and transgender/nonbinary/fluid individuals. Generation Z women and individuals in the “Other” category (i.e., transgender, nonbinary, and fluid) reported the most positive attitudes toward mental health services and the most stress. This finding aligns with the results of past research on the impact of gender on attitudes toward mental health services (see Narendorf et al., 2018; Ursache et al., 2017).

One noteworthy consideration for Generation Z in comparison to older cohorts is their flexibility in thinking about the concept of gender. It is important to note that the archived study phrased the questions about gender as "yes" or "no" (i.e., "Do you identify as male?" "Do you identify as female?" and "Do you identify as transgender?"). This means that an individual could identify as both female and as transgender, and this outcome was reflected in the analysis. In previous research (i.e., Narendorf et al., 2018; Ursache et al., 2017), participants had choices to identify as woman or man and other gender identities had not been considered. The current findings and the way in which the variable of gender was assessed in the survey provide unique insight to the understanding of Generation Z's lesbian, gay, bi, transgender, queer, intersex, and asexual plus community as well as how they perceive stress and their attitudes toward mental health services. This community is not monolithic; however, given Generations Z's expansive framework for gender identity (Garrett-Walker & Montagno, 2021), the current study underscores the importance of providing multiple gender identity options for participants in studies and on surveys. If people and things are not measured, they cannot be researched. For instance, investigating the relationship between gender and other variables, gender needs to be assessed with multiple options in mind. Clarity about the gender identity of an individual would be valuable in any research with this population because it is possible for an individual to identify as both transgender and female, for example, if given the option to select both.

Generation Z is a more racially and ethnically diverse generation in relation to their predecessors (Parker & Igielnik, 2020). The archived study also had more racial

groups than examined in previous studies (i.e., Donovan & West, 2015; Narendorf et al., 2008; Ursache et al., 2017), The archived data set also contained a majority of individuals in a minority population, which did not reflect the diversity of the general population or Generation Z.

Past researchers who focused on the role of race and gender in perceptions of stress and mental health have generally not included SES as a consideration; however, Urache et al. (2017) found that it was a predictor. SES was excluded in the current study due to the lack of information in the data set used. As a result, the originally planned analysis and any comparison to previous studies was not possible.

Limitations of the Study

A limitation of the study was its reliance on archived data. The use of this data source may not be representative of all members of the Generation Z cohort from various geographic locations and their perceptions of stress and attitudes toward mental health services. The secondary data used in the current study were part of an online longitudinal study conducted in the United States; therefore, I had no control over the questions that were on the survey. The data were also quantitative, and no detailed narratives were available regarding nuanced information about perceptions of stress or mental health. The dependent variable measurement was limited to a 5-point Likert scale, which may not clearly reflect complex feelings or thoughts about the concepts of stress or mental health treatment.

The results of the study may not be generalizable to the larger Generation Z population. The cases were not randomly selected because they were individuals who

agreed to participate in the original longitudinal study. The data also included only adult Generation Z participants, which excluded respondents between 15 and 18 years old. Although younger members of the Generation Z cohort are included in the data set, they were not included in the sample that I used in the current study and were excluded because they were too young to have attitudes about stress or mental health care. The current study also had a large sample of minoritized identities in relation to the general population. Further research may examine the entirety of the Generation Z cohort as this group ages and matures.

Adolescents may not be aware of their parental/family income, which is a determining factor used in calculating SES (Weir, 2016). This may occur for several reasons, such as money talk being considered rude or uncomfortable or inappropriate for a child to ask an elder in some cases (Weir, 2016). The participants in the original longitudinal study appeared to have interpreted the item asking about income and responded with their own income rather than their family income, and at the age these data were collected, much of the sample would have been students.

Another potential limitation was the method used to categorize gender, which was different from previous studies that examined gender in the binary of male and female, which impacted the comparability of the current study to past studies. The archived data also included more groups for race than previous studies that typically included Black or individuals of color in comparison to their White counterparts (i.e., Donovan & West, 2015; Narendorf et al., 2018). These different demographic categories may have influenced the results of the current study.

Recommendations

I recommend that future researchers build upon the information gained in the present study by using primary data because some of the limitations of the current study were related to the use of archival data. Future studies are recommended to delineate racial groups more clearly because the archival data used in the current study combined the concepts of ethnicity and race in the same questionnaire item. This is important given the ethnic makeup of the United States to ensure a more representative analysis of Generation Z and to include more members of diverse groups as they age and are able to answer survey questions more accurately. Items reflecting sex or gender also need to reflect the more diverse conceptualization of these constructs that Generation Z has adopted.

Whenever questionnaires are given to children or adolescents, it may also be helpful for parents to be included in the study to address demographic questions, such as parental education and income. Examining members of the younger and adult Generation Z cohort is recommended to assist with generalizability. Geographic location would also be another predictor that would benefit from further exploration because this factor has been identified as impacting the way individuals perceive the world around them as well as their cultural upbringing (see The Center for Generational Kinetics, 2020; Scroth, 2019).

Implications

The results of this have implications for the public health of Generation Z. Their collective cultural background, technological savviness and exposure to various social,

economic, and political crises expose them to unique challenges that may impact their mental health (Keller et al., 2012; Office of Disease Prevention and Health Promotion, 2020; Treadwell, 2020). These unique attributes of Generation Z in conjunction with the fact that mental health challenges tend to emerge at younger ages makes it especially critical to examine this generation's experiences related to mental health and stress (Schroth, 2019). Researchers exploring these topics have mainly focused on older generational cohorts. Although the findings of this research support previous literature in finding that both gender and race predict stress and attitudes toward mental health, the predictive value of those variables may be losing relevance given the variability in responses that led to a low R squared value for each of the dependent variables.

This study adds to the body of literature and aids in filling the gap in knowledge on Gen Z and their perception of stress and attitudes toward mental health services. The results of this study can provide useful knowledge for clinicians to be mindful of when working with individuals from different ethnic backgrounds and genders within the Gen Z cohort.

Understanding the attitudes of members of Generation Z regarding mental health services and stress can assist in providing appropriate training for clinicians and other health care providers that will work with this population. My findings indicate a need for clinicians to ask about gender identity in this population, and also that men may need a more educational approach regarding mental health services. Race was predictive of reports of stress, with the Black population reporting the least stress; however, the variability of the responses indicates that we cannot generalize based on the findings. It is

important to continue to assess this as the racial and ethnic makeup of future generations will continue to change.

Generation Z can also benefit from the results of this study as it may provide greater understanding of how to engage them in self-care and mental health services, as well as determine which resources could be beneficial. Generation Z has a distinct view on the world in contrast with other generations, being the only cohort that has not seen the world without the internet. Technology and access to information play a significant role in Gen Z's understanding of the world (Chillakuri, 2020).

The results of the study can also be utilized to establish sustainable systemic change to address health care policy directed at Gen Z. The implementation of these changes would affect both the current generation as well as future generations that are influenced by them, ultimately resulting in a more equitable health system. More research needs to be conducted in order to consider SES as a predictor variable of perceptions of stress and attitudes toward mental health services. The finding of race and gender as collective relative effective as predictors of perceptions of stress and attitudes toward mental health services reiterates the importance of increased training for professionals and access to resources and funding to meet the needs of this generation.

Conclusion

The purpose of this study was to examine the relationship of race and gender as predictors on perceptions of stress and attitudes toward mental health services in Generation Z using archived data. The individuals in this study were members of Gen Z and agreed to participate in the Harris Poll survey. The analysis indicated that gender and

race had a combined relative effect on attitudes toward mental health services and perceptions of stress of Gen Z members. Gender was noted to predict attitude towards mental health services while gender and race were identified as predicting perceptions of stress. This study has implications for positive social change by contributing to the current literature, addressing the gap on the topic related to young adults and providing useful knowledge that could impact effective treatment responses for such a racially and ethnically diverse generational cohort.

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