About The Cover

Wandering Wetlands

Grace Dooner

Mentor: Prof. Amy Lovera (Art and Art History)

Cover images photographed at Duxbury North Hill Marsh, Daniel Webster Wildlife Sanctuary, Plymouth Tidmarsh, and Wellfleet Bay Wildlife Sanctuary

Artist Statement

Nature calls me in my work. As a photographer who is studying sustainability, I am fascinated by the intricacies and details of complex ecosystems. In my undergraduate research work, I investigate wetlands, which play an important role in the fight against climate change. There is so much essential life within these ecosystems; adventuring through them allowed me to find my focus. I gravitate to the wetland’s plants, ferns, birds and insects.

After spending much time discovering the intricacies within wetlands, I was able to capture details of wetlands in unique ways. By using inspiration like that from the chiaroscuro lighting of Renaissance painting, I was able to light my subjects to emphasize the drama that wetlands wildlife can create. My art expresses my passion for climate change activism, promoting a greater understanding of the world around us, while also appreciating the local environment we are lucky to have.

My website includes a photo gallery, research findings about wetlands, and a vlog about my photographic processes—at https://www.wanderingwetlands.com/ or by scanning the QR code.
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Examining Gender-Specific and Trauma-Informed Care for Traumatized Homeless Women

Paulina Aguilar Delgado and Mya Nunes

Abstract

Research indicates mixed shelters do not respond adequately to the needs of homeless women that have suffered trauma-related events; as female victims, these women are part of two systematically vulnerable populations who are subject to constant revictimization when trying to reintegrate into society. The purpose of this study was to examine whether the services delivered to adult homeless women who have been affected by trauma-related events make them feel safe, and whether the services provision is both gender specific and based on a trauma-informed approach. St. Vincent de Paul’s Ozanam Manor is a mixed gender transitional shelter serving homeless seniors in the Phoenix area. A recent program evaluation indicated that several of its female clients had revealed concerns of being revictimized in the shelter. This research study employed qualitative methodology, and the data was drawn from seven in-depth interviews. The analysis was conducted via naturalistic perspective to study homeless women in their own natural settings and to provide a rich, contextualized understanding of trauma and victimization experiences. The findings of the study revealed that the residents are given the assistance and support they require to heal from their trauma, and that emotional and psychological requirements are critical aspects to healing. Also, it was found that fear of men was not the main issue for women in a mixed transitional shelter. Instead, their concerns were focused on the coexistence between the female residents and the problem-solving process followed by the agency. A great percentage of homeless women have been exposed to additional forms of trauma, such as neglect, psychological, physical, and/or sexual abuse during a given stage of their lives (Hopper et. al., 2010). By understanding the dangers and challenges that a homeless woman who has been exposed to trauma may confront, the way society perceives others who have experienced similar traumatic situations, regardless of gender or color, may improve.

Introduction

Trauma-informed care is an essential tool in any caregiver facility: its role, effects, and importance are concentrated on people facing difficult and traumatic situations. Such is the case of homeless people, but homeless women are a population that is systematically disadvantaged. Undoubtedly, homelessness is a condition that affects the individual suffering and the society, which might be the indirect cause of social problems such as street-crime, economic crisis, drugs, etc. By analyzing (through direct or archival research) homelessness at its very core, linking it with trauma-informed care, and examining a strategy to understand the prevalence of trauma and its impact on human health and behavior, we can be a step ahead in combating homelessness and helping people receive proper treatment by prepared staff.

Trauma is viewed as a mental or emotional reaction to a highly upsetting or unsettling event or experience. A traumatic experience is defined as an overwhelming occurrence that develops a sense of fear, helplessness, or horror, and constant anxiety. The causes of a trauma include a wide range of events, but the effect and impact of trauma on a person can severely interfere with a person’s sense of safety, coping resources, sense of self, control, and interpersonal relationships (Hopper et. al., 2010). Although the word trauma might be automatically associated with an accident or an abrupt incident, trauma might also be
caused by psychological, emotional, social, and or cultural circumstances the individual perceives as traumatic. Contrary to the common idea of trauma, homelessness is indeed a traumatic experience: being homeless entails living in a permanent survival mode, uncertain of where one will spend the night or whether there will be enough resources to get food that day. Experiencing this unsteadiness is ultimately exhausting to the individual, added to the fact that great percentage of homeless people have been exposed to three additional forms of trauma, such as neglect, psychological, physical, and/or sexual abuse during a given stage of their lives (Hopper et. al., 2010).

Reasonably, this environment is constantly feeding on itself as a cycle in which the victims become powerless and fully dependent on governmental institutions that might not be as prepared to properly manage trauma situations. Trauma-informed care, as the name states, prioritizes the psychological health of the patients through strategies based on social support, which often refers to the “social network’s provision of psychological and material resources intended to benefit an individual’s capacity to cope with stress” (Cohen, 2004). Social support might take many forms, which may be provided by different systems, but the association between social support and individual health lies in the fact that the person must have a solid social support net to handle stressful events, appropriately evaluate his/her surroundings and make the best decisions on his/her behalf (Sippel et. al., 2015). Moreover, because of the blurred and extended boundaries affecting the definition of homelessness; that is, the degree on which a determined person is homeless or not (people who have some shelter or depend on relatives or friends to spend the night, or on the contrary, those who do not have a place to go to), the magnitude of the problem and the consequences it rouses are diverse and complex (Shlay et. al., 1992). However, analyzing homelessness entails evaluating the essence of vulnerability. Not only is it a difficult experience for people in general, but it represents an impossibility for those who belong to a systematically vulnerable population: women. The disadvantages women face are far greater than those of their male counterparts, even more so in homeless conditions. Thus, adding these two factors in the equation (gender inequality and homelessness), leads to a higher rate of victimization. Gender-based victimization, as well as gender-based violence, are concepts deeply rooted in the societal conception of men and women, and of course, is reflected in homelessness circumstances.

Homelessness conditions affect everyone, whether directly or indirectly, however, this situation of vulnerability is often belittled due to unacknowledged circumstances that impact the homeless population. In order to provide the right treatment for people facing homelessness situations, institutions in charge of such programs must develop and follow protocols established under the concept of trauma-informed care, and fully commit to create a safe place that promotes and nurtures social support connections for their clients.

**Literature Review**

The focus of this literature study is on the unique experiences of women who are homeless. It can assist with answering the questions whether women feel safe at the shelters and whether they are receiving the proper care that they need in order to return to society.

Being homeless entails living in a permanent survival mode, uncertain of where one will spend the night or whether there will be enough resources to get through the day. Experiencing this unsteadiness is ultimately exhausting to the individual. Adding to this, a great percentage of homeless women have been exposed to
additional forms of trauma, such as neglect, psychological, physical, and/or sexual abuse during a given stage of their lives (Hopper et. al., 2010). Furthermore, homeless women encounter dual victimization, by the individual(s) who directly victimize them, and by the “system”: as stated in her book, Shadow Women: Homeless Women’s Survival Stories, the author Marjorie Bard assures “we (the society), are becoming desensitized to those who do not exactly ‘fit in’” (Bard, 1990).

Homelessness is caused by a variety of causes; a common denominator among them is misinformation, a factor that perpetuates and even potentiates these circumstances, however, some of the causes of homelessness for women are widowhood, poverty, divorce, and poor legal assistance (resulting in unequal division of assets), bankruptcy, loss of job, loss of household, abusive husbands, chronic illness, disability, etc. Not only that, but the hurdles homeless women endure range from gender-based violence, harassment, sexism, ageism, to emotional manipulation. The feeling of hopelessness and powerlessness, the lack of information and access to resources, poor legal representation and accessibility to legal and judicial systems are other additional setbacks for women living in the streets but coincide with the systematic disadvantages women from all social and economic backgrounds undergo (Bard, 1990).

It is important to recognize that women face hidden challenges that the system itself fails to acknowledge, which automatically translates into women being one of the more vulnerable populations in our society. For instance, the rates of violence to which women are exposed are significantly larger for women than they are for men: gender-based violence is a phenomenon that affects women of all ages, not only on the streets, but also in their home environment. The author of “Technology-Facilitated Gender-Based Violence,” Suzie Dunn, states “as gender-based violence is rooted in the systemic reinforcement of gender norms and inequality, it is important to recognize how it affects these groups as well as cis-women and girls” (Dunn, 2020).

As declared above, it is crucial for care services to provide gender specific and trauma-informed care when attempting to address the demands of the population treated. Understanding these complex situations will help to alleviate the potential risks.

The re-traumatization of homeless women during their healing process while staying in the temporary residence is a big concern. This concern amplifies when the temporary residence is a mixed transitional shelter. Women’s experiences of homelessness are different from their male counterparts in several ways. For instance, women appear to have distinctive risk factors peculiar to their gender that make them vulnerable for a greater incidence of mental health problems; higher rates of substance dependence; as well as greater incidence of adverse childhood trauma (Belknap 2007). Research also indicates a strong correlation between experiencing trauma-related event(s) and developing a pattern of behavior that contributes to vulnerability for re-victimization (Alatorre, 2019). When it comes to the mental health needs of women, those who have a history of abuse and do not have a proper treatment will be at-risk for future victimization (Crable et al. 2013).

The Los Angeles City Women’s Needs Assessment (2019) indicates that a prevalent number of women that have been victimized will suffer at some time in their lives one or more revictimization events. This experience is intensified by being homeless. The assessment further indicates that at least 44% of women who had been a victim of a crime in the last 12 months also reported to be homeless; 27% had experienced sexual assault in the last 12 months; 53% had experienced domestic or interpersonal violence in their lifetime; more than 60% experienced
violence at some point in the last 12 months; and 25.7% reported violence as occurring constantly or often (Kuo, 2019).

Care centers and institutions must be focused to provide care based on gender specific necessities, focusing on covering such needs for males and females and their psychosocial demands. As asserted by Stephanie S. Covington in her article Women and Addiction: A Trauma-Informed Approach, gender-responsive/woman-centered services are defined as the “creation of an environment - through site and staff selection, program development, and program content and materials - that reflects an understanding of the realities of women’s and girls’ lives and that addresses and responds to their challenges and strengths.” It is pivotal to be conscious of the importance of gender in environmental factors, behavioral differences, race, relationships, services, community, and socioeconomic factors; professionals in any area (especially in substance abuse and trauma) should be trained to identify, report, and address these issues from an appropriate approach and in the best interest of their patients (Covington, 2008).

Theoretical Framework

According to Substance Abuse and Mental Health Services Administration (SAMHSA), trauma is defined as “an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being” (SAMHSA, 2014). Thus, trauma is not defined as happening to a specific age, gender, socioeconomic status, race, ethnicity, or sexual orientation. The idea of trauma relates to traumatic experiences; some of the events that are categorized as traumatic involve body health and mental health. This underscores the need to properly address trauma as a part of a basic need of providing care such as healing and recovery.

Therefore, when addressing trauma, there are several approaches, and the approach taken depends on the needs of the patient. For instance, there is the pathogenic perspective, which “views health as the absence of disease or illness” (Keyes, 2014). The word pathogenic comes from the Greek word pathos, which means disease, and genic, which means producing/causing. Thus, pathogenic means capable of producing diseases. This perspective suggests that when the problem is addressed, the status quo is reached. Furthermore, the pathogenic perspective dominates the delivery of mental health, medical services, education, legal, and human services, as well as business models and parenting services.

There is also the salutogenic perspective, which takes a health promoting approach by suggesting “that humans possess an innate capacity to move toward health and well-being” (Linden & Rutowski, 2013). This approach was created by the work of Aaron Antonovsky, an Israeli American Sociologist, who asserted that “we first need to listen to someone’s story with an eye for their competency and capacity rather than their brokenness, disease, or misery.” Salutogenic derives from the word salus, which means “capable of producing health,” and it assumes that health is a continuum state; there is no dichotomy between health and sickness. According to this approach, stress is omnipresent and allows for growth and development, and more importantly, this perspective uses stress management as a means for rehabilitation. The salutogenic perspective is built around the belief that people have a capacity to actively adapt: “Salutogenesis is a stress resource-oriented concept, which focuses on assets, strengths, and motivation to maintain and improve the movement toward health. Using this paradigm, a shift from the risk factor-disease (pathogenic) model permits the examination of health-promoting factors that accentuate a positive capability to
identify problems and to activate healthy solutions that may help individuals overcome adversity and stress” (Linden & Rutowski, 2013).

Along these lines of strength, motivation, resilience, and empathy, we can find that the core of trauma-informed care adheres to the salutogenic perspective and focuses on accentuating a person’s ability for active adaptation: “Trauma-Informed Care understands and considers the pervasive nature of trauma and promotes environments of healing and recovery rather than practices and services that may inadvertently re-traumatize” (Speedling, 2019). According to this perspective, trauma-informed care underscores some core elements of human capabilities, such as resilience, effective communication, empathy, emotional management, strengthening interpersonal resources, etc.

An important addition to Aaron Antonovsky’s development of the salutogenic paradigm is the Sense of Coherence (SOC) theory, which relates to the adaptive capacity of humans. Antonovsky defined the sense of coherence as “a global orientation that expresses the extent to which one has a (A) pervasive, enduring, though dynamic feeling of confidence that stimuli deriving from one’s internal and external environments in the course of living are structured, predictable, and explicable; (B) the resources are available to one to offset the demands posed by these stimuli; and (C) these demands are challenges worthy of investment and engagement” (Griffiths & Foster, 2011). Hence, to create the salutogenic goal of coherence for trauma resolution, 15 themes related to the SOC theory and general resistance resources were created, which are the key elements to provide coherent trauma-informed care: (1) Structure in life, (2) Predictability in life, (3) Social support, (4) Coping strategies, (5) Life meaning, (6) Responsibility, (7) Comprehension, (8) Expression of confidence, (9) Challenges that are worth investing time and effort, (10) Health/illness orientation, (11) Future orientation, (12) Past orientation, (13) Positive, solution-focused outlook, (14) Emotional connection, (15) Assured of just treatment (Griffiths & Foster, 2011). Therefore, trauma-informed care embraces a salutogenic approach by helping others have their needs met, building relationships of trust and transparency, and using stress management to rehabilitate.

The importance of providing care that has a solid and salutogenic foundation is intimately connected with the impact of trauma in individuals, both mentally and physically. Trauma is reflected not only emotionally, but also in physiological changes in the body, which means that we as individuals are in an interactive system. The constant release of stress hormones has a deep and threatening effect on both the body and mental health: “The neurohormonal systems of persons who experience PTSD are often stuck in the fight or flight mode, remaining hypervigilant or hyperalert. Clinically high levels of the hormones cortisol and norepinephrine result in hypervigilance and its related wariness and neural hyperreactivity” (Dryden & Fitch, 2007). Big events are not necessary to have symptoms of trauma: a simple word, sound, or smell is enough to trigger a person’s trauma. For example, a woman who has been mentally or physically abused by her partner may have trauma that can be triggered when she sees any acts of violence such as those portrayed in movies or television shows. When a big traumatic event occurs in a person’s life it is etched into the brain and whenever an event occurs that reminds the brain of that event, no matter how small, it will set off a trigger. Although this danger might not seem as traumatic for some, it is possible that people who have PTSD struggle more with trauma.

Small, repeated events constitute the cumulative harm effect: presence of chaotic, aggressive, and punitive
environments, as well as inconsistent practices and instability or inability to trust the situation. As humans, we are neuroceptive (from neuroception, how neural circuits distinguish whether situations or people are safe, dangerous, or life threatening) to our environments (Porges, 2004). It for this reason that a priority for care providers should be to create an environment that conveys life-supporting environments: to guide practice of trauma-informed care by following five principles, safety, trustworthiness, choice, collaboration, and empowerment between peers and mutual self-help (Butler, Critelli & Rinfrette, 2011).

Trauma is how the body reacts to external stimuli. Learning to manage trauma from an approach that recognizes and acknowledges individual strengths and capabilities, gives the mind and body proper time to heal and process in the best way possible for the victim. However, stress is omnipresent in our lives, and it allows us to grow and develop if we use stress management as a means of rehabilitation. In order to do this, we must learn how to manage stress, take care of our own needs, relax the body, and calm the mind, as well as having self-awareness and self-compassion. For care providers, their priority must be to own these concepts and learn how to apply them personally before providing help to anyone. Shelters, substance abuse centers, and other care facilities must have staff that is properly trained, equipped, and conscientious of trauma, the circumstances and consequences trauma entail for the victims and the people who surround them, assuring the safety and security of every individual involved in the healing process.

Methodology

Qualitative Design

This research project used qualitative methodology because is best suited dealing with human being facing difficult circumstances and because this methodological approach takes advantage of the in-depth, contextual nature of qualitative findings (Hanson et al., 2005). The data of this study was obtained through the responses of the participants to the interview questions; the participants elaborated as much as they felt was necessary in their answers, and because of that, the approach used in this case was interpretative and focused on comprehending the phenomena disclosed by the participants. Therefore, this study’s analysis relied on the responses provided by the participants, but most importantly, in their perception of their trauma experiences and the environment of the shelter.

Description of the agency Ozanam Manor

The participants selected for this study were residents of the transitional mixed shelter Ozanam Manor, located in Phoenix, Arizona. Ozanam Manor is a program part of The Society of St. Vincent de Paul, a non-profit organization whose mission is to feed, cloth, house and heal individuals who are in times of need. Ozanam Manor’s main goal is to assist their residents moving into permanent housing while providing temporary housing. Ozanam Manor offers its guests the support they need to end their homelessness, rebuild social skills, and multiple opportunities, such as classes and activities. The program is focused on offering services to homeless men and women of ages 50 and older, or people of 18 years and older with a mental and/or physical disability. Resources include small dormitories, meals, free laundry, and the assistance of
a case manager to help them get a permanent home. The program provides help for physical, mental, and spiritual needs, through collaboration with volunteers. Taking a community-based approach, Ozanam Manor acknowledges the barriers older homeless adults face day to day: finding affordable housing, access to health care, social cohesion, among many others. In the more than 35 years of service, Ozanam Manor has been successful in stimulating positive relationships between residents, and between staff members and residents, emphasizing the cooperation of the community to end homelessness (The Society of St. Vincent de Paul).

The program recognizes the vulnerability that characterizes homeless individuals within the rest of society, particularly in the way they are excluded and segregated from the community. The shelter concentrates on increasing its clients’ social cohesion and resilience by (1) Offering a safe space and community, (2) Promoting social connections, and (3) Personalizing services in a trauma-informed approach. Ozanam Manor’s priority is to provide a safe temporary shelter for homeless adults while helping them adjust to the community and obtain permanent housing (Matthies, 2020).

**Qualitative sampling and recruitment of participants**

The sampling used in this research study was purposive, meaning that the focus was to purposefully select participants that would allow to maximize the understanding of the phenomenon (Alatorre, 2016). The sample included 10 homeless women, from ages 50 and over, who suffered trauma related events and were residents of the transitional mixed shelter Ozanam Manor. Approval from the University’s Institutional Review Board (IRB) was obtained before recruitment of participants. The participants of this study were voluntarily achieved through a connection with the shelter: the participants were introduced to the research project via an invitation letter that included the description of the project, the requirements, and potential benefits. The research team in collaboration with the director of Ozanam Manor scheduled the interviews, and the women signed up for the slot that was more convenient for them. Because the nature of the study revolved around the participants’ perception of their past and present experiences, the team selected a sample of participants that was consistent with the description of the project: homeless women who had experienced traumatic situations, who were able to speak, read, and understand English, who felt comfortable, and were mentally capable (meaning that they did not need guardianship or assistance from others to do daily activities).

The sample was aimed to be diverse. Although initially there were 10 volunteer participants, the research team evaluated the responses of two of the potential participants and decided it was best not to include them in the study. The first of those two respondents did not qualify based on her answers to the inquiries about previous traumatic experiences; she responded that she had not been subject of any type of victimization. The second woman presented some signs of intellectual disability when being questioned: divagating in her responses, not being clear enough in her statements, etc. The decision not to include these women was reported to the director of Ozanam Manor.

**Qualitative Instruments**

**Screening questions**

1. Have you ever been harmed before you came to Ozanam Manor?
2. Can you share in a general way how you were harmed?
3. Do you feel safe at this moment? Why or why not?

**Interview questions**

1. Do you feel that you have staff support at Ozanam Manor to feel safe? In other words, do you feel that you and staff are working together to make you feel safe?

2. What are your expectations from Ozanam Manor, in terms of your own recovery? Do you feel that you are being empowered to help in your own recovery?

3. Do you feel that the staff interactions with you have been honest? In other words, have you felt that they are not hiding anything from you?

4. There are diverse people living and working at Ozanam Manor, with different religions, languages, and cultures, races and ethnicities, genders, and sexual orientations, including lesbian, gay, bisexual, and transgender people. Do you feel comfortable in such a diverse place? Do you feel you are welcome at Ozanam Manor? Why or why not?

5. Because Ozanam Manor is a mixed-gender shelter and has shared spaces, do you have any concerns or hesitations about your safety? Why or why not?

6. Do you have specific cultural and religious needs? Are those cultural and religious needs addressed at Ozanam Manor?

7. As a woman are there any issues and or needs from previous experiences that make you feel unsafe at this moment at Ozanam Manor?

**Procedures**

The participants were selected through an initial screening interview that consisted of three questions with the purpose of selecting only respondents that had experienced emotional, psychological, sexual, or any other type of abuse that would qualify as a traumatic experience. In Ozanam Manor facilities, and thanks to the support of people from the program, the respondents were placed in a private room, and accommodated with a computer connected to the research team through the platform Zoom. The interviewees had the option at all times of stopping the interview or reaching out for help to someone next door.

The screening was a brief process in which the research team got to know a little bit more about the interviewee; however, there was an explanation of the project, introduction of the researchers, and a space opened for any questions or concerns. During the screening process, ten homeless women showed up to answer the questions, eight of which qualified for the research study. The participants were contacted a week later in the same premises, and the interviews were performed, lasting from 25 minutes to 1 hour. The subjects were reminded of the rights and responsibilities of agreeing to participate in the research and written and verbal consent was asked during the interview. Additionally, the recording of the interviews was made with everyone’s consent. Because of the nature of the questions, the research team allowed the interviewees to talk as much as they felt it was necessary, asking a few questions when needed and guiding the responses to the questions.

**Limitations**

Although the research team expected the crisis of Covid-19 pandemic to be less aggressive during the summer of 2021 due to the vaccination effort and herd immunity, it still posed a limitation as all means of communication needed to be in an online format. Additionally, because this study is of qualitative nature, and the research team could not travel and make direct observations of the phenomenon in question, which
was counterproductive in terms of the interaction with the participants for it being completely online, the major limitation within the process of interviews and screening was the impossibility of communicating in person and to make direct observations during the interviews. Since this research project was performed during the pandemic, the research team had to follow policies and regulations from both the Institutional Review Board (IRB) and Ozanam Manor, with the purpose of minimizing the risk for the researchers and the participants of the study. The only means of communication with the shelter were emails and Zoom video conferences. This allowed flexibility for the research team, since two of the researchers were in the state of Massachusetts, while the rest of the team resided in Phoenix, Arizona. However, this flexibility also presented a challenge at the time of the interviews with the women.

Given the confidentiality policies established prior to the interview process, the participants were required to be alone in the room, which in some cases was problematic because of the technical difficulties with the computer. For instance, in one of the screening interviews, the call was cut off by Zoom due to a 40-minute limit in the middle of an emotionally vulnerable moment for the interviewee. As soon as that happened, the research team reached out to the director of the shelter, and the case managers at Ozanam Manor spoke with the interviewee to make sure she was okay. Such technical incidents continued to happen on a few more occasions, but the team managed to control the situation, and unforeseen consequences were thus avoided.

**Ethical Concerns**

Due to the sensitive nature of the questions and the vulnerability of the participants, this research was done in a very conscientious way. The respondents were constantly reminded of the importance of their comfort, and the research team acknowledged this need as a priority of the investigation. Nonetheless, the fact that all contact was made via online, the lack of a counselor or a therapist being present with the participant, and the absence of an expert in the team restrained the researchers from asking questions or following up on some comments that could have been useful for the research. In addition, one of the respondents revealed her name accidentally, and because of the privacy and discretion regulations established for the project, the real names of the participants were not to be made known.

Another potential issue included the report of inappropriate behavior within the facility; because some of the interviewees revealed violent conduct, the researchers had the ethical responsibility of informing the director of Ozanam Manor of such demeanors.

**Analysis**

The qualitative analysis was conducted via a naturalistic perspective to study homeless women in their own living settings and to provide a rich, contextualized understanding of trauma and victimization experiences (Sandstrom, et al., 2003). The aim was to gather valuable information from the situation and viewpoint of the participant (Alatorre, 2012). Furthermore, a qualitative analysis is best suited when dealing with human beings facing difficult circumstances and because it takes advantage of the in-depth, contextual nature of the qualitative findings (Hanson et al., 2005). The goal for this study is in line with Onwuegbuzie and Leech’s (2007) objective “to obtain insights into a particular social process and practices that prevail within specific location.”
The analysis consisted of a systematic inspection of the substantive empirical data that the research team gathered through the interview process (Wengraf, 2001, Charmaz, 2001, Emerson et al, 1995). This data involved the following: interview notes and the recordings from the Zoom interviews.

The research team interviewed all participants in sessions that were usually completed in an hour’s time. The narratives were created by these in-depth interviews. The data was analyzed for themes and reporting of consistent occurrences. The qualitative analysis aimed to identify common threads of trauma, fear and victimization and patterns of problematic situations which include personal and social issues (Wengraf, 2001).

The basic narrative pattern was constructed in the following three sections: first, the narrative commenced with a description of previous trauma-related events by the participant; second, participants report their sense of security and feelings of fear at Ozanam Manor; and third, participants share their perceptions regarding the service provision from Ozanam Manor; that is, whether it is gender-specific and trauma-informed (Emerson et. al., 1995). The agency has adopted the SAMHSA's Concepts of Trauma-Informed Approach as a standard to follow. Thus, the research project adopts and comply with the SAMHSA's definition: “A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization” (SAMHSA, 2014). The raw data were analyzed for themes and consistent reports of occurrences and/or reactions from the participants. The final section of the qualitative analysis was designed to develop ethnographic insight into the salient behavior, conduct, beliefs, and strategies of the participants. This ethnographic process involved the selection of themes or salient aspects of victimization.

The analysis generally reflects the following strategy: “Selecting the core category, systematically relating it to other categories, validating those relationships, and filling in categories that need further refinement and development” (Strauss & Corbin, 1998). For instance, the themes chosen most reflected/described the essence of what emerged from the data; in this case the strongest, most meaningful response from the participants (Strauss & Corbin, 1998). The emerging pattern then was generated by analyzing the core themes and by articulating how all other key themes are related to the core category.

The conceptualization of the theory was built by validating events from each original transcript. For instance, when the participant continually described feelings of fear and sadness in the original transcript, the researcher thus observed that information as highly repetitive and therefore emerging as a theme, which, by further “coding” was validated as true. After integration of this conceptualization, a theoretical framework consisting of ten to twenty key themes, and then judged to be inclusive of all participants’ experiences, was chosen as the basis for the emerging theory. Because the core themes, constructs, key categories, categories, and concepts originated directly in the data, this emergent model created a “grounded theory” (Strauss & Corbin, 1998).

Although ten women were screened, eight of them met a second time with the research team and were interviewed. However, after analyzing the interviews, the research time decided not to include one interview, given the particular circumstances of the situation: interviewee
G was a resident at Ozanam Manor for almost three years, an unusually lengthy period of time. Given her immigration status, the management at Ozanam Manor had been having difficulty providing the services she needed for her visa; the research team was notified, through the director of the program, that the interviewee was capable of taking care of herself without any additional assistance, but that she presented with a few signs of mental disorder that made her statements uncoincidental. For instance, such interviewee mentioned “I came through the state department by documentation by President Ronald Reagan. I arrived at Sky Harbor on January One, 1986 at 9:00 PM on Air Force One. I’m the only person in Arizona who could probably have that distinction. But however, I had a car accident that caused me to have a severe head injury and then amnesia and then my documents were stolen.” For this reason, the research team agreed not to include her testimony on the grounds of biases when compared to the seven remaining interviews.

Findings

The interviews captured by the research team were labeled with letters, to keep the confidentiality and privacy of the interviewees. In this section, we will include information from the participants A, C, D, E, H, I, J.

Safety and Comfort

Physical and emotional safety are a priority for the residents at Ozanam Manor. Coming from the streets and having dealt with traumatic experiences before, homeless people most desire a safe place where they can rest peacefully. The interviewees reported they felt safe most of the time at Ozanam Manor, but some declared they have had some incidents in the past where they felt uneasy, uncomfortable, and even fearful. However, the feeling of safety (compared to the streets) was a common denominator among the interviewees, and as interviewee H shared, “They are making me real safe, because this is the only place, I could call home instead of staying outside, because in here, we are safe. Outside, we wasn’t safe at all.” The participants revealed they felt welcomed for the most part, except for some occasions, but that the shelter provided the safety they were looking for when they arrived; they also agreed that the shelter’s premises made them feel secure.

Threat from other women

The most reported issue among the interviewees was the type of environment that existed among the women. Although interviewee D described the coexistence as “one happy family,” she also mentioned that when some people engage in arguments, she tries her best to stay out of the issue. Interviewee D also stated that, “Sometimes, something be missing, and stuff like that, but oh, well, you know?” The main problem revolves around the food space in the refrigerator (assigned according to the bed number for each resident), which causes heated and verbal discussions among the women. In addition, some interviewees declared that there is a division among the female residents, and that one group of several women is mean to the rest of residents; this behavior was described by interviewee A, who said, “It’s like the mean girls zone. […] And then I think sometimes there’s so much bullying and it’s not the staff’s fault.”

Some of the interviewees revealed they had felt more secure because another female resident “took them under their wing” and protected them when they encountered issues with this group of women. Interviewee C confessed she perceived them in a particular way: “There was a group that came in of about four or five women, and they would all congregate at one table, […] But this group of women formed a, I call them a thuggish gang.” Interviewees I and J also reported there were a few people displaying negative behavior, such as petty and childish
behavior, stealing other’s property or taking over their space, which resulted in arguments.

Interviewee C described thoroughly the type of behavior among female residents, including name calling and displaying hostile attitudes; she also revealed that she was targeted by one woman who engaged in aggressive behaviors towards her: “I was being threatened, oh, not threatened, but viciously attacked verbally by a resident here. And the person was just very vicious and angry, and one time took my food items from the freezer and threw them to the floor.” Experiencing a similar situation, interviewee E shared she had been threatened by another woman, who attempted to attack her both verbally and physically: “It made me uneasy. I was always uncomfortable. I didn’t feel safe because I didn’t know what was on her mind. And she would always like attack me, constantly attacked me and threatened my life, threatened to kill me in my sleep.” After the women began threatening the majority of the residents and staff, she was evicted from the program and there was a police report filed.

Threat from Men

When analyzing the interviews, the research team found that men do not represent the main source of threat for the women interviewed. The report of threat by men comprised of only a few separate incidents. Ozanam Manor welcomes male and female residents, and although each group has their own dormitories, sometimes the residents share common spaces, such as the lobby area. When asked how they felt about this, most of the interviewees revealed they felt safe being around male residents and that most of them had been respectful. Nevertheless, some respondents shared they had experienced circumstances that made them feel uncomfortable, and that they were used to being aware of their surroundings. For instance, interviewee A shared that being homeless is something she had never had any contact with, and that sometimes others’ behaviors caught her off guard: “I was trying to put our trash in the trash cans, and they told me we specifically have to go down the hall. So, I have to go past the men’s dorm. […] And there was this one man from one of the other dorms and he was just going through the trash. And what am I supposed to say to him? I never had that interaction before.” Interviewee A confessed she was a bit shocked about the situation, and that she had not shared this with anyone else but the research team.

Interviewee C asserted that some of male and female residents at the facility were having romantic relationships, which for her did not represent a problem unless others’ privacy was being compromised: the participant disclosed that some of the male residents came to the women’s dormitories and knocked on the windows for them to come out, “And it’s right near where my little area is. So, I ignore it. I’m like, ‘Are you kidding me? First of all, you open the door, you don’t know to what manner of undressed any of these women might be up in here. That is just rude’”. Interviewee C mentioned that, although they did not enter the women’s dormitories because they were not allowed to, she was not content with these behaviors.

Another incident happened to interviewee J. She shared she felt scared when a male resident approached her while she was volunteering at the front desk in the lobby: “There was a man that came in and he came up to that counter and he said, can I ask you a favor? [...] Can you give me your number?” I said ‘well, no, I don’t think so. I don’t just give my phone number to strangers.’ I said to him, and so he got really upset and he just started cursing me and everything.” At the time of this incident the respondent was alone in the lobby and had to reach out for help to one of the case managers, who were all busy with other residents. Fortunately, someone was able to help her and solve the situation.
Perception of the Agency

Overall, the interviewees stated they felt comfortable at the program, and that it had various resources that were very useful for them. Most of the respondents felt they were being empowered to reach their own goals, as well as to get permanent housing; they described the staff and management as helpful, honest, caring, available, and providers of good services. Nonetheless, the interviewees that had experienced uncomfortable situations with other residents at the shelter had additional thoughts: interviewees C and E felt that, given their experiences, the rules and regulations were not being enforced enough by the management, which made some residents feel they had privileges over the rest of women. Respondents C and E thought management did not act right away at the moment of the incidents; instead, they let the behaviors escalate, “No, I don’t think they [the staff] took action right away. No. I’ve been feeling threatened for a good period of time. [...] I felt like I was on flight or fight, which I said to staff on a number of different occasions and documented messages to them. So yeah, that was a failure, I believe, on their part,” shared interviewee C, adding that she perceived the staff was not completely honest with her on this matter, but instead reprimanded her when she answered the other woman’s claims that “The staff here chastised me, I believe, for responding in kind... verbally”.

The interviewees also seemed to share the perception that the staff promoted childish behavior among the residents, particularly in the refrigerator space issue, which in their perception did not solve the problem. Along those lines, interviewee J divulged her point of view regarding the lack of enforcement of rules and regulations: “We have rules and regulations and some of those rules and regulations are not adhered to on a day-by-day basis. They need to be stricter enforced: music playing when it shouldn’t be, not using earphones, not respecting others’ privacy, quiet time on the floor. [...] In other words, make it transitional. Don’t make them too comfortable because then they feel like, ‘I’ve been here longer so I should have this much space.’ It’s not about that. You’re here to come here to get yourself in the program and accomplish the goals you’re supposed to accomplish, not make it a permanent living space”.

Emotional and Mental Health Needs

The residents at Ozanam Manor understand that the experiences each individual goes through are something that marks them for life. During the interviews, the respondents brought up this important aspect of well-being and how it impacts them as residents of Ozanam Manor. For example, interviewee A talked about the lack of counseling or psychological therapy available for them at the facility: “They don’t have counseling here though. And I talked to legal aid about that. They said that I could reach out to my clinic if I need counseling, but here they don’t offer it.” She also acknowledged its importance when being part of a community, especially when encountering issues with others: “Yes. And they have emotional problems. So, people say, ‘just be kind to them because of their emotional problems.’” Interviewee C also discussed this matter by exemplifying how other residents have difficulty respecting her personal boundaries, as she declared “You guys [referring to the management at the shelter] cannot know that this woman [who attacked her verbally] is not the normal trauma survivor, or not one that should be living in this type of environment without the assistance of mental health professionals.” However, some people might feel the need for more independence and proactivity as interviewee J, when she decided to take her legal situation in her own hands: “No, and I don’t even know if they can [help me]. My caseworker, she has some things going on, she had a death in the family, immediate family member, so I’m not trying to put any pressure on her.” She then contacted legal aid on her own.
Religious and cultural needs

Ozanam Manor is a faith-based organization that believes in the power of the community to end homelessness. Nonetheless, the clients of the shelter represent a very diverse community that naturally has differences in cultural background and beliefs. When asked about their religious and cultural needs, the participants answered they felt comfortable most of the time, with the exception of some interviewees; for example, interviewee J shared she had had an experience with a resident that made her feel uneasy when she approached her and insisted on joining a Bible study group, “I don’t want any religion pushed on me or forced on me or presented to me in a way that makes me feel like you’re trying to sway me one way or the other.” Interviewee C declared that, as a Black woman, she did not feel the organization was acknowledging her or the Black community, “They didn’t do anything for Black History Month, Juneteenth... I know that’s news for most people, but I’m from Texas,” stating this was something important for her that was not addressed enough. Similarly, interviewee I shared that, as the only Native American woman in the program, her cultural needs were not addressed at the shelter.

Women’s Needs

Each woman in this shelter has experienced different traumas in their lives but, no matter their differences, many express the common thought that being a woman in this world is not easy. Most of the women interviewed, such as A, C, and J, told of how they come to an understanding that they as women have experienced a great loss and it is much harder for women to bounce back from these circumstances. They know that as women, especially those of color, the comfort of protection is not given, and inner strength and belief are the only things many of them have left to depend on. Interviewee A voiced that she was working on finding empowerment within herself; interviewee I found comfort with staying to herself and finding contentment in reading; and interviewee J recognized the power of her own mind and spirit. While these women found their thoughts and actions kept them grounded, others such as interviewee C concluded that as a Black woman she will not be protected or feel protected no matter where she is, even within Ozanam Manor. At the end of the day, the harsh reality of being a woman is that protection is not always given, threats do not only come from men, but no one can help you unless you help yourself first and find empowerment within yourself.

Perhaps a deeper analysis of interviewee responses, along with consideration of the physical design of the facility, is needed. Ozanam Manor has three dorms for 44 men and only one for 16 women. One effective technique for staff dealing with conflict among men has been to separate them by moving them to separate dorms. This method is not available for women. According to two out of three staff interviews, patterns of same gender social connection tend to differ between women and men. Women place more emphasis on forming same gender relationships and they react more strongly to problems in these relationships. If this difference is generally true, interviewees’ reports of threat from conflict among women can be interpreted as indicating two ways Ozanam Manor is not optimally meeting women’s needs. Although conflicts at this magnitude do not usually occur at Ozanam Manor, this represents the women’s needs not being met as much as they could.

Conclusion

As discussed before, trauma is a deep wound that is hard to see and even harder to heal; however, the trauma that entails being homeless is an issue that, most of the time, is not given proper attention. As a society, we have learned that homelessness is an inevitable issue that comes with the development of urban areas, and that being
homeless is a matter of lack of will or purpose: we have, therefore, destined facilities or institutions that appear to be beneficial for vulnerable populations, in this case, homeless people. However, as a socially constructed concept, we are failing to recognize the causes, consequences, needs, collateral damages, and many other implications of homelessness: this begs the question of how we can offer proper care for homeless people, if we are not aware of the repercussions of homelessness. It is our duty to investigate, disseminate the information, and propose better care techniques to obtain better results.

Analyzing the interviews enlightened the reality these women have experienced, not only in their previous trauma, but also within the shelter. It would be easy to assume that the women living in this gender-neutral shelter would find problems with living among the men, but that issue is small. Even though this time this is a minor issue, it has an impact on the environment that surrounds the residents at Ozanam Manor. The women believe that they are in a secure and supportive atmosphere, and that there are interactions with males, but that they are more likely to clash heads with each other than with anybody else, as seen by the patterns from the interviews. Homeless women must overcome different hurdles than homeless men do because they are part of two vulnerable and victimized populations; homeless women encounter gender-based differences that make their cases much more complex and sensitive. Undoubtedly, men suffer and recover from trauma differently, and although this difference is obvious, this study focuses on the women’s perspective and their own specific circumstances.

According to the program’s goals, the residents are given the assistance and support they need to be able to heal from their past so they can start a better future, and although no system of care is perfect, a lot of the process relies on the efforts from both the management and the residents, emphasizing that as residents, they have to be the ones who want to improve their life. It was mentioned by a few interviewees that women more often than not find themselves staying longer in the shelter, finding a home and family. While it is true that patience is important when treating a client/patient in a trauma-informed care approach, it is also important to consider whether the time spent at the facility is efficient and whether it is assisting the residents at Ozanam Manor in achieving their goals, which include developing social skills with other residents and staff. Based on the results of the interviews, it can be inferred that emotional and mental health requirements are an important component of the recovery/healing process, and that this should be emphasized more inside the institution. The residents’ and staff members’ interactions with the female residents are complex and difficult to manage, especially when it comes to settling difficulties. Although Ozanam Manor is not a clinical institution, the inclusion of counseling services within the program may be beneficial to the residents and their recovery process.

When it comes to listening and trying to understand traumatic stories from different women with different backgrounds, a great part of the process prior to the interviews is mental preparation. It is critical to guarantee that the audience and interviewers are actively helping themselves in order to be able to listen and aid others with their trauma. The key to any study is to have an open mind because the method and findings do not always match the research goal. As a result, the study team used a variety of approaches to lay a firm basis before interviewing the participants, and while this procedure was effective, a sense of despair persisted; this was an opportunity to give the women a microphone and let them share their stories, but it also was a way to have contact and understand humanity, through a lens that stemmed from empathy, patience, and interest. Even though this study does not change their current life circumstances, this journey has certainly been
rewarding for the research team and everyone involved in this research project.

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About the Authors

Paulina Aguilar Delgado is a junior and Departmental Honors student, majoring in Criminal Justice. Mya Marcelina Nunes is a senior Departmental Honors student in Criminal Justice, graduating in May 2022. Mentored by Dr. Francisco Alatorre, Assistant Professor of Criminal Justice, Paulina and Mya were awarded an Adrian Tinsley Program (ATP) collaborative research grant to conduct this community-based research in Summer 2021. Paulina, who grew up in Ciudad Juarez, Chihuahua, Mexico, has long been interested in the areas of crime and justice, social inequality, and advocacy for those who are systemically underserved. Mya was born and raised in Boston, Massachusetts, in a single-parent household. Her family is from Cape Verde and she is a first-generation college graduate. Her interest in research was sparked by a study she conducted in her Research Methods course, about the difficulties faced by unaccompanied immigrant teens who have crossed over the U.S. border from Mexico. Both Paulina and Mya believe that having the privilege of working with vulnerable people and learning about their needs for trauma-informed care from an objective and evidence-based perspective has been a major step toward their future careers dedicated to social justice. After graduation, Paulina plans to go to law school, and Mya plans to pursue a master’s degree in criminal justice and work in law enforcement leadership.

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Accounting Language and the Meaning of Comparative Numbers, Time, Transparency, and Context

Majd Al Jurfi

Abstract

The COVID-19 pandemic has affected every part of the U.S. and global economies, notably including the losses and gains of companies of every size and type. The purpose of this research was to conduct a thorough comparative analysis of 10K financial statements from 50 prominent U.S.-based corporations from the years 2019 and 2020. The study entailed examining the “language of accounting” used in the financial statements, as well as identifying how corporate accountants used the concepts of comparable numbers, time, transparency, and context in their reports. Analysis of the language of accounting uses a linguistic lens, focusing on the primary sources of information, the use of particular terms, and the meaning of numbers in different contexts. Interpreting meaning from the language of accounting requires finding comparable numbers. The stronger the comparison, the more meaning is obtained, with less information, asymmetry results. This study specifically explored how accountants use the concept of time and how that affects the meaning of numbers from period to period. By identifying the lack of consistency between the meaning of the numbers and the structure and timing of the financial reports, this research brings transparency to financial reporting. It describes the semantics of accounting language by placing comparable numbers, time, and transparency into context. In contextualizing the data, this research allocates and directly relates the results of the COVID-19 pandemic on corporate financial data and helps consumers more accurately understand losses and gains.

Keywords: Accounting, Language, Time, Transparency, Meaning, Comparative Numbers, Financial Statements, Fair Value, Book Value, Pandemic, Covid-19.

1 Introduction

Accounting is the language that executives and managers use to deliver the company’s financial and economic data to outside parties such as shareholders and investors. It is essential that everyone can understand financial literacy, whether a person runs their own business, works as a manager or just starts a career in business. Accounting is called the language of business, and its numbers are highly related to conveying financial information presented in the financial statements. The most important aspect in accounting is to be able to learn and find meaning in those numbers, which is a valuable skill that makes understanding where the business is going a lot easier.

During my research I have developed the ability to use time-series analysis to examine data sets that change over the period of 2019-2020. Time-series analysis is much more complex and computationally demanding than cross-sectional analysis and it is related to the aspect of time. This is due to the fact that time-series analysis cannot use random sampling data, it needs to have a complete set of data to operate and function. To be meaningful, business transactions and accounting figures require context. Without knowing what you are looking at, a list of numbers doesn’t signify much. It was important to carry out the cross-sectional analysis for my selected data to measure each company’s performance, efficiency and effectiveness compared to the industry average.

Based on the theory of comparative numbers the meaning of accounting as a language is found in comparable numbers. The stronger the comparison, the more meaning is obtained, and the less information asymmetry results. To achieve this theory, I have
compared 50 companies selected among S&P 500 based on their data and category and compared the data for two consecutive periods. I have used both methods of time-series analysis and cross-sectional analysis to test this theory. This enabled me to come up with conclusions to approve the suggested theory and support the facts. After detailed analysis I have discovered that comparing numbers is essential to fully understand their meaning.

I have approached this research by starting to collect data using Wharton Research Data Services (WRDS) to extract financial statements for the S&P 500 that is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States. I have used this tool to download the data organized in an excel file. The 500 companies were then organized under 10 categories for a better comparison using excel spreadsheets. I have chosen a sample of 5 companies from my selected 10 categories and ended up with a sample of 50 companies. To better understand the subject matter, I have been introduced to Business Source Complete through Maxwell Library website. I have used this website to search for articles, journals, and research papers related to my topic to complete my literature review and to learn more about my subject. I would then gather all the sources used in EndNote to create citations. I will be introducing some of the articles that had the biggest effect on my research conclusions.

2 Literature Review

Accounting is the language of business, but Randall S. Wright, who is a senior liaison officer with MIT’s Industrial Liaison Program, contradicted that in his research by saying, “If Accounting is a language, then it’s an unusual one. While it has concrete nouns, like cash, inventory, debt, and revenue, it has no abstract nouns, like happiness, freedom, satisfaction, or truth. It has action verbs, like reconcile, invoice, amortize, and audit, but it has no verbs of perception, like see, watch, feel, smell, or hear. Nor does it have words to express emotions, like love, hate, joy, or disgust. Moreover, some terms, like user experience, not only have no corresponding word in accounting terminology, but the concepts themselves do not exist in the language of accountants.

It’s well accepted that languages that have no words for a concept don’t have the concept at all.” (Wright, 2019). The language of accounting is unique, and it is the financial record that tells the story of how industries are doing financially. When managers and decision makers talk about their company’s financial health, they refer to their financial statement and use accounting as the language spoken to explain the situation. Mr. Wright thinks that “Accounting should not be the language of business, unless, of course, the sole objective of the firm is to manage to the mean by eliminating variances and extracting all life from assets—all of which are necessary to profitably filling current demand, but also ultimately mean embracing mediocrity. It is not a language constructed to navigate the uncertain and constantly wavering trade winds of the new; it cannot offer the imagination needed to apprehend not only the new but the emerging.” (Wright, 2019). I highly appreciate his point of view, but I disagree with that for the reasons mentioned above. Accounting is a unified language among different companies where it enables them to determine their competitors and achieve their goals.

Numbers can be very powerful if they are utilized and understood in a proper way. Accounting numbers specifically are the base that this language was built on, as Lukas Goretzki, who is the director for the research area management accounting & control at the department of accounting at Stockholm School of Economics, included
The input to the reporting system are economic events. The accounting measurement process filters, transforms and aggregates those events, and releases some semblance of them in periodic financial statements. For example, the measurement process (generally accepted accounting principles, GAAP) filters out most qualitative events (e.g., the death of the company president), transforms all accepted events to dollars and aggregates over time and across items to yield annual or quarterly earnings.

GAAP allows firms a good deal of discretion, so that two firms operating in the same industry often base their financial reports upon different accounting procedures.” (Bao et al., 1983). The use of time-series analysis on the data that I have collected helped me navigate the difference between 2019 and 2020 financial data. This tool helped me examine the huge losses/profits for some companies during COVID-19 pandemic year and the cause for such a great gap in sales and revenues among other aspects.

Transparency in financial statements means that statements should be transparent and user friendly so that investors can easily understand a company’s financial statements in detail. The statement should be clear, and everything should be properly organized. Organizations are moving towards creating transparent statements, according to Petar Pepur, who is part of a university department of professional studies in Croatia: “The main mission of the International Accounting Standard Board is that by unique accounting rules ensure a transparency, accountability, efficiency and comparability of financial information’s from the financial statements which are crucial for stability of financial markets. With the aim of consistent and reliable financial statements the International Accounting Standard Board has adopted a new International Financial Reporting Standard 16 - Leases. By this new standard they want to eliminate the
effect called off-balance sheet financing” (Pepur Certa, 2020). Because of incomplete financial statements, the external users (investors, suppliers, and others) cannot determine the complete liabilities arising from leases, which leads the company to under/overestimate their financial position.

Accounting numbers need context to provide detailed information about a company’s financial performance. Based on an article about accounting numbers and the importance of context by Chen Kuo-Tay, who is an associate professor in the Department of Computer and Communication at Kun Shan University, “Accounting numbers are an important means for management to communicate firm performance to outside investors. Through regularized financial statements, investors receive creditable and useful firm-specific information, which helps them better evaluate the true value of firms. High quality accounting numbers not only reduce the information asymmetry between managers and outside investors, but also facilitate sound investment decisions and the efficiency of security markets.” (Chen et al., 2011). Kuo-Tay emphasizes the importance of understanding the context of accounting numbers in helping managers evaluate the company’s performance.

3 Theory of accounting numbers

Based on my research and the data collected I have proven my suggested theory mentioned in my proposal that numbers mean nothing unless they are compared. I have organized my data in an excel spreadsheet where I included my sample of 50 companies each under a certain category. I then started to compare numbers using both methods of cross-sectional analysis which is comparing the numbers for the same year for each company. I have also used time-series analysis which involved comparing numbers for two different periods to help better understand the effect of COVID-19 pandemic on different industries. I will include an example of the process where I will display a company that had an increase in their sales because of the world pandemic. I have included another company that had the same sales or a small percentage of increase/decrease in their financial standing.

Lastly, data is shown for a company among other companies that suffered huge losses and their sales decreased during 2020 in comparison to 2019 sales data.

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2019</th>
<th>$ Diff</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
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<td>25.0 billion</td>
<td>20.2 billion</td>
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<td>Market Value</td>
<td>239.5 billion</td>
<td>142.0 billion</td>
<td>97.5 billion</td>
<td>69%</td>
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*Table 1: Company whose sales increased during the pandemic*
Table 2: Company that maintained their sales performance during the pandemic

<table>
<thead>
<tr>
<th>Johnson and Johnson</th>
<th>2020</th>
<th>2019</th>
<th>$ Diff</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
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<td>82.6 billion</td>
<td>82.1 billion</td>
<td>.5 billion</td>
<td>1%</td>
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<tr>
<td>Market Value</td>
<td>414.3 billion</td>
<td>384.0 billion</td>
<td>30.3 billion</td>
<td>8%</td>
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Table 3: Company whose sales decreased during the pandemic

<table>
<thead>
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<th>2020</th>
<th>2019</th>
<th>$ Diff</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>17.1 billion</td>
<td>47.0 billion</td>
<td>-29.9 billion</td>
<td>-64%</td>
</tr>
<tr>
<td>Market Value</td>
<td>25.7 billion</td>
<td>37.6 billion</td>
<td>-11.9 billion</td>
<td>-32%</td>
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</table>

4 Methodology

I have used Business Source complete through Maxwell Library website to complete my literature review and locate articles needed to explain the data that I have collected late May of 2021 along with my mentor professor Crowley. I have been introduced to a new tool called EndNote which is a reference manager that helped me save time formatting citations, so I can focus on my research. The data that I have collected was raw reports downloaded from WRDS (CompuStat) which is a web-based business data research service from The Wharton School of the University of Pennsylvania. The website provided me with access to financial, accounting, banking, economics, marketing, and public policy databases through a uniform, web-based interface.

After running the CompuStat report I was able to input my required data including assets, liabilities, stockholders’ equity, expenses, revenues, net income, operating, investing, and financing activities. I have also included capital expenditures, dividends, and market value. I organized all the data needed for my research using excel tables for 50 companies over two periods 2019-2020. I then ran the report for the years 2018, 2019, and 2020 using a ticker symbol that is an abbreviation used to uniquely identify publicly traded shares of a particular stock on a particular stock market in which every company has its own unique symbol.

For the 50 companies that I have selected on the basis that I wanted those companies to fit under the 10 categories that I have created which includes retail, entertainment, fast food, airlines, mega companies, internet service, commercial banks, medical devices, pharmaceuticals, and surgical manufacture. The requirements that I had applied for the 500
companies to fall under these categories is that they need to have increase/decrease in sales. If the percentage of change in sales is less than 5%, higher than 5%, or in between then it should be included among the 50 companies.

After running the reports and analyzing the data, I have noticed that data provided during 2018 was not helpful for the goals of my research. As a result of that I eliminated those data as they served me no purpose and focused my research on 2019-2020 data. I have used time-series analysis to compare the 50 companies’ data between the years of 2019 and 2020. Using this method helped me emphasize the negative side-effects of COVID-19 world pandemic on industries’ financial performance and huge losses that affected the country’s economy. I used cross-sectional analysis to compare a company’s numbers at the same period and how financially stable it is among its competitors.

Comparing fair value and market value data for my selected sample was another method used to compare financial data. Fair value of an asset is the monetary value that the asset expects to get when sold in the open market. While the book value of an asset is the amount at which the asset has been recorded when a related transaction was accounted for. This tool was necessary for me to test my hypothesis that numbers obtain bigger meaning when they are involved in a comparison. I have compared both fair and book value for each company with respect to the previous period data.

Most industries use this tool to adjust individual assets and liabilities to their fair value on the date of acquisition. If the value exceeds the identified fair value of an asset, the residual value will be positive which results in a debit balance. This will also provide the industry with evidence of unspecified intangible to be accounted for as goodwill. However, when the value determined by the acquisition price is lower than the identified fair value of the asset, the residual amount will be negative which results in a credit balance.

5 Hypotheses

At the beginning of my research journey, I created three hypotheses:

1. Financial statement numbers gain meaning when compared with other numbers from the same company in different periods which will be tested using time-series analysis.

2. Financial statement numbers gain meaning when compared with fair value numbers from the same period which will be tested using the book value vs fair value tool.

3. Financial statements gain meaning when compared with other numbers from different companies in the same period using cross-sectional analysis.

6 Results

Companies that benefited from the state of people being in quarantine because of the world pandemic and increased their financial performance were companies that worked very hard on improving their online engagement with their audience/customers. From the 50 companies that I have selected 20 out 50 had this outstanding increase in sales during 2020 in comparison to other companies in the same period. I have used time-series analysis to compare the 50 companies’ data between the years of 2019 and 2020. Using this method helped me emphasize the negative side-effects of COVID-19 world pandemic on industries’ financial performance and huge losses that affected the country’s economy. I used cross-sectional analysis to compare a company’s numbers at the same period and how financially stable it is among its competitors.

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Companies that maintained their performance and financial standing during 2020 make up a total of 10 companies out of 50. Those companies include Yum fast food chain, Johnson and Johnson corporation, and Edwards surgical manufacturing company. A table displaying a capture of this data is shown below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>274,515</td>
<td>260,174</td>
<td>1,966,079</td>
<td>995,152</td>
</tr>
<tr>
<td>Microsoft</td>
<td>143,015</td>
<td>125,843</td>
<td>1,540,774</td>
<td>1,023,856</td>
</tr>
<tr>
<td>Amazon</td>
<td>386,064</td>
<td>280,522</td>
<td>1,638,236</td>
<td>920,224</td>
</tr>
</tbody>
</table>

Table 4: Companies that performed well financially during the pandemic

The remaining companies in my selected sample are companies that suffered a huge loss and a decrease in their financial performance as a direct result of COVID-19 pandemic. Most companies were located under the airlines and retail stores categories, such as TJX retail stores, United Airline, and American Airline. The table below displays the sales and market value for each of those companies for both periods.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yum</td>
<td>5,652</td>
<td>5,597</td>
<td>32,568</td>
<td>30,219</td>
</tr>
<tr>
<td>J&amp;J</td>
<td>82,584</td>
<td>82,059</td>
<td>414,305</td>
<td>384,004</td>
</tr>
<tr>
<td>Edwards</td>
<td>4,386</td>
<td>4,348</td>
<td>56,955</td>
<td>48,781</td>
</tr>
</tbody>
</table>

Table 5: Companies that maintained their financial performance during the pandemic

Table 6: Companies that suffered major losses financially during the pandemic
7 Conclusion

The general conclusion is that during the pandemic year of 2020, internet-related companies like Amazon, Netflix, and others had a huge spike in their financial performance. However, companies that did not have a good technological infrastructure suffered major losses during 2020 compared to 2019 such as: clothing stores like Macy’s. Industries that are fully dependent on customers traveling or using in-person services experienced a big hit because of COVID-19 regulations. For example, restaurants that did not offer delivery services lost significant money.

After examining the financial statements and looking further into the balance sheet for each company and comparing the data for both periods, I have noticed an increase in assets and in liabilities as well. The reason behind this unusual increase is that people during the pandemic were staying at home not being able to go to work. Companies started to suffer and as a result they began taking out loans and ended up not paying them back. Wall Street Journal supports this claim in their article regarding this topic “The pandemic has pushed global government debt to the highest level since World War II, surpassing the world’s annual economic output. Governments, especially in rich countries, are borrowing still more, partly to erase the damage of Covid-19.” (Walker and Landers, 2021).

Certain industries like airlines, surgical manufacturers, pharmaceuticals, and fast-food places were shut down as a direct result of the world pandemic and their numbers reflected that. Other industries had their revenue decreased, but their market cap increased. I think that this is due to the increase in the general stock market during 2020 and the fact that there was no other place to keep their money with any sort of return. People were locked into their homes and took advantage of internet-based services and entertainment. That was the main cause that resulted in an increase in sales to such companies. For example, Apple, Microsoft, and Amazon were among those companies that took advantage of this fact and improved the services they provide online.

The difference between the book value of S&P companies the fair value of S&P as a direct result of its increase during 2020. In 2018 67% of the fair value of an average S&P 500 companies wasn’t reflected on the balance sheet; in 2019 this rose to 70% and increased again in the pandemic year to 74%. The conclusion was that a typical balance sheet can explain 26% of their fair value of companies’ assets and liabilities while 74% of the assets and liabilities are not explained via the traditional balance sheet.

For some internet and tech companies, the traditional balance sheet can explain 3-4% of the fair value of a company while 96-97% cannot be explained from a 10K balance sheet. Time-series analysis indicated that some companies in the same industry increased their revenue during the pandemic while others suffered or maintained their financial performance. This is a result of how these companies switched to online services during 2020.

8 Further Research

After analyzing the data provided for the sample of 50 companies, I have noticed that some of them had a decrease in revenue and an increase in market valuation followed up. This was unusual as most companies had an increase in both revenues and market value at the same time. The other types of companies had a decrease in revenues and sales at the same time. This will be a topic for further research in the future.
References


10 Exhibits

Exhibit 1: % of Companies that increased, decreased, or equaled sales from prior year

Exhibit 2: Retail Industry – compared to prior year and to the industry

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**Fiscal Year 2020-2019 Cross-Sectional Analysis**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Sales</th>
<th>Net Income (Loss)</th>
<th>Total Assets</th>
<th>Total Liabilities</th>
<th>Total Equity</th>
<th>Market Value</th>
<th>Net Explained</th>
<th>Operating Act</th>
<th>Investing Act</th>
<th>Financing Act</th>
<th>CAPEV</th>
<th>Total Dividends</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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**% Companies-Increased/Decreased Sales during Pandemic**

- 42% of companies increased
- 18% of companies decreased
- 40% of companies remained the same

---

**THE UNDERGRADUATE REVIEW 2022 | BRIDGEWATER STATE UNIVERSITY**
### Exhibit 3: Entertainment Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2019</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entertainment</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Exhibit 4: Fast Food Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2019</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fast Food</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Exhibit 5: Airlines Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2019</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Airlines</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>


### Exhibit 6: Mega-companies—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2022</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mega Companies</strong></td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>Microsoft</td>
<td>59,215 S (20.9%)</td>
</tr>
<tr>
<td>Amazon-2019</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>Walmart-2019</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>P&amp;G-20</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td>(7,215 S) (40.9%)</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Market Value</strong></td>
<td>1,256,789 S (20.9%)</td>
</tr>
<tr>
<td><strong>Not Explained</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
</tbody>
</table>

**Exhibit 7: Internet Services Industry—compared to prior year and to the industry**

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2022</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internet Services</strong></td>
<td></td>
</tr>
<tr>
<td>Twitter-2019</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>Amazon-2019</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>P&amp;G-20</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td>(7,215 S) (40.9%)</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Market Value</strong></td>
<td>1,256,789 S (20.9%)</td>
</tr>
<tr>
<td><strong>Not Explained</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
</tbody>
</table>

### Exhibit 8: Commercial Banking Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2022</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Banking</strong></td>
<td></td>
</tr>
<tr>
<td>Wells Fargo-2019</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td>P&amp;G-20</td>
<td>37,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td>(7,215 S) (40.9%)</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
<tr>
<td><strong>Market Value</strong></td>
<td>1,256,789 S (20.9%)</td>
</tr>
<tr>
<td><strong>Not Explained</strong></td>
<td>157,215 S (20.9%)</td>
</tr>
</tbody>
</table>
### Exhibit 9: Medical Devices Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2019</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical Devices</strong></td>
<td></td>
</tr>
<tr>
<td>Amgen-20</td>
<td>Amgen-19</td>
</tr>
<tr>
<td>AbbVie-20</td>
<td>AbbVie-19</td>
</tr>
<tr>
<td>Bausch-20</td>
<td>Bausch-19</td>
</tr>
<tr>
<td>Biogen-20</td>
<td>Biogen-19</td>
</tr>
<tr>
<td>Gilead-20</td>
<td>Gilead-19</td>
</tr>
<tr>
<td>Incyte-20</td>
<td>Incyte-19</td>
</tr>
<tr>
<td>Medtronic-20 Medtronic-19</td>
<td></td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td></td>
</tr>
<tr>
<td>22,402</td>
<td>19,123</td>
</tr>
<tr>
<td>3,272</td>
<td>2,159</td>
</tr>
<tr>
<td>2,264</td>
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<td>2,067</td>
<td>1,830</td>
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<tr>
<td>2,551</td>
<td>2,472</td>
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<td>2,408</td>
<td>2,220</td>
</tr>
<tr>
<td>2,202</td>
<td>2,120</td>
</tr>
<tr>
<td><strong>Net Income (Loss)</strong></td>
<td></td>
</tr>
<tr>
<td>7,260</td>
<td>6,370</td>
</tr>
<tr>
<td>1,752</td>
<td>1,660</td>
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<td>4,065</td>
<td>3,476</td>
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<td>3,704</td>
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<tr>
<td>3,142</td>
<td>2,808</td>
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<td>3,152</td>
<td>2,808</td>
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<tr>
<td>3,152</td>
<td>2,808</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td></td>
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<td>62,948</td>
<td>56,707</td>
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<tr>
<td>13,945</td>
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<td>6,319</td>
<td>6,041</td>
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<td>5,093</td>
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<td>5,341</td>
<td>5,027</td>
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<tr>
<td>5,341</td>
<td>5,027</td>
</tr>
<tr>
<td>5,341</td>
<td>5,027</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td></td>
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<td>53,519</td>
<td>49,034</td>
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<td>12,933</td>
<td>12,983</td>
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<tr>
<td>8,846</td>
<td>8,833</td>
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<tr>
<td>6,106</td>
<td>6,036</td>
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<tr>
<td>5,319</td>
<td>5,237</td>
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<tr>
<td>5,319</td>
<td>5,237</td>
</tr>
<tr>
<td>5,319</td>
<td>5,237</td>
</tr>
<tr>
<td><strong>Net Worth</strong></td>
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<tr>
<td>9,409</td>
<td>7,673</td>
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<td>4,065</td>
<td>3,476</td>
</tr>
<tr>
<td>2,154</td>
<td>1,729</td>
</tr>
<tr>
<td>1,524</td>
<td>1,286</td>
</tr>
<tr>
<td>1,524</td>
<td>1,286</td>
</tr>
<tr>
<td>1,524</td>
<td>1,286</td>
</tr>
<tr>
<td><strong>Market Value</strong></td>
<td></td>
</tr>
<tr>
<td>132,965</td>
<td>142,959</td>
</tr>
<tr>
<td>9,234</td>
<td>8,532</td>
</tr>
<tr>
<td>3,684</td>
<td>3,226</td>
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<tr>
<td>2,922</td>
<td>2,583</td>
</tr>
<tr>
<td>2,878</td>
<td>2,508</td>
</tr>
<tr>
<td>2,878</td>
<td>2,508</td>
</tr>
<tr>
<td>2,878</td>
<td>2,508</td>
</tr>
</tbody>
</table>

### Exhibit 10: Pharma Industry—compared to prior year and to the industry

<table>
<thead>
<tr>
<th>Fiscal Years 2020-2019</th>
<th>Cross-Sectional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pharma</strong></td>
<td></td>
</tr>
<tr>
<td>Amgen-20</td>
<td>Amgen-19</td>
</tr>
<tr>
<td>AbbVie-20</td>
<td>AbbVie-19</td>
</tr>
<tr>
<td>Biogen-20</td>
<td>Biogen-19</td>
</tr>
<tr>
<td>Gilead-20</td>
<td>Gilead-19</td>
</tr>
<tr>
<td>Pfizer-20</td>
<td>Pfizer-19</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td></td>
</tr>
<tr>
<td>41,308</td>
<td>39,458</td>
</tr>
<tr>
<td>3,056</td>
<td>2,765</td>
</tr>
<tr>
<td>19,415</td>
<td>17,115</td>
</tr>
<tr>
<td>11,093</td>
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### Exhibit 11: Surgical Mft Industry—compared to prior year and to the industry

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**Note:** The tables and text above represent the natural reading of the document content.
About the Author

Majd Al Jurf conducted this research as an undergraduate student in Accounting and Finance and is beginning the Master of Science in Accountability (MSA) program at BSU in 2022. Majd looks forward to an upcoming internship with PricewaterhouseCoopers (PwC), one of the “Big Four” accounting firms, and to a career as a Certified Public Accountant. Under the mentorship of Dr. Mark Crowley, Professor of Accounting and Finance, Majd conducted this research in Summer 2021 with the support of an Adrian Tinsley Program (ATP) grant. Majd grew up in Jordan and moved to the U.S. with her family in 2018. She was honored to be selected by the Accounting and Finance department faculty to receive the 2020 Outstanding Student Award from the Boston Chapter of Financial Executives International. Majd wishes for all undergraduate students, especially female accounting majors, to pursue undergraduate research.
In Lorraine Hansberry’s play *A Raisin in the Sun*, the character Beneatha Younger doesn’t quite have a charmed life. She lives in a ratty apartment. Her college-educated values are constantly clashing with her religious, traditionalist mother Lena. Beneatha’s boyfriend, George Murchison, is an upper-class snob with precisely nothing between his ears. Throughout the play, Beneatha tries to “find herself” as an African woman with the help of her Nigerian friend Joseph Asagai, all while he tries to find love with her. Through the love triangle, the stage directions, and the interactions between characters, the play shows that one’s true identity and African roots can’t be created from something they’re not, but only found through who they genuinely are.

One way Beneatha tries to get in touch with her African roots is by dressing in Nigerian attire. However, the stage directions reveal the hollowness of her attempts. When Beneatha tries on the clothes in private, “she sets the headdress on haphazardly and then notices her hair again and clutches at it and then replaces the headdress and frowns at herself. Then she starts to wriggle in front of the mirror as she thinks a Nigerian woman might” (Hansberry I.2.1479). What’s important to note is that the stage directions say, “as she thinks a Nigerian woman might.” Beneatha may genuinely want to have an African identity, but she’s still unsure of herself and her connections to Africa, and it shows.

Later in the play, when Beneatha is more acclimated to wearing the garb, her African heritage is still an imitation. This is evident when the stage directions show Beneatha “emerging grandly from the doorway so that we can see her thoroughly robed in the costume Asagai brought. She parades for RUTH, her hair completely hidden by the headdress; she is coquettishly fanning herself with an ornate oriental fan, mistakenly more like Butterfly than any Nigerian that ever was” (Hansberry II.1.1485). Once again, the wording that Hansberry uses firmly brings Beneatha back down to Earth. The robes Beneatha is wearing aren’t called robes or clothing, but a costume. In other words, it’s the type of thing one wears to pretend to be someone or something they are not. This pretense is further showcased when Beneatha fans herself “more like Butterfly than any Nigerian ever was.” The “Butterfly” Hansberry is referring to is Madame Butterfly, a Japanese woman from an Italian opera based on an American short story, which itself was based on a French novel. Beneatha is several degrees of separation from anything close to Nigeria. While Beneatha may want to embrace her African heritage, these stage directions show that it’s not really part of her identity, or at the very least, not as big of a part of her identity that she would like.

In Tunde Adeleke’s 1998 article from the *Western Journal of Black Studies*, “Black Americans, Africa and History: A Reassessment of the Pan-African and Identity Paradigms,” he examines the true ideals of Afrocentrism and how they clash with the inevitable realities of both modern-day Africa and of African Americans. One paragraph in particular discusses the “clear divergence between the claim of African identity on the one hand, and Black American ability and willingness to reflect this ‘Africanness’ in their lifestyles” (Adeleke 191). It’s relatively easy for Black Americans to call themselves African, but unless they have grown up within the African culture, that statement will ring hollow. As Adeleke states, “Being African has to do with acknowledging the force and authority, and living according to the dictates of African culture” (Adeleke 191). African culture bakes in certain values and traditions that can’t be replicated by dressing up garishly and belting out random words that wouldn’t form a coherent sentence in any language on any continent, Africa or any other. To put it simply, Adeleke writes, “Culture is a very forceful authority in Africa. It makes demands and imposes obligations that no man-made law can undermine or challenge” (191). Being African isn’t just a name you
can call yourself or a dress you can wear, it’s a lifestyle that influences your every action from the moment you are born.

If one is to be African, one must be willing to submit themselves to African culture. However, Beneatha’s actions show that she isn’t willing to submit to any culture. By her own admission, she, “experiment[s] with different forms of expression” (Hansberry I.1.1470). This experimentation takes the form of various pursuits, such as play-acting, horseback-riding, photography, and other incongruous hobbies. She also frequently quotes passages from the Bible, despite saying that “all the tyranny in the world will never put a God in the heavens” (Hansberry I.2.1473). This is after Mama slaps her for decrying the name of the Lord. Interestingly, Beneatha’s statement opposes the European apologist narrative that was used to justify the enslavement of African peoples. Supposed Black American nationalists such as Martin Delany, Alexander Crummell, and Henry McNeal Turner all “…described enslavement of Africans as a divinely sanctioned and planned episode. It was the ‘hand of God’ directing the affairs of nation toward the fulfillment of a divine wish” (Adeleke 186). The only difference between slavery and tyranny is a matter of scale. The existence of God does not justify the subjugation of man, nor does the subjugation of man entail the existence of God.

Even when Asagai gives Beneatha the Nigerian robes, he laments about “how much time one needs to know what one feels” (Hansberry I.2.1478). Admittedly, Asagai is referring to Beneatha’s reluctance to be in a real relationship with him. However, the following exchange perfectly encapsulates the difference between the two:

BENEATHA: You never understood that there is more than one kind of feeling which can exist between a man and a woman—or, at least, there should be.
ASAGAI: [Shaking his head negatively but gently.] No. Between a man and a woman there need be only one kind of feeling. I have that for you...Now even...right this moment...

BENEATHA: I know—and by itself—it won’t do. I can find that anywhere.

ASAGAI: For a woman it should be enough.

BENEATHA: I know—because that’s what it says in all the novels that men write. But it isn’t. Go ahead and laugh—but I’m not interested in being someone’s little episode in America or— [With feminine vengeance.] —one of them! [ASAGAI has burst into laughter again.] That’s funny as hell, huh!

ASAGAI: It’s just that every American girl I have known has said that to me. White—black—in this you are all the same. And the same speech, too! (Hansberry I.2.1478)

Hansberry takes great care to make sure that neither Beneatha nor Asagai are fully in the right in this scene. Obviously, the fact that there can indeed be more than one type of relationship between two people of the opposite gender has gone far above Asagai’s head. However, his misconception isn’t malicious in nature. Asagai spent the formative years of his life immersed in the Nigerian culture. He doesn’t view Beneatha, or any woman for that matter, as a potential one-night stand. Rather, he is a man who is constantly in search of his one true love.

If that sounds like something out of a fairy tale, then you’re not far off. When, much later in the play, Asagai suggests that Beneatha come with him to Nigeria, he speaks of a prophecy in which “three hundred years later the African Prince rose up out of the seas and swept the maiden back across the middle passage over which her ancestors had come...” (Hansberry III.1.1512). The issue with Asagai is that he thinks any woman he develops a connection to could be that maiden, and many women just don’t want that, and think of him as just another loser trying to get into their pants, which is why he is so familiar with the speech that Beneatha gives.
Beneatha, on the other hand, doesn’t realize that the one feeling between them Asagai is talking about isn’t lust, but genuine love. One might think to label Beneatha as flighty and noncommittal, but the truth is that she’s only twenty years old. While she may be very studious, having knowledge of African people isn’t the same as having lived your life as an African person. That axiom applies to knowledge and people of all stripes. Beneatha might have all the knowledge of Africa in the world, but that pales in comparison to her experience both as a student and as a woman.

While Lena, or “Mama” as she is called, is not explicitly in touch with her supposed African roots, her unconscious actions and the stage directions describing them are closer to Africa than any blustery facade. This is evident from the moment that we first see Mama. In the stage directions describing her entrance, it is said that “her bearing is perhaps most like the noble bearing of the women of the Hereros of Southwest Africa—rather as if she imagines that as she walks she still bears a basket or a vessel upon her head” (Hansberry I.1.1466). Mama’s African roots express themselves in a way that isn’t some overblown declaration, but an unconscious action that she takes every day. It’s certainly more genuinely African than anything Mama says outright. Case in point, when Mama first learns about Asagai from Beneatha, they share this terse exchange:

MAMA: I don’t think I never met no African before.
BENEATHA: Well, do me a favor and don’t ask him a whole lot of ignorant questions about Africans. I mean, do they wear clothes and all that—
MAMA: Well, now, I guess if you think we so ignorant ’round here maybe you shouldn’t bring your friends here—
BENEATHA: It’s just that people ask such crazy things. All anyone seems to know about when it comes to Africa is Tarzan—
MAMA: [Indignantly] Why should I know anything about Africa?
BENEATHA: Why do you give money at church for the missionary work?
MAMA: Well, that’s to help save people.
BENEATHA: You mean save them from heathenism—
MAMA: [Innocently] Yes.
BENEATHA: I’m afraid they need more salvation from the British and the French. (Hansberry I.2.1475)

Beneatha is essentially vetting Mama to make sure that she doesn’t embarrass her, but Mama wouldn’t do anything that would reflect poorly on herself as a host. She didn’t even want Asagai to come over because they were in the process of house cleaning.

When Mama finally does meet Asagai, she states in a chatty tone, “I would love to hear all about—[Not sure of the name]—your country. I think it’s so sad the way our American Negroes don’t know nothing about Africa ’cept Tarzan and all that. And all that money they pour into these churches when they ought to be helping you people over there drive out them French and Englishmen done taken away your land.” In the stage directions, Hansberry writes, “The mother flashes a slightly superior look at her daughter upon completion of the recitation.” Asagai’s reaction, according to the stage directions, is to be “taken aback by this sudden and acutely unrelated expression of sympathy.” A moment later, the tone shifts:

MAMA: [Looking at him as she would WALTER.] I bet you don’t half look after yourself, being away from your mama either. I spec you better come ‘round here from time to time and get yourself some decent home-cooked meals...
ASAGAI: [Moved.] Thank you. Thank you very much. (Hansberry I.2.1478)
When Mama is just parroting what Beneatha says, her sympathy comes off as obviously fake to the point where Asagai is put off by it. The whole purpose of her recitation is just to spite Beneatha, as is evident from the stage directions. However, when Mama drops the facade, she shows that she’s a kind person and a welcoming host. The stage directions have her looking at Asagai like she would at her son as she tells him to come around sometime for something to eat. This is what moves Asagai: a genuine show of motherly kindness, not some blustery nonsense in which she forgets what country he’s from. It’s easy for one to put up a front of sympathy and even easier to let it fall, but the type of genuine strength and warmth that Mama projects isn’t something that can be turned on and off like a light switch.

In Miciah Z. Yehudah’s 2015 article from the Journal of Black Studies (not related to the aforementioned Western Journal of Black Studies), “Distinguishing Afrocentric Inquiry from Pop Culture Afrocentrism,” he seeks to separate Afrocentrism from its popular, nonacademic definition. In the process, he brings up seven key aspects that are “common to the collective of African thought and also represent an African worldview” (Yehudah 555). These common elements are, “(a) centrality of community, (b) respect for tradition, (c) high-level spirituality and ethical concern, (d) harmony with nature, (e) the concept of the sociality of selfhood, (f) veneration of ancestors, and (g) the concept of the continuity of being” (Yehudah 555). These seven traits are said to make up the core of African identity and to serve as a mental and spiritual tether to the continent even when one is physically separated from it.

All seven of the traits of African thought are either displayed or encouraged by Mama in the Younger household, keeping the spirit of the continent alive, even if none of the Youngers recognize it as such. Centrality of community “refers to the importance of the collective in driving individual activities” (Yehudah 556). Mama is constantly pushing the people around her to do the right thing for the whole family. That’s why she uses the insurance money to buy the family a house in Clybourne Park rather than giving it to her son Walter to invest in the liquor store. She doesn’t want her family to tear itself apart, and she doesn’t want them to be in the business of getting people lost in the bottle. That’s also why she entrusts the check to Walter. She knows that Walter had his heart set on the liquor store, and, “There ain’t nothing worth holding on to, money, dreams, nothing else...if it means it’s going to destroy my boy.... I’m telling you to be the head of this family from now on like you supposed to be” (Hansberry II.2.1497). Mama gives Walter a chance to do right for the family. While he does screw it up very badly, the fact remains that she gave him a real chance.

This segues into the next aspect of African thought, respect for tradition. Yehudah surmises that, “...since every individual of a society is highly valued contributor [sic], then the traditions they initiated, helped to construct, or themselves followed, must also be respected” (Yehudah 556). Mama always tries to show respect for the decisions and contributions of others. When Beneatha decides to dump George Murchison on the grounds that he is an honest-to-God fool, Mama supports her decision, saying that she “...better not waste her time with no fools” (Hansberry II.2.1495). Earlier, Mama, along with everyone else in the family, was encouraging Beneatha to stick with George because his family was rich. For Mama to be understanding of Beneatha shows how supportive she can be. Similarly, when Travis, Mama’s grandson, buys her a very large and elaborate gardening hat, “[The family] all laugh except MAMA, out of deference to TRAVIS’ feelings” (Hansberry II.3.1506). Travis knows that Mama always wanted to have a garden, and even though the hat is a garish thing, she wears it because he bought it with the best intentions.
When Walter’s wife Ruth plans on getting an abortion, Mama understands why her daughter-in-law would do such a thing, saying, “When the world gets ugly enough—a woman will do anything for her family. The part that’s already living” (Hansberry I.2.1483). Mama may disagree with Ruth’s decision, but she isn’t ignorant of Ruth’s situation, and she doesn’t try to browbeat Ruth into changing her mind. Mama’s opposition to abortion may be seen as a link to Africa’s high-level spirituality and ethical concern. Yehudah states that “…the ethical component [is] infused into the spiritual tradition, and not the other way around” (556). To illustrate what this means to Mama, one need only look into her reaction when she finds out that Ruth is planning on terminating her pregnancy. Mama opposes the abortion not because she thinks it isn’t Christian, but because she thinks it isn’t moral. After she tells Walter about what Ruth intends to do, she “...wait[s] to hear [Walter] talk like [his father] and say [they] a people who give children life, not who destroys them.” When Walter fails to do this, she calls him, “a disgrace to [his] father’s memory” (Hansberry I.2.1484). These are harsh words, but you won’t find “God” among them. She doesn’t want a child to have their life snuffed out before they even get the chance to live it. She also knows that she doesn’t have the right to make decisions on the personal business of family members.

The fourth aspect of African thought that Mama shows is harmony with nature. While it may not be as pronounced as her other traits, Mama does show an affinity for gardening. She cares for a potted plant that continues to survive despite it being in no condition to do so. One of her greatest dreams is to have a house with a garden in the back, and even though that dream has been deferred, she still holds onto some shred of it.

The fifth trait, the sociality of selfhood, “rests on the fundamental belief in the idea of communalism as propelling people of African descent to play their parts in creating a just and good society” (Yehudah 556). Mama wants her children to do good in the world. She’s always implicitly supportive of Beneatha’s dream to become a doctor. When Walter decides to rectify his mistake by trying to sell the house in Clybourne Park, Mama is perhaps the most opposed to his decision. Even though the family would walk away from the deal with a pretty penny, she knows that none of them would be able to live with themselves if Walter kowtowed to a mealy-mouthed craven like Karl Lindner, a white man who represents the Clybourne Park Improvement Association.

The sixth trait, veneration of ancestors, arguably is the catalyst for the whole play. The check that comes in is the insurance money received after Mama’s husband’s death. When Walter is getting ready to sell their house to the Clybourne Park Improvement Association, Mama says, “I come from five generations of people who was slaves and sharecroppers—but ain’t nobody in my family never let nobody pay ‘em no money that was a way of telling us we wasn’t fit to walk the earth. We ain’t never been that poor. We ain’t never been that dead inside” (Hansberry III.1.1516). Mama holds the people in her family in high regard and views any mark on one member as a mark against them all.

Lastly, the concept of continuity of being “…depends on one’s proximity to the Creator who for the African society personifies the ethical code” (Yehudah 556). Mama may be a Christian, but this concept still applies to her. Her morality heavily informs her Christian faith. When Beneatha insists that there is no God, Mama slaps her in the face and makes her state the opposite:

**BENEATHA:** In my mother’s house there is still God.

[A long pause.]

**MAMA:** [Walking away from BENEATHA, too disturbed for triumphant posture. Stopping and turning back to her daughter.] There are some ideas we ain’t going to have in this house. Not long as I am at the head of this family. (Hansberry I.1.1472)
African Heritage! In one second we will hear all about the great Ashanti empires; the great Songhay civilizations; and the great sculpture of Bénin—and then some poetry in the Bantu—and the whole monologue will end with the word heritage! [Nastily] Let’s face it, baby, your heritage is nothing but a bunch of raggedy-assed spirituals and some grass huts!

BENEATHA: Grass huts! [RUTH crosses to her and forcibly pushes her toward the bedroom] See there … you are standing there in your splendid ignorance talking about people who were the first to smelt iron on the face of the earth! [RUTH is pushing her through the door] The Ashanti were performing surgical operations when the English—[RUTH pulls the door to, with BENEATHA on the other side, and smiles graciously at GEORGE. BENEATHA opens the door and shouts the end of the sentence defiantly at GEORGE]—were still tattooing themselves with blue dragons! [She goes back inside.] (Hansberry II.1.1487)

This exchange shows that Beneatha’s identity lies not in her African roots, but in her status as an educated young woman. Most Africans wouldn’t bring up the history of the various tribes of the continent as a defense for their people. After all, no one group of people of Africa represents the entire history of Africa. However, as a scholar, Beneatha attacks what she perceives as ignorance on George’s part.

George’s ignorance is what leads Beneatha to cut him out of her life. The scene begins like this:

BENEATHA: I’m trying to talk to you.
GEORGE: We always talk.
BENEATHA: Yes—and I love to talk.
GEORGE: [Exasperated; rising] I know it and I don’t mind it sometimes … I want you to cut it out, see—The moody stuff, I mean. I don’t like it. You’re a nice-looking girl … all over. That’s all you need, honey, forget the atmosphere. Guys
fill them in with snow and make them smooth and slide down them all day…and it was very dangerous, you know…far too steep…and sure enough one day a kid named Rufus came down too fast and hit the sidewalk and we saw his face just split open right there in front of us…And I remember standing there looking at his bloody open face thinking that was the end of Rufus. But the ambulance came and they took him to the hospital and they fixed the broken bones and they sewed it all up…and the next time I saw Rufus he just had a little line down the middle of his face…I never got over that…

ASAGAI: What?

BENEATHA: That that was what one person could do for another, fix him up—sew up the problem, make him all right again. That was the most marvelous thing in the world…I wanted to do that. I always thought it was the one concrete thing in the world that a human being could do. Fix up the sick, you know—and make them whole again. This was truly being God…

ASAGAI: You wanted to be God?

BENEATHA: No—I wanted to cure. It used to be so important to me. I wanted to cure. It used to matter. I used to care. I mean about people and how their bodies hurt… (Hansberry III.1.1510)

Ignoring the obvious oxymoron of a “simple sophisticated girl,” it is here where we find the difference between George and Beneatha. George is content with just accepting whatever society puts in front of him and going about his business. Beneatha tries to get to the truth of things, or at least, what she thinks the truth to be. George is the type of person who goes to school to be taught things and regurgitate them when the need arises. Beneatha is the type of person who goes to school to learn things and improve herself and the world.

When we find Beneatha at her lowest point, we learn where this desire to improve herself and the world comes from:

BENEATHA: When I was very small…we used to take our sleds out in the wintertime and the only hills we had were the ice-covered stone steps of some houses down the street. And we used to
Asagai might be an optimist, but he isn’t a fool. He wants to make things better for his village in Nigeria and the rest of the country, but he knows that it will be a long, hard road to fulfill his dream. He may be killed in his pursuit of it, or he may even become an obstacle to its fulfillment and have to be removed. However, in spite of his idealistic world view, he’s comfortable with those facts. He wants to help people and better the human race.

Both Beneatha and Asagai know that things won’t be perfect, but they still want to help people the best that they can. That doesn’t mean that they always agree with each other. When Asagai offers to take Beneatha with him back to Nigeria, she doesn’t answer:

BENEATHA: Too many things—too many things have happened today. I must sit down and think. I don’t know what I feel about anything right this minute.

[She promptly sits down and props her chin on her fist.]

ASAGAI: [Charmed] All right, I shall leave you. No—don’t get up. [Touching her, gently, sweetly.] Just sit awhile and think...Never be afraid to sit awhile and think. [He goes to door (sic) and looks at her.] How often I have looked at you and said, ‘Ah—so this is what the New World hath finally wrought...’

[He exits. BENEATHA sits on alone.] (Hansberry III.1.1511-1512).

Beneatha is a product of the New World. She’s not mentally or spiritually tied to Africa and Asagai knew this for a long time. However, he still helped Beneatha in her attempts to find her true identity. Asagai also has enough self-awareness to know that their goals might not be compatible and that they could have to go their separate ways to achieve them, and he’s willing to do that for both of them. Beneatha may not quite find her connections to Africa, but she is on track to finding her connections with herself.
In Kristin L. Matthews’s article in *Modern Drama,* “The Politics of ‘Home’ in Lorraine Hansberry’s *A Raisin in the Sun,*” she dissects the meaning of home for the various characters in the play. In one paragraph, Matthews posits the idea that Hansberry may have written Beneatha’s interest in Africa as “just another identity she is trying on for size” (563). While I agree that Beneatha goes through several phases, I don’t think that that’s necessarily a bad thing or even something out of the ordinary. It’s important to remember that Beneatha is still a college student. It’s not invalid for her to try different things. In fact, it’s perfectly normal. No one knows what they’re going to be when they’re twenty years old, and at no point does college magically make someone discover who they are or how they express that. It’s something everyone has to find out for themselves, and they probably won’t find it in the first thing that they do.

It’s also clear that the lessons Beneatha learned from Asagai won’t be gathering dust in the back of her head like the riding habit and photography equipment gather dust in the back of her closet. For one, she never breaks off her relationship with Asagai like she does with George. She doesn’t even explicitly turn down his offer to go to Nigeria with him. She just takes some time to “sit down and think.” Even if Beneatha never fully embraces her African roots, she’s still interested in Asagai. During the final scene of the play, she is shown to be, “girlishly and unreasonably trying to pursue the conversation” about him with Mama (Hansberry III.1.1519). She hasn’t fully made up her mind about Asagai, her relationship with him, or her relationship to Africa, and frankly, that’s okay.

If you look at the core of Beneatha’s being, you most likely won’t find Africa. She hasn’t lived there like Asagai has, and she doesn’t unconsciously carry its values like Mama. However, Beneatha is able to find herself by interacting with these people, looking at herself, doing the best she can for the world, and just sitting down for a while to think.

**Works Cited**


About the Author

Gabriel Michael Alexander is a sophomore majoring in Creative Writing. This paper was his final assignment for his Writing About Literature class, taught by Dr. Emily Field. In the future, hopes to become a writer for comic books, animation, video games, or other similar fields.
Meal Preparation Constraints in Emerging Adults in College

Rachael Alpert

Abstract
Emerging adults in college are in a time of adjustment, and as a result of this, their diets can suffer. In previous studies, meal preparation has proven to result in a healthier and more nutritious diet. With the understanding that an increase in meal preparation leads to the improvement of diet and nutrition, my study looks at what factors constrain meal preparation in emerging adults. The constraints emerging adults have with meal preparation and maintaining a healthy diet can include the frequency of meal preparation, confidence in cooking, time constraints for meal preparation, financial worry for grocery shopping, and a good understanding of healthy foods. My classmates and I surveyed 157 college students between the ages of 18 and 29 on many aspects of their lives, including their perceived limitations in meal preparation. The results of my study demonstrated that a good understanding of healthy foods and confidence in the ability to cook a healthy and well-balanced meal was associated with an increase in meal preparation. These results of experience and knowledge help to form the foundation for successful meal preparation, and it can help cultivate healthier diets for emerging adults in the future.

Meal Preparation Constraints in Emerging Adults in College

Emerging adulthood is the bridge between adolescence and adulthood. This stage of life, if space is allowed for it culturally, is a period of exploration and adjustment into the adult self. During the late teens and twenties is when many life altering commitments are made, like the decision to further your education, begin a career, get married or have a child (Arnett, 2000). Young adults are faced with decisions that will shape the outcome of their futures. Daily habit-forming decisions, like what kinds of foods they choose to fuel their bodies, are among these important decisions. For many emerging adults, the responsibility of the structure of their lifestyle in adolescence shifts from their parents and school, to becoming their own. Often, emerging adulthood is a time of highly intense scheduling and stress. The importance of creating a practice of healthy eating is something that cannot be overlooked. With people living longer on average, maintaining a healthy lifestyle promotes healthy aging, meaning less disease and disability later in life (Kennedy, 2006). Unhealthy eating habits lead to higher body mass index (BMI) and further health complications. The evidence for healthy eating through all stages of life is robustly positive. The struggles emerging adults have with maintaining healthy eating can be attributed to many factors. Some of the factors that deter young adults from healthy eating include confidence in meal preparation, time, and financial availability. The reasoning behind these less-than-desirable food habits of emerging adults needs further investigation to make positive changes.

Having a foundation of healthy food habits begins at home in the kitchen. Participating in cooking and meal preparation results in healthier eating behaviors. Project EAT conducted a study on the confidence in cooking and meal preparation in young adults to see if it would result in more nutritious eating later in life (Utter, Larson, Laska, Winkler, & Neumark-Sztainer, 2018). The preliminary questionnaire started in 1998 to 1999 and included students from 31 different Minneapolis public schools. They self-reported on their regular meal consumption and preparation. Questions included their family’s food habits and their frequency of food preparation involvement. The follow-up surveys were distributed through mail and email in 2003–2004 (ages 18 to 23) and again in 2015–2016 with age-related questions on eating behaviors and meal preparation. The final survey included 1,158 participants. It showed that those who...
scored themselves with high adequacy in cooking and meal preparation (25% of the participants) in the survey taken in 2003–2004 (ages 18 to 23) scored themselves higher in healthy eating in the final survey in 2015–2016 compared to those scoring themselves with lower adequacy. This study defined healthy eating as a diet higher in vegetables and lower in fast food. The results of this study show the importance of exposure to cooking from a young age. It is suggested that the decline of home cooking both in practice and as a taught skill has resulted in poorer nutrition. Home economic classes and family dinners are on the decline, while BMI rates and poor nutrition are increasing. Instilling the importance and practice of cooking and food preparation at home from a young age can help increase positive food behaviors later on in life.

The limited availability to healthy foods because of financial instability, compounded with the lack of confidence in food preparation, results in difficulty for emerging adults in maintaining healthy food behaviors. Knol, Robb, McKinley, and Wood (2019) looked at the relationship between the financial accessibility to purchase healthy and nutritious food and students’ meal preparation habits and confidence in cooking. The participants used in this study were 19,965 undergraduate students aged 19 or older living off campus independently from their parents and attending the University of Alabama. This population of students is considered financially vulnerable and often have to balance both a school and work schedule. This online cross-sectional survey was conducted from February to April in 2016. The questions asked included perceived ability to cook meals, resources to fresh food, and food security. Food security is broken down into 4 categories (high, marginal, low, and very low), with low food security indicating negatively disrupted and reduced nutritional food consumption. The completion of the survey resulted in 38.3% of the students reporting their food security to be low or very low. These students did not have the finances to comfortably go grocery shopping. Participants in this category recorded their financial availability to healthy and nutritious food to be low, resulting in lower meal preparation and confidence in cooking. It was also reported that students who scored lower in financial ability to purchase groceries also had lower reports of health and grades. Thus, the barriers college students face in obtaining healthy food options can negatively affect their health and growth.

In addition to financial instability, there are other barriers that emerging adults face in maintaining a healthy diet. In the 2004 Fall semester, 408 college freshmen from a United States public college in an urban area participated in a food study. Yeh, Matsumori, Obenchain, Viladrich, Das, and Navder (2010) conducted a survey asking these students about their food choices, including their knowledge of the recommended fruit and vegetable consumption and daily vitamin use. The survey was taken by participants at the beginning of the semester and again at the end of the semester. Factors measured by the study included where the majority of their meals were consumed, the difficulties they faced eating healthy foods, and their demographics. The study measured several barriers to eating fruits and vegetables as well, including time constraints around preparation, the quality of the food, and competing foods. Participants reported that the greatest barrier for them was the time constraints around preparation, leading to the greatest reduction of fruit and vegetable consumption. The results of the study showed a decrease of healthy eating, including less fruits and vegetables and more fast-food consumption on the second round of surveying. The constraints around preparation time partly explained the increase of fast-food consumption over healthier options. Food knowledge and time constraints are the leading factors of emerging adults choosing unhealthy foods over healthier ones. Education on how to choose and prepare healthy food options would results in emerging adults building a more nutritious diet.

College students are often balancing busy schedules. Therefore, they may overlook the importance of
healthy eating. Pelletier and Laska (2012) looked at how the external factors of Midwestern college students’ lives effected their availability to prepare healthy and balanced meals. The factors of their lives included financial status, amount of time spent working and in class, where they lived, and if they were in a relationship. The student sample included 598 two-year community college students and 603 four-year public university students. The results of the survey showed the factors differed by gender. Those that scored highest in feeling they were unable to make time to prepare meals included women attending the public university, those with higher financial constraints, and those whose parents had lower educational backgrounds. Men reported more time spent at school and work being a main factor of their limited time spent on meal preparation, whereas women reported family and relationships as a higher factor in their inability to spend time on meal preparation. It was reported that more than 50% of the participants felt they didn’t have a healthy diet and 41.5% felt that their lack of a healthy diet was a direct result of their schedule. The students who have poor diets were also earning lower grades. The importance of a healthy diet is abundantly clear and should come as a priority regardless of a busy schedule.

The way emerging adults view food is important in understanding their food behaviors. Many studies look into a specific population of emerging adults based on their school status. In a study by Betts, Amos, Keim, Peters, and Stewart (1997), they investigated the way emerging adults with differing school statuses viewed food. Participants were reached through a mail-in survey in 10 different states throughout the United States. Those included in the study were 736 students enrolled in college, 237 individuals who graduated from college, and 328 individuals who graduated from high school and were not currently attending college, totaling 1475 participants. The survey measured the degree of influence certain factors had on their food choices, including financial, social, nutritional value, how gratifying the food is perceived to be, and convenience. The study found students valued the convenience of food over nutritional value. Those at a graduate level were more concerned about the nutritional value of the food than its cost. The nongraduates valued how gratifying the food was over its nutritional value. Emerging adults in this study reported the factors that influence them in their food choices change in relation to their academic placement. The results of this study show that school status is perhaps the most significant factor that dictates food choices. Identifying how different categories of emerging adults view food and the underlying factors of food choices will effectively help educate them on better nutrition.

These studies show that emerging adults in college have many constraints to meal preparation and healthy eating. A lack of confidence in cooking and financial worry for grocery shopping tends to decrease meal preparation (Knol, Robb, McKinley, & Wood, 2009). They demonstrated how busy schedules negativity affect the diets of emerging adults in college (Pelletier & Laska 2012; Utter, Larson, Laska, Winkler, & Neumark-Sztainer, 2018; Yeh, Matsumori, Obenchain, Viladrich, Das, & Navder, 2010). Additionally, the results show that more meal preparation is associated with a healthier diet (Betts, Amos, Keim, Peters, & Stewart, 1997). All of the aforementioned studies examine the specific conditions that helped form my study. With the understanding that higher meal preparation may lead to healthier eating, we must increase confidence in cooking and a good understanding of healthy foods. There needs to be more food literacy for emerging adults. In my study, I looked at the frequency of meal preparation in relation to other limitations emerging adults face with eating healthy. Time constraints and financial worry are a general concern for emerging adults, and my study looked at how they relate to meal preparation. The ability to have a healthy diet should not be negatively impacted by the
lack of confidence in meal preparation, time constraints, food knowledge, or financial restrictions. Having a good understanding of healthy food, confidence in cooking, and fostering an education and practice regarding meal preparation could positively impact future generations.

The emerging adult population is at risk of the negative effects of unhealthy eating. Finding the barriers that emerging adults are facing while navigating their food behaviors is important to help change the direction of unhealthy eating. Investigating this will help find ways to best support healthy food habits in emerging adults. This study is an attempt to investigate the ways to best support healthy food habits in emerging adults.

**Method**

**Participants**

A sample of 157 emerging adult college students were used for this study. They completed an online survey with 75 questions written by myself and my classmates. This study defines emerging adults as those ranging in age from 18 to 29. The median age was 20.70, with a standard deviation of 1.981. With regard to gender, 81.5% of the participants identified as female, 6.6% as male, 1.3% as neither, and .6% as both. For race and ethnicity, 89.8% of the participants identified as European American (White, Non-Hispanic), 7.0% as Hispanic, 1.9% as African American (Black), and 1.3% as Asian American. Of the participants’ college status, 13.5% were freshman, 20.6% were sophomores, 25.8% were juniors, 34.8% were seniors, and 5.2% were other. When asked about adulthood status, 33.8% said they felt they were an adult, 5.7% said they did not feel they were an adult, and 60.5% felt in some ways yes, in some ways no.

**Procedure**

The process used for collecting participants was contacting students virtually through email and social media posts. I acquired my participants’ names from the BSU mobile application that includes a class roster. In my BSU email I typed the name of my classmates in the recipient portion and suggested contacts filled in the rest of the email address. I was able to send one email to all participants at the same time with the “blind carbon copy” function hiding the email addresses of all other recipients, maintaining their privacy. In the email I sent to my classmates I introduced myself, informed them I am a BSU student majoring in Psychology and conducting research for my Research Methods class:

I’m a BSU senior studying Psychology. My Research Methods class is conducting research and I am inviting you to be a part of it. The research is a web-based survey assessing many different aspects of life as an emerging adult. Participants must be a current college student and be between the ages of 18 to 29. The survey only takes about 5-10 minutes of your time and by completing it you are helping me to complete an assignment in one of my classes. The survey is available here…

The link included a consent form before taking the survey, agreeing they are a willing participant in this study. The 75 questions included the five detailed below, as well as 70 additional questions that my classmates created, measuring many different aspects of life, including social media habits, academic experiences, and self-esteem. The end of the survey included a debriefing that informed participants that the information received from them will be kept confidential and used for this study alone.
Measures

Confidence in cooking. This variable measured the participant’s self-perceived confidence in cooking. The participant was asked to respond to the statement “I feel confident in cooking myself a healthy, well-balanced meal.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes higher confidence in cooking and a lower score denotes lower confidence in cooking.

Financial stability for grocery shopping. This variable measured the participant’s financial stability for grocery shopping. The participant was asked to respond to the statement “I am able to go grocery shopping without financial worry.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes more financial stability when it comes to grocery shopping and a lower score denotes less financial stability in grocery shopping.

Time constraints on meal preparation. This variable measured the participant’s self-perceived time constraints on meal preparation. The participant was asked to respond to the statement “I don’t have enough time to prepare all my own meals.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes more of a time constraint in meal preparation and a lower score denotes less of a time constraint in meal preparation.

Frequency of meal preparation. This variable measured the participant’s frequency in meal preparation. The participant was asked to respond to the statement “I prepare all of my meals myself.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes a higher frequency of meal preparation and a lower score denotes they are not frequently preparing their own meals.

A good understanding of healthy foods. This variable measured the participant’s understanding of what foods are healthy. The participant was asked to respond to the statement “I have a good understanding of what foods are healthy to eat.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes the participant has a good understanding of what foods are healthy to eat and a lower score denotes the participant does not have a good understanding of what foods are healthy to eat.

Results

The measures I used were to discover where patterns formed in the constraints of meal preparation. I was looking to find how the measures relate among one another and with the demographics of the participants. I found a significantly positive correlation between age and confidence in cooking ($r = .243, p = .003$), demonstrating that as the age of the participant increased, confidence in cooking also increased. There was a weak positive correlation between self-esteem and confidence in cooking ($r = .057, p = .478$), but this relationship was not significant. This demonstrates there is no relationship between self-esteem and the confidence participants have in cooking. There was a significantly positive correlation between confidence in cooking and financial stability for grocery shopping, ($r = .301, p < .001$), demonstrating that as the confidence participants felt in being able to prepare a healthy, well-balanced meal increased, their financial stability for grocery shopping also increased. Those that
have more experience cooking are more confident in their ability to shop and cook for themselves.

There were also relationships between confidence in cooking, meal preparation, and a good understanding of healthy foods. There was a significantly positive correlation between confidence in cooking and frequency of meal preparation ($r = .385, p < .001$), demonstrating that as confidence in cooking increased, frequency of meal preparation also increased. There was also a significantly positive correlation between confidence in cooking and a good understanding of healthy foods, ($r = .249, p = .002$), demonstrating that as confidence in cooking increased, a good understanding of healthy foods also increased. In addition to these findings is the significantly positive correlation between frequency of meal preparation and a good understanding of healthy foods ($r = .222, p = .005$), demonstrating that as frequency of meal preparation increased, a good understanding of healthy foods also increased. There was a positive correlation between confidence in cooking and time constraints on meal preparation, ($r = .048, p = .554$), but this relationship was not significant. The results of these correlations can better help understand how to increase healthy eating for emerging adults by increasing the frequency of meal preparation and a better understanding of healthy foods.

The lived experience of emerging adults can be so different with age, gender, and race factoring in how they relate to the world. However, my variables showed little relationship to the demographics of the participants. Male participants scored higher on confidence in cooking ($M = 3.85, SD = 1.12$) than female participants ($M = 3.51, SD = 1.363$), but this difference was not significant, $t (152) = 1.186, p = .238$. The skewed ratio of male ($n = 26$) to female ($n = 128$) participants may have affected these results. The results of one way between groups ANOVAs revealed that there was no main effect of adulthood status on confidence in cooking, $F (2, 154) = 1.615, p = .202$, nor a main effect of race and ethnicity on frequency of meal preparation, $F (3, 153) = .989, p = .400$. There was also no main effect of year in college on frequency of meal preparation, $F (4, 149) = .989, p = .490$. However, there was a main effect of adulthood status on meal preparation, $F (2, 153) = 3.307, p = .039$. Post-hoc pairwise comparisons using Tukey’s HSD test revealed that none of the groups scored significantly different from one another and the comparisons were not significant.

From these results, it shows the overall need for help in meal preparation in the emerging adult population are not specific to one demographic.

Time and finances are often a constraint for many things in life, including meal preparation. There was a significantly positive correlation between having financial stability for grocery shopping and time constraints on meal preparation, ($r = .266, p = .001$), demonstrating that as financial stability for grocery shopping increased, time constraints on meal preparation also increased. I also found a significantly positive correlation between time constraints on meal preparation and frequency of meal preparation ($r = .149, p = .001$), demonstrating that the more time constraints participants reported, the more they reported higher frequency of meal preparation. There was a positive correlation for financial stability for grocery shopping and a good understanding of healthy foods ($r = .103, p = .198$), but it was not significant. Other correlations that were negative were financial stability for grocery shopping and frequency of meal preparation ($r = -.018, p = .822$), and time constraints on meal preparation and good understanding of healthy foods ($r = -.098, p = .223$), but these were not significant. These results show how more time constraints are significantly associated with more financial stability and more meal preparation.
Discussion

Emerging adults in college have limitations on their ability to have healthy diets. I looked at what constraints are keeping emerging adults from healthy eating. I investigated this by surveying college students in their frequency, confidence, and time constraints in meal preparation, in addition to their understanding of healthy foods and financial worry for grocery shopping. The significant correlations between these variables highlights the importance of confidence in cooking and a good understanding of healthy foods in relation to the frequency of meal preparation. With the increase of confidence in cooking and a good understanding of healthy foods, there is an increase in the frequency of meal preparation. These are all linked together, as I had expected. With the understanding that higher meal preparation is associated with healthier eating, we must increase confidence in cooking and a good understanding of healthy foods. The non-significant results show the minute impact of demographics in this study, but further testing with more diverse samples could find something different.

The results for financial stability and time constraints could benefit from further questioning. There was a significantly positive correlation between financial stability for grocery shopping and time constraints on meal preparation. This demonstrated that as financial stability for grocery shopping increased, time constraints on meal preparation also increased. This was the opposite of what I expected. College students who work a full- or part-time job might have the means to afford groceries but are restricted in their time for meal preparation because of their employment. I would be interested to know about their employment and how this relates to time constraints and financial stability. My results can be interpreted many different ways, and more specific questioning would be needed to determine the reasoning.

Studies have investigated many of the limitations emerging adults have with healthy eating, including confidence in cooking. One study showed how meal preparation resulted in healthier eating behaviors over a long-term period (Utter, Larson, Laska, Winkler, & Neumark-Sztai, 2018). With the confidence built through the practice of cooking and meal preparation, children will continue this skill into emerging adulthood. My study found a direct link between the confidence one has with cooking a meal and the amount they participate in doing so. My results confirmed those of this previous study; confidence increases meal preparation, which in turn increases healthy eating. It would be interesting to do a follow-up study investigating how the healthy consumption of foods is affected later on in life.

Another study conducted looked at how a lack of confidence in food preparation and financial instability results in difficulty for emerging adults in maintaining healthy food behaviors (Knol, Robb, McKinley, & Wood, 2019). This study reported that students who lacked the financial ability to go grocery shopping also had lower health and grades. The barriers college students face in being able to access healthy food options negatively affects their health and growth. I also found that as confidence in cooking increased, financial stability for grocery shopping also increased. I interpreted this to mean that those who are confident in cooking are also confident in their ability to grocery shop. Something that would need further investigation would be confidence in grocery shopping. It could also be speculated that those who have the financial ability to go grocery shopping without worry do so more often, increasing their time spent cooking, and resulting in their confidence. Future research could investigate these possible causal relationships.

I asked my participants if they felt they had a good understanding and ability to create a healthy meal
for themselves; in further studies, I would be interested to see if those who felt they understood also felt they had a healthy diet. I did not ask about a current diet; those who are aware of eating an unhealthy diet may be more inclined to make a change. Pelletier and Laska (2012) looked at the external factors of college students’ lives influencing their availability to prepare healthy balanced meals. My study asked participants about time constraints in relation to meal preparation. Pelletier and Laska investigated what, based on gender, the typically reported constraints were for emerging adults. They also noted how poor nutrition negatively impacted students academically, explaining the importance of a healthy well-balanced diet in emerging adults.

I found a significantly positive correlation between age and confidence in cooking, but there was no main effect of year in college on frequency of meal preparation. Also, those who answered yes to feeling like an adult scored higher in meal preparation. Therefore, my study shows some differences in age and adulthood status, but not by grade. In Betts, Amos, Keim, Peters, and Stewart’s (1997) study, they investigated the way emerging adults with differing school statuses viewed food. My study found a greater difference in adulthood status than in grade level. I only looked at students who were at the undergraduate level, whereas Betts et al. showed how differently emerging adults viewed food according to their school status. This study suggested that as the participants education level increased so did their interest in choosing foods with higher nutritional value. I did not find grade level differences in my study. I did find an increase in meal preparation in age of students, that could be explained by experience.

My study shows that experience and knowledge form the foundations for successful meal preparation and is related to healthier diets for emerging adults. In my study, adulthood status changed how meal preparation was perceived, and it would better serve this population to encourage meal preparation in those who do not feel as though they are defined as an adult. Programs could target emerging adults that build their cooking and meal preparation skills.

I did not include the specifics of food types such as fruits and vegetable consumption, or unhealthy options like fast foods. A study by Yeh, Matsumori, O'Brien, Viladrich, Das, and Navder (2010) looked at the regularity of healthy eating, with an emphasis on fruits and vegetables in college freshmen. This study showed that freshmen reported less healthy eating, including fewer fruits and vegetables, when given the option of less healthy foods. I hypothesized there would be a difference in year in college on meal preparation, but the results showed no main effect of year in college on frequency of meal preparation. A question that could be added to this study to further research, in addition to a good understanding of healthy food, would be healthy eating in practice.

The study I conducted left many questions unanswered in this broad topic of problems with meal preparation in emerging adults. An issue I did not address was the ability to cook or prepare meals in their place of living. Many students could be living in dormitories without the ability to cook. This year, fewer students lived on campus, so how would the results of this study differ in comparison to years to come or years past with more students living in dormitories? I did not ask about eating out or fast food, which is something that in relation to meal preparation would be important to look into. I would like to look into seeing if people consume fast food because of time constraints, or their lack of confidence in cooking, or their lack of healthy food knowledge.

Research done previously, in addition with my recent study, shows with the understanding that higher meal preparation leads to healthier eating, we must increase...
confidence in cooking and a good understanding of healthy foods. From the results of my research, meal preparation can be increased with experience and knowledge. Cooking should be made to be a part of life, including at school and at home. Education for a better understanding of healthy foods should be a larger part of an elementary education. The simple act of cooking with your children can increase their confidence in the kitchen and build better habits of cooking on their own.

References


About the Author

Rachael Alpert is a graduating senior majoring in Psychology and minoring in African American Studies. Her research project was completed in the winter of 2020 under the mentorship of Dr. Joseph Schwab (Psychology). She presented a visualized poster version of her study at the BSU Mid-Year Symposium. Rachael plans to pursue her master’s in Clinical Psychology.
Pregnancy in the Time of COVID-19
Shauna Brosky, Holly Hogan, and Tyler Czyras

Abstract

The presence of COVID-19 has not been easy on anyone and resulted in several struggles that people must deal with in their day-to-day lives. However, women who have been pregnant, or who have become pregnant, during this pandemic have experienced an additional struggle. How can women be expected to prepare to bring a life into the world when the rules of the world are changing every day? With doctor appointments being canceled or made available for only the expectant mother, and constantly changing rules regarding the labor and delivery process, COVID-19 has made many women’s pregnancy experience stressful and turbulent. Although every woman’s COVID-19 pregnancy experience is different, there are some common elements that can be seen in these experiences, such as stress and anxiety caused by the presence of COVID-19. Despite the difficulties with doctor appointments, labor and delivery, and general life complications that have resulted from COVID-19, some positives have resulted from women’s pandemic pregnancy experiences.

Introduction

While bringing a child into the world is a wonderful experience for countless women, it can be a trying task under the best of circumstances. COVID-19 has had a significant impact on everyone, and this is certainly the case for expectant mothers. Research has shown that pregnant women are at a higher risk of developing severe symptoms if they contract the virus when compared to their healthy, non-pregnant counterparts. A recent study shows that pregnant women who were between the ages of 15 and 44 and showed symptoms of COVID-19 had an increased risk of death of 70 percent when compared to women of the same age who were not pregnant (Maldarelli, 2020). Research has also found that expectant mothers are 50 percent more likely to need treatment from the intensive care unit, and 70 percent more likely to need ventilators (Wadman, 2020). When compared to non-pregnant people who have COVID-19, pregnant women are six times as likely to find themselves seeking treatment in the ICU (Wadman, 2020). Although pregnant women are not often considered to be in the “high risk” category in regard to COVID-19, studies continue to prove that this is not the case.

Many people do not seem to realize that pregnant women, even if they are healthy, are at a much higher risk when it comes to COVID-19. Akiko Iwasaki, an immunologist at the Yale School of Medicine, explained that, in pregnant women, “the entire immune system is geared toward making sure not to create any antifetal immune response. The mother must compromise her own immune defense to preserve the baby’s health” (Wadman, 2020). One of the struggles of COVID-19 is difficulty breathing. Unfortunately, pregnant women already have difficulty breathing due to their decreased lung capacity, because as a fetus continues to grow, there is less room for the lungs to expand (Wadman, 2020). Pregnant women also experience increased heart rate and need a higher intake of oxygen, which puts an expectant mother at a greater risk if they contract the virus and is no longer able to take in the amount of oxygen that is needed to support themselves and their fetus (Sajid et al, 2020). Normally, pregnant women are at a higher risk of developing blood clots after their birth. However, COVID-19 also increases the risk of developing blood clots, which makes the danger of blood clotting after delivery much more notable and dangerous (Wadman, 2020).

In addition to its impact on expectant mothers, COVID-19 can also impact the unborn fetus. Recent
research has shown that COVID-19 can result in increased blood clots in the placenta. In this study, 48 percent of placentas from pregnant women who had suffered from the virus contained blood clots, while only 11 percent of placentas from pregnant women who had not experienced the virus contained blood clots (Wadman, 2020). This increased amount of blood clots in the placenta can limit the oxygen and the nutrients that reach the fetus, which is needed for proper growth and development (Wadman, 2020). While it is rare for newborns who are born to mothers infected by COVID-19 to also be infected with the virus, it is possible. One study noted that some newborns tested positive for COVID-19 soon after birth, but it was unable to be determined whether the newborn was infected before, during, or after their birth (If You Are Pregnant, Breastfeeding, or Caring for Young Children, 2020). It has also been observed that pregnant women who have COVID-19 are at a greater risk of having a premature birth, which results in a higher chance that their babies will need to be admitted into a neonatal care unit (Understand how COVID-19 might affect your pregnancy, 2020).

The presence of COVID-19 can also indirectly have a negative effect on a fetus. This has certainly been a stressful time for everyone, especially when considering expectant mothers. Research has shown that when an expectant mother experiences stress, the fetus feels that stress, as well. While short-term stress has a minor impact on a growing fetus, long-term stress has been proven to disrupt fetal development (University of Zurich, 2017). One study stated that prenatal stress can “have direct effects on infant health by altering the course of fetal neurobiological development” (Coussons-Read, 2013). Since these times have been much more stressful for many people, this can result in increased risk for the fetus. Common birth complications that stem from prenatal stress include preterm labor and delivery, low infant birth weight, pre-eclampsia, shortened gestational length, and gestational diabetes (Coussons-Read, 2013). In addition to birth complications, prenatal stress during pregnancy can also result in lifelong problems for the fetus, such as stress hyper-responsiveness, difficult temperament, attachment difficulties, affective disorders, allergies, and asthma (Coussons-Read, 2013). Although pregnancy complications relating to stress aren’t directly caused by COVID-19, the pandemic has certainly been a large source of stress for many expectant mothers.

The COVID-19 pandemic has also affected the lives of pregnant women in non-medical ways. The pandemic has resulted in the shutting down of schools and daycare centers all across the United States. This resulted in the need for mothers to stay home not only to watch their children, but to help them with school, as well. Now that school is back in session, many schools are doing a hybrid school model, with some days having in-person classes and some days having classes online. Once again, mothers are expected to stay home with their children during usual school hours, which is normally the time when mothers would be able to work. This has led to working mothers dropping out of the work force to take care of their children and resulted in a decline of women in their prime-earning years who are looking for work (Associated Press, 2020). Many women have been laid off or forced to leave their jobs because of the pandemic. In addition to this, many mothers do not feel safe going back to work since they have a newborn in the house who needs protection from the virus. All these work-related stressors are yet another obstacle that expectant mothers must face during this pandemic, especially if they already have other children at home needing care.

Through researching this subject, many questions have come up that we would like to investigate during this study. One of our main interests is determining how much extra stress COVID-19 is putting on the lives and activities
of expectant mothers, whether that stress comes from COVID-19 itself, doctors’ visits, labor and delivery, or new rules or standards set in place as COVID-19 precautions, and whether or not the additional stress from COVID-19 is resulting in heightened anxiety. We are also interested in having a child. Before the pandemic made the COVID-19 pregnancy experience easier for expectant mothers. Based on our preliminary research, it is our hypothesis that COVID-19 will result in more anxiety for pregnant women, and will result in extra complications, layers of isolation, and precautions to stay safe and healthy.

Methods

Since this study revolves around the experiences of women who were pregnant during the pandemic, all our participants had to have experienced a pregnancy during the pandemic. This purposive sampling was able to give us insight into how the pandemic affected the process and experience of pregnancy, and how these pandemic pregnancies compared to pregnancies that occurred before the COVID-19 pandemic. Our criteria for this study were that participants had to have been pregnant at some point in the pandemic. In addition to this, we made sure that if our participant was pregnant before the pandemic began, that they gave birth after COVID-19 began to shut things down in the beginning of March of 2020. Most of our interviews were conducted over zoom or phone, while one of the interviews was conducted in the participant’s home. The interviews lasted for 30 minutes, with one interview lasting 7 minutes and one interview lasting 16 minutes. The 7-minute interview was with a participant who had given birth early in the pandemic, so she did not have much to say since most of her pregnancy happened before the pandemic. The 16-minute interview was with a participant who was still in her first trimester, so she was still a bit early on in her pregnancy to have experienced the full effects of being pregnant and having a baby during the pandemic.

Our research procedure was approved by the Bridgewater State University Institutional Review Board, which is the committee that oversees the research conducted at BSU. Before each interview was conducted, the participant was asked for her consent to be interviewed. Each participant was ensured that the information she provided in her interview was completely confidential, and that any information that may be able to link the interview to the participant would be redacted. We also made sure to inform the participants that although their interviews and information would be kept confidential, that there may be situations where their information would need to be shared with federal agencies, such as the Office of Human Research Protections, as well as the Bridgewater State University Institutional Review Board. Our participants were asked to participate in our study only if they felt that they could do so openly and honestly, and were made aware that they could skip questions, ask for information to be taken off of the record, and stop the interview at any time. We also asked each participant if we had their consent to audio record the interview, assuring them that the recording of their interview would be deleted as soon as the transcript was written, and that if they did not want to be recorded, that the interview could proceed without the use of a recording device.

We were fortunate to have a varying group of participants in this study. During our study, we conducted a total of six interviews. The ages of the participants varied from early/mid-twenties to late thirties. Four of our participants were living in New England at the time, while the other two participants were living in the Southeast. Most of our participants were Caucasian, while one was African American. Fortunately, the participants were able to provide differing views, as they had all been in different points of their pregnancy throughout the pandemic.
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Findings

To address our various research questions, we analyzed the information obtained from our interviews through thematic analysis. Thematic analysis involves finding common themes, ideas, patterns, and topics that are commonly presented and observed through research (Caulfield, 2020). This process involves coding, acknowledging common themes, defining those themes, and identifying those themes through the research. For more information on thematic analysis, the article “How to Do Thematic Analysis: A Step-by-Step Guide and Examples” by Jack Caulfield, which can be found in our references section, can provide more insight into the process. After much discussion, our research group determined that the most prominent and frequent themes found throughout our interviews are the following:

- Anxiety revolving around COVID-19, pregnancy, and the baby
- Complications/difficulties resulting from the presence of COVID-19
- Complications regarding birth, delivery, and hospital stays resulting from COVID-19
- Positive experiences resulting from COVID-19
- Precautions being taken to reduce exposure to COVID-19

All these themes were expressed by all the participants in our study, making them common themes that can be applied to most of the experiences of expectant mothers during the COVID-19 pandemic. Through our interviews, we were able to see 23 instances relating to anxiety; 105 instances relating to complications and difficulties due to COVID-19; 8 instances regarding complications with birth, delivery, and hospital stays; 15 instances of positive experiences; and 31 instances of precautions that were being taken. All this information is displayed in the following bar graph.
To better understand how these instances compare with one another, the following chart displays how many instances of each theme were found when compared to one another.

**Anxiety Revolving Around COVID-19, Pregnancy, and the Baby**

A sense of anxiety among pregnant women and their newborn babies revolving around COVID-19 and the impact that it has were evident in every interview. COVID-19 has changed life so drastically, and has put expectant mothers at a higher risk of experiencing complications from the virus. Before COVID-19 began rapidly infecting the United States, many couples were beginning to plan how they would be settling down, and how they could create a family with each other. Four of our participants became pregnant before the pandemic occurred, and experienced pregnancy and gave birth during the pandemic. After the global situation was established as a pandemic, many families, including the participants of the research project, began thinking about all of the different scenarios that could occur if they became infected. These mothers were and continue to be anxious, as the virus could make it so that these mothers would have to potentially separate from their families and newborn children. One participant expressed,

“*I have been doing research about COVID and how it affects pregnant people, and non- pregnant women. And, you know, you read these things... it was stressing me out, because I read something that, you know, 30 percent of women who are pregnant or something can end up in the ICU. And then, another thing I read, said pregnant women who get COVID, 25 percent of them will have a premature labor. So, it’s a little stressful for me.*”

Whether it was conceiving a child before or during the pandemic, there are a lot of factors of COVID-19 that result in a great deal of anxiety for expectant mothers. Even after giving birth, the anxiety over the fear of having to be separated from their newborn baby and other family members right after birth was significant for one of our participants.
Since she was tested for COVID-19 during her delivery, she was worried that if her test were positive, she would have to be separated from her baby right after birth. She explained, “... it was a rapid test, but it was the longest like, probably hour to 90 minutes of my labor, and I had a 19-hour labor. It felt longer than the entire labor waiting for that result because I know about like skin-to-skin, I wanted and am nursing, so to have a separation from your baby puts you a couple of steps behind in being successful at those things, and it’s just so important to bond with them right away. So, I just couldn’t imagine, umm, that being now our obstacle.”

Another source of stress came from the recent studies that have shown that COVID-19 can cross the placenta and increase the risk of blood clots within the placenta. Being pregnant during this pandemic, especially for women who had not previously been pregnant and have not experienced all of the elements of pregnancy before, has shaped our participants’ anxieties, because no matter how safe a participant is being and how many precautions they are taking, COVID-19 remains a real risk.

Complications/Difficulties Resulting from the presence of COVID-19

Participants in this study endured, and continue to endure, the ramifications of the COVID-19 pandemic. Throughout the past few months, many complications and difficulties arose due to the prevalence of the virus. To begin, everyone, including our participants, had to figure out ways to transition from a normal life to one that revolved around social distancing and Zoom meetings. The participants in this study noted how the shutting down of normal life and activities, such as their children’s ability to attend school, affected their lives. One of our participants even had to leave her job to homeschool her children from the schools closed in the spring. She explained, “... in the summertime, I shifted to working from home while homeschooling, and then I slowly just dwindled down my case load at work to be only one day, and then I worked just during nap times or in the evenings, when my kids were asleep. Then when the fall hit, with the school regulations and everything, my one daughter couldn’t get back into school, and then my other daughter is only two days at school. So, I quit my job, basically, so I could homeschool them.”

One of our other participants lost her job due to the pandemic, and was forced to adjust to working a new job while simultaneously having to take care of a newborn and acclimate to life as a first-time mother.

The study has found that the idea of having to stay indoors the entire time has been exceedingly difficult for both participants and their older children. One of our participants noted these complications by saying, “... just having literally everything shut down, and like, even the parks. That was kind of the hardest thing because you’re just inside or in your own house, and you couldn’t do playdates or things like that, so it was like, you’re either inside, or you’re outside in your own yard. So, it was super challenging, and plus trying to work on top of that was pretty challenging.”

There was also the challenge of being isolated during the pregnancy process, and not being able to share it with many people. As one of our participants explained, people are only able to see someone’s face over a Zoom call, which takes away from the “belly experience.” One participant explained that it was difficult not being able to share her pregnancy experience with others, and the isolation needed because of COVID-19 made it feel as if she was going through the pregnancy alone, because this experience is something that is generally able to be shared. Overall,
COVID-19 has shown how difficult it can be for both pregnant women and women who have given birth during this pandemic, and the different complications that have resulted from the virus.

Complications Regarding Birth, Delivery, and Hospital Stays Resulting from COVID-19

Out of our six participants, four had given birth prior to their interview. This allowed us to gain insight into how the labor and delivery process, as well as the hospital stay after the delivery, changed due to COVID-19. One of the biggest changes was that women had to wear a mask during labor and delivery unless they had recently tested negative for COVID-19. One participant even had a rapid test for COVID-19 done during her delivery, which then allowed her to leave her mask off. Although this participant would have been compliant if she had to wear her mask during the entirety of her labor and delivery, she was extremely glad that she got to take her mask off since she was experiencing so much nausea. Another one of our participants noted that while she did not have to wear a mask during labor and delivery because she had been tested a few days before, her friend who had a baby during the pandemic had to wear her mask the entire time. One of our other participants had to keep her mask on throughout her labor and delivery. Participants also expressed that, due to COVID-19, they had limited hospital stays. One participant explained, “… with all our other ones we were there for at least two nights, maybe three, and with him it was 48 hours. You were in the hospital 48 hours total. He was just over a day old when we got discharged, because I was in labor for a longer amount of time.”

Each participant was allowed only one birth partner in the labor and delivery room, and their partner had to be masked the entire time. This rule of only one delivery partner caused a great deal of stress for one participant in particular. Her husband was at work when she went into labor, so she was first to go through the first few hours of her labor alone. Her husband went straight from his job to the hospital, and since you are not allowed to leave at all once you get to the hospital and no one is allowed to bring you anything, he was not able to take his medication. In addition to this, the participant explained that she was not able to leave the room during her labor at all. She stated, “…you weren’t allowed to leave your room, so you couldn’t walk up and down the halls like how have you heard that that’s like, you know, good for labor is like movement and everything. I couldn’t do that… and you couldn’t leave your room. And my room was like the size of a closet, and you couldn’t get out to get a snack or go down to the cafeteria, or anything, neither could my husband.”

Other participants expressed that their husbands were not allowed to leave the hospital room until the time came to leave and get the car seat from the car. This also meant that the husbands of the participants who had previously had children were unable to go home and take care of their children while their wives were in the hospital. This also caused complications in the other direction, with the participants’ children being unable to visit them and the new baby in the hospital. One participant expressed that this was rather difficult on her children, especially on her eldest daughter. She explained, “I know that might not seem like that much, but [eldest child’s name], especially because she had been through it two other times, she was so excited and telling [second child’s name] what it’s like, because [second child’s name] was so young with [third child’s name], and I was like, ‘Oh, sweetheart, there’s new rules, you can’t come,’ and she was really upset about that.”

While all of our participants’ deliveries went well, it was certainly a different experience because of COVID-19.
Positive Experiences Resulting from COVID-19

The findings of the research in regards to how women have been affected by COVID-19 show that almost every mother who was interviewed reported that because of stay-at-home advisories, they had an increased sense of family bonding. With the pandemic canceling events and closing businesses down, people tended to spend more time at home and surrounded by loved ones. This was comforting to the mothers interviewed. They were happy to not have to sacrifice moments with family members or feel the need to be rushing around and visiting their friends instead. One participant explained,

“I just really felt like I got to enjoy and kind of take in every moment of this pregnancy. Like I said, a lot of it was at home, and I was able, it was just my husband and my three kids and I... we got to slow down, and we got to, you know, that first kick, that first, we’re all, we were together, like, it was kind of like a really nice experience to say, like, we weren’t in like that every day really quick life. ... every milestone of this pregnancy we really enjoyed at home."

Mothers with older children were thankful that the pandemic brought them closer to their children, as well as their partners. By being home for such extended periods of time, couples were able to bond and remain a level of closeness, which one participant expressed by saying, “it’s been great, we’ve been able, my husband and I have been able to spend a lot of time together since March!” One participant was thankful that her husband was able to take care of her as she felt sick during her pregnancy.

Many workplaces were closed, resulting in people working from home during the peak of the pandemic. Participants in the study noted that this enabled them to get in ample amounts of rest. They also reported that by being home from work, the need or want to hide their pregnancy from coworkers and employers was lacking. They were free to be home and rest without worry of comments or judgement from the workplace. One participant was thankful that the pandemic eliminated people from “touching her belly” out in public. While the presence of COVID-19 made it so the participants had to attend prenatal appointments and ultrasound visits alone, one mother interviewed said it made her connection to her baby much more intimate.

Precautions Being Taken to Reduce Exposure to COVID-19

The study participants reported similar precautionary measures that they are taking or plan to take. These precautions included staying home from gatherings with extended family, avoiding crowds, and skipping nights out at restaurants. Other measures included only shopping at the grocery store when absolutely necessary. Participants have been online shopping or utilizing the high-risk shopping hours at retail locations. They disclosed that they try to keep necessities for their infants on hand, to lessen the number of times that they need to leave the house. Maintaining social-distancing protocols, as well as wearing a mask every time there was contact with people outside of their household, were other common precaution. Using hand-sanitizer, or “hanitizer,” as one participant’s child puts it, washing hands and being responsible were significant elements for participants.

Participants are planning to be vigilant with keeping visitors out of the home during this time, in addition to keeping social circles small, with only certain individuals invited over. There were participants who were planning to ask grandparents to only stay for brief time periods. Hesitation around who can hold the baby when visiting, or keeping visitors from coming over for the first few months of infancy was a common trend. One participant, who is due in January explained, “We’re going
was better equipped to deal with many things that the doctor would normally take care of, such as measuring how much weight the baby is gaining and checking the baby’s heartbeat. By having previous pregnancy experiences, this participant knew what to expect from her pregnancy in terms of weight gain and her baby’s movements, which are elements that are harder to gauge for first time mothers because they have never experienced them before.

On a similar note, one participant explained why she was grateful for her previous pregnancies based on stress related to pregnancy.

“I feel like someone who hasn’t had a baby, now they’re worried about what it’s going to be like to have a baby, and that unknown, and then they’re dealing with a pandemic. Where, with me, I’ve done this three times, like, I’m not worried about going into the hospital and giving birth to a baby, that’s fine... So, I think that for me it’s absolutely easier because it’s the only thing I have to worry about, not the only thing, of course there’s always things that could go wrong, but the only thing that I’m really focused on that’s causing any type of worry is the pandemic.”

Having experienced three pregnancies prior to the pandemic, this participant felt as if the only thing that she had to worry about was COVID-19, since she was prepared for all the other elements of pregnancy. However, first time mothers must worry about COVID-19 on top of all the standard pregnancy stress and anxiety, such as the labor and delivery process. This stress can certainly have a negative impact on both the expectant mother and the baby, which is one reason this participant was glad she only had one thing to worry about during this pregnancy.

Another participant expressed her gratitude for having had previous pregnancies by saying,

“I was thankful that I had already been pregnant before. I kind of knew what to expect. When I was pregnant...
with [eldest daughters name], obviously my first, we did the birthing class, the breastfeeding class, and those are classes that are ideally done in-person, hands on, and now moms, who are first time moms, have to do it virtually. I didn’t need to take any of those classes this time, and I was thankful that I didn’t have to. I feel like people are missing out.

This participant was able to explain how important hands-on classes are for mothers for the first time, especially when considering how daunting having a first child can be. Since she had already had two children, she knew what to do in terms of labor, birth, and breastfeeding. However, first time mothers are experiencing all these firsts during the era of COVID-19, which can significantly impact how they receive instruction and guidance related to birth and breastfeeding. While all three of these participants were thankful for having had previous pregnancies, their answers shed light on different difficulties that first-time mothers might face because of COVID-19.

Overall Findings

The five main themes that we identified can be connected in many ways. To better see and understand how each of these elements are connected, we have included a chart below to better display how all the themes relate to each other.

Discussion and Conclusion

While the experiences of each of our participants were unique, there were many common experiences and emotions displayed in all our interviews. The main findings of this research were that every participant found comfort within the pandemic creating time for familial bonding and an increased layer of support. All participants have been taking the severity of COVID-19 seriously and following essential health guidelines. The participants reported vigilantly adhering to recommendations on wearing a mask, keeping social circles small and physically distancing. In doing so, participants utilized online shopping services and took advantage of the high-risk shopping hours that some stores offer in
the morning before the store officially opens. Thankfully, at the time of these interviews, none of our participants had COVID-19 during or after their pregnancies, meaning that there were no fetal complications, such as blood clots in the placenta, because of the virus.

Another universal finding through our research was that participants had to go through many medical appointments alone, or had to conduct them over Zoom. Additionally, when giving birth, only their partner was allowed to be present. All the complications and difficulties caused by COVID-19 have the potential to be significant long-term sources of stress for participants, especially when it comes to researching the virus and what it can possibly do to their unborn child. This stress has the potential to negatively affect the fetus, which is one reason expectant mothers are focusing on keeping themselves calm and collected. Our participants also experienced added stress because they must not only plan ahead, but they must also be prepared for unknowns and complications stemming from the presence of COVID-19. Fortunately, our participants shared similar experiences in regards to positives about the pandemic and precautions that they planned to take or are currently taking. One of the largest finding in our research was how important extensive support from family and friends was for the participants.

There are limitations with every study, as is the case with this study. The biggest limitation was having to conduct much of our research virtually. It is often harder to connect with participants virtually, especially when interviews must be conducted over the phone, which keeps you from seeing the participant, their facial expressions, and what is going on around them. Another complication resulting from the need to conduct all the interviews virtually is that not everything the participants said was able to be documented due to complications with internet connections. When it comes to working with semi-structured interviews, there are both strengths and weaknesses. The strengths of using semi-structured interviewing were that each participant was able to give direct answers to almost every question asked to them through sharing their life experiences, thoughts, and opinions on everything that has been going on in their lives relating to COVID-19, and the potential impacts that it had on them during their pregnancies. One weakness that resulted from the semi-structured interview format was the length of the interviews. Mothers who are expecting, or who have recently had a baby have limited time, which resulted in some potential participants being unable to agree to an interview because they did not have enough time to participate.

There are several things that could be done to build upon this research. To begin, having a greater number of participants would certainly be beneficial. In addition to having a larger number of participants, it would be interesting to hear from people around the country that come from all diverse backgrounds, such as race, ethnicity, culture, religion, etc. By having both a larger and more diverse selection of participants, we would be able to attain a much better understanding of how this pandemic has affected expectant mothers from all areas and backgrounds. Another element that could certainly help us build upon this research is to interview more participants in all stages of pregnancy. For example, grouping interviews from women who gave birth in each month since the pandemic started, and doing the same things for women who became pregnant in each month since the pandemic. By grouping interviews like this, we would be able to see if there are any trends in the responses from women in each group, giving us a better understanding of how women in each stage of pregnancy view the pandemic. This will also give us the opportunity to see if the experiences of women in the same group are similar, or if they differ.
The significance of this research was to determine how the COVID-19 pandemic has affected pregnant women and women who have given birth during the pandemic. Our research found that the pandemic has affected these types of women in myriad ways, such as having to quit jobs to look after their children, isolating themselves for the safety of both themselves and their child, and having a rising sense of anxiety and stress. When it comes to working mothers, especially, having to handle all the complications caused by COVID-19 on top of working their “second shift” (as discussed in *A World Full of Women*), has resulted in many challenges. Having insight into the reasons behind this group of people living their lives in the era of COVID-19 is significant, because it is important to understand how COVID-19 has been affecting people in all different circumstances, including expectant mothers. The research that was conducted highlights the importance of the necessary steps that need to be taken to ensure that both the mother and the unborn baby maintain the best possible health, both physically and mentally. Mothers are at high risk, because COVID-19 would not only impact them if they became infected, but it has the potential to affect their unborn child, as well. It is with this in mind that this research was conducted, to understand the serious ramifications that COVID-19 has had, and will continue to have, on women experiencing pregnancy during this pandemic.

**Interview Guide**

We want to thank you once more for your voluntary participation in our study. The purpose of this study is to gain a greater comprehension of how women who were pregnant/are pregnant during the COVID-19 pandemic have had to adapt and overcome changes. This interview contains a series of questions open for your response that should take about 45 minutes to complete. Please feel free to pause the interview at any time, or to reject a question.

1. Has your daily routine (whatever that may be) been affected by COVID-19? If so, what changed/how does it differ?
2. How far along were you in your pregnancy when the COVID-19 pandemic began to shut things down? (beginning of March)
3. What has it been like for you to be pregnant during a global pandemic?
4. Have you been pregnant/ given birth before COVID-19? If so, how are the two situations different and/ or similar? *If the answer to this question is no, then questions 11 and 12 can be skipped.
5. How was your experience preparing to bring a child into the world during a pandemic? Have you felt the need to stock up on necessities such as dippers, formula, etc.?
6. Were you able to attend appointments with the pandemic going on? Did the shutdown affect your pregnancy in terms of doctor visits, or giving birth? (For example, were you able to have visitors in the hospital after giving birth?)
7. What are some of your concerns regarding having a baby during this time? Has the presence of COVID-19 resulted in any anxiety about your pregnancy?
8. Are there any specific precautions that you are taking to keep yourself and your future baby/infant safe? If so, what are they?
9. Do you have a support system (family, friends, services, etc.) that can step in and aid you if anyone in your house contracts COVID-19?

10. After giving birth, how are you planning to have supervision of your baby (or babies)?

11. If this was not your first pregnancy, did this preparation process differ? If so, how?

12. Did you feel like your prior pregnancy made having a pandemic pregnancy easier, since you have been through the process before?

13. Has COVID-19 impacted your feelings about becoming a parent at this time? If you were planning on becoming pregnant during 2020 before COVID-19 hit, did the beginning of quarantine sway your decision? Please explain.

14. Do you feel that being pregnant during the pandemic resulted in an extra layer of isolation? If so, do you think that this was a positive or negative experience?

15. What is one thing about being pregnant in a pandemic that people wouldn’t know about or consider?

16. Name one thing that you wish people knew about the experience of being pregnant in a pandemic. For example, what was your biggest take away from your experience?

17. Do you have any recommendations or advice for those who are considering having a child during this time, or those supporting someone who is considering having a child during this time?

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University of Zurich. (2017, May 29). Too much stress for the mother affects the baby through amniotic


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“Dat Ain’ No Oak Stump”: Landscapes, Ecocentrism, and the Legacy of White Supremacy in Chesnutt’s Conjure Tales

Ethan Child

In his recent New York Times article “Hidden in Plain Sight: The Ghosts of Segregation,” photojournalist Richard Frishman shares his collection of photographs that capture the physical remnants of segregation that still endure across America’s built environment. His photographs capture such structures as “Colored” entrances to theaters, “segregation walls” designed to separate Black patrons in restaurants, and faded signs advertising “all white” staff. One photograph depicts the remains of Bryant’s Grocery & Meat Market in Money, Mississippi, the site where Emmett Till was accused of whistling at a white woman, which would lead to him being kidnapped, tortured, and lynched at fourteen years of age. All that remains of the structure is a single crumbling brick wall, shrouded in layers of vines and thorns; a human-built structure, marked by the horrors of white supremacy, now fuses with the natural landscape. Frishman explains that he hopes his photographs will “heighten awareness, motivate action and spark an honest conversation about the legacy of racial injustice in America” (Frishman). Through his focus on “legacy,” Frishman recognizes these traces of segregation not merely as reminders of a painful history but as physical markers of the racial injustice that continues to shape our landscape, our present, and our future.

How should acknowledgement of the legacy of white supremacy inform our ways of thinking about our environment and our future? The paradigmatic conception of the current environmental crisis within the mainstream environmental discourse emphasizes the “newness” of the challenges we are facing; such a perspective maintains that the devastation of climate change is unparalleled by any preceding forms of devastation in human history, underscoring an urgent need for radical action. This perspective, however, also obscures the ways in which the environmental crisis is prefigured by other moral challenges from history, such as slavery. As humanity stands at the precipice of widespread destruction of life as we know it, we are faced with the options of either imagining entirely new ways of living or seeking guidance from existing traditions that have led humans through past struggles. This conflict in environmental thinking parallels the tensions that existed during the Reconstruction era, when white planters and opportunists rebuilt on the sites of plantations while the formerly enslaved people who had worked and cultivated those plantations reaped little to nothing from the “reconstructed” American landscape. Just as the rebuilding of the American landscape during the Reconstruction era ultimately reinforced white supremacy, contemporary environmentalist calls to reimage our lifestyles and worldviews threaten to erase the historical intersections of race and the natural environment if we do not challenge whose voices shape environmental thinking.

Charles W. Chesnutt offers an insightful account of the power dynamics between white people and formerly enslaved African Americans in the Reconstruction era South in his conjure tales, which were published in various periodicals in the late nineteenth century. In these stories, Chesnutt introduces the character Uncle Julius, who relays enslaved people’s intimate connection with the natural landscape. Frishman explains that he hopes his photographs will “heighten awareness, motivate action and spark an honest conversation about the legacy of racial injustice in America” (Frishman). Through his focus on “legacy,” Frishman recognizes these traces of segregation not merely as reminders of a painful history but as physical markers of the racial injustice that continues to shape our landscape, our present, and our future.

How should acknowledgement of the legacy of white supremacy inform our ways of thinking about our environment and our future? The paradigmatic conception of the current environmental crisis within the mainstream environmental discourse emphasizes the “newness” of the challenges we are facing; such a perspective maintains that the devastation of climate change is unparalleled by any preceding forms of devastation in human history, underscoring an urgent need for radical action. This perspective, however, also obscures the ways in which the environmental crisis is prefigured by other moral challenges from history, such as slavery. As humanity stands at the precipice of widespread destruction of life as we know it, we are faced with the options of either imagining entirely new ways of living or seeking guidance from existing traditions that have led humans through past struggles. This conflict in environmental thinking parallels the tensions that existed during the Reconstruction era, when white planters and opportunists rebuilt on the sites of plantations while the formerly enslaved people who had worked and cultivated those plantations reaped little to nothing from the “reconstructed” American landscape. Just as the rebuilding of the American landscape during the Reconstruction era ultimately reinforced white supremacy, contemporary environmentalist calls to reimage our lifestyles and worldviews threaten to erase the historical intersections of race and the natural environment if we do not challenge whose voices shape environmental thinking.

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the interconnectedness of race and environmental thinking and offers a critique of the ways in which white supremacy obstructs Black people from participating in environmental dialogue. His illustration of a formerly-enslaved character’s understanding of the environment anticipates the current need to foreground Black voices in environmental discourse.

While Chesnutt’s stories are relevant to this contemporary discourse, they cannot be removed from the historical context of the post-Reconstruction era. In his depiction of John’s procuring of land that was formerly a plantation, Chesnutt reflects on the politics of land ownership in the Reconstruction south. Questions of who had right to the land on former plantations were at the political forefront during Reconstruction, and many formerly enslaved African Americans saw land ownership as a priority. In 1865, the establishment of the Freedmen’s Bureau saw the glimmer of a legal path toward land redistribution that never came to fruition due to President Johnson’s Reconstruction policies of 1865 and 1866 that reinstated former Confederate planters’ ownership of abandoned and confiscated land (Painter 144). Henry Louis Gates, Jr. argues that Johnson sought to return the land to the white planters out of concern of the “fundamental transformation” that land redistribution “would cause in the structure of the economy in the South and in the relations between black and white” (31). According to Gates, Johnson did not want to disrupt white supremacist power structures that were tied to land ownership. Instead, Johnson’s policies reinforced a system that did not allow formerly enslaved people to own the land that they cultivated.

The conjure tales illustrate these Reconstruction policies’ impact on African Americans in the South. His depiction of Uncle Julius, a character who has no legal claim to the land with which he shares a personal history, and John, a white opportunist from the North with no knowledge of the history of the Southern landscape, illuminates the iniquity of the Union’s failure to appropriately redistribute the land on former plantations. But Chesnutt’s examination of hegemonic land ownership should not be contained to Reconstruction. Ellen Goldner situates Chesnutt’s conjure tales within a broader history of imperialism. She argues that Chesnutt “overlays the Northern capitalist’s venture on earlier acts of Western incursion as John, like his European predecessors who colonized Africa, travels over distance from North to South and appropriates for his profit the land and labor of the man with darker skin” (Goldner 41). Goldner suggests that John’s purchasing of the vineyard is not only an illustration of the injustices of Reconstruction-era land development but also an act foreshadowed by a history of colonization. According to Goldner’s reading, Chesnutt’s fiction functions both as a critique local to the Reconstruction South and a global, transhistorical exploration of the tensions that exist between the oppressed and the oppressor. It is this universal facet of Chesnutt’s fiction that offers insight into current environmental dialogue.

In order to recognize the relevance of Chesnutt’s stories in examination of diverging environmental approaches, it is first necessary to address the roles that race, and racism have in shaping how we think about the environment. In their article “Is Climate Change a New Kind of Problem? The Role of Theology and Imagination in Climate Ethics,” Forrest Clingerman and Kevin J. O’Brien examine the aforementioned divide in contemporary environmental discourse between those who frame climate change as an entirely unique and unprecedented challenge and those who emphasize the parallels and intersections between climate change and preceding systems of oppression and injustice. Clingerman and O’Brien argue that “those who stress the newness of climate change as a moral problem are emphasizing
of dialect, which distinguishes Uncle Julius as a Black character and emphasizes the social barriers between the Black and white characters in the stories.

The divides between these characters, however, are not limited to differing dialects. As an African American in the Reconstruction era, Uncle Julius possesses a set of cultural beliefs that set him apart from John and Annie. His apparent belief in “conjure”—a supernatural tradition based in African folklore—informs his understanding of the land he dwells on. In emphasizing Uncle Julius’s African American folk beliefs, Chesnutt presents an alternative perspective to John’s view of land ownership. Jeffrey Myers argues that Chesnutt, through the character of Uncle Julius, “envisions a way of inhabiting the South that is humanly and ecologically sustainable, an ecocentric way of viewing the self in the landscape that does not require mastery over nature or other people” (Myers 7). According to Myers, Chesnutt’s alternative to a mainstream white American view of the environment centers around the ways in which humans are interconnected with nature.

Chesnutt conveys this interconnectedness of humans and the natural environment in “The Goophered Grapevine,” in which an enslaved character, Henry, is “goophered” so that his physical health and appearance correlate with the growth of the scuppernong vines on the plantation. Uncle Julius explains that, when a “Yankee” came to the plantation to “l’arn de w’ite folks how to raise grapes en make wine” and “dug too close under de roots” of the vines, both the vines and Henry died, leaving the master without his vineyard and without Henry’s labor (Chesnutt 12–13). Embedded within Uncle Julius’s conjure tale is an understanding of the need to tend both to human and non-human life in order to sustain the environment. The interconnectedness of Henry’s health and the health of the scuppernong vines serves as a symbolic reminder of plantation masters’ simultaneous decimation of both land

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The need to reimagine fundamental questions of meaning and truth in the Anthropocene, while those who relate climate change to previous moral challenges are seeking to draw more strength from existing and longstanding traditions” (2). While Clingerman and O’Brien recognize how emphasizing the “newness” of climate change might obscure the “strength” that can be found in pre-existing traditions, it is important also to note how such framing of climate change as a “new” problem diminishes the ways in which environmental degradation intersects with white supremacy. For example, in Learning to Die in the Anthropocene, Roy Scranton calls for decidedly new ways of thinking about the environmental crisis when he writes, “Over and against capitalism, we will need a new way of thinking our collective existence. We need a new vision of who ‘we’ are” (19). But who is the “we” that Scranton refers to? Scranton makes the case that people within a specific economic system and a specific culture need to embrace new ways of thinking in the face of climate change, but he fails to address those who are outside of these systems, including those who already suffer at the hands of these systems.

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and enslaved people. After sharing this story with John and Annie, Uncle Julius, in response to Annie’s skepticism, explains, “I ain’ skeered ter eat de grapes, ‘caze I knows de old vines fum de noo ones; but wid strangers dey ain’ no tellin’ w’at mought happen” (13). Uncle Julius’s assertion of his ability to distinguish between the old and new vines underscores the depth of his knowledge of the land and its history—a knowledge that John and Annie, the white Northerners, do not possess.

Chesnutt highlights John’s apparent inability to grasp the symbolic morals and warnings of Uncle Julius’s stories, further placing Uncle Julius’s environmental perspectives outside of white ontologies. At the end of “The Goophered Grapevine,” John explains that he ultimately purchased the vineyard and, gloating about its “thriving condition,” notes that it “is often referred to by the local press as a striking illustration of the opportunities open to Northern capital in the development of Southern industries” (13). John, ironically, fails to recognize how his success in these enterprises is built on the work of the enslaved people that Uncle Julius describes. Examining John and Julius’s fundamentally different relationships with the history of the land, Edward Clough argues, “In the contrasting figures of John and Julius, the white Northern desire to contain and bury the past sites is constantly opposed by a black Southern understanding of the past as an enduring and pervasive part of the present landscape” (89). Chesnutt conveys this sense of the past being “part of the present landscape” through Uncle Julius’s folkloric beliefs that aspects of the landscape carry curse from the era of slavery. For example, in “The Gray Wolf’s Ha’nt,” Uncle Julius attempts to sway John from purchasing a track of land by the swamp, claiming that “bad luck w’at follers folks w’at ‘sturbs dat trac’ er lan’” (Chesnutt 81). Despite Uncle Julius’s story of how the patch of land is the site of a haunted grave, John ultimately clears the land and concludes, “I cannot say, of course, that someone had not been buried there; but if so, the hand of time had long since removed any evidence of the fact” (89–90). John’s perspective of time “removing” the evidence of Uncle Julius’s stories encapsulates the ways in which white landowners’ reclaiming of the landscape erases the history of the land, in contrast with formerly enslaved people’s recognition of the permanent legacy of slavery.

Clough distinguishes between these perspectives of the landscape by coining the terms “postslavery” and “postplantation.” He explains, “Where a postslavery plantation describes a landscape which bears visible traces of its history, a postplantation landscape would be one in which the plantation’s structures have passed beyond recognition. Where postslavery relates to ruins, postplantation relates to the politics and practices of clearing” (Clough 90). Applying these terms to the “conjure stories,” it is evident that Uncle Julius holds a postslavery perspective of the landscape while John engages in a postplantation erasure of that landscape. Chesnutt offers perhaps the clearest juxtaposition of these perspectives in “The Marked Tree.” Julius’s knowledge of the history of the Spencer family’s up as tree causes him to recognize the stump of the tree—its symbolic “ruins”—as an enduring remnant of a sinister legacy, much like Frishman’s photographs of the remnants of segregation. When he urges John not to sit on the stump, John observes, “I don’t see anything dangerous about the stump” (Chesnutt 133). Here, John epitomizes a postplantation view of the landscape in that he does not “see” or recognize the legacy of slavery. When Julius replies, “Dat ain’ no oak stump” (133), he does not merely correct John regarding the type of tree to which the stump belongs but also implies that the stump holds greater meaning beyond its physical appearance. When John later clears the land, he takes care to have “the stump of the Spencer oak extracted” (144), physically erasing the legacy of slavery and realizing his desire for a postplantation landscape.
unjust punishment, comes to believe that he is not a human but a ham and, ultimately, kills himself in a smokehouse. Julius describes how “right ober de fier, hangin’ fum one er de rafters, wuz Dave; dey wuz a rope roun’ his neck” (41). Here, Chesnutt evokes both the image of animal meat cooking in a smokehouse and the image of a lynching, with his emphasis of the hanging and burning of Dave’s body. This image has historical resonance given the surge of white supremacist violence during the Reconstruction and post-Reconstruction eras, when, in the eyes of many white Americans, Black people’s lives lost their value as property (Painter 151). Chesnutt’s description of Dave’s body calls to mind the horrors of slavery and the subsequent enduring horrors of white supremacist violence. In linking these images, Chesnutt illustrates how the agricultural slaughter of animals, slavery, and the lynching of African Americans are all products of human domination, over either other species or each other.

Chesnutt further underscores the distinctive connection between enslaved people and the natural environment through the supernatural elements of “The Conjurer’s Revenge,” in which Julius describes how an enslaved man named Primus was once transformed into a mule. Julius’s supposed belief in this story shapes how he perceives mules, as he explains, “I doan lack ter dribe a mule. I’s alluz afeared I mought be imposin’ on some human creetur; eve’y time I cuts a mule wid a hick’ry, ’pears ter me mos’ lackly I’s cuttin’ some er my own relations, er somebody e’se w’at can’t he’p deyse’ves” (Chesnutt 24). Julius expresses an inclination for the ethical treatment of mules that is rooted in a sense of empathy for the animal. His description of the mule as one of his “own relations” resonates with the historical, symbolic association between the mule and slavery. American agriculture exploited enslaved African Americans in the same way that it exploited mules as a resource. Chesnutt evokes this racist comparison by depicting an enslaved
man’s transformation into a mule. By highlighting Julius’s empathy for mules, Chesnutt reveals how enslaved people’s connection with animals reshapes their environmental ethics.

John misunderstands Julius’s relationship with animals. In “Mars Jeems’s Nightmare,” while describing Julius’s helpfulness in maintaining his newly acquired land, John observes that Julius “was a marvelous hand in the management of horses and dogs, with whose mental processes he manifested a greater familiarity than mere use would seem to account for, though it was doubtless due to the simplicity of a life that had kept him close to nature” (Chesnutt 90). Instead of valuing Julius’s ecocentric perspective that is informed by his empathy with non-humans, John reduces Julius’s relationship with the animals to a mere “simplicity.” Myers argues that, in making such judgments of Julius, John “dismisses as ‘primitive’ a lifetime of knowledge gained in a particular landscape from a native cultural point of view” (8). According to Myers’s reading of the conjure tales, Julius, with his “lifetime of knowledge” as a formerly enslaved person, offers environmental insight that white people would learn from. John, however, embodies the ways in which white supremacy prevents such a dialogue from taking place across races.

Similar silencing of Black voices occurs in contemporary discussions of climate change, as calls for a *sui generis* approach to rethinking the human-environment relationship dismiss the solutions that might already be found among non-dominant and oppressed peoples. According to Clingerman and O’Brien, characterizing, or not characterizing, climate change as a new problem impact “how we understand it, its workable solutions, and what it means for human self-understanding” (6). How we conceptualize the environmental crisis, then, plays a significant role in determining whose voices we turn to when seeking solutions for a more sustainable future. Cone poses the question, “Do we have any reason to believe that the culture most responsible for the ecological crisis will also provide the moral and intellectual resources for the earth’s liberation?” (43). In challenging white culture’s competency for solving environmental issues, Cone shifts focus on Black voices that offer valuable perspectives of the human-environment relationship. Yet, despite the value of their perspectives, Black people have, according to Cone, been excluded from the mainstream environmental movement. Cone attributes this exclusion to a widespread failure to recognize the interrelatedness of racial justice and environmental protection; he notes that prominent leaders in the environmental movement “are mostly middle- and upper-class whites who are unprepared culturally and intellectually to dialogue with angry blacks” while African-American leaders in the racial justice movement “are leery of talking about anything with whites that will distract from the menacing reality of racism” (37). Cone makes the compelling point that both groups need to re-envision their separate movements as a shared fight for justice and quality of life for humankind and otherkin.

Cone is careful, however, not to suggest that these separate communities—the African American community fighting for racial justice and the largely white mainstream environmentalist community—are equally responsible for the division between the racial-justice and environmental movements; rather, he demonstrates how the mainstream environmental movement has silenced Black voices. Cone argues that, within the mainstream environmental discourse, “people of color are not treated seriously, that is, as if they have something *essential* to contribute to the conversation” (42). Even though people of color have a significant stake in environmental reform, as they, like the natural environment, have struggled to surmount human domination driven by white supremacy, mainstream environmental discourse does not recognize a space for
ever set his soul aglow with a generous fire; whether he had more than the most elementary ideas of love, friendship, patriotism, religion, —things which are half, and the better half, of life to us; whether he even realized, except in a vague, uncertain way, his own degradation, I do not know” (34). Here, John discredits Julius’s ability to understand even his own struggle and, thereby, undermines Julius’s insights as a formerly enslaved African American; in other words, he maintains white supremacy. By examining how white supremacy obstructs the environmental understanding that Julius might otherwise convey to John, Chesnutt anticipates the more recent silencing of Black voices in the environmental movement.

Chesnutt effectively demonstrates a need to acknowledge and uplift the unique and essential contributions that Black voices offer to discussions of the environmental crisis. While white environmentalists might well have some “reimagining” or “rethinking” to do, the path toward a more sustainable future should not be framed as something “new” for white people to discover, as such a perspective erases the ecocentric lifestyles that have long been embraced by marginalized people who have been silenced by white supremacy. Turning to Chesnutt’s conjure tales in contemporary discussions of the need to elevate Black voices in the environmental justice movement is a powerful way to demonstrate the rich history of Black people’s intimate understandings of and connections with the environment. Moreover, Chesnutt illustrates a landscape that is permanently marked by white supremacy, just as Frishman photographs a built environment that is haunted by the “ghosts” of white supremacy. Recognizing these racist legacies that shape our past and present is an essential step in imagining a better future.

Black voices. The silencing of these voices, of course, only serves to further promote environmental injustice and advance white supremacy. If the environmental movement only reflects the concerns of a white elite, then it fails to protect all the earth and its inhabitants. Cone challenges the white-centric environmental movement, asking, “How can we create a genuinely mutual ecological dialogue between whites and people of color if one party acts as if they have all the power and knowledge?” (42). Here, Cone asserts a need to reexamine how Black voices are invited in the broader environmental discourse.

The conjure tales offer some insight into the ways in which contemporary environmental discourse might be reframed to uplift, rather than silence, Black voices and perspectives. By framing Uncle Julius’s stories within John’s white perspective, Chesnutt illustrates how African American understandings of nature challenge white hegemony and critiques how white supremacy undermines the productive dialogue that might otherwise occur across races in regard to the environment. As he reveals Julius’s understandings of the natural environment, Chesnutt also presents how John and Annie grapple with these stories, suggesting the ways in which Black experiences and insights might reshape white-centric perspectives. John observes that Julius’s “way of looking at the past seemed very strange to us; his view of certain sides of life was essentially different from ours” (33). John’s evaluation of Julius’s “way of looking at the past” falls short of Cone’s call for white people to recognize the essential insights of African Americans in environmental discourse but still allows that Julius offers a perspective that is, if nothing else, different.

It is through John’s interaction with this unique perspective, however, that Chesnutt criticizes white people’s disregard for the Black intellect. John, observing Julius, contemplates, “Whether the sacred name of liberty ever set his soul aglow with a generous fire; whether he had more than the most elementary ideas of love, friendship, patriotism, religion, —things which are half, and the better half, of life to us; whether he even realized, except in a vague, uncertain way, his own degradation, I do not know” (34). Here, John discredits Julius’s ability to understand even his own struggle and, thereby, undermines Julius’s insights as a formerly enslaved African American; in other words, he maintains white supremacy. By examining how white supremacy obstructs the environmental understanding that Julius might otherwise convey to John, Chesnutt anticipates the more recent silencing of Black voices in the environmental movement.

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Works Cited


About the Author

**Ethan Child** is a 2021 graduating senior majoring in English and Secondary Education. His paper was completed under the mentorship of **Dr. John Kucich** (English) as part of his fall 2020 senior seminar. Ethan is a proud member of the Commonwealth Honors Program and Sigma Tau Delta, the International English Honor Society. Upon graduating, Ethan plans to pursue a career in teaching high school English.
Health Experiences in the LGBTQ+ Community: An Ethnographic Analysis with Recommendations

Tyler Davis

Abstract

This article aims to share and raise awareness of LGBTQ+ realities in healthcare. It explores the reality of discrimination and disparities in healthcare faced by LGBTQ+ people and recommendations to work towards a system that recognizes the unique challenges and circumstances LGBTQ+ people face that are influenced by social and environmental factors. This article uses Amartya Sen’s Capability Approach (1979), as well as Martha Nussbaum’s revisions to that approach (2011), and Urie Bronfenbrenner’s Ecological Systems Theory (1979) to analyze the experiences of participants who are LGBTQ and healthcare professionals. This article also uses Glynos and Howarth’s model of practices and regimes (2008) and Kimberle Crenshaw’s intersectional theory (1989). Lastly, this article offers recommendations suggested by interviewees and informed by research.

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Introduction

Healthcare is vital to all of us yet so many people suffer under a system that historically has not accounted for the lived experiences of marginalized people and communities. This article aims to explore experiences in healthcare and elevate voices within the LGBTQ+ community that often go unheard. I will also share the perspectives of professionals in healthcare who advocate for more training, representation, and interventions. By the end, I hope to demonstrate how vital it is that we address and understand how LGBTQ+ people navigate healthcare.

The framework for this study draws from Urie Bronfenbrenner’s Ecological Systems Theory, which recognizes environmental and social factors that affect every aspect of a person’s life. This framework, when applied to LGBTQ+ health disparities reveals the various barriers on a multitude of societal and environmental levels affecting LGBTQ+ people’s ability/ inability to receive proper care and meet their needs. The wider cultural context of stigma and discrimination, based on the values and beliefs of the culture at the macrosystem level, impacts individual health care experiences, whereby individual needs may not be met. Stigma and discrimination co-exist with changes in the chronosystem—societal changes in attitudes over time (Aleshire 2019 173-174). I have also drawn from Amartya Sen’s Capability approach (1979) and Martha Nussbaum’s Partial Capability Theory of Justice (2011) as moral frameworks that determine an individual’s capacity and freedom to choose between systems of value to affect well-being. These choices are dependent on social systemic factors outside of the individual’s control. Similarly, the Ecological Systems theory, when applied to this study, proposes that the capability of LGBTQ+ people to meet their needs and achieve well-being is impacted by and dependent on their positionality or social location within a social system, dependent on a wide array of conditions and factors outside of their control such as sociocultural race, nationality, and sexuality. The idea of “capability” is tied to freedom: ideally, persons should
be able to achieve their well-being without any barriers or obstacles (Nussbaum 2007). However, barriers and obstacles exist. Thus, through these approaches, we can identify disparities and diversity in how peoples’ needs are met based on their identities and positionalities in the socio-cultural sphere. Also important to this study is Glynos and Howarth’s model (2008) of Practices and Regimes, Critical Theory, and Queer and Intersectional Feminist Theory (Crenshaw 1989), shaping recommended interventions. Intersectionality played an important role in my research: I was able to observe identities defined by age, class, race, gender, and sexuality interconnecting with the social, environmental, and cultural systems at play to inform the ways people have access to healthcare and the experiences that they have had. In the following pages, I will outline my ethnographic research methodology, expand upon the theoretical models above, and share the results of my findings, leading to my conclusions and recommendations.

Research Methodology

Using ethnographic analysis, I sought to not only gain an understanding of the people immersed in and affected by challenges to healthcare but to also share and expose realities that may not be known to the wider community and to push for change through sharing testimonies of experience. I hope to raise awareness of LGBTQ+ healthcare issues, the voices of the people it affects, and how we can overcome healthcare discrimination based on sexuality and gender diversity. I spent the spring semester, 2021 as part of an independent research course, designing and conducting semi-structured interviews drawing from a list of questions informed by preliminary research and personal experience with the topic as a queer person. First I focused specifically on people who identified themselves as members of the LGBTQ+ community, aiming to gain a deeper understanding of the ways individuals access and navigate healthcare and how parts of their identities intersect to determine and shape their overall experiences with the systems available to them. The second sample involved interviewing professionals in healthcare and gaining insight into interventions being made to provide culturally competent care to LGBTQ+ people, sensitivity training, and how factors such as a shift in the U.S. presidential administrations impact the practices of these professionals. These interviews used purposive sampling and were conducted online via Zoom webcam.

In the two months I spent conducting interviews for this project, I connected with fellow peers, friends, former students, and members of the community. This study was conducted during the height of the coronavirus pandemic, which I believe negatively impacted the sample size. The pandemic is also the reason most of the interviews took place virtually via Zoom. While they went well, and participants were conversational and open about their experiences, I found that the few in-person interviews I conducted were much more insightful and I was able to connect more with the participants. I am grateful to everyone willing to confide in me and share their testimonies, opinions, and suggestions for the future about a topic that can be difficult and personal. I greatly appreciate their willingness to share their feelings so openly and honestly with me. All suffer in a healthcare system that doesn’t account for the specific needs of patients whose identities impact the way they experience life. I hope that by sharing these perspectives and this data further understanding and intervention can be cultivated in healthcare to be more accommodating to LGBTQ+ people. It is also important to keep in mind that LGBTQ+ is a homogenizing term that does not take into account the distinction between sexuality and gender and the unique circumstances that trans and gender non-conforming people face in healthcare.
This project was so important to me as a queer person who has had negative experiences in healthcare settings involving heterosexism and homophobia. I do not talk often about these experiences and have had a hard time opening up about them. To be able to listen to other people in my community share their own experiences made me feel like I was not facing these obstacles on my own. Since my own standpoint as a queer person was critical in conceiving, designing, conducting, and writing about this research, it falls under the purview of *Native ethnography*, a term that refers to being part of the group you are studying. I believe my self-identification was extremely valuable in conducting interviews. I felt that I was able to connect with participants, since being a member of the group allowed me to relate more to the circumstances that participants faced and hopefully made them feel more willing to share. Certain interviews I conducted involved a lot of venting and letting out pent-up anger and frustration around this system that to me felt cathartic to hear and participate in. Talking to the professionals also gave me a sense of closure and dispelled some of my mistrust from my negative experiences. My sample of LGBTQ+ individuals consisted of seven people gathered through both purposive and snowball sampling. I interviewed participants across the LGBTQ+ spectrum, including queer, gay, bisexual, pansexual, transgender and gender questioning participants.

**Findings from the Interviews**

*LGBTQ+ participants*

In this section, I share the questions I asked and selections of the findings so readers can learn directly from the LGBTQ+ sample. I close the section by summarizing the insights and recommendations. All interviews were conducted between the following dates: April 7th – June 23rd. The first question I asked was split into two parts, the first being: “How do you describe your identity among the following categories?” with gender, race, sexuality, age, class, and any other important part of their identity. The second part of this question was, “Do you feel that parts of your identity intersect when it comes to how you interact with the world and are perceived in specific spaces? If yes, how and in what spaces?” Through these questions, I aimed to better understand how the unique identities of the participants informed their experiences. This sample contained people who were upper-middle class, upper class, middle class, and lower-middle class. Some experiences that stood out to me were Participant A, who said: “trauma is a part of my identity, and it can’t escape me without addressing it.” Participant D brought up his experience being perceived as Black in all spaces he is in and the preconceived notions that different victims of racialization experience from others. Also expressed was the experience of being perceived as queer sometimes based on clothing. Participant B said he felt fortunate to choose how he is perceived and gave the example of choosing to wear nail polish or not and how that changes the way he is perceived in certain spaces.

In the next two questions, I asked participants to explain their overall experience with healthcare in terms of their identity and whether they thought the healthcare system met their needs. I asked them to share any experiences of unprofessionalism or discrimination received from health professionals. A common pattern that participants observed was avoidance of seeking health care, either because of a negative experience in the past or their inability to afford the care they needed. Apprehension or struggle around the act of getting help for sexual health needs was also a common trend. Participant F spoke about their experiences in the following way:

> I had doctors who didn’t consider I was having gay sex. They would ignore and discourage it rather than provide resources and services to
I’ve had experiences with doctors who were not informed about HIV, who used HIV and AIDS interchangeably… I had a doctor who told me that HIV could be spread through kissing… This all leads to self-diagnosing and ignoring my health concerns.

Participant A described her experience as feeling, “…like an animal going through an assembly line… I feel like we’re just meant to fend for ourselves but then going to seek help usually backfires… I just felt like they didn’t know how to help me because they didn’t know what I was talking about or experienced… they can try but it just kinda went nowhere but dead silence when I would say things that almost made them uncomfortable. ”

A more positive experience was recounted by Participant D, who compared his experiences now, having a gay physician of color, to his college physician who had no knowledge of antiretroviral drugs like PrEP. This participant’s new doctor instead initiated a conversation about PrEP and gave him a detailed questionnaire. Participant G mentioned going to Planned Parenthood and Urgent Care when there is something seriously wrong as opposed to a primary care physician, as well as the difficulty of finding one during the Covid pandemic. Planned Parenthood was, overall, very helpful; however, when he was trying to get access to PrEP, the nurse practitioner canceled via no-call no-show on three different occasions. Lastly, participant C spoke about how stigma acted as a barrier for her to have access to birth control despite needing it to manage PCOS symptoms.

In the fourth question, I asked participants to describe some feelings that came to mind when they thought of the American healthcare system. Their responses included: “overpriced,” “designed to let people suffer,” “for profit system,” and “a guessing game”. Participant C brought up intense feelings of financial guilt when seeking treatment for sicknesses at a hospital due to lower-class status, despite that status being out of her control. She also mentioned a lack of sexual education and conversations around understanding sexuality in her overall experience with healthcare providers and how much those resources would have been helpful growing up. Participant D raised attention to the systemic issue of inequalities attributed to pregnant women’s mortality, and the racial disparities especially affecting Black and Indigenous Women disproportionately. Participant D shared his experience growing up and being taught by his Black elders that he would have to really push for the kind of care he needs when it comes to health. Participant G explained about the healthcare system:

It seems like the idea of Obamacare is subsidized healthcare for all, but there’s weird profiting of the pharmaceutical companies, insurance companies, and the administrative bureaus managing… a captive marketplace. A lot is skimmed off the top by private bodies and it inflates money we have to pay into it… we need a better system but how do you do that?

The fifth question I asked was how participants would rank their level of satisfaction with American healthcare’s ability to meet their needs on a Likert scale of 1-10. The most common numbers were six and eight, the lowest number was two. Participant A chose the number two and explained that while better than other countries “it’s really not about anything other than money, if you have unlimited money than you get better care and that’s just not the way it should work”. Participant F, who chose six says that they have had better experiences lately but its problematic because having bad experiences sets up mental barriers that limit their pursuit of healthcare. Participant D
chose nine because of the positive experiences he has had having a gay physician of color.

The final question posed to the participants asked what solutions they think would make LGBTQ+ people feel safe, comfortable, recognized, and validated in healthcare. Across the board the first response was more LGBTQ+ people in healthcare and more queer affirming doctors. The second shared response was overall more mandatory training and education around treating and meeting the needs of LGBTQ+ people. Participant C said “I wouldn’t even think of seeking a therapist unless they were queer or a person of color, like someone who can have other perspectives. I definitely wouldn’t feel comfortable talking to a hetero cis man or even woman.” Participant F recommended valuing people and their lived experiences over training because it is better to have someone with a perspective from the social location of queerness. They also felt training could not be created by straight people. Lastly participant G recommended more firms that are LGBTQ+ oriented and not just free clinics like Planned Parenthood, stating that there is not enough long-term care for a lot of people who need it. These interviews show, through an array of LGBTQ+ voices, the realities we face in accessing healthcare and the various system-wide barriers that have affected and continue to affect our capability to access the care we need. Social stigma, affordability, heterosexism, miseducation, sexism, lack of adequate resources, racism, and other socio-cultural factors act as barriers to LGBTQ+ getting competent care.

The idea of intersectionality was crucial to this study as evidenced by the ways the interconnectedness of each participant’s identity informed how they navigated healthcare and their opinions on it. The complex multidimensional nature of participant identities represents the diversity of the LGBTQ+ community and recognizes that for care to be competent, it must consider these intersections and provide care that is catered to a patient’s unique lived circumstances. Also, multiple oppressions complicate experiences but also have the solutions to correct them: participant D, a Black queer participant, was able to navigate questions of race and sexuality with his Latinx gay healthcare professional, for example. He was able to choose this doctor specifically and felt that living in NYC made it easier to find access to queer doctors. He also shared that there are many free and low-cost options like Housing Works that provide public health to queer people specifically. This was insightful and made me realize the role that one’s physical location can play in their pursuit of care on top of social positionality.

Sen uses the term “development” in his capability approach to define “an increase in the freedom that citizens have to choose among preferred development options. These preferences may range from development priorities to cultural values preferences to individual identity options or various sustainability efforts” (Jacobson 112). Looking at this study through Sen’s capabilities approach lens, the specific development would refer to the capability of these participants to receive the healthcare that they seek.

Martha Nussbaum, building on Sen, created a list of ten central human capabilities. Her approach aims to recognize and outline a pathway to realize universal human rights. I would like to focus on the second part of her seventh capability: “Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, and national origin” (Nussbaum 2006).

Many people in the U.S. healthcare system are not capable of accessing the care they need without facing humiliation or discrimination, and it leads to their inability to achieve what the function of the system should be, namely, having
Participant A shared:

"It’s safe to say trans people tend to spend a lot of time seeking out proper healthcare and have no other choice but to get involved in the system since we need it to live. It’s a gut wrenching feeling to know I have to somehow obtain my medication for the rest of my life regardless of if the world is burning down or society collapses. I am very scared to go down the path of relying on a doctor that I have very little information on; I have to trust them to provide me the care I need and always have the access to it."

This fear and uncertainty are experienced strikingly by those at the intersections of race and gender. The effects of the economic and social marginalization experienced by trans people of color is documented in the 2015 U.S. Transgender Survey: Report on the Experiences of American Indian and Alaska Native Respondents, 50% of American Indian and Alaska Native respondents who saw a health care provider in the past year reported having at least one negative experience related to being transgender, such as being refused treatment, being verbally harassed, being physically or sexually assaulted, or having to teach the provider about transgender people in order to get appropriate care, compared to 33% in the USTS sample overall. (James 3)

American Indian and Alaska Native respondents also had higher rates of unemployment, homelessness, sexual assault, HIV, and psychological distress based on their identity. This is just one example of how drastically and deeply social and economic barriers, stigma, racism, and transphobia affect the way trans people of color experience inequality. The second part of this study, interviewing healthcare professionals, aims to offer additional
insight into this topic from the medical world and two professionals’ efforts to make changes and interventions that seek to provide care that is truly culturally competent to LGBTQ+ patients.

**Insights from Professionals**

While my sample of two professionals interviewed for this study is small, these professionals operate in a medical center of a busy northeast city and are directly involved in health equity work. The doctors who took part are involved in a health program that aims to provide competent, non-judgmental, and empathetic care to LGBTQ+ patients. For these interviews, conducted between April 14th-29th, I created a new series of questions aiming to gain a deeper understanding of how LGBTQ+ health disparities are being challenged at the forefront of healthcare by dedicated professionals. I also sought to explore how underlying stigma has acted as a barrier for LGBTQ+ health historically. The first question I asked was how important they thought it was to the health and wellbeing of LGBTQ+ people that their identities and unique circumstances are affirmed and recognized in healthcare and to explain why. Both responded with ten out of ten on the scale. Dr. A responded, “it is so crucial because identity informs life circumstances, how to treat patients, and what to treat them with.” Dr. B stated the importance of respecting patient identity and maintaining a relationship that is open and bidirectional. Dr. B also pointed out the necessity for understanding the full spectrum of identity, as well as acknowledging mistrust as a factor with LGBTQ+ patients due to past experiences and social stigma. Next, I was curious to know what kind of training and interventions were being implemented to mitigate bias, heterosexism, and transphobia in their fields. Dr. A’s response to the question was: “Not enough!” Her hospital division is striving to add a Sexual Orientation Gender Identity (SOGI) field into the electronic record.

While medical school training recognizes how important compassion is for providers, Dr. A stated that it probably does not do enough direct or mandatory training. Dr. B stated that most medical schools are teaching something in LGBTQ care, but this is highly variable, and the average time dedicated to this topic is only a minimum of four hours.

Since we have seen drastic changes with the shift in presidential administrations from the Trump era to Biden’s presidency, I wanted to learn how these shifts in the larger macrosystem directly and indirectly, affect these two professionals in their areas of care. Dr. A stated: “Immensely. Trump dictated that we couldn’t do anti-bias training and it really limited what we were able to do.” Executive orders under the Trump administration had a direct and harmful impact on how difficult it was for transgender people, and especially Black trans people, to access healthcare needs that extended beyond those seeking gender transition, it affected their ability to access medical help for other issues like sickness or underlying medical conditions during a pandemic. Although in general, these executive orders have not had such an impact, with Trump they did, and it revealed just how fragile and easily lost the rights we have are in this system. Dr. B brought up the Affordable Care Act, and how an administration that improves upon it will improve care and proportionately help LGBTQ people who often lack insurance. Dr. B compared the Affordable Care Act to the Trump administration that, in contrast, was enacting discrimination, “allowing if not even directly advocating for it.” This exemplifies how easily these systems can use their power to restrict, discriminate, and create barriers for LGBTQ+ accessibility to competent and respectful healthcare. Under Trump’s administration, an active effort was made to remove nondiscrimination laws that protected against discrimination based on sexuality or gender identity by the Department of Health and Human Services (HHS).
Under this rule doctors could refuse and deny caring for a transgender patient using religious or moral beliefs as an excuse. Roger Severino, who acted as the director of the Office of Civil Rights at the United States Department of Health and Human Services (HHS), gave a hollow and ignorant response that validates the way many LGBTQ+ participants feel about American Healthcare.

Dr. A stated, “it is all dependent on whether they are accepting, helpful if they have policies and language that affirm LGBTQ+ people...bathrooms and helpful forms as well.” She also described how even though she is not comfortable conducting hormone replacement because she wasn’t trained to, she ensures there is someone in that environment who is. “There are not enough doctors who are good with it.” This was insightful for me in understanding the scope of experience and confidence needed for doctors to feel comfortable in carrying out these complex procedures but also the need for more training and awareness in these areas. Despite Dr. A not being trained, she always makes sure someone can perform this process to accommodate transitioning patients.

My last question asked how these professionals have been trained to provide care for LGBTQ+ individuals throughout their careers, and if there have been times in their education that these topics were regarded differently. Dr. A recounted her days of training in the 1980s during the HIV/AIDS epidemic in a hospital ward. This setting was heavy and somber, but it taught an understanding of the sensitivity required for LGBTQ+ issues. “Antiretrovirals changed everything”, and because of them her ward was no longer needed for patients with HIV and instead became

To understand how a doctor can affect individual patient realities, my next question asked, how much of a role do practitioners have in shaping individual patient’s wellbeing. through what they choose to reinforce. Dr. B’s response was that,

*It’s hard to say. An individual-dependent physician who is affirming can have a profound influence on validating patients. A physician who does not will make it very difficult to live fully. Depending on how comfortable the patient is with this physician they could even push them back into the closet.

This all depends on the individual person and how much it will affect their ability to live fully and openly.

Dr. A said at the time, ‘We’re going back to the plain meaning of those terms, which is based on biological sex.’ He also said the rule could save hospitals and insurers and others $2.9 billion over five years since they will be relieved of the requirement to print notices of nondiscrimination in several languages and include them with any ‘significant’ mailings (Simmons-Duffinhttps://www.npr.org/sections/health-shots/2020/06/12/868073068/transgender-health-protections-reversed-by-trump-administration).

This is a response that focuses solely on financial gain and completely disregards the impact this will have on human lives and the well-being of people who are marginalized in healthcare. Luckily these withdrawals have since been reversed in the Biden administration, and LGBTQ+ people legally have the right to not be discriminated against medically because of their sexual orientation or gender. This also means that the HHS will investigate cases of discrimination and providers can face sanctions if this law is violated (US reverses Trump policy, restores LGBTQ healthcare protections https://www.aljazeera.com/news/2021/5/10/us-reverses-trump-policy-restores-lgbtq-healthcare-protections). It is a relief that these protections have been restored; however, it is also terrifying and disheartening knowing how quickly they can be taken away.

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fact that changing societal values can have such power over LGBTQ+ peoples’ capability to access healthcare reveals a serious problem, and underscores how capabilities are either limited by or enhanced by those values. The fight for recognition, respect and validation for LGBTQ+ people in healthcare must continue, and our right to have access to the care we need must be secured. Interventions must be made that go beyond solely the individual and must impact the larger systems of our socio-cultural environment that reinforce discrimination and social stigma around LGBTQ+ people. Recommended are more LGBTQ+ and queer affirming doctors, more sensitivity training and education of LGBTQ+ issues, more funding for programs designed to help LGBTQ+ people, and more affordable care. The Capability Approach also affirms that it is our human right to have access to this care. Nussbaum advises: “The Capability Approach has raised awareness that you do not secure the necessary ingredients of democracy without at the same time focusing on material issues such as health care and the provision of universal primary and secondary education” (Nussbaum 22).

Working on this study was challenging emotionally at first: reading about difficult realities that LGBTQ+ people have had to face in their experiences accessing health made me feel hopeless at times. That feeling slowly morphed into optimism over time as I continued to connect with various voices in the community and the healthcare industry. I saw their drive and dreams of a future where we don’t have to worry about facing stigma or any other socio-environmental barriers when we seek health, and that is very inspiring.

Conclusion

It is crucial to emphasize the importance of not collapsing all experiences of gender and sexuality together in this study. Different bodies and gender and sexual identities create different kinds of healthcare issues and needs. Though they all face discrimination and stereotyping, there are different circumstances and experiences which are necessary to understand to develop effective healthcare interventions and support systems. The
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About the Author

Tyler Davis is a senior anthropology major. They conducted research over the spring and summer of 2021 under the guidance and mentorship of Dr. Diana Fox. They are passionate about exploring the experiences of LGBTQ+ people in health and would like to pursue opportunities in LGBTQ+ health and health advocacy.
Changes in Time Usage and Time Management During Emerging Adulthood

Victoria Holmes

Abstract

With a focus on emerging adulthood, the data from this study provides insight into the way people use their time and how their time management skills change as they age. Past research has looked at time usage throughout life, providing evidence that age can impact how a person might use their time for different activities, such as work, school, socializing, and social media, and shown that there are patterns that certain people tend to follow in their daily life. It has also been documented that the way people use their time correlates with their well-being. I was interested in learning more about age and adulthood status and how those variables might relate to time usage, time management, and self-esteem. To gather this data, my classmates and I sent out a survey to 157 college students between the ages of 18 and 29, asking them to respond to questions regarding these topics. After analyzing the data, I found that several of the variables did have significant relationships. The data showed that older emerging adults tended to have better time management skills than younger emerging adults; it also showed that those who were better at time management had higher self-esteem. Adulthood status and time management were positively related as well, meaning that people who felt they were closer to reaching adulthood had better time management skills. Looking further into these relationships would be very beneficial, as time management and self-esteem are two essential parts of life that would make daily living better if improved.

Changes in Time Usage and Time Management During Emerging Adulthood

Emerging adulthood is a time in life when people can have a variety of different responsibilities and interests. While some people are in college, some are working full-time, and others are unemployed. Typically, emerging adulthood occurs between the ages of 18 and 29, when people are transitioning from adolescence to adulthood. This time is a time of change for many people and can lead to a vast difference in what people prioritize and the activities they engage in, either for leisure or out of an obligation. Because people across this age range may find themselves at different points in their lives when compared to their peers, there may be differences evident in the way they spend their time on an average day. Looking into this difference will provide some interesting information about time usage in emerging adulthood. Do people who feel closer to adulthood spend more of their time doing certain activities than their peers who do not feel close to adulthood? Do they show differences in their time management skills? By analyzing the data, we gathered we will be able to look for a pattern which would provide useful knowledge about what it means to be an emerging adult.

One aspect of this is how people of different ages differ in the ways they use the media, as well as how often they use it, and whether there is a connection between media usage and life events. Media can include different aspects of digital entertainment such as social media, the internet, and television. Callejo (2013) found that participants aged 16 to 24 and 25 to 34 spent the most time using the internet and had the highest percentage of internet
Users among the different age groups. They also found that media usage for the younger population was only slightly above that of the older population, at 12.8%. The moderate media usage cluster made up the highest percentage of the population, then came the television watching cluster, followed by the cluster of people who used multiple forms of media, and lastly was the cluster of heavy internet usage, who made up the smallest percentage of the population. The moderate media use cluster was mostly made up of people younger than 13 - meaning this age group used media the least. The cluster of heavy internet users contained the highest number of people who were 13 to 24 years old. This points to there being a difference not only in how much time young adults spend using media, but also in the ways that they use media when compared to other age ranges. Although age seems to play a part in how one uses media, a study conducted by Uijtdewilligen et al. (2014), found no statistically significant results that linked the amount of time one spends using media with the number of life events they have experienced throughout their life. There appears to be another connection between the reasons why a person uses media and the time of their life they are in (Stockdale & Coyne, 2020). In this study the researchers found that as people progressed into adulthood, their reasons for using social media changed. This is most likely based on having more control over their lives and the flexibility of their schedules. As people age, they tend to use media more to relieve their boredom than they did when they were younger, and this can lead to a reliance on media that has negative impacts on mental health and well-being.

The association between age, well-being, and other daily activities and stressors is further evident in past research. The study by Uijtdewilligen et al. (2014) also looked into a possible correlation between the number of daily stressors and life events, and physical activity. Daily stressors include workplace conflicts, embarrassment, and low opinions of appearance. They found that the number of daily stressors and life events peaked at age 36 and age 27, respectively. Some of the most common life events reported were changes in the amount of free time, illness, changes at work, increase or decrease in conflicts with their partner, illness in a parent, holidays, and changes in financial status. The results of the study showed that people who had more daily stressors also saw more physical activity. There was also a correlation between positive opinion of financial life events and higher physical activity levels. Before this study, most of the research in this area was done on the connections between specific life events and physical activity, but this study provided new evidence showing that the number of life events might also play a role in those connections. While the previous study showed that physical activity could be helpful in dealing with stress, in a study done by Chen et al. (2012) they were seeking to learn more about the connection between goals and time use, and well-being in general when looked at across different ages. This study showed that although it varies between the age groups, there was a correlation between time usage and well-being, with religion, recreation, and worktime having a positive correlation for both groups. They found that older adults relied less on external forces and more on themselves when creating goals whereas younger adults tended towards the opposite. Seeking to understand how coping mechanisms can help to better well-being, Jenzer et al. (2019) conducted a study that looked at the way these coping mechanisms can change from adolescence to emerging adulthood. They found that the use of avoidant behaviors decreased over time, while strategies involving social support remained the same.

Daily life activities also appear to be affected by age and one’s period of life. Wang & Gimenez-Nadal (2017), focusing on group differences between people in
the age groups of 13-19 and 20-26, found that the teenage group, both male and female, spent more time sleeping, studying, and engaging in leisure activities than the young adult group. They also found that the young adults spent more time working, eating and drinking, and doing personal care than the teenagers did. The difference in their division could be due to multiple factors, including the amount of time they must dedicate to each activity, time spent commuting to various places, obligations outside of the activities they were questioned about in the survey, and cultural differences among the participants. Similarly, younger adults tend to spend more time with schoolwork, sleep, and personal relationships, while older adults tend to spend more time on work, chores, and religious activities (Chen et al., 2012). Although there has been research done on how much time people spend doing certain activities, there has not been much done on the specific patterns and routines of these activities. Focusing on these patterns and the potential cultural differences, Vagni and Cornwell (2018) broke different activities into seven categories, including paid and unpaid work, personal care, leisure, and travel, and were able to group them into clusters based on when a person performed each activity during the day. Using these clusters, they found that there were not many differences based on country, but rather that each country had a certain percentage of each of the different cluster types. Cluster A, defined by a pattern that centers around working a paid shift from 8am to 5pm, was the most common in most countries, including the U.S. People that fall into this category typically begin their day with a period of personal time, followed by an 8.5-hour workday with a lunch break around noon, and then most spend their evenings watching television. This study provides more evidence that consistent daily patterns are important in society and that there are similar patterns that people follow globally. It shows that not only do people tend to spend similar amounts of time doing certain activities, but that there are similarities in the time of day they perform those activities.

Although research has previously been done on the topics of time use and young adulthood, there remains a lot to study about the specific time of emerging adulthood and how it might play into time use. Prior research has made it evident that age can impact how a person might spend their time, showing that young adults tend to spend more time using the internet (Callejo, 2013), and engaging in other activities such as schoolwork, personal relationships (Chen et al., 2012), and performing self-care (Wang & Gimenez-Nadal, 2017) than their younger and older counterparts in each study. Research has shown that certain groups of people follow similar patterns of daily activities, usually centered around the hours that they work (Vagni & Cornwell, 2018). It has also been documented that time usage may correlate negatively with stress when looking at how much physical activity a person participates in (Uijtdewilligen et al., 2014) and correlate positively with poor mental health when the focus is on media usage (Stockdale & Coyne, 2020). When compared across age groups, time usage and coping behaviors can also have an impact on one’s well-being (Jenzer et al., 2019).

All these observations have demonstrated a connection between age and how someone spends their time, however there is still more to be learned when it comes to this correlation in emerging adults. By having participants who are emerging adults fill out a survey detailing how they spend their time on an average day, we will be able to broaden our understanding of the activities that are most common among this age group and be able to identify any differences between the ages in this group. We can also assess their answers and see if there is a correlation between a person participating in certain activities, such as schoolwork, paid work, socializing with friends, and
spending time on social media, and how close they feel they are to adulthood. Focusing only on people in emerging adulthood allows us to gain insight into how this age group spends their time and look at the intricacies and variations solely within this age range.

**Method**

**Participants**

Because this study is focused on the experience of emerging adults, my classmates and I recruited a sample of current college students between the ages of 18 and 29. This allowed me to get a broad look at the different ages in this range, while also focusing specifically on people in college and looking at trends in that population. To gather this sample of people, I relied on social media posts and direct contact through text messages and Snapchat. The social media sites I used were Instagram and Snapchat. On these sites I created a post that linked to the survey, which requested that 18- to 29-year-old college students respond to the survey to participate in this research study. On Snapchat and using text messages, I reached out to people I knew who fit into this population and asked that they fill out the survey. My classmates also posted the survey in a variety of social media places; therefore, we were able to recruit as many participants as possible for this study.

Of the 157 people who participated: 128 (81.5%) were female, 26 (16.6%) were male, and 3 (1.9%) identified as both or neither. One hundred forty-one (89.8%) were European Americans, 11 (7.0%) were Hispanic or Latinx, 3 (1.3%) were African Americans, and 2 (1.3%), were Asian Americans. Finally, 54 (34.4%) were seniors, 40 (25.5%), were juniors, 32 (20.4%) were sophomores, 21 (13.4%) were freshman, and 8 (5.1%) identified as other class rankings. The participants varied in age from 18 to 29, with an average age of 20.7. Fifty-three (33.8%) answered yes to the question asking if they felt they had reached adulthood, while 9 (5.7%) answered no and 95 (60.5%) responded “in some ways yes, in some ways no.”

**Procedure**

The posts that I created on the different social media sites all contained the same information. I informed the people who saw the posts that I was conducting a survey as a part of my Research Methods college course at Bridgewater State University. I let them know that the survey is focused on the experiences of emerging adults and asked anyone who is a current college student between the ages of 18 and 29 to please fill out the linked survey if they would like to participate in this study. When sending out messages directly to people I knew, I started the message by informing them that I was taking a Research Methods course and was conducting a study on emerging adulthood as a part of this course. I then provided a link to the survey and asked them to respond if they were interested in participating in this study. Once they clicked on the provided link, they were then taken to the survey and presented with a consent form. This informed the participants that they were taking part in a voluntary research study reviewed by the University Institutional Review Board, and that their information would be kept anonymous. After agreeing that they would like to continue, they were able to fill out their answers to each item of the survey.

**Measures**

**Time spent working a paid job.** This variable looked at how many hours per week the participant spends working at a job where they are paid. To measure this I asked the question, “How many hours per week do you work at a paid job?” The response options were listed in the ranges, 0, 1-15, 16-30, 31-45, and more than 45. A higher number indicated that they spend more time working.
Results

When I ran tests looking at the relationship between time management, demographic information, self-esteem, and adulthood status, the results showed that there were significant relationships between a few of these items. There was a significantly positive correlation between age and time management, \((r = .261, p = .001)\), demonstrating that as age increased, time management skills also increased. There was also a significantly positive correlation between self-esteem and time management, \((r = .232, p = .004)\), demonstrating that as self-esteem increased, time management skills also increased. Looking at how participants responded when asked if they feel they are an adult and comparing it to their response to the time management question also showed a significant relationship. The results of a one way between groups ANOVA revealed that there was a main effect of adulthood status on time management, \(F(2, 154) = 11.121, p < .001\). Post-hoc pairwise comparisons using Tukey’s HSD test revealed that participants who answered yes to adulthood status scored significantly higher on time management \((M = 3.04, SD = .876)\) than participants who answered no \((M = 1.56, SD = .726)\) and participants who answered, “in some ways yes, in some ways no” \((M = 2.59, SD = .962)\). This test also found that participants who answered “in some ways yes, in some ways no” to adulthood status scored significantly higher on time management \((M = 2.59, SD = .962)\) than those who answered no \((M = 1.56, SD = .726)\). No other comparisons were significant. These results point towards the conclusion that participants who felt closer to adulthood also had better time management skills.

While there were some significant relationships found, there was no significant relationship found when analyzing the relationships between time management and the rest of the demographic information. When comparing time management with gender, female participants scored...
higher on time management \((M = 2.72, SD = .972)\) than male participants \((M = 2.62, SD = 1.023)\), but this difference was not significant, \(t (152) = .490, p = .625\). In another test, the results of a one way between groups ANOVA revealed that there was no main effect of race/ethnicity on time management, \(F (3, 153) = 1.142, p = .334\). There was also no main effect of year in college on time management, \(F (4, 150) = .607, p = .658\). Based on these results, these demographic data had no significant effect on time management.

Comparing time management with the variables about how the participants spend their time also resulted in no significant relationships, except when comparing time management and time spent doing schoolwork. There was a negative correlation between time management and time spent working a paid job, \((r = -.064, p = .426)\), but this relationship was not significant. There was a positive correlation between time management and time spent socializing with friends, \((r = .021, p = .796)\), but this relationship was not significant. There was another negative correlation between time management and time spent on social media, \((r = -.123, p = .127)\), but this relationship was also not significant. Finally, there was a significantly positive correlation between time management and time spent doing schoolwork, \((r = .194, p = .015)\), demonstrating that as time management skills increased, time spent doing schoolwork increased. Although time management did not correlate with most activities, there is significant evidence showing that the more time management skills a person has, the more time they spend doing schoolwork.

Another set of relationships I looked at using statistical tests were the relationships between time spent working a paid job and time spent with friends, on social media, and doing schoolwork. As with the time management and time spent variables, no significant relationships were found, other than the relationship between time spent working a paid job and time spent doing schoolwork. There was a negative correlation between time spent working a paid job and time spent socializing with friends, \((r = -.024, p = .763)\), but this relationship was not significant. There was a positive correlation between time spent working a paid job and time spent on social media, \((r = .030, p = .708)\), but this relationship was also not significant. However, there was a significantly negative correlation between time spent working a paid job and time spent doing schoolwork, \((r = -.409, p < .001)\), demonstrating that as time spent working a paid job increased, time spent doing schoolwork decreased.

The next relationships I ran tests for were the relationships between time spent socializing with friends and time spent on social media and doing schoolwork. Both tests I ran for these relationships showed no significant findings. There was a negative correlation between time spent socializing with friends and time spent on social media, \((r = -.051, p = .529)\), but this relationship was not significant. There was another negative correlation between time spent socializing with friends and time spent doing schoolwork, \((r = -.077, p = .336)\), but this relationship was also not significant.

Lastly, I ran correlation tests that looked at the relationship between time spent on social media and time spent doing schoolwork. I found that there was a negative correlation between time spent on social media and time spent doing schoolwork, \((r = -.022, p = .781)\), but this relationship was not significant.

**Discussion**

By conducting this study, I sought to gain more information on the ways that emerging adults use their time when compared across the age range and look at whether there was a difference in their time management skills. By asking 157 college students between the ages of 18 and 29
to complete a survey describing their time use habits, I was able to gather data that provided some significant results.

These results showed that age and time management have a positive relationship with each other, meaning that the older a person is the more time management skills they will have. I also found that there was a positive relationship between time management and self-esteem. This means that a person who had higher levels of self-esteem also had higher levels of time management skills. When comparing adulthood status and time management, I found that people who felt that they were closer to adulthood also had higher levels of self-esteem. Those who answered yes scored higher than those who answered, “in some ways yes, in some ways no,” and they scored higher than those who answered no. Time management and time spent doing schoolwork also had a significant relationship in the sense that the more time someone spent doing schoolwork, the better time management skills they had. There was also a significant relationship found between time spent working at a paid job and time spent doing schoolwork. Those that spent more time working a paid job, spent significantly less time doing schoolwork. The significant relationship found between time management and adulthood status supported the original hypotheses, that people who feel closer to adulthood will have better time management skills and that older people will also have better time management.

Contrary to some of my hypotheses, however, the remaining variables I compared showed no significant relationships. The data showed that, other than the correlation between working a paid job and doing schoolwork, none of the time usage variables showed any significant correlations. This means that a person who spent their time participating in one activity did not spend any more or less time participating in another. Time management did not demonstrate any other significant relationships when compared with the time use variables, nor with the demographic variables. Although these correlations were not significant, they provide interesting insights into the way emerging adults use their time and how their time usage may not affect other activities they participate in.

These findings did not support those from the study Callejo (2013) conducted on media usage. That study found that there were differences between the time spent doing daily activities and consuming media, while my findings showed no differences. This could be because of the way each of the studies grouped different activities. Callejo broke media use down into several, more specific activities, such as using the internet and reading, whereas I asked about time use in broader terms. To further understand why these differences may have occurred, future research should include a wider range of activities that are broken down into more detail.

I also did not find any results that supported the conclusions of Wang and Gimenez (2017). Again, they found significant differences between the time people spent doing different daily activities, while I did not find anything significant in this area. Their study looked at time spent on work, studying, homework, and leisure, not only as they compared with one another across ages, but also as they compared with gender. It is possible that this additional comparison caused the discrepancy in our findings. Wang and Gimenez (2017) had also used a sample that was slightly younger than the sample I used. It could be that teenagers and young adults have more variation in their time usage than emerging adults have compared with other emerging adults of different ages. Teenagers typically have a schedule that revolves around high school, whereas adults can vary in their routines, so this might explain why that variation occurs.

In the study conducted by Uijtdewilligen et al. (2014), the researchers focused on the correlation between daily stressors and physical activities, while I focused on self-esteem and time management. They found that people
who experienced more daily stressors had higher levels of physical activity and data from my study showed that people who had higher self-esteem also had better time management skills. Uijtdewilligen et al. (2014) considered embarrassment and low opinion of appearance to be attributes of daily stress, which could correspond with a low rating of self-esteem. Although we gathered different information regarding this topic, both studies showed significantly positive correlations with their respective variables. It could be beneficial to further examine the influence that self-esteem and self-image can have on daily activities, or vice versa. By comparing self-esteem and daily stress across a range of activities, we could potentially uncover more data on that connection.

Following a similar idea, previous research has shown that well-being and time use have a significantly positive correlation (Chen et al., 2012). This finding is also comparable to the result of my study showing a relationship between self-esteem and time management skills. In the study done by Chen et al. (2012), well-being is similar to my variable of self-esteem. With both studies providing evidence of a positive significant correlation between those variables and variables related to time management and usage, this further supports our hypotheses that there is a connection. More research should be conducted that looks at these relationships in order to better understand why they might exist and to provide more support behind the hypotheses.

Another study that provided evidence of similarities and differences in the time spent doing activities in daily life was that of Vagni and Cornwell (2018). Similar to the other time-use studies, I did not come across any results that supported the findings of this study. Vagni and Cornwell (2018) focused more on patterns of daily routines, rather than just the activities themselves, which could account for our different results. Future research in this area of study could focus on both daily activities and the way people connect those activities in a routine in order to learn more about behavioral patterns in everyday life. We should research not only how often people complete an activity, but also the time of day they do so.

This study provides us with many ideas on how we can look further into the ways age, self-esteem, and adulthood status can relate to time management skills. Perhaps investing more into teaching emerging adults about time management and improving their skills in that area could lead to people feeling more confident in themselves and their adulthood status. More research must also be done on the relationships between time usage, well-being, and self-esteem. Looking at which daily activities correspond with self-esteem and well-being, and advocating for more time spent doing those activities, could be used to increase people’s well-being as well. Time management and self-esteem are two aspects of life that largely impact our daily life and improving them would benefit many.
References


About the Author

Victoria Holmes is a senior at Bridgewater State University majoring in Psychology. Her research project was completed in the fall of 2020 under the mentorship of Dr. Joseph R. Schwab (Psychology) and was presented at the 2020 Bridgewater State Mid-Year Symposium. After graduating in the fall of 2021, she plans on pursuing a career in public service.
Popular Methods of Biological Control and the Future of Baculoviruses

Michael Hutchinson

Biological control is a pest management strategy with the goal of reducing pest populations through human collaboration (Bajer et al., 2019). This article presents a broad overview of the field with focus on recent advancements regarding Baculoviruses as biological control agents. The term “biological control” was first used by Harry Scott Smith in 1919, and later was applied by entomologist Paul H. DeBach during research of citrus crops. DeBach was able to control populations of citrus pests through implementation of insect pest predators. This was the first report of someone using an insect species to control an insect pest (DeBach, 2007). A pest is an organism that is either a native or invasive species, causing an array of negative effects on surrounding environments. Negative effects associated with pests may include contaminating food supplies, stunting plant growth, spreading pathogens, and outcompeting native species for resources. Methods of biological control used to combat pests involve the physical removal of organisms and the application of predators, parasitoids, chemical insecticides, microbes including viruses. (Bajer et al., 2019).

The effectiveness of biological control agents greatly depends on the characteristics of targeted organisms. Individual characteristics of targeted organisms may include reproduction rates, location of species, and the ability to adapt to stressors. Specific methods of biocontrol may work efficiently with these characteristics and cause organisms to be more susceptible to containment or eradication. However, individual characteristics can make specific methods less effective and even a poor choice for specific pest populations.

Historically, the first forms of biological control used against pests involved the release of predators and parasitoids. In this process, free-living insect predators are often released into environments to consume large numbers of pests. Predator larvae is also expected to feed on pest populations to further lower their numbers and associated negative effects. Examples of such predators include lady beetles, true bugs, lacewings, and spiders. These predators feed on pests such as aphids or spider mites and can be found in most agricultural and natural habitats (Frodsham et al., 1993).

Predators are favorable biological control agents since they are cost effective and directly contribute to pest mortality. Their release is also important when dealing with invasive species, who lack natural predators and can rapidly reproduce. With high host specificities, many predators target only susceptible pest populations and can sustain such predation for long periods of time. However, other predators are not host-specific and are considered generalists, feeding on both pests and beneficial insects (Frodsham et al., 1993). Another disadvantage is that predators do not provide immediate results like some pesticides do. Lastly, predators need prey to be present to survive, making the complete elimination of a pest unlikely.

Like predators, parasitoids also make great biological control agents. Parasitoids are small insects whose immature stages develop on or within a single insect host. Unlike parasites, parasitoids eventually kill the hosts they are feeding on, making them advantageous biological control agents. Immature stages of parasitoids feed directly on the body fluids and organs of pests until they are ready to pupate (Frodsham et al., 1993). The most beneficial parasitoids used in biological control are wasps, bees, or flies (Frodsham et al., 1993). These organisms are often considered the most important natural enemy for
maintaining insect pest populations. The host specificities of most parasitoids allow them to only target one type of host without harming beneficial insects. Another advantage lies in the fact that the life cycles of both prey and parasitoids can greatly coincide, to the point where parasitoids may alter pest life cycles to accommodate their development. Females are also efficient at finding prey by using host-related chemical cues (Frodsham et al., 1993).

Two species of parasitoids have shown to successfully control invasive Winter moth populations (Figure 1). Winter moths are a great concern as their hatching caterpillar larvae directly feed on the leaves of trees they are born on or around. With no natural predators, infested trees can be completely defoliated, which hinders annual tree growth and can even cause direct mortality (Embree, 1965). Both Cyzebis albicans and Agrypon flaveolatum, lay eggs on the leaves of trees infested by Winter moths. When Winter moth larvae feed on these leaves they become infected. Once infected, the larvae will hatch inside the caterpillar and feed on it from the inside out (Embree, 1965).

In this study, both parasitoid species were released to control Winter moth populations in the year 1956. After 1960, both the population of Winter moths and the percentage of defoliated trees decreased at a rapid rate (Figure 1). By 1962 and 1963, Winter moths were almost driven to extinction while defoliation rates remained as low as ever (Figure 1). While this occurred, the populations of both parasitoid species continued to increase or remain much higher than the population of Winter moths. Despite this scientific evidence showcasing the effectiveness of parasitoids, they too have their fair share of limitations.

Although parasitoids can complete their life cycles and reproduce faster than predators, pests attacked by parasitoids die more slowly. This gives pests a chance to feed or lay eggs before succumbing to an attack. Another limitation with parasitoids involves hyper-parasitism, when parasitoids are parasitized by other parasitoids, greatly reducing their effectiveness (Frodsham et al., 1993). Parasitoids are great biological control agents, but when you combine them with other biological control agents such as predators, their impacts can be greatly enhanced.

A more modern biocontrol method directly combatting the reproductive success of a species are pesticides, specifically insecticides. Insecticides are a chemical form of biocontrol that include ovicides and larvicides, which kill pest eggs and larvae (Bale et al., 2008). There are two main types of insecticides: systemic
Many methods of biocontrol have proven to become ineffective overtime due to target organism adaptability taking place as part of the natural process of evolution. The target organism’s adaptability to external factors is a major reason why previous applications of various methods were not effective. The application of only one biocontrol agent at a time can also play a role in these failures, as scientists suggest it is more beneficial to use more than one approach simultaneously (Frodsham et al., 1993). As a result of previously failed attempts of utilizing different forms of biocontrol, the application of viruses as an alternative is in consideration by scientists to control pest populations. Application of viruses is a method of biocontrol that involves the use of modified or existent virus strands being released to infect targeted organisms. Viruses are introduced to targeted organisms through intramuscular injection, aerosol transmissions, or ingestion of contaminated food (Bajer et al., 2019). Findings of research in this field can greatly enhance the potential and future implementation of viruses as biological control agents.

A virus is a type of non-living pathogen that is smaller than a bacterium and is dependent on the living cells of a host. Viruses are also referred to as viral particles or virions. They can enter the bodies of pest organisms through multiple routes, attaching themselves to the outer surfaces of target cells. Next, the viral genome is introduced into the infected cell, effectively forcing it to become a factory for new viruses. In addition to their relevance to medicine and research, viruses are a promising platform for biocontrol efforts. Australia has used viruses as an approach to eradicate the invasive species of *Cyprinus carpio*, the Common carp, and *Oryctolagus cuniculus*, the European wild rabbit (Bajer et al., 2019). The application of viruses will also likely provide safer long-term ecological impacts than commercial chemical insecticides that have become popular in managing lawns.
and crops. Lastly, future research utilizing recombinant DNA technology may drastically improve the efficiency of viruses as biological control agents. Since virus host interactions are subject to evolution and pest adaptation is inevitable, viral biocontrol must be used in combination with other approaches to ensure lasting results, as well as to be “updated” periodically.

**Baculoviruses as a means of Biological Pest Control**

Baculoviruses are pathogens that infect and kill insects as well as other arthropods. With high host specificities, these viruses have shown to have no pathogenic effects on humans, plants, mammals, or even non-targeted insects (Hasse et al., 2015). By being exclusively pathogenic to insects, baculoviruses are excellent choices as biological control agents. In fact, they are seen as much safer alternatives to popular synthetic chemical insecticides who have proven to be toxic to non-targeted organisms, including humans. These toxic effects include pollution and increases in cancer, reproductive complications, and neurological disorders (Bale et al., 2008). This has resulted in numerous laws outlawing their use or severely limiting the implication of certain insecticides (Mishra, 1998). Scientists have responded by developing and releasing baculoviruses as biopesticides in pest populations. Baculoviruses in the form of biopesticides have proven to effectively control specific pest populations. Current and future research hopes to improve their efficiency through genetic modification (Afolami and Oladunmoye, 2017).

Baculoviruses belong to the family Baculoviridae, the most studied and commonly found group of insect pathogenic viruses (Kamita et al., 2017). These viruses are believed to exist all over the world due to their ability to be spread via wind and rain. In fact, a study in 2011 found that cabbage purchased from five different supermarkets in Washington D.C. were all contaminated with baculoviruses to a large extent (Zang et al., 2006). Baculoviruses are large rod-shaped enveloped viruses containing double-stranded circular DNA genomes housed in nucleocapsids (Ikeda et al., 2015). In the environment, baculoviruses produce protein-based occlusion bodies offering additional protection of the viral genome from detrimental elements such as sunlight and alkaline conditions (Kamita et al., 2017).

The Baculoviridae family is currently divided into four genera known as Alphabaculovirus, Betabaculovirus, Gammabaculovirus, and Deltabaculovirus (Ikeda et al., 2015). Collectively, baculoviruses can infect a large range of insects, but targeted insects mainly derive from the orders Diptera (flies), Hymenoptera (wasps, bees, and ants), and Lepidoptera (butterflies and moths). The most commonly studied baculoviruses infect and kill larval stages of caterpillars (Davis, 2019). Primary infection begins when insect larvae ingest food contaminated with occlusion bodies containing occlusion derived viral particles (Ikeda et al., 2015). In biological control, crops are often sprayed with baculovirus biopesticides to complete this process, similar to chemical insecticides (Kamita et al., 2017).

Two forms of virions are produced during the cycle of infection, Budded virions (BV), important for cell to cell spread within the host organism, and occlusion body derived virions (ODV), important for prolonged survival in the environment. Both have identical genetic material as well as the same nucleocapsid and are essential parts of the life cycle of Baculoviruses. Once an occlusion body is ingested by an insect larva, the high alkaline environment of their gut causes the breakdown of the protective protein structure, releasing infectious ODVs. ODVs execute productive infection in midgut epithelial cells, which in turn release BV capable of spreading cell to cell (Clem and Passarelli, 2013). As the infection is spread across the body,
more tissues become infected and large number of virions are produced and packaged in occlusion bodies. Within days of first ingestion, infected insects die and liquefy, allowing the dispersal of millions of occlusion bodies to continue the cycle (Clem and Passarelli, 2013).

What makes baculoviruses so sophisticated is they not only infect and kill their hosts, but they do so in ways that maximize their dispersal. For example, baculoviruses are capable of modifying the physiology and behavior of infected larvae. In the case of lepidopteran larvae, known periodically to pause from feeding and go through larval molts, baculoviruses use a viral enzyme to inactivate the major insect molting hormone. This causes infected larvae to grow much larger than normal before succumbing to the virus. The liquefied large larvae can then release upwards of ten million occlusion bodies full of infectious viruses per each milligram of larval tissue (Clem and Passarelli, 2013).

Baculoviruses also use same viral enzyme called UDP-glucosyltransferase (EGT), to induce larval climbing behavior in gypsy moths (Clem and Passarelli, 2013). Gypsy moth larvae typically tend to live in soil, only feeding at night to avoid predation. Infected larvae are compelled to climb to the tops of trees before dying instead, resulting in their liquefied occlusion bodies to rain down on vegetation below (Clem and Passarelli, 2013). By climbing trees, they are also more prone to predation by birds, which would only further enhance the dispersal of baculoviruses. The sophistication of baculovirus dispersal is one of the many benefits to using them to control pest populations.

Every single biological control method has both benefits and shortcomings limiting or extending their implementation. The biggest benefits of baculoviruses center around their high host specificity. Such a specificity allows them to be selected and designed to infect and reduce levels of specific insect pests. More importantly, they have proven to be nonpathogenic to non-targeted organisms, even including beneficial insects like bees and soldier beetles (Davis, 2019). By using safe biopesticides, long term environmental impacts will be improved by reducing risks associated with synthetic chemical insecticides. Another advantage lies in the fact that baculoviruses require an infected host to reproduce. Therefore, baculovirus populations are destined to decline once they have effectively reduced a targeted pest’s population.

Not only are there clear benefits to baculoviruses as biological control agents, but also experimental results proving their efficiency. For example, in 2007, a study compared mortality rates of Mottled Willow Moth larvae who were exposed to both a pesticide and a baculovirus (Figure 2).

![Figure 2. Efficiency of Different Agents of Biological. Mortality of Spodoptera exigua larvae collected from greenhouse pepper crops at 2, 5- and 8-days post-application and reared in the laboratory until death.](image)

The nucleopolyhedrovirus (SeMNPV) was applied alone or mixed with an optical brightener (SeMNPV + Leucophor). A chemical treatment was included for comparison (the insect growth regulator, lufenuron).
Control plants were sprayed with water alone. This figure, Efficiency of Different Agents of Biological Control, was originally published in (Lasa et al., 2007).

In this experiment, control plants were only sprayed with water for comparison’s sake. The other three plants were sprayed with either the baculovirus SeMNPV, a chemical insect growth regulator termed Lufenuron, or SeMNPV mixed with optical brightener Leucophor AP, known to increase baculovirus infectivity (Figure 2). Lufenuron is a popular insect pesticide that inhibits the production of chitin in insects. Without chitin, larvae are unable to develop an exoskeleton which causes them to die once hatched or molted via dehydration. Lufenuron has proven to be effective against larval stages of fleas, lepidopterans, and eriophyid mites (Lasa et al., 2007).

Average virus mortality of larvae exposed to control plants varied from 2.7% to 9.9% over the course of eight days (Lasa et al., 2007). This only further proved the natural presence of baculoviruses in surrounding insect environments. Mortality rates of larvae exposed to chemical and virus treatments were much more successful (Figure 1). Larvae exposed to the baculovirus mixed with the optical brightener had the highest mortality rates on days two and eight post-application. Five days post-application, larvae exposed to the baculovirus alone had the highest mortality rates (Figure 1). At the conclusion of this study, both treatments involving baculoviruses resulted in 90% mortality of moth larvae. In contrast, the insect growth regulator Lufenuron, only resulted in less than 45% mortality of larvae when applied at the recommended dose (Lasa et al., 2007). This experiment concluded a baculovirus was far more efficient in controlling larvae than a chemical pesticide, while also potentially shedding light on pests’ ability to develop resistance to commercial pesticides.

Despite its many benefits and proven ability to be effective in certain pest populations, baculoviruses are no exception. As much of an advantage the high host specificity of baculoviruses is, this has also proven to be an extreme weakness in the field of agriculture. A common critique of agriculturists is baculoviruses are too expensive of an investment to only control a narrow range of pests (Davis, 2019). If they are going to spend the money, agriculturists would rather purchase a control agent that protects against a variety of insect pests instead.

Other than cost and high host specificity, another critique of baculoviruses deals with their speed of kill. Although producing far fewer negative effects than chemical insecticides, baculoviruses do not provide the immediate results that certain chemical insecticides are capable of. This is an issue in the field of agriculture as it gives infected hosts a small window to continue to feed on crops or harm their production before succumbing to the virus (Davis, 2019). Therefore, the shortcomings of baculoviruses mainly limit their use to high value crops or crops and insects who have become resistant to chemical insecticides.

A new concern regarding baculoviruses has also emerged, one that was not believed to be possible before 2005. During this time, it was first reported that codding moth larvae in Germany were showing resistance to one of the most efficient baculoviruses, Cydia pomonella granulovirus (CpGV) (Gebhardt et al., 2014). Since then, apple plantations in six different countries have also reported this problem. What was once thought to only be a problem regarding chemical insecticides, may now be a developing shortcoming in the field of baculoviruses. Lastly, a final challenge these viruses face is prolonged UV sunlight exposure when occlusion bodies are waiting to be ingested (Afolami and Oladunmoye, 2017). Despite the numerous shortcomings associated with baculoviruses, the work of many scientists suggests these occlusion bodies still represent great potential.
Some of the biggest challenges associated with baculoviruses deal with their speed of kill, host specificity, and potential host development of resistance. Unlike other biological control agents, baculoviruses can be genetically modified to improve these aspects. In fact, scientists have already used genetic engineering to improve the efficiency of these viruses. In 2012, an experiment set out to create a recombinant baculovirus with improved speed of kill. The work of these scientists resulted in a novel recombinant baculovirus, NeuroBactrus, employing a new “three hit” approach which combines the natural killing ability of the virus with the toxicity of two toxins (Shim et al., 2012).

To construct the NeuroBactrus, the *Bacillus thuringiensis* crystal protein gene (termed cry1-5) had to be introduced into the *Autographa california* nucleopolyhedrovirus (AcMNPV) genome (Shim et al., 2012). This was done through fusion of the genetic code of the toxin to the polyhedrin gene, which codes for the major protein found in the occlusion bodies. (Shim et al., 2012). To confirm incorporation of the fusion protein into the produced occlusion body, SDS-PAGE (Sodium Dodecyl Sulfate PolyAcrylamide Gel Electrophoresis) and immunoblot analyses were performed (Figure 3). These types of analyses allow scientists to detect single proteins (the engineered fusion protein) in rather complex mixtures (protein extract from the entire occlusion body) based on their molecular mass in kilodaltons (kDa) in electrophoresis or their ability to interact with specific antibodies in immunoblot assays.

In figure 3A, a 150-kDa band (labeled with asterisk) absent in wild-type AcMNPV-infected cells was detected in the cell lysate (lane 3) as well as the purified polyhedrin samples (lane 5) from the NeuroBactrus. Further immunoblot analysis confirmed the presence of polyhedrin (Figure 3B, lane 3) and Cry1-5 Bt toxin in the band (Figure 3C, lane 3). In figures 3A and 3B, a 30-kDa band corresponding to the native polyhedrin (labeled with Polh) was also detected in both the infected cell lysate and purified polyhedra. The fusion protein band was later reduced to ~65 kDa after cleavage with trypsin (Figure 3A, lane 7) which corresponds to the size of the activated Cry1-5 Bt toxin, indicating that the active fragment of the Cry1-5 toxin could be released from the fusion protein by proteases (Shim et al., 2012). Therefore, the data suggests the fusion protein of the NeuroBactrus will be active in the gut of host insects (Shim et al., 2012).
polyacrylamide gels. (B and C) Immunoblotting was performed against purified polyhedra using anti-polyhedrin (B) or anti-Cry1-5 (C) polyclonal antisera. Lanes: M, protein molecular weight marker; 1, mock-infected Sf9 cells; 2, 4, and 6, wild-type AcMNPV; 3, 5 and 7, NeuroBactrus; 1, 2, and 3, cell lysates; 4 and 5, purified polyhedra; 6 and 7, trypsin treated. This figure, SDS-Page and Immunoblot Analyses of Fusion Protein, was originally published in (Shim et al., 2012).

A similar approach was used to introduce the insect-specific neurotoxin gene, AaIT, from Androctonus australi, a desert scorpion from North Africa and Middle east (Shim et al., 2012). These experiments portray the great potential baculoviruses hold in the field of biological control. An eco-friendly recombinant baculovirus was amazingly developed and showed signs of faster associated mortality rates. Unlike natural wild types, this NeuroBactrus virus has three modes of action to kill insect hosts. Most pest insects that ingest occlusion bodies will be killed by the first mode of action, which delivers Bt toxins to the midgut of the hosts. Insect larvae that survive Bacillus thuringiensis exposure will be controlled by the second mode of action, or insecticidal scorpion neurotoxins that prevent neurotransmissions (Shim et al., 2012). Any infected larvae that survive the action of both toxins should be killed by the Baculovirus infection itself. The described engineered baculovirus eliminates insect larvae with much faster rate due to the action of the two introduced toxins.

In conclusion, baculoviruses are excellent choices as biological control agents. However, like any biological control agent, their shortcomings severely limit their implementation today. Their rates of kill will need to be increased, host specificities will need to branch further out, and the development of host resistance must be prevented at all costs. As we have recently seen, genetic engineering has great potential to resolve the shortcomings of baculoviruses. It is in our best interest to continue to conduct experiments like the one presented in Figure 3. Continued development of these viruses through genetic engineering will likely provide safer long-term ecological impacts. It should also cause public opinion to drift even farther from chemical insecticides, negating the risks associated with such chemicals. If the shortcomings of baculoviruses are not resolved, they will continue to be restricted to high value crops or crops and insects that have become resistant to chemical insecticides.

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About the Author

Michael Hutchinson graduated from Bridgewater State University in the spring of 2020, earning a Bachelor of Arts degree in Biology. He conducted this research under the mentorship of Dr. Boriana Marintcheva (Biology). In addition to pursuing his passion for science, he also was a member of the cross-country, indoor track, and outdoor track teams. He is currently working as an EMT and preparing for a career as a Physician’s Assistant.
Sonnet –66

Christopher Lavallee

Satisfied with all these, for they do breathe me life,
As, to sense connection at first find.
And new love born be free of strife,
And old love strong throughout all time.
And introspection void of jury,
And heart let free from pen and paper.
And love be not a cause of worry,
And chains be gone, absolved to vapor.
And though my love resembles a song,
And her heart holds close to mine.
And I do my job as a man who is strong,
And I show a face that is all fine.
Satisfied with all these, for they make the hurt worthwhile,
Despite, in pain, and through a broken smile.

Shakespeare’s Sonnet 66 inspired the sonnet I wrote, but I wanted to take a more modern approach to tackle and challenge the original piece. In Sonnet 66, Shakespeare writes about a love that is separated by societal expectations. He is forbidden from loving that person and lists his issues; with a peaceful couplet stating that the love he has is enough to keep him happy. Context from the sonnet indicated that it was a same-sex love, as it was forbidden at the time. In contrast, my piece tells the story of a man that is in love with a woman, a love so strong that it “resembles a song” of love, but despite having the world he cannot be happy. I wanted to keep the writing structure like the original piece, so it starts with a line that is partially repeated in the final couplet, and that starting two lines starts the list of positives in my case.

The list that I have constructed gives the story of a man who does what is expected of him: he falls in love with a wonderful woman, stays strong, and presents as emotionless. Despite acting as he is supposed to and having a love that supports him, the speaker struggles to find happiness. The theme of this sonnet can best be described as “It is okay for a man to show his true emotion and feelings, and expecting him to hide his sadness will hurt him more over time.”

The speaker tells the reader that he is unhappy, but also that he is struggling with the expectation that he has to keep that feeling to himself. Shakespeare’s original piece suggests that love is enough to keep someone happy, whereas the speaker here has the perfect love but still cannot be happy. The second quatrain tells that the speaker feels some burden taken off through his love, as he is not held down by judgment and his love gives him a sense of freedom. The third quatrain is where the concepts of gender start to truly form. It is as though he is asking the question, “I’m doing what is expected of me, shouldn’t I be happy?”

From a young age, I was always told to be the strong man in my family, and I never really understood why it was the man’s job to be the strong one. It is as though older generations did not expect women to be able to be strong, and that they were going to be always unpredictable and emotional. If there were anything to be taken from my sonnet, it would be that it is okay for any person to not be okay.
About the Author

Christopher LaVallee is a senior studying Computer Science at Bridgewater. His project was completed as the final poemt for his Sex and Shakespeare course under Professor Katherine Alix-Gaudreau. He enjoys spending time with his significant other and their cat, as well as playing video games with friends. After his degree is complete, he plans on pursuing a career as a software developer.
1 Introduction

Graph theory is a branch of discrete mathematics. It can be defined as the study of graphs, which are structures made of a collection of points and lines. We will begin with some definitions.

**Definition 1.** A graph is made up of a set of vertices (points) and a set of edges (lines).

Figure 1 is an example of a graph with 5 vertices and 7 edges. When we count the amount of vertices and edges a graph has, we describe the order and the size of the graph.

**Definition 2.** The order, \( v \), of a graph is defined as the number of vertices on the graph and the size, \( e \), of the graph is defined as the number of edges.

In Figure 1, the order of the graph would be 5 and the size of the graph would be 7. In this graph, \( A, B, C, D, \) and \( E \) are vertices and \( f, g, h, i, j, k, \) and \( l \) are edges.

![Figure 1: General graph with \( v = 5 \) and \( e = 7 \)](image)

**Definition 3.** Vertices joined by an edge are called adjacent vertices. The edge between two vertices is called an incident edge to the vertices at its endpoints.

For example, in Figure 1, \( A \) and \( B \) are adjacent vertices, and \( g \) is incident to vertices \( A \) and \( B \). Vertices \( C \) and \( E \) are non-adjacent. Figure 1 is an example of a connected graph. A connected graph is a graph where every pair of vertices are joined together by a sequence of vertices and edges.

Graphs are often used to model real world situations by representing connections and relationships between any given number of objects. Graph theory is used in many fields other than mathematics, like chemistry, biology, and computer science [6]. For example in chemistry, graphs are used to represent molecules and study atoms. In biology, graph theory is used to represent movement between regions where species exist. This can be useful when studying breeding patterns or tracking the spread of diseases. In computer science, graphs represent networks and are used for the development of various algorithms, which can analyze graphs and solve important problems. The Internet is also a great example of a graph, where Internet links are the edges and the pages they lead to are the vertices.

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**Vertex-Magic Graphs**

Karissa L. Massud
2  Graph Labeling

Graph labeling is an important area of graph theory. Graph labeling is the assignment of labels, usually represented by integers, to the vertices or the edges of a graph, and sometimes both. Graph labelings were first introduced in the 1960s as a tool for making progress on proving a conjecture about subgraphs [3]. The first type of graph labeling that was introduced is now known as graceful labeling. Since then, many other graph labelings have been introduced. For example, graceful labelings were coined by Solomon Golomb after originally being named \( \beta \)-labelings by Alexander Rosa in 1967 [1]. To determine a graceful labeling, distinct labels are assigned to the vertices of the graph from the integer set \( \{ 0, 1, 2, ..., e \} \). Each edge is labeled with the absolute difference of the incident vertex labels. If all of the edges of the graph are labeled with distinct integers from the set \( \{ 1, 2, ..., e \} \), then the labeling is considered graceful. There are many more types of graph labelings that are not discussed here.

Graph labeling is extremely important, not only in the field of mathematics, but especially in ordinary life. Adding labels to a graph can be beneficial because they give us extra information about a situation, like the distance between two stops on a mail route or the cost of traveling the most efficiently. Some contemporary uses of graph labeling that have substantially impacted the modern world we live in include the global positioning system (GPS), Google searches, and public transportation. The GPS can create the quickest route from one location to another, Google searches sort information and track site visits, and sensible, efficient routes are devised for public transportation [6]. Other types of labelings are edge-graceful labelings, harmonious labelings, and even graph coloring, which resolved the renowned Four-Color Problem of graph theory.

Graph labeling is an interesting technique used by mathematicians, computer scientists, chemists and biologists in important fields like graph theory, coding theory, astronomy, circuit design, missile guidance, communication network addressing, database management, compound chemistry, and biotelemetry. It is so interesting, in fact, that in the past 50 years, over 200 graph labeling techniques have been studied in over 2500 papers [3]. At approximately one paper per week, these numbers alone show how influential graph labeling has been, and continues to be.

3  Vertex-Magic Labeling

In this paper, we will study magic labelings. Magic labelings were first introduced by Sedláček in 1963 [3]. At this time, the labels on the graph were only assigned to the edges. In 1970, Kotzig and Rosa defined what are now known as edge-magic total labelings, where both the vertices and the edges of the graph are labeled. Following this in 1999, MacDougall, Miller, Slamin, and Wallis introduced the idea of vertex-magic total labelings. There are many different types of magic labelings. In this paper will focus on vertex-magic total labelings.

3.1  Definitions and History

We will begin with a few definitions.

**Definition 4.** A **vertex-magic total labeling (VMTL)** is a labeling such that the vertices and edges are assigned consecutive integers between 1 and \( v + e \), where \( v \) is the order of the graph (number of vertices) and \( e \) is the size of the graph (number of edges).

Labels are assigned to graphs with the purpose of summing to the magic number of the graph.

**Definition 5.** When the sum of the labels of a vertex and its incident edges results in the same integer for each vertex, we have a **vertex-magic graph**. This sum is called the **magic number**, \( k \), of the graph. A graph is magic if at least one labeling exists.
Figure 2: Vertex-Magic Total Labeling on a Kite Graph

In Figure 2, we see that $v = 13$ and $e = 13$ because the graph has 13 vertices and 13 edges. The integer labels that produce a VMTL of this graph are $\{1, 2, 3, ..., v+e\}$. In other words, the labels on this graph are all integers $\{1, 2, 3, ..., 26\}$. Since the sum of the labels of each vertex with the labels of its incident edges is 41, we see that the magic number, $k$, of this graph is 41.

Graphs can have multiple magic numbers. In this case, any of the magic numbers can have vertex-magic labelings. As we see in Figure 3 below, we have the same graph with labelings for four different magic numbers, namely 9, 10, 11 and 12.

Figure 3: Graphs with Vertex-Magic Total Labelings of Four Different Magic Numbers

Some graphs have different labelings that result in the same magic number. The graph in Figure 4 has magic number $k = 13$. We can see that the labels on each of the graphs are arranged differently. For example, on the graph on the left of the figure, 4 and 6 are integers labeled on the edges of the graph and 2 and 8 are integers labeled on the vertices of the graph. However, on the graph on the right, 4 and 6 are integers labeled on the vertices, and 2 and 8 are integers labeled on the edges. Nevertheless, on both graphs in Figure 4, the labels of each of the vertices and their incident edges sum to 13.

Figure 4: Two Different Vertex-Magic Total Labelings of the Same Magic Number 13
3.2 Important Results

In order to find a magic labeling of a connected graph, we need to know what integer to try as a magic number. There is no way that we can try every possible integer as a magic number of each graph. So, we can eliminate some magic number possibilities by finding the range of magic numbers for a given graph. For example, a magic graph cannot have a magic number that is less than \( v + e \). Suppose we have a magic number less than \( v + e \). If we add the labels of a vertex with its incident edges where one of these labels is \( v + e \), the sum of the labels will exceed \( v + e \). In this instance, we would no longer have a VMTL, and so a vertex-magic graph cannot have a magic number that is less than \( v + e \). This gives a lower bound of the magic number. On the contrary, a magic graph cannot have a magic number that is greater than the sum of the set of all possible labels. This is impossible because we would not be labeling the vertices on the opposite sides of all of the edges of the graph. We would be ignoring the fact that each edge must be incident to two vertices. This gives an upper bound of the magic number.

Assume some graph \( G \) has a VMTL. Define \( V_{\text{sum}} \) to be the sum of all vertex labels and \( E_{\text{sum}} \) the sum of all edge labels of any graph \( G \). The following lemma gives us a useful formula for the magic number of vertex-magic graph.

**Lemma 1.** ([2, 5]) If \( G \) is a vertex-magic graph with \( v \) vertices and \( e \) edges, then

\[
\frac{(v + e)(v + e + 1)}{2v} + \frac{E_{\text{sum}}}{v} = k
\]

*Proof.* Let \( u_i \) be a vertex of \( G \) and \( k(u_i) \) be the sum of the labels of \( u_i \) and all of its incident edges. We want to find the sum of \( k(u_i) \) for all \( i \). To do this, we need to add the edge and vertex labels at each vertex of the graph. Now, we know that each edge is incident to two vertices on any graph \( G \). Hence, as we add the labels of each vertex and its incident edges, we will count each edge twice. So, when we sum each vertex with its incident edges we get \( V_{\text{sum}} + E_{\text{sum}} + E_{\text{sum}} \). On the other hand, since we know that \( G \) is a vertex-magic graph, we have that \( k(u_i) \) is \( k \). So, we multiply \( k \) by the number of vertices, \( v \). We obtain \( vk \), the sum of all edge labels. Thus, we have shown

\[
V_{\text{sum}} + E_{\text{sum}} + E_{\text{sum}} = vk.
\]

Now, we know that we label the vertices and edges of the graph by 1, 2, 3, ..., \( (v+e) \) by definition. Therefore, we have that the sum of all of the labels of the graph are equal to

\[
V_{\text{sum}} + E_{\text{sum}} = 1 + 2 + 3 + \ldots + (v + e)
= \sum_{i=1}^{v+e} i
= \frac{(v + e)(v + e + 1)}{2}.
\]

Thus, we can substitute this into \( V_{\text{sum}} + E_{\text{sum}} + E_{\text{sum}} = vk \) to give

\[
\frac{(v + e)(v + e + 1)}{2} + E_{\text{sum}} = vk.
\]
Finally we have

\[ \frac{(v + e)(v + e + 1)}{2v} + \frac{E_{\text{sum}}}{v} = k \]

as we divide by \( v \)

Solving the formula from Lemma 1 for \( E_{\text{sum}} \) gives

\[ E_{\text{sum}} = vk - \frac{(v + e + 1)(v + e)}{2} \]

It is shown to be useful throughout the next few sections, as we use the formula to deduce which labels can be placed on the edges of a graph.

The conclusion of Lemma 1 above can help us find better upper and lower bounds for the magic number of a graph. The next theorem gives us upper and lower bounds for possible magic numbers of graphs.

**Theorem 1.** ([2, 5]) Let \( G \) be a graph with \( v \) vertices and \( e \) edges. If \( G \) is a vertex-magic graph, then the magic number, \( k \), is bounded such that

\[ \frac{e(e + 1) + (v + e + 1)(v + e)}{2v} \leq k \leq \frac{e(e + 1) + (v + e + 1)(v + e)}{2v} \]

The following proof is from [2].

**Proof.** From Lemma 1, we have that

\[ E_{\text{sum}} = vk - \frac{(v + e + 1)(v + e)}{2} \]

The minimum \( E_{\text{sum}} \) occurs when the labels 1 through \( e \) are assigned to the edges of the graph. So we have that,

\[ \sum_{i=1}^{e} i = \frac{e(e + 1)}{2} \leq E_{\text{sum}}. \]
The maximum $E_{\text{sum}}$ occurs when the labels $v + 1$ through $v + e$ are assigned to the edges of the graph. Thus, 

$$\sum_{i=1}^{e} v + i = \sum_{i=1}^{e} v + \sum_{i=1}^{e} i = ve + \frac{e(e + 1)}{2} \geq E_{\text{sum}}.$$ 

It follows that, 

$$\frac{e(e + 1)}{2} \leq E_{\text{sum}} \leq ve + \frac{e(e + 1)}{2}.$$ 

Then we substitute in for $E_{\text{sum}}$ which gives 

$$\frac{e(e + 1)}{2} \leq vk - \frac{(v + e + 1)(v + e)}{2} \leq ve + \frac{e(e + 1)}{2}.$$ 

Then we should perform the appropriate operations to isolate $k$ between the inequality to obtain its bounds. Hence, 

$$\frac{e(e + 1) + (v + e + 1)(v + e)}{2v} \leq k \leq \frac{e(e + 1) + (v + e + 1)(v + e)}{2v}.$$ 

This inequality is important because it shows that a vertex-magic graph with $v$ vertices and $e$ edges has a bounded magic number, $k$. In Figure 3, the graph with $v = 3$ vertices and $e = 3$ edges has the magic number bounds 

$$\frac{3(4) + (7)(6)}{6} \leq k \leq 3 + \frac{3(4) + (7)(6)}{6}$$ 

$$\frac{54}{6} \leq k \leq \frac{72}{6}$$ 

$$9 \leq k \leq 12.$$ 

Each magic number possibility in the bounds turns out to be a magic number of this graph. As you can see in Figure 3, there is a VMTL for each of the magic numbers.

The aim of this project is to explore vertex-magic total labelings on different graph classes. We will discuss path graphs and crown graphs and show some of their labelings. We arrive at a result for a specialized vertex-magic total labeling of crown graphs.

4 Labeling Vertex-Magic Graphs

To construct vertex-magic total labelings on different graph classes, we go through a series of steps. Generally, we find the graph’s upper and lower bounds for a magic number, $k$, and calculate our $E_{\text{sum}}$ for a chosen $k$. We can then form partitions of $E_{\text{sum}}$ depending on how many edges the graph has. We then work to find a VMTL with the possible edge labels. We focus the labeling methods of this paper primarily on path graphs and crown graphs, more specifically.
### 4.1 Path Graphs

In this section, we will discuss path graphs, their properties, and some details that allow us to find magic labelings for them.

**Definition 6.** The path graph, $P_n$, is defined as a graph with $n$ vertices that are listed in an order such that consecutive vertices are adjacent.

A path graph $P_n$ has $n$ vertices and $n - 1$ edges. The figure below is an example of a labeled vertex-magic path graph with order 7 and size 6.

![Figure 5: Vertex-Magic Total Labeling of $P_7$ with Magic Number 16](image)

We will find a vertex-magic labeling for $P_5$. We have that $v = 5$ and $e = 4$.

Using Theorem 1, we have

$$11 \leq k \leq 15.$$

So the magic number bounds for $P_5$ are $11 \leq k \leq 15$. We should choose a magic number to focus on for a magic labeling. Let $k$ be one of the magic numbers in our bounds. We will choose $k = 11$ in this example. The formula for $E_{sum}$ following Lemma 1 gives

$$E_{sum} = 10.$$

This implies that we need combinations of integers that sum to 10 for the edge labels of the graph. Thus, the only possible edge labels are the smallest labels, $\{1, 2, 3, 4\}$. We obtain the vertex-magic labeling shown in Figure 6 below.

![Figure 6: Vertex-Magic Total Labeling of $P_5$ with Magic Number 11](image)

Notice the connection between the labelings for $P_5$ and $P_7$. The vertices have a distinct pattern which helps us find the labelings of odd path graphs.

**Theorem 2.** Consider $P_n$ where $n$ is odd. There exists a VMTL with vertex labels assigned by

$$v_i = \begin{cases} 
  i + (n - 2), & i \geq 2 \\
  2n - 1, & i = 1
\end{cases}$$
and edge labels assigned by

\[ e_i = \begin{cases} 
\frac{n}{2} - \frac{i}{2}, & \text{if } i \text{ is odd} \\
\frac{n}{2}, & \text{if } i \text{ is even.}
\end{cases} \]

**Proof.** Let \( P_n \) be a path graph with \( n \) defined as an odd integer. Now, consider the four cases for labeling the vertices of a path graph using the definitions given for \( v_i \) and \( e_i \). When \( i = 1 \), the sum of the label of the vertex and its incident edges is

\[
(2n - 1) + \left( \frac{n}{2} - \frac{1}{2} \right) = \frac{5n}{2} - \frac{3}{2}.
\]

When \( i \) is even, the sum is

\[
(i + (n - 2)) + \left( \frac{n}{2} - \frac{i - 1}{2} \right) + \left( \frac{n}{2} - \frac{i}{2} \right) = \frac{5n}{2} - \frac{3}{2}.
\]

Then when \( i \) is odd and \( i \neq 1, i \neq n \), the sum is

\[
(i + n - 2) + (n - \frac{i - 1}{2}) + \left( \frac{n}{2} - \frac{i}{2} \right) = \frac{5n}{2} - \frac{3}{2}.
\]

Finally, when \( i = n \), the sum is

\[
(i + (n - 2)) + (n - \frac{i - 1}{2}) = \frac{5n}{2} - \frac{3}{2}.
\]

Recall that the sum of each vertex and its incident edges must be equal to have a vertex-magic labeling, by definition. Thus, since all of the possible cases of vertex sums arrive at the same result, we have shown that the two functions that label the vertices and edges of odd path graphs give a vertex-magic labeling.

There is more to be said about the vertex-magic labeling shown in Figure 6. By definition, this labeling is a VMTL, but there is something even more special about it. If you look to the edges of the path, you see that the smallest labels are used as edge labels. This introduces a special type of VMTL for \( P_5 \) in Figure 6, namely, an **E-super vertex-magic total labeling**.

**Definition 7.** An **E-super vertex-magic total labeling** is a VMTL where the smallest possible labels, \( 1, 2, \ldots, e \), are used as labels for the graph’s edges.

Unlike odd path graphs, it is impossible to find an E-super VMTL when a path is even. This is because the sum of the smallest possible labels we assign to the edges of an even path will never equate to a possible \( E_{\text{sum}} \). It has been shown that the path graph \( P_n \) has a VMTL when \( n > 2 \) [4], and \( P_n \) has an E-super VMTL if and only if \( n \) is odd and \( n \geq 3 \) [7].

### 4.2 Crown Graphs

Here, we will discuss a new graph class. Then we will find a vertex-magic labeling for the class.

**Definition 8.** A **crown graph**, denoted \( H_n \), is a graph with \( 2n \) vertices, where the vertices are partitioned into two sets of size \( n \), \( \{u_1, u_2, \ldots, u_n\} \) and \( \{v_1, v_2, \ldots, v_n\} \). The vertices \( u_i \) and \( v_j \) are adjacent when \( i \neq j \).
To determine the size of $H_n$, we notice that the graph has $n - 1$ edges that are incident to each of its vertices. When we multiply $n - 1$ by the total number of vertices, $2n$, we obtain the number of edges incident to all vertices, $2n(n - 1)$. Then we must divide by 2 because the edges of the graph are counted twice. This gives us

$$n(n - 1),$$

the count of all of the edges, or the size of some crown graph $H_n$. Figure 7 is an example of a crown graph $H_5$.

![Figure 7: Crown Graph $H_5$](image)

We will find a vertex-magic labeling for crown graph $H_3$. We have that $v = 6$ and $e = 6$. Using Theorem 1, we have

$$16.5 \leq k \leq 22.5.$$ 

Since $k$ must be an integer, we round up to the next integer on the lower bound and down on the upper bound. Thus, the graph’s magic number bounds are

$$17 \leq k \leq 22.$$ 

Let $k = 17$. The $E_{sum}$ formula following Lemma 1 gives

$$E_{sum} = 24.$$ 

We consider combinations of edge labels that sum to 24. We should choose 6 edge labels and 6 vertex labels, and their positions on the graph so that the graph has a VMTL. We use labels $1, 2, ..., (v + e)$ for any VMTL. To determine the possible edge labels, we can create partitions of the $E_{sum}$ with 6 numbers each, for the edge labels. We can start by picking the smallest possible labels on the edges, integers $\{1, 2, ..., 6\}$. We find that we cannot use the smallest labels because these edge labels do not sum to 24. Instead, we can use one of the following three possible sets of integers as edge labels: $\{1, 2, 3, 5, 6, 7\}$, $\{1, 2, 3, 4, 5, 9\}$, or $\{1, 2, 3, 4, 6, 8\}$. If we use the set $\{1, 2, 3, 5, 6, 7\}$, we obtain the labeling in Figure 8 below. This is the next smallest possible $E_{sum}$ of the crown graph $H_3$.

![Figure 8: Vertex-Magic Labeling of $H_3$ with Magic Number 17](image)
Now we will look at another crown graph labeling. In Figure 9, we have a VMTL of $H_4$ which we see that we can label to be an E-super VMTL. There are many other E-super VMTLs of $H_4$ that we will see in support of Conjecture 1 towards the end of the paper. In the next section, we will give a result about E-super VMTLs for crown graphs.

![Figure 9: E-Super VMTL of $H_4$ with Magic Number 36](image)

### 4.2.1 Crown Graph Results

As seen above in Figure 9, we have that it is possible to generate E-super VMTLs for even crown graphs $H_n$ with $n \geq 4$, where a vertex-magic labeling exists. E-super VMTLs do not exist for any crown graph $H_n$ with odd $n$.

**Theorem 3.** *For the crown graph $H_n$, $n \geq 4$, if there exists an E-super vertex-magic total labeling, then $n$ is even.*

**Proof.** For any crown graph $H_n$, we have that $v = 2n$ and $e = n(n - 1)$.

Assume there exists a VMTL for $H_n$. By Lemma 1 we have

$$k = \frac{(2n + n^2 - n)(2n + n^2 - n + 1)}{4n} + \frac{E_{sum}}{2n}.$$  

By definition of E-super VMTL,

$$E_{sum} = \sum_{i=1}^{e} i = \frac{(n^2 - n)(n^2 - n + 1)}{2}.$$  

So it follows by substitution that

$$k = \frac{(n + 1)(n^2 + n + 1)}{4} + \frac{(n - 1)(n^2 - n + 1)}{4} = \frac{n^3}{2} + n.$$  

The magic number, $k$, must be an integer. When $n$ is even, $k$ is an integer.

We have evidence that there are many VMTLs of $H_4$. A few of these labelings are shown in Figure 10. We expect that this will happen for other even crown graphs as well.
Conjecture 1. If \( n \geq 4 \) is even, then there exists an E-super vertex-magic total labeling of crown graph \( H_n \).

We have shown in Theorem 3 that for any even \( n \geq 4 \), it is possible for there to exist an E-super VMTL of crown graph \( H_n \), but one will never exist for any odd \( n \). This theorem does not guarantee that an E-super VMTL exists, but we conjecture that every even crown graph \( H_n \) with \( n \geq 4 \) will have a VMTL, based on computational evidence.

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About the Author

Karissa Massud is a graduating senior double majoring in Mathematics and Secondary Education and double minoring in Statistics and Spanish. Her research project was completed in the summer of 2021, which in turn supported the completion of her thesis in the fall, all under the mentorship of Dr. Shannon Lockard (Mathematics). Karissa’s research was made possible with funding provided by the Adrian Tinsley Program (ATP) grant for undergraduate research. Karissa will present this work at the 2022 Mathematical Association of America’s (MAA) MathFest and the 2022 National Conference on Undergraduate Research (NCUR). She plans to pursue a Ph.D. in Pure Mathematics and begin teaching after graduation.
The Role of Self-Esteem in Emerging Adults’ Test Anxiety

Shannon McCormack

Abstract

During a time that involves a struggle with self-esteem and identity, the college environment and academic stress only make emerging adulthood more challenging for college students. Previous research has shown that low self-esteem is consistently linked with low academic performance in students. Previous research also suggests that the presence of test anxiety negatively affects academic performance. I sought to target the role of self-esteem in emerging adults’ test anxiety, hypothesizing that students who struggled with low self-esteem would report psychological and physiological symptoms of anxiety during exams. American college students were recruited via email and social media and 111 participants completed an online survey regarding their lives as emerging adults. The results demonstrated that participants who suffered from frequent anxious thoughts and physical distress during exams also suffered from low academic self-esteem and low test-taking confidence. Additionally, participants who experienced anxious thoughts during exams also experienced physiological symptoms like sweating and rapid heartbeat. Female participants were found to have experienced anxious thoughts during exams more frequently than male participants suggesting a gender difference in test anxiety. The results of this research indicate that self-esteem in academia does play a large role in whether a student suffers from test anxiety. These results can be used to identify and alleviate symptoms of test anxiety in the traditional college classroom environment to improve test scores and the overall mental health of emerging adults.

The Role of Self-Esteem in Emerging Adults’ Test Anxiety

Emerging adulthood is a complex, confusing period in an individual’s life in which a person typically feels that they are neither an adolescent nor an adult (Arnett, 2000). Through his research, Arnett (2000) explains that between ages 18-25, emerging adults in industrialized countries typically make the transition from high school to college, carving the path to their future careers. The college environment and academic stressors that follow make this time extremely challenging for young people. Emerging adults struggle with external and internal pressures such as test anxiety and low performance in academia that must be targeted through research. After targeting these pressures, it is essential to discover methods to alleviate them during an already complicated stage of life.

One of the internal pressures that harm emerging adult’s academic outcomes is the struggle with self-esteem. To identify methods of improving one’s self-esteem and how that affects test performance, researchers tested the effect of beautifying one’s appearance. In a study conducted by Palumbo et al. (2017), the researchers studied whether wearing makeup affects a female college freshman’s test performance. The researchers collected three groups that reported on their self-confidence before and after one group applied makeup, one group colored, and one group listened to positive music. Then, the groups took the same exam on the material they all studied prior. The researchers found that participants had elevated self-esteem after applying makeup which led to higher test scores on an exam than participants without makeup. The researchers also found that two-thirds of the groups reported an elevated mood after listening to music and applying makeup. From this research, conclusions can be drawn that positive mood and self-confidence, which can come from beautifying one’s physical features, has a positive effect on exam performance.

Researchers have also found that the internal pressure of low self-esteem and its negative effect on
academic performance appears not only just in emerging adulthood, but it begins as early as young adolescence. Alves-Martins et al. (2002) sought to find the different self-esteem levels in students who received good and poor grades in school. The researchers also examined what methods these students used to manage any low self-confidence. Thirteen- to nineteen-year-old Portuguese students were tested with two self-report scales asking about their attitudes towards themselves and academics in general. The researchers found that that the younger a student was, the lower their self-esteem was when they performed worse in school. To improve this low self-esteem about academics, the researchers found that older eighth-grade students were likely to seek validation from romantic relationships instead. The researchers also found that the lower a student’s academic performance, the less importance that student placed on school. This research suggests that not only does self-esteem influence academic performance at an early age, but negative performance can negatively impact self-esteem even more.

The instability of an individual’s self-esteem, which is more likely to be present in emerging adulthood, is an additional factor in performing worse in academic environments. Research by Zeigler-Hill et al. (2013) suggests that the instability of self-esteem predicts lower academic performance in college students. The researchers conducted two studies to find how both American and Chinese college students with unstable self-esteem perform in school using self-report measures. The researchers found that both groups reported similar levels of unstable self-esteem and disinterest in school; however, Chinese participants had lower self-esteem but placed less importance on school than the American participants. The researchers concluded that regardless of cultural differences, self-esteem instability was linked to worse academic outcomes. During this time when emerging adults are trying to navigate their place in the world, their self-confidence can be vulnerable to instability, which can be linked to the academic struggles they face.

Low self-esteem, however, is not the only internal pressure at play when it comes to poor academic outcomes in young students. In addition, researchers have found that the presence of test anxiety can be linked with low academic performance. A study conducted by Kestenbaum and Weiner (1970) investigated whether exam scores were influenced by academic motivation or testing anxiety. The study consisted of seventh and eighth graders who were measured on their test anxiety and attitudes surrounding achievement via self-report measures. The participants then took a standardized reading test, and their results were compared. The results revealed that among young adolescents, those with high test anxiety performed worse on the test than their fellow peers. The researchers also found that those with high achievement motivation performed higher on that same exam. These findings reveal that anxious test-takers score worse on tests, which leads to overall low academic performance. In young adolescence, students are already struggling with the nervous feelings and anxious thoughts surrounding academia that we see continue to snowball in emerging adulthood.

In addition to young students, emerging adults struggle with testing anxiety, which has a negative influence on their academic outcomes as well. In a study conducted by Naveh-Benjamin et al. (1997), the researchers analyzed students’ ability to retain knowledge from studied material immediately versus years after, specifically in anxious test-takers. The participants in the study were American college students who self-reported their test anxiety and were tested on course-related material—some at the end of the course, others, months later. The results suggest that anxious test-takers know less information and have difficulty organizing their knowledge when being tested immediately after learning information. However, the study found that those same test-anxious students
performed better years after learning the information. These findings suggest that test-anxious students have lower performance in the traditional college testing and learning environment. In America, where college students’ performance is generally measured by their information retention after a short period, test-anxious college students are disadvantaged.

While past research found a negative relationship between academic performance and test anxiety and a positive relationship between academic performance and self-esteem, test anxiety was found to be linked with one’s ego and self-concept as well. A study conducted by Thomas and Gadbois (2007) wanted to see if Canadian college students’ self-esteem is related to exam performance and the tendency to self-handicap. The students reported their self-esteem, self-concept, test anxiety, and views on their performance. This report was completed both before and after taking a midterm exam on course material. The researchers found that students’ test anxiety predicted academic self-handicapping strategies and lower self-concept. College students tend to self-handicap to protect their self-esteem when it comes to academic performance. Self-handicapping is typically used by students to shift the blame of low scores or lack of knowledge on anything but oneself. By using this strategy, the students were attempting to numb their test anxiety with self-sabotage.

As shown by previous research, self-esteem and academic performance have a positive relationship, which could have a serious negative impact on emerging adults with low self-esteem (Alves-Martin et al., 2002; Palumbo et al., 2017; Ziegler-Hill et al., 2013). This means that having feelings of doubt about oneself and confusion, which is typical in emerging adulthood, is related to low performance in school. This low performance in school can increase levels of stress in these individuals’ lives and lead to even more self-doubt (Alves-Martin et al., 2002). Being that college is an important stepping stone to a successful career in America, poor performance, failing scores, and low GPAs can make matters worse for students at this age. It is important to target this low self-esteem to improve academic outcomes and the livelihoods of emerging adults.

In addition, test anxiety and academic performance were found to have a negative relationship, which means that emerging adults with high test anxiety have low academic performance (Kestenbaum & Weiner, 1970; Naveh-Benjamin et al., 1997). Students’ test anxiety was also found to predict academic self-handicapping strategies and lower self-concept (Thomas & Gadbois, 2007). This research demonstrates the harmful effect of test anxiety on students’ overall performance in academia.

After seeing that test anxiety affects academic outcomes and therefore indirectly self-esteem, it is important to isolate what factors may predict this test anxiety to begin with. Does low self-esteem – in academia, social status, or appearance – predict the tendency to be an anxious test-taker? There is a lack of research on American college students that analyzes the role of self-confidence and general self-esteem concerning the development of test anxiety. In this study, I examined whether low self-esteem predicted the presence of test anxiety. This study utilized a self-report measure to indicate students’ self-perceptions of their academic abilities and general self-esteem. The participants were asked about their nerves during exams and other test-anxious indicators. I hypothesized that students who were unsatisfied with themselves as a person and as a student would be more likely to experience test anxiety in school. This test anxiety may stem from both internal and external pressures placed on emerging adults during this complex stage in their lives. Societal pressures like succeeding in college may result in pressure on a student during high-stakes exams. Internal pressures like low self-esteem may also lead to a similar result, which I intend to analyze through this research.
This research is essential in understanding potential factors at the root of test anxiety. This research provides insight on the key element associated with the presence of this test anxiety — emerging adults’ perceptions of themselves. Test anxiety can be a debilitating experience for students and cause psychological harm. More research must be done to target the internal factors, like low self-esteem, that could be at the root of it.

This research is also important in improving academic outcomes for emerging adults. We know that poor academic performance and scores can be detrimental to a student’s self-esteem, and when esteem is one of the factors at the root of test anxiety, it keeps this harmful cycle moving. Through this research and future studies, we can identify which aspects of low self-esteem may be predicting the presence of testing anxiety and through isolating these factors, hopefully, assist in relieving it.

**Method**

**Participants**

The sample that was used in this study included college students between the ages 18 and 28. This sample consisted of students currently enrolled in colleges primarily in New England. This sample served to represent the larger population of emerging adults in colleges across the United States.

The total number of participants in our sample was 111 college students, ages 18-28 (M = 20.81 SD = 1.96. In terms of gender, 16 (14.4%) participants identified as male, 89 (80.2%) identified as female, 3 (2.7%) identified as both, 2 (1.8%) identified as neither, and 1 (0.9%) selected “Other”. In terms of race/ethnicity, 9 (8.1%) participants were Black or African American, 3 (2.7%) were Asian American, 92 (82.9%) were European American (White, non-Hispanic), 3 (2.7%) were Hispanic or Latinx, and 4 (3.6%) selected “Other”. In terms of college status, 11 were Freshmen (10%), 27 were Sophomores (24.5%), 40 were Juniors (36.4%), 30 were Seniors (27.3%), and 2 (1.8%) selected “Other”. Regarding adulthood status, 20 (18%) felt like they had reached adulthood, 6 (5.4%) did not feel like they had reached adulthood, and 85 (76.6%) felt that in some ways they had reached adulthood, but in some ways, they had not.

**Procedure**

This study was a collaborative research project within a Research Methods II course at Bridgewater State University. My classmates and I recruited participants via email, the BSU app, and other forms of social media. Email addresses of potential participants were gathered from a convenience sample of friends, family, and peers. My specific recruitment process consisted of sending emails with the survey link to approximately 10 possible participants. My subset of potential participants received an email detailing what the survey consisted of and what it was being used for. My email read:

Hello,

My name is _______________, and I am an undergraduate student at Bridgewater State University. I am conducting research for a project with my Research Methods II Psychology class. We are studying emerging adults ages 18-29 enrolled in colleges in the United States. The purpose of this study is to learn how to conduct and analyze research using the information that you provide via survey. If you choose to participate, you will fill out ~75 closed-ended survey questions regarding your life as both an emerging adult and a college student. The survey will touch on topics such as anxiety, self-esteem, and more. I encourage you to click the link below to participate as you will be providing BSU students with the opportunity...
Physiological test anxiety. Physiological test anxiety can be conceptually defined as the physical symptoms of nervousness that one experiences during an exam. Physiological test anxiety was defined as the frequency one experienced rapid heartbeat, nausea, sweating, etc. during exams. Question 82 asked, “How often do you experience physical symptoms (rapid heartbeat, nausea, sweating, etc.) while taking a course-related exam?” with four response options of (1) Always, (2) Sometimes, (3) Rarely, (4) Never. After reverse-scoring, higher scores indicated higher levels of physiological test anxiety.

Academic self-esteem. Academic self-esteem can be conceptually defined as one’s own feelings about their academic abilities. Academic self-esteem was defined in this survey as the participant’s feelings about their ability to receive a good test score. Item 83 stated, “Regardless of how much I prepare, I will not perform well on a course-related exam” to which the participant ranked their stance as 1 (Strongly Agree), 2, 3, or 4 (Strongly Disagree). Higher scores indicated higher levels of academic self-esteem. Item 84 is a reverse-score of the previous item and states, “I can perform well on a course-related exam if I try.” The participant again ranked their stance as 1 (Strongly Agree), 2, 3, or 4 (Strongly Disagree). After reverse-scoring, higher scores indicated higher levels of academic self-esteem. The two measurements of the academic self-esteem variable had acceptable internal consistency ($\alpha = .77$).

Test-taking confidence. Test-taking confidence can be conceptually defined as one’s self-esteem related to their strategies of test-taking. Test-taking confidence was defined in this survey as to how good of a test-taker one thinks they are as compared to their peers. Item 85 states, “I believe that I am a better test-taker than the rest of my peers” to which the participant responded with 1 (Strongly Agree), 2, 3, or 4 (Strongly Disagree). After reverse-scoring, higher scores indicated higher levels of test-taking confidence.
Results

The results revealed that there was a significant positive correlation between psychological symptoms of test anxiety and physiological symptoms of test anxiety ($r = .52, p < .001$), demonstrating that as the frequency of anxious thoughts during exams increased, so did the frequency of physical distress (rapid heartbeat, sweating, nausea, etc.). These results indicated that psychological and physiological symptoms generally worked hand-in-hand in a test-anxious individual. Additionally, there was a significant negative correlation between psychological symptoms of test anxiety and academic self-esteem ($r = -.34, p < .001$), demonstrating that as the frequency of anxious thoughts during exams increased, confidence that one could do well on an exam decreased. In addition, there was a significant negative correlation between psychological symptoms of test anxiety and test-taking confidence ($r = -.52, p < .001$), demonstrating that as the frequency of anxious thoughts during exams increased, confidence in one’s test-taking abilities decreased. There was also a marginal negative correlation found between general self-esteem and psychological symptoms of test anxiety ($r = -.17, p = .086$), but this relationship was not significant. These results indicate that students who experienced anxious thoughts during exams were more likely to suffer from low confidence and esteem in the traditional college academic environment.

To further define self-esteem in the college environment, a Pearson $r$ correlation was run to determine how closely related one’s academic self-esteem was to their confidence in their test-taking abilities. There was a significant positive correlation found between academic self-esteem and test-taking confidence ($r = .62, p < .001$), demonstrating that as confidence that one could do well or receive a good score on an exam increased, confidence in one’s test-taking abilities also increased. These results indicated that confidence in academic performance and test-taking abilities were closely related.

After psychological symptoms of test anxiety were isolated, the relationship between physiological symptoms of anxiety and academic esteem/test-taking confidence was analyzed. The results of a Pearson $r$ correlation showed that there was a significantly negative correlation between physiological symptoms of test anxiety and test-taking confidence ($r = -.27, p = .004$), demonstrating that as the frequency of physical distress (rapid heartbeat, sweating, nausea, etc.) during exams increased, confidence in one’s test-taking abilities decreased. In addition, there was a significantly negative correlation found between physiological symptoms of test anxiety and academic self-esteem ($r = -.27, p = .004$), demonstrating that the frequency of physical distress (rapid heartbeat, sweating, nausea, etc.) during exams increased, confidence that one could do well on an exam decreased. Additionally, there was a marginal negative correlation between general self-esteem and physiological symptoms of test anxiety, but this relationship was not significant ($r = -.18, p = .069$). These results indicated that students who experienced frequent physical indicators of test anxiety suffered from a lack of confidence in their academic performance and test-taking abilities as well.

Additional tests were run to determine whether the demographics of the participants played a role in how
often they experienced anxious thoughts/feelings during exams. To analyze the relationship between gender and psychological symptoms of test anxiety, an independent samples t-test was run. Women scored significantly higher on psychological symptoms of test anxiety ($M = 3.63$, $SD = .57$) than men ($M = 3.00$, $SD = .76$), $t(100) = -3.76$, $p < .001$. These results showed that women experienced anxious thoughts during exams more frequently than their male peers. To analyze the relationship between race and psychological test anxiety, a one-way between-groups ANOVA was run. The results of this test revealed that there was no main effect of race/ethnicity on psychological symptoms of test anxiety, $F(4, 102) = .82$, $p = .516$. These results showed that race and ethnicity did not play a strong role in experiencing anxious thoughts during a course-related exam. Additionally, a Pearson r correlation found that there was no correlation between age and psychological symptoms of test anxiety, $(r = -.08, p = .568)$. All these results showed that while women were more likely to experience anxious thoughts during exams, there was no significant difference based on race or age.

Additional tests were run to determine whether a student’s academic self-esteem depended on where they were in their journey of emerging adulthood. The results of a one-way between-groups ANOVA revealed that there was no effect of year in college on academic self-esteem, $F(4, 103) = .533$, $p = .712$. These results showed that a college student’s year in college did not play a role in their confidence that they could perform well on an exam. Additionally, the results of a one-way between-groups ANOVA revealed that there was no effect of feeling like an adult on academic self-esteem, $F(2, 106) = .656$, $p = .521$. Both tests indicated that a college student’s academic performance confidence did not depend on their year in college or whether they felt like an adult.

Discussion

The purpose of this research was to identify the role that self-esteem plays in the presence of test anxiety in emerging adults. This research also sought to find how academic and general self-esteem differed in their relationship with psychological and physiological symptoms of test anxiety. I hypothesized that students who had frequent anxious thoughts and physical indicators of nervousness during exams have low general and academic self-esteem as well as low test-taking confidence.

The results of this research demonstrated that both low academic self-esteem and low test-taking confidence predicted both psychological and physiological symptoms of test anxiety in participants. This supported my hypothesis in that I predicted that one’s confidence in academia would predict whether they presented symptoms of test anxiety. As academic self-esteem decreased in a participant, mental and physical indicators of stress during exams like rapid heartbeat, sweating, and nausea. As the frequency of mental distress during exams increased, so did the frequency of physical distress. These results indicated that one’s self-worth and confidence in academia were greatly related to increased anxious thoughts during exams – more than with physical symptoms of anxiousness. The results also indicated that there was a gender difference among test-anxious individuals such that women experienced anxious thoughts during exams more frequently than men did. There was also a strong relationship between those anxious thoughts and the physical indicators of stress during exams like rapid heartbeat, sweating, and nausea. As the frequency of mental distress during exams increased, so did the frequency of physical distress. These results indicated that psychological and physiological symptoms generally worked together in a test-anxious individual. This emphasizes the complexity of test anxiety and how it can consist of a debilitating combination of psychological and physiological distress among college students. It was also found that general self-esteem had no relationship with
Zeigler-Hill et al. (2013) found that regardless of cultural differences among Chinese and American participants, self-esteem instability was linked to worse academic outcomes. Although my research did not consider actual performance, it measured self-esteem and beliefs about one’s ability to perform well. The results of my research supported this in that race and ethnicity did not influence whether a student experienced frequent psychological symptom of anxiety during exams. These results suggest that cultural and racial differences do not play a large role in self-esteem, academic performance, or test anxiety. However, a limitation of this research is the unequal sample size between these groups. Being that most participants were European American (82.9%), this may have played a role not finding differences between ethnic groups.

In addition to the effect of self-esteem on performance, Kestenbaum and Weiner’s (1970) research revealed that among young adolescents, those with high test anxiety performed worse on a test than their fellow peers. The results of my research supported this finding in that students were more likely to experience symptoms of test anxiety if they felt that they could not perform as well on an exam as the rest of their peers. The confidence in performance of the participants within my sample aligned with the actual performance of the group in Kestenbaum and Weiner’s (1970) sample, even over half a century later. These similar results may have been found because many of the emerging adults in my sample felt like they had not fully reached adulthood, like the young adolescents in Kestenbaum and Weiner’s study.

In addition, Alves-Martins et al. (2002) found that the lower a student’s academic performance, the less importance that student placed on school. However, my findings suggest that participants who had lower confidence that they could perform well were more anxious while taking exams. Being nervous about an exam or score would therefore insinuate that the student placed more importance on that grade and school in general, contradicting the previous research. Perhaps this difference could be due to the difference in age of participants, the culture of participants, or the time gap between the two studies. The previous study used only Portuguese students ages 13-19 and was conducted in the early 2000s.

In addition, Naveh-Benjamin et al. (1997) found that anxious test-takers know less information and have difficulty organizing their knowledge when being tested immediately after learning information, like in a traditional college testing environment. The results of my research
support and expand on this finding in that anxious test-takers were not confident in their test-taking abilities and did not feel prepared to receive a good score on specifically a course-related exam. These findings both highlight the role of the traditional college testing environment in an individual’s test anxiety.

Thomas and Gadbois (2007) found that students’ test anxiety predicted academic self-handicapping strategies and lower self-concept, meaning that test-anxious students were more likely to self-sabotage. To support these findings, my results demonstrated that students who were more anxious during exams were more likely to experience self-doubt in academia. Perhaps this is because self-doubt and self-sabotage could be related, as one who feels incapable may prevent themselves from experiencing failure.

Previous research has demonstrated the impact that low self-esteem and test anxiety can have on academic performance. My research highlighted the role that low academic self-esteem played in the development of that test anxiety. However, there were some limitations of this study. If I were to conduct an additional study on this topic, I would better investigate the cross-cultural, locational, and gender differences in the presence of test anxiety by using a more representative sample. This study included primarily female (80%) and White (83%) students attending colleges on the East Coast of the United States. I anticipate that in a more representative sample, we would see higher rates of test anxiety due to differences in the factors linked to it and important cross-cultural differences as Zeigler-Hill et al. (2013) found in their study. In addition, I would add another variable in addition to self-esteem that could potentially be linked to test anxiety, like parental pressures. The addition of another variable could explain whether low academic self-esteem is working alone in the development of test anxiety, which I anticipate it is not. Other external pressures that emerging adults experience during this stage of life should be examined when it comes to testing anxiety.

From the results of this research, we see that college students who have low test-taking and performance confidence also present symptoms of test anxiety. These results and those of previous research suggest that self-esteem, academic performance, and test anxiety are interconnected. Future research should expand upon these results and dive deeper into the three-way relationship of these variables. It is important to identify how self-esteem impacts performance and how that may impact test anxiety – and the various combinations of these variables. How do the three of these interact in an emerging adult? What additional external factors can be controlled to relieve test anxiety and improve esteem and performance in academia? Future research must explore the additional factors at play in an emerging adult’s symptoms of test anxiety.

These results demonstrate that academic self-esteem plays a large role in the presence of test anxiety. The results also illustrate the dual role that mental and physical indicators of stress play in the test-taking experiences of test-anxious students. Educators must put in extra effort because these symptoms of debilitating test anxiety are not always physical, meaning they could be harder to recognize. These findings emphasize that students’ anxious thoughts during exams are related to feeling like they cannot receive a good grade or perform as well as their peers. This could be because students who do not have confidence that they can achieve success in academia carry a great burden when it comes to exams. This burden can lead to anxious thoughts and potentially self-handicapping strategies to numb feelings of failure. In recognizing these factors, educators and test proctors can practice mindfulness exercises or other strategies to improve one’s confidence and overall mindset before exam time. These findings will also allow school counselors,
aides, and educators to recognize the combination of physical and mental symptoms of test anxiety and treat them as needed. In understanding that low academic self-esteem is at the root of test anxiety, students can both better help themselves and be better assisted in treating said anxious feelings. The results also indicate that numerous emerging adults struggle with test anxiety, despite it not being talked about much. Test anxiety can be debilitating for those who struggle, and it can interfere with everyday life. In addition, low general and academic self-esteem, as many participants have displayed, can severely impact one’s life and mental health. Students and society at large need to be able to identify these anxious feelings and understand how to self-soothe and deal with these strong emotions. Educators, counselors, and other members of the college community should raise awareness of this shared experience as well and promote ways of increasing academic self-esteem to potentially relieve symptomatic test anxiety in students. Altering modern approaches to pedagogy and test administration should also be considered in reducing the test anxiety that emerges in the traditional college classroom setting. The self-esteem and mental health of college students in academia must be prioritized to effectively reduce anxiety, improve performance, and promote an overall better quality of life.

References


About the Author

Shannon McCormack is a junior Honors student double majoring in Elementary Education and Psychology. Her research was completed in Spring 2021 in BSU’s Research Methods II course under the mentorship of Dr. Joseph Schwab (Psychology). In addition to her work in the field of psychology, she has also completed research on the topics of racial justice and equity in education. Shannon has showcased her research at three of BSU’s Undergraduate Research Symposium events. For her Honors thesis work she will continue conducting her own research on the topic of antiracist education.
Reckless or Remarkable? An Examination of Bias and Framing in CNN and Fox’s Coverage of President Trump’s COVID-19 Diagnosis

Matt McGuirk

Introduction

In the late evening of Tuesday, September 29, Donald Trump walked off the stage after a chaotic first debate with Democratic presidential nominee Joe Biden. He spent Thursday that week at his golf club in New Jersey and was then thrust into quarantine later that evening when his top White House adviser, Hope Hicks, tested positive for COVID-19 (O’Donnell, 2020). The Wall Street Journal reported that Trump received a positive result from a rapid test but did not disclose this information to the general public (Bender & Ballhaus, 2020). There was no official confirmation until the early hours of Friday, October 2, when Trump confirmed his coronavirus diagnosis via a tweet. The president was admitted to Walter Reed Medical Center later that day, where he remained for the next 72 hours.

At the time of the diagnosis, the United States had more than 200,000 coronavirus deaths (Chappell, 2020) and the Trump Administration was sending mixed signals to the American people. As facemasks became the norm and large gatherings became a thing of the past, Trump did the polar opposite — he resisted wearing masks and attended numerous large gatherings (Fritze & Slack, 2020). One of these gatherings was held in the White House Rose Garden for Amy Coney Barrett and with more than 150 people in attendance; it was dubbed a “superspreader event” by Dr. Anthony Fauci, America’s top expert on infectious diseases (Clark, 2020).

During Trump’s stint at Walter Reed, White House physician Dr. Sean Conley and Trump’s press staff routinely dodged questions from reporters regarding the president’s health. When Trump was discharged on October 5, it was unknown whether he was no longer a carrier of the virus, and his actions in the days that followed were met with scrutiny from some media outlets and praise from others. The scrutiny included criticisms of Trump’s apparent disregard for the health of others around him and his lack of judgement in countering a virus that at the time of this publication has killed more than 800,000 Americans (“CDC COVID Data Tracker,” 2021). The praise was centered on the idea that Trump was showing Americans that anyone can beat this virus and that we should not be afraid of it. The story of Trump’s diagnosis encapsulated the political division in our country during the lead-up to the 2020 election, as well as the disparate media coverage of a global pandemic.

When observing news networks with different partisankships, it is hard to exclude CNN and Fox News from the conversation. It is a widespread notion that these networks, two of the biggest in the United States, sit on completely opposite ends of the political spectrum with major differences in ideologies. Each network uses their own discourse and rhetoric when discussing the news, thus impacting how stories are covered and prioritized. When it came to Trump’s COVID-19 diagnosis, the distinction in coverage was easily recognized.

In this study, I analyzed how each network framed the coverage of Trump’s COVID-19 diagnosis and how ideological bias played a role in the reporting. To examine these concepts, I viewed Anderson Cooper 360 on CNN and Tucker Carlson Tonight on Fox on four nights during the week of Monday, October 5. As I begin my own analysis into this topic, I will first explore several areas of literature that provide valuable context regarding the definitions and perceptions of bias, framing, and political ideology in our current media climate.
Literature Review

Perceptions of media bias

News consumers in America often argue that the media are biased toward one side of the political spectrum. One reason for this belief is that some journalists use ideologically biased reporting, which Eisinger, Koehn, and Veenstra (2007) said is not only poor journalism, but also considered to be the main reason many Americans do not trust the media. Opinionated news programs, as Feldman (2011) explained, are popular among audiences, but it is uncertain how well they can suit the needs of politics and how they compare to traditional, impartial journalism. Feldman said that the idea of opinionated news “becomes dangerous when the news is misleading or incomplete and especially when it resides in an information environment that fails to furnish competing viewpoints” (p. 178).

Lee (2005) examined the belief of the general public and many politicians that the news media in the United States is liberal and has a pro-Democratic bias. Using survey data collected from the 1996 National Election Studies and the 1997 Life Style survey, Lee tested whether this perception is based on a news consumer’s own partisan beliefs and discovered that people’s ideologies and partisanship did play a role in how they viewed the media. The findings revealed that strong conservatives and Republicans are more likely to distrust the media, while strong liberals and Democrats are more likely to trust the media to report news fairly. Lee wrote, “Therefore, cynical and distrusting citizens—who tend to be conservatives and Republicans—are more likely to perceive media biases favoring their ideological and partisan opponents” (p. 55).

Barnidge et al. (2020) elaborated on Lee’s findings, saying it was common for liberals to stick with liberal media and conservatives to stick with conservative media. Their study also built on the concept of politically motivated selective exposure, which is “the act of preferentially selecting prodispositional media or media content for political reasons” (p. 83). Those who participate in this action should be less likely to perceive a bias because they aren’t encountering disagreeable news content. Therefore, some people might believe the media in general is biased, but selected, or preferred, media are not. It was also suggested that political opinion plays a role in selective exposure, especially in news consumers with more extreme views.

Expanding on the topic of selective exposure, Smithson, Tully, and Vraga (2020) looked at how perceptions of personal bias and news bias affect news choices and interpretation. They discussed the concept of news media literacy and how it contributes to an individual’s understanding of news bias. All participants of the study agreed that individual worldviews affect news choices. They also noted that news bias stems from political partisanship connected to individual news organizations and news consumers picked up on the biases through cues like tone, word choice, terminology, and lack of balance. On the idea of balance within news outlets, Smithson, et al. wrote, “When thinking about political and social issues, the vast majority of Americans think news organizations regularly promote one perspective over another” (p. 209). This relates to the statement regarding ideologically biased journalism in the study conducted by Eisinger, Koehn, and Veenstra (2007). It should be said that claims of bias within news organizations usually contain anecdotal evidence with no scientifically proven data and oftentimes these claims come from individuals with their own biases (Christopherson et al., 2007). News consumers have perceived biases of individual networks, but to understand these biases, we must consider how news organizations cover, prioritize, and portray specific news stories.

Media framing and its effects

Framing is a technique used by journalists when reporting specific stories. It refers to the way events and
issues are organized and presented by the media. As Entman (2010) wrote, “It involves selecting a few aspects of a perceived reality and connecting them together in a narrative that promotes a particular interpretation” (p. 391). Regarding the effects of framing, Simon and Xenos (2000) wrote, “The underlying presumption was that the organization of messages affects subsequent thoughts and actions. In general, framing involves the organization and packaging of messaging” (p. 366). Additionally, framing is often used by journalists when reporting on controversial topics (Kim & Wanta, 2018; Kim, 2019).

Kim and Wanta (2018) examined the frames of the controversial immigration debate using news coverage from four major U.S. newspapers during election years. They pointed out a benefit of framing by saying it has great potential to get beneath the surface of a story and lead individuals to new concepts or ideas. However, because the news media often portray stories through an ideological lens, this leads to the issue of making small alterations to definitions and facts.

Kim (2019) studied the differential effects of news frames on perceptions of media bias, noting that partisan individuals are likely to see impartial and balanced reporting as biased toward the other side. This is a previous theory known as hostile media perception, an idea based on partisan audience exposure to a controversial issue of importance. He explained how journalists present controversial issues using personal or social value frames. In turn, this affects how audiences perceive and understand social controversies. Kim later wrote that news consumers “might selectively rely on the outcomes congenial to their view to make a conclusion” (p. 41).

Framing has contributed to shaping public perception of political issues or institutions. Although scholars have studied general issues of bias in the media, some networks merit special consideration when political ideology is involved. Thus, the final scholarly area of this study relates to CNN and Fox News.

CNN, Fox, and fake news

CNN and Fox News are two of America’s biggest news networks (Johnson, 2020) but are very different on both a journalistic and ideological scale (“The Media Bias Chart,” 2020). CNN has adopted a more liberal stance with its news coverage, while Fox has become much more of an opinion-driven network that leans conservative. Each network also caters to a very distinct audience; the average Fox News viewer sits on the right of the political spectrum, and CNN viewers lean more to the left (Gramlich, 2020).

Morris (2005) reported that Fox News viewers are less likely to watch news that conflicts with their opinions, while CNN and other network audiences prefer news with in-depth coverage and interviews. The Fox News audience is more Republican than the CNN audience, but both audiences are moving away from the middle. There is a concern that if viewers are only exposing themselves to information that reinforces their preconceived notions, each audience will continue to polarize and any future attempt at open dialogue between the left and right in America will be constrained. Morris also wrote that Fox News did the best job of attracting Americans with lower political knowledge and higher cynicism than other networks. Although Morris’s study was conducted in 2005, many of the ideological findings have been corroborated by more up-to-date literature, and Morris’s findings are supported by the emergence of politically motivated selective exposure.

Van der Linden, Panagopoulos, and Roozenbeek (2020) reported on a psychological bias they call the “fake news effect,” or the tendency for partisan news consumers to use the term “fake news” to discredit ideologically incompatible news sources. They found evidence that conservatives associated left-wing CNN as “fake news” and liberals identified the conservative Fox News as “fake news.” The term has been connected with both CNN and Fox, but the former has received the brunt of it since the election of Trump in 2016. The term existed long
before Trump, but it gained much more traction during his presidency. Stelter (2018) wrote that Trump used the term like a slur to discredit individual news outlets and the media as a whole. He then explained that while past presidents have criticized the media for bias and slants, using the word “fake” allowed Trump to instill a belief that journalists make up stories. Additionally, van der Linden, Panagopoulos, and Roozenbeek (2020) discovered that conservatives were more likely to associate the media in general with the term “fake news” because of lower trust in the media and their support of Trump.

Pasley (2019) wrote that CNN and Fox News have both changed significantly in the last decade. CNN, once known as America’s “emergency room,” has been struggling to compete with Fox News and other networks. Fox News’ popularity has risen since 2010, due in large part to the highly opinionated tone of the network. The election of Trump created unique situations for each network. CNN was criticized for being one of the first outlets to give Trump a platform, while Fox News knew the election of Trump would mean its viewers — mainly conservatives — would stay glued to the network. Farhi (2018) wrote that as Fox beat CNN in the ratings war, the latter had to define its audience by saying it is not pro-conservative. Conversely, Yglesias (2018) argued that although Fox can seem like a “propaganda organ” for the Republican Party, the network serves more as a factional player that is working to influence the party’s future direction (p. 681). For instance, Sean Hannity, who touts Trump’s messaging during his 9 p.m. commentary show, also served as an adviser to the president on strategy and messaging (Rutenberg, 2016).

The differences in political ideology have caused CNN and Fox to cover the COVID-19 pandemic very differently. Fox regularly maintained the idea that the virus is not a big deal and that it has been overblown by Democrats and the media (Ecarma, 2020; Perez, 2020). This reflects Fox’s audience, too, as Jurkowitz & Mitchell (2020) wrote that 79% of individuals whose main news source is Fox say the media “slightly or greatly exaggerated the risk of the pandemic.” On the other hand, CNN has dedicated a significant amount of airtime to covering the pandemic (Wood, 2020).

Overall, each network presents news stories differ greatly, and it is why the ideological differences between each network — and the audiences — have become more apparent.

**Method**

To study the differences of news coverage between CNN and Fox, I conducted a qualitative textual analysis of *Anderson Cooper 360* and *Tucker Carlson Tonight* on the same days during the week of Monday, October 5. Cooper’s show is a global newscast that is known for its in-depth analysis and reporting. Carlson’s program is more commentary-based, and he often refers to it as “the show that is unapologetically the sworn enemy of lying, pomposity, smugness, and groupthink.”

To narrow my study, I analyzed the differences in coverage of Trump’s COVID-19 diagnosis and identified three distinct substories, which I’ll summarize in the following sections: Trump’s recovery and return to the White House, Trump’s Twitter message about his stint with COVID-19, and Trump’s social media video about his recovery.

**Analysis**

**President Trump’s COVID-19 recovery and return to White House**

One of the biggest news stories during the week was Trump’s COVID-19 diagnosis and his return to the
White House. Trump was diagnosed with the virus on Friday, October 2 and spent the weekend at Walter Reed Medical Center before returning on Monday, October 5 (O’Donnell, 2020). When he returned, he posed on his balcony for a photo op, then removed his mask and entered the building. Minutes later, Trump walked back out on the balcony and repeated his previous actions with a White House camera crew.

The differences in coverage between CNN and Fox were on display when discussing this story. CNN’s Cooper was very critical of Trump for removing his mask while he was still contagious and then for entering a building where COVID-19 cases were rising, saying, “With his photo op, the president was trying to project strength. What he proved was his complete disregard for anyone else forced to be around him” (Cooper, 2020a). Cooper reminded us of everything we did not know about the president’s health: why he received drug treatments designed for highly serious cases, one of which is a mood-altering steroid; what doctors were keeping an eye on, whether it was serious complications like blood clots or lung damage; and how we didn’t know when he contracted the virus or when his last negative test was. Cooper then played videos from the weekend of Dr. Sean Conley avoiding certain questions during his briefings with reporters at Walter Reed. Cooper repeatedly questioned why Dr. Conley and the White House didn’t want anyone knowing when the president’s last negative test was.

To go deeper in coverage, Cooper brought on Jim Acosta, CNN’s Chief White House Correspondent at the time, and asked him whether the president planned to go about his business in the White House without a mask. Acosta said it appeared that that was going to be the case and informed us that other White House officials who were in close proximity to the president were removing their masks while entering the building as well. At one point during a later panel segment, Cooper asked CNN’s Chief Medical Correspondent Sanjay Gupta whether it was even legal, but Gupta would not comment on the legality of the matter and instead said it was clear the president was putting others at risk (Cooper, 2020a).

Meanwhile, Carlson presented this story from a much different perspective on Fox. He called Trump’s recovery a “remarkable turn in a saga that has gripped the country since early Friday morning” and brought on Fox News contributor Rick Leventhal to discuss Trump’s return to the White House (Carlson, 2020a). Leventhal basically narrated the videos of Trump leaving Walter Reed and played footage of an optimistic Dr. Conley. Rather than focusing on Trump’s reluctance to wear a mask when returning, Carlson and Fox portrayed this story in a way that highlighted the significance of his recovery. Carlson also avoided the clips of Dr. Conley purposely not answering questions, then turned this segment around and blasted members of the media and Democrats who he said were rooting for COVID-19 to beat Trump:

You don’t need to be a Trump partisan to feel good about the president’s recovery, you just need to be a decent person. The moment you find yourself rooting for another man’s illness or death is the moment you need to stop immediately in your tracks, pause, and take stock of your soul. You’re the one who is sick and badly in need of help. You’re rotting from within. But the media are not stopping. They’re not even pausing. They’re too angry. (Carlson, 2020a)

Carlson then suggested that after seeing the footage of Trump exiting Walter Reed under his own power, one might conclude that the coronavirus is not as scary as we’re being told it is. Carlson played clips from CNN and MSNBC of anchors, hosts, and contributors using the term “clinical obesity” when describing how Trump was at risk of COVID-19. Carlson used this as an opportunity
to criticize the guidelines and regulations the U.S. has put in place to combat COVID-19, saying they violate our constitutional rights and destroy our society.

The differences in tone between Cooper and Carlson were very apparent when addressing this story. Cooper seemed to be questioning the legitimacy of the president’s recovery and his framing characterized Trump’s actions as risky to others, whereas Carlson approached this in somewhat of a celebratory manner and used it mainly to take shots at the guidelines implemented throughout the U.S. to combat the pandemic.

**President Trump’s tweet about COVID-19**

In addition to the story discussing Trump’s discharge from Walter Reed, both networks covered a tweet from the president acknowledging his recovery. The tweet was published at 2:37 p.m. on October 5, the fourth and final day Trump was at Walter Reed. The message read as follows:

> I will be leaving the great Walter Reed Medical Center today at 6:30 P.M. Feeling really good! Don’t be afraid of Covid. Don’t let it dominate your life. We have developed, under the Trump Administration, some really great drugs & knowledge. I feel better than I did 20 years ago!

The discourse regarding this tweet on each network was very different. On CNN, Cooper, citing the line about not being afraid of COVID-19 and not letting it dominate our lives, called it “the most disturbing and heartless and out of touch thing this man has ever said” (Cooper, 2020a). He pointed out the (as of October 5) 210,000 Americans who had died because they couldn’t receive the extensive medical care the president received, specifically the steroids and other kinds of experimental treatments. Cooper said it was wrong for the president to act like he understood what most Americans were going through just because he was treated for the virus.

Carlson brought on Alex Berenson, author of “Unreported Truths about COVID-19 and Lockdowns,” to discuss how Sweden succeeded in the fight against the virus without imposing any strict lockdowns or mask mandates. Berenson commented on the tweet, calling it the most presidential thing Trump has ever said, and Carlson agreed. To justify the claim, Berenson suggested Trump was not telling us to be afraid of the virus. Instead, he was telling us not to be afraid of each other (Carlson, 2020a). When addressing the tweet later in the week, Carlson reminded us of all the media members who seconded the notion that Trump could potentially die of the coronavirus but instead, he walked out of Walter Reed “tweeting like a savage,” as Carlson put it (Carlson, 2020b).

Both hosts strung together certain pieces of this story to promote their own narratives, which corresponds with Entman’s (2010) idea of framing. It was evident that instead of focusing on the deeper message within the tweet, Carlson and Fox were more interested in covering the action of tweeting itself. Again, Carlson presented this in a festive manner while Cooper was disgusted by the message and thought it proved that Trump did not care about Americans. Other differences in the coverage were the underlying reasons behind the framing. CNN regularly tried to show that the virus is serious and needs to be treated as such, while Fox pushed the idea that COVID-19 is not that bad and we need to get on with our lives.

**President Trump’s video about COVID-19**

The video Trump shot after returning to the White House was met with varying opinions by each network. In the video, Trump suggested he was now immune to the coronavirus and reiterated again to not let it dominate our lives (Bryant, 2020; Gregorian & Smith, 2020).

Cooper simply refused to air it on his program and
said it was not only dangerous, but also “pure propaganda” (Cooper, 2020a). On the Thursday, October 8, episode of Cooper’s show, the CNN host had this to say about Trump’s demeanor following his COVID treatments:

He continues to mislead the public about a pandemic that itself is raging once again and has now taken more than 212,000 lives in this country. But the president, being the president, isn’t focusing on them or on their loved ones or any COVID experience but his own. As a result, he’s floating dangerous ideas about how survivable it is because it was survivable for him. (Cooper, 2020c)

Carlson maintained the idea that we shouldn’t completely ignore the coronavirus but was adamant that Trump’s recovery meant we didn’t have to live in a permanent state of terror.

As Fox aired a banner that read: “MEDIA MELTDOWN OVER TRUMP CORONA VIRUS MESSAGE,” Carlson played clips from MSNBC and CNN of anchors, hosts, and contributors disagreeing with the president and pushing the idea that we should be afraid of the virus. Carlson suggested that encouraging hope was now a heartless act. He also proposed the idea that those in power in the U.S. needed us to be afraid, or else we wouldn’t obey them. At no point did Carlson even slightly criticize Trump or the White House for its COVID-19 response, and he consistently downplayed the severity of the virus. Carlson argued that Trump’s video was only meant to encourage high spirits.

On Fox, Carlson aired the video at the beginning of his show on Tuesday, October 6, and addressed it from a different angle. He referred to it as a self-promotion but included that it was hard to think of a better or more positive message. Carlson said,

Take Trump out of it. Yes, the coronavirus is obviously deadly. It’s killed hundreds of thousands of people in this country, most of them old and sick. But the president himself is old, not to mention clinically obese, whatever that is. And yet he survived. He appears to be in a great mood, as people who cheat death often are. Of course, he received great medical care. He’s the president. But there was no magic involved in the treatment he received. Every drug Donald Trump took is available to the rest of us if and when we get sick. That ought to give us hope. Trump survived, so can we. (Carlson, 2020b)

Cooper played clips from an interview Trump did with Fox Business, in which the president suggested that he was not contagious anymore. Cooper disagreed with the notion, and then transitioned to a clip of then Senate Majority Leader Mitch McConnell — a close ally of the president — voicing his own concerns about the White House’s COVID regulations. Cooper, clearly surprised by this clip, said, “Don’t take our word for it that the White House has been unsafe and uncavalier about the spread of the virus. Take Mitch McConnell’s. That’s right. That Mitch McConnell” (Cooper, 2020c).

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On the other hand, by simply refusing to air the video, Cooper and CNN were, in a way, attempting to protect Americans from the misinformation included within it.

Conclusion

In this study, my goal was to analyze how the biases and framing techniques at CNN and Fox News played a role in their coverage of President Trump’s COVID-19 diagnosis and recovery. Viewing *Anderson Cooper 360* on CNN and *Tucker Carlson Tonight* on Fox
on the same nights showed me how each host and network covered the same story, thus allowing me to recognize the varying ways the story was framed.

There were several key findings from my analysis. From CNN’s side, it was evident right from the start that this news story would be covered from an angle that displayed Trump’s lack of respect for the virus and everyone who has been affected by it. Cooper practically condemned all of Trump’s actions from this week, including his decision to remove his mask, his tweet, and the video from the Truman Balcony — which Cooper flat out refused to air. Cooper regularly cited Trump’s mishandling of this pandemic when reminding us of the coronavirus numbers in America. He frequently used the word “reckless” to describe the president’s actions.

Carlson and Fox approached this story from a different angle, instead focusing more on Trump’s recovery and the way he carried himself afterward. Carlson was adamant that because Trump was able to defeat COVID-19, it was a sign that the disease is not as bad as we’re being told it is. Instead of focusing on any consequences of Trump’s decision-making, Carlson and Fox were more interested in playing up the symbolism of Trump’s actions themselves. Furthermore, Carlson regularly blasted the media and Democrats for their negativity surrounding Trump’s bout with COVID-19, corroborating what Entman and Knüpfer (2020) found regarding Fox’s “us-versus-them mentality,” where the “us” represents liberals, Democrats, and other media outlets. Contrary to his primetime opponent, Carlson referred to Trump’s recovery and return as “remarkable.”

These findings suggest that each network’s framing techniques match their apparent biases and, in turn, the partisanship of their respective audiences. By showcasing Trump’s disregard for the virus and emphasizing the seriousness of the pandemic, CNN’s angle fit with its liberal base. Fox’s coverage was more in sync with the overall conservative belief in the U.S. of COVID-19 being overblown by Democrats, the media, and the medical science community. Due to the fact there were no real similarities in the framing, the varying coverage likely contributed to the current divide in the U.S. regarding the severity of COVID-19.

Additional findings indicate that CNN prefers in-depth analysis to uncover multiple layers of a news story while Fox tends to stick with the run-and-gun commentary that has made it one of the most popular news channels in the country. Furthermore, Fox uses the strategy of airing clips from other networks such as ABC, CNN, and MSNBC to help drive its coverage. CNN rarely deploys this tactic.

The limitations of this study are important to note. First, because this study used qualitative research and only examined one show at each network, the news coverage that was analyzed is not representative of each network as a whole. Second, because this study focused on one large news story and its substories, the identified framing techniques were limited to that specific coverage.

Future research could expand the method used in this study to examine a wider scope of coverage that includes website articles, social media interactions, and breaking news alerts. A secondary method could be surveying news consumers to document perceptions of media bias and framing as it relates to the specific coverage being analyzed in the study. Future research could also compare and contrast multiple news stories, therefore absorbing more overall content to identify more frames and framing strategies.

The results of this study also highlight the realities of a divided media landscape. CNN and Fox, two major U.S. news networks, are responsible for distributing information that helps news consumers conceive the world beyond what they experience individually. When the media present the same story through different lenses — in the
case of this study, an important story regarding the health of the president amid a global pandemic — it establishes a contrasting understanding of reality between different audiences. Although Trump lost the 2020 election to

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About the Author
Matt McGuirk is a senior at BSU who majors in Communication Studies with a concentration in Film, Video, and Media Studies. Matt conducted this study for his senior seminar under the mentorship of Dr. Jessica Birthisel (Communication Studies). After finishing his bachelor’s degree this spring, Matt will stay at Bridgewater State to pursue a Master’s in English.
The Effects of TikTok Use on College Student Learning

Audrey Mekler

Abstract

TikTok is an app that allows someone to make dancing or lifestyle videos, and it has become increasingly popular the past couple of years, especially with college students. But does that mean that this app poses a challenge to college students paying attention in class and getting their schoolwork done? One hundred and eleven college students between the ages of 18 and 28 from colleges such as Bridgewater State University and UMass Amherst participated in an online survey of 85 questions relating to emerging adulthood and topics such as anxiety, social media, relationships, stress, and more topics that are similar. The results showed that the more time participants spent on TikTok each day, the more they became distracted on TikTok when they were trying to pay attention in class and complete schoolwork. Similar results occurred when looking at losing track of time on TikTok and becoming distracted on TikTok when they were trying to pay attention in class and complete schoolwork. The more that someone found themselves going on TikTok each day, the more they lost track of time on TikTok. These findings show that TikTok can impact college students’ abilities to be able to pay attention in class and get their schoolwork done, so students have the possibility of doing worse in a class if they have and use the app TikTok.

The Effects of TikTok Use on College Student Learning

TikTok has become an increasingly popular app for people of many different ages to use. Users can create whatever types of videos they want on this app and post it for anyone to see, despite a large majority of posts being people dancing to music. This app has attracted college students who are in the stage of emerging adulthood. College students enjoy having fun and this app allows them to do just that. They can dance around to the top-rated songs and then gain followers from their posts. But along with having fun, college students still have to be able to focus on their schoolwork, and distractions have the ability to pose a big challenge to getting schoolwork done. TikTok can captivate anyone who is using the app and can cause something like an addiction, where you do not want to get off the app. The more time per week that people spend on social media, the more they become addicted to social media (Ciplak, 2020). How much time do students actually spend on TikTok and what impact does that have on college students paying attention in class and getting their schoolwork done? By finding answers to this question, we can see if this app does have the ability to keep college students from paying attention and completing their schoolwork.

Receiving notifications on our phones, can have an impact on our attentiveness (Stothart, Mitchum, & Yehnert, 2015). For this study, the researchers were trying to see what happens to attentiveness when you do not answer a phone notification instantly. The participants in this study included 212 undergraduates who were taking classes in psychology. Participants were put into three different groups: received a call, received a text message, and did not receive a notification. Participants then filled out a survey so they could share what they thought and also evaluate their phone usage behavior. The participants in the call group and text message group had a larger chance of making a mistake compared to the group that did not receive any notifications at all, but the largest opportunity for making a mistake was with the call group. The results show that we need to accept that phones can serve as distractions, including when we hear a notification but do not touch our phone.
Even having your phone near you when you are trying to complete a challenging task can pose as a distraction. A group of researchers explored whether a cell phone could pose as a distraction when completing different tasks (Thornton, Faires, Robbins, & Rollins, 2014). This study consisted of two different studies, the second replicating what was found in the first study. In the first study, participants consisted of 54 undergraduate students who performed a series of timed tasks, tests, and then filled out two questionnaires. They found that in the more taxing task, the participants who had the cell phone on their table did worse than the participants who had the notebook on their table; but in the less taxing task, there was no difference between either having the phone or notebook. For the more challenging test, they found that the participants who had the phone on their table completed less than those who had the notebook on their table; and there was once again no difference between them in the less challenging test. The second study had different participants complete the same timed tasks, tests, and two questionnaires that were used in the first study. Once again, on the more taxing task, participants who had their phones did worse than those who did not have their phones, whereas in the less taxing task, there was no difference between having a phone out or not. This shows us that even just knowing that your phone is near you can cause enough of a distraction to impact your performance on tasks that are more challenging as opposed to more simple tasks. Besides just knowing that your phone is near you, actually using your phone can also pose as a distraction when completing certain tasks.

In looking at the effect in which phones have on young adults who are healthy, while they are being active, researchers have found that using their phone changed the way that the healthy adults did activities involving movement (Bovonsunthonchai, Ariyaudomkit, Susilo, Sangiamwong, Puchaphan, Chandee, & Richards, 2020). There were 25 healthy young adult participants, ages 18 through 25, gathered from a university. There were six different conditions and six trials for every condition where the participants were walking and using their phone in different ways. They found that participants made the biggest steps and strides without having a task on their phone. The participants’ confidence in walking was the highest without phone use, while listening to music was close behind. While walking, the conditions that showed the least amount of confidence were watching videos and sending texts. This affects people’s protection because their attention is not fully focused on the active task they are doing. This shows that the amount one is distracted by their phone while doing an active task, depends on what the task is, but certain tasks could become more challenging when using a phone. Because phones can distract us from completing different tasks, there is a possibility that they can also impact student learning.

Kuznekoff and Titsworth (2013) thought that classroom learning is something that needs attention focused on what is being taught or lectured, and if students are using their phones during class, then they will not take notes very well. This study consisted of 47 students from a university between the ages of 18 and 22. There were three different groups in which students were randomly placed that determined which participants could use their phone and how they used their phone. Participants had to watch a lecture recording and take notes while watching, and then prepare as if they had a test following the lecture. They found that participants who were exposed to increased phone distractions scored more poorly on the test following the distractions and took less detailed notes. This study demonstrates that not only are phones themselves distractions, using or being distracted by a phone can lead to decreased learning and negative learning outcomes.
Stemming from the idea that a phone can pose as a distraction and learning can be influenced by using a phone, what about social media causing a distraction? Spence, Beasley, Gravenkemper, Hoefler, Ngo, Ortiz, and Campisi (2020) looked at the effect that social media, specifically Instagram, has on retaining information taught to students in college. The participants included 45 undergraduate students between the ages of 18 and 24, and they were each divided into three different groups: no Instagram, Instagram during listening, and Instagram after listening. Participants were required to listen to a story and take a quiz, and then listen to a second story and take another quiz. The researchers found that the participants who heard a story while scrolling through Instagram were less likely to retain information heard in the story, since they performed worse on the quiz compared to those who did not scroll through Instagram while listening to the story. This study provides evidence that not only phone usage, but social media can impact attention and learning.

While there is evidence that the social media app Instagram could cause learning distractions, less is known about other social media apps, especially TikTok. There are only a few research studies that have been done on the app TikTok, and none of them have investigated its potential for distraction as it relates to student learning. We know that from other research that our phones can distract us with a notification even if we do not look at the notification (Stothart, Mitchum, & Yehnert, 2015), the proximity of our phone plays a role in being able to complete a task (Thornton, Faires, Robbins, & Rollins, 2014), using a phone while completing certain tasks can be a challenge (Bovonsunthonchai, Ariyaudomkit, Susilo, Sangiamwong, Puchaphan, Chandee, & Richards, 2020), trying to pay attention while texting or posting on a phone can influence students’ grades (Kuznekoff & Titsworth, 2013), and that students find it very easy to pay more attention to their social media accounts than what is actually being taught right in front of them (Spence, Beasley, Gravenkemper, Hoefler, Ngo, Ortiz, & Campisi, 2020). This research provides evidence of phones and social media as a distraction, however little research has been done to investigate how using a specific app like TikTok, which is increasingly popular for students, could distract or negatively impact learning outcomes. In my study, I investigated that impact, and specifically whether TikTok can negatively impact college student’s learning and schoolwork.

To investigate this topic, I asked students questions on a survey concerning TikTok and their schoolwork. I wanted to see how long students spend on TikTok each day, how often they lose track of time on TikTok each day, whether they create posts or just scroll through other people’s posts, and if they find themselves getting distracted on TikTok when they are supposed to be completing schoolwork and paying attention in class. Does TikTok keep them from getting assignments finished? Does it cause them to not pay attention in class as often as they would without using the app? TikTok has become increasingly popular, and since college students tend to go on social media apps a lot, there is a likely chance that they spend a lot of time on TikTok. Finding answers to these questions will help us gain a better understanding of how much of an impact TikTok has on college students’ ability to learn and complete their schoolwork and could therefore potentially provide a partial explanation as to why some students’ grades have dropped or why they are not paying attention in class.

**Method**

**Participants**

Participants were college students from Bridgewater State University and UMass Amherst. This sample serves to represent the population of emerging
adults who are in college in the United States. The participants in this study included 16 males (14.4%), 89 females (80.2%), with 3 who identify as both male and female (2.7%), 2 who identify as neither male nor female (1.8%), and 1 in the other category (.9%) for a total of 111 participants. They ranged from 18 to 28, with a mean age of 20.81 ($SD = 1.957$). Eleven participants were freshman (10%), 27 were sophomores (24.5%), 40 were juniors (36.4%), 30 were seniors (27.3%), and 2 were in the other category (1.8%). There were 9 African American participants (8.1%), 3 Asian American participants (2.7%), 92 European American participants (82.9%), 3 Hispanic or Latino participants (2.7%), and 4 in the category of other (3.6%). Out of these participants, 20 participants felt they had reached adulthood (18%), 6 participants felt they had not reached adulthood (5.4%), and 85 participants felt in some ways they have reached adulthood and in other ways they have not (76.6%).

### Measures

**Amount of Time Spent on TikTok.** This variable lets me know how much time each participant spends on TikTok each day, if any time at all, and is only measured through one question. It is measured by asking, “How much time do you spend on TikTok each day?”, with the options consisting of: I do not use TikTok, 0-1 hours, 2-3 hours, 4-5 hours, 6-7 hours, or more than 7 hours. Higher scores indicate more hours/time spent on TikTok.

**Losing Track of Time on TikTok.** This variable indicates how often someone finds themselves losing track of time whenever they are using the app TikTok, and it is only measured through one question. It is measured by asking, “In general, how often do you find yourself losing track of time when you are on TikTok?”, with the responses being a seven-point Likert scale, 1 indicating never, 4 indicating once in a while, and 7 indicating always. Higher scores indicate that students find themselves losing track of time on TikTok more often.

**Interaction with TikTok.** This variable looks at how participants use the app TikTok and if they create posts or scroll through posts, and it is only measured through one question. It is measured by asking, “Do you create TikTok posts or just scroll through other people’s posts?”, with the responses being a five-point Likert scale, 1 indicating only create, 3 indicating an equal mix of both, and 5 indicating only scroll. Higher scores indicate that students mostly just scroll through other people’s posts on TikTok, while lower

### Procedure

To recruit participants, I posted a link to the survey on my snapchat story, and I also sent it to some friends at UMass Amherst and had them send it to their friends who met the requirements. Along with the link to the survey, I introduced myself saying that I am a psychology student conducting research for my Research Methods class about emerging adulthood, and it would really help me out if they were to fill out the survey. I explained that to be considered an emerging adult, you must be between the ages of 18 and 29, and that if you do not fit those requirements then you cannot participate in the study. I then went on to explain that emerging adulthood is a time where it is taking us longer to feel like an adult, and it is a time for identity exploration involving thinking about who we are and what our commitments and interests are. Participants saw the snapchat post I made with the introduction about myself and then clicked on the link that was attached to the post. Participants might have also received an email with the introduction about myself from either me or someone who goes to UMass Amherst and then clicked on the link through that email. That link took them to an online survey where they read the consent form, agreed to the consent form, and then they answered the 85 questions that my classmates and I wrote. At the very end they were given a debriefing form and thanked for their participation.
scores indicate that students mostly just create posts on TikTok.

**Paying Attention in Class.** This variable looks at whether participants have trouble paying attention in class due to being on TikTok, and it is only measured through one question. It is measured by asking the participants to respond to the statement, “I find myself getting distracted on TikTok when I am supposed to be paying attention in class”, with the responses being a five-point Likert scale, 1 indicating never, 2 indicating rarely, 3 indicating occasionally, 4 indicating sometimes, and 5 indicating almost always. Higher scores indicate that students have more trouble paying attention in class because they are on TikTok.

**Completing Schoolwork.** These variable measures whether participants are able to get schoolwork done due to being on TikTok, and it is only measured through one question. It is measured by asking the participants to respond to the statement, “I find myself getting distracted on TikTok when I am supposed to be completing my schoolwork”, with the responses being a five-point Likert scale, 1 indicating never, 2 indicating rarely, 3 indicating occasionally, 4 indicating sometimes, and 5 indicating almost always. Higher scores indicate that students spend more of their time distracted on TikTok when they are supposed to be getting schoolwork done.

**Results**

I began by running a series of tests that looked at the relationship between different demographic variables and paying attention in class. I first ran a few correlations that revealed there was a negative correlation between age and paying attention in class, \( r = -.183, p = .185 \), but this relationship was not significant, meaning that there was no relationship between participant’s age and being able to pay attention in class due to being distracted by TikTok. There was also a negative correlation between self-esteem and paying attention in class, \( r = -.053, p = .586 \), but this relationship was not significant, meaning that there was no relationship between a participant’s level of self-esteem and being able to pay attention in class due to being distracted by TikTok. Based on these findings, there does not seem to be any relationship between either age or self-esteem in relation to paying attention in class.

I then ran some other tests that looked at the relationship between demographic categorical variables and the amount of time spent on TikTok each day. The results of a one way between groups ANOVA revealed that there was no main effect of race/ethnicity on amount of time spent on TikTok each day, \( F(4, 106) = .789, p = .535 \). Another one way between groups ANOVA test revealed that there was no main effect of year in college on how much time they spent on TikTok each day, \( F(4, 105) = .796, p = .530 \). My last one way between groups ANOVA test revealed that there was no main effect of adulthood status and time spent on TikTok each day, \( F(2, 108) = 2.337, p = .102 \). I also ran an independent-samples t-test to see if gender played a role on amount of time spent on TikTok and found that women scored higher on time spent on TikTok each day \( (M = 2.40, SD = 1.019) \) than men \( (M = 1.88, SD = .957) \), but this difference was not significant, \( t(103) = 1.930, p = .056 \). Since there is no difference between how much people use TikTok based on their gender, race, year in college, or adulthood status, I then went on to look for other relationships between other variables using a bivariate Pearson correlation test.

I chose to see if interaction with TikTok had a relationship with any of my other variables. There were no significant relationships between interaction with TikTok and these other variables. This means that whether they created TikTok posts, just scrolled through other people’s ratings.
Discussion

My research tried to answer the question as to whether the app TikTok affects the learning ability of college students. I found, based on the results of the online survey, the more time that participants spent on TikTok each day, the more likely they were to become distracted on TikTok when they were supposed to be paying attention in class, and when they were supposed to be completing schoolwork. Along with the variable of time spent on TikTok each day, losing track of time also had an influence on my other variables. The more participants felt they lost track of time on TikTok, the more likely they were to become distracted on TikTok when they were supposed to be paying attention in class, and when they were supposed to be completing their schoolwork. Another interesting finding was that the more time participants spent using TikTok each day, the more likely they were to lose track of time while on TikTok. It is important to also note that time spent on TikTok each day did not have any differences between years in college, so it did not matter what year in college someone was because they all spent around the same amount of time on TikTok each day.

My results show that college students in emerging adulthood are more likely to lose track of time on TikTok the more they use the app throughout the day. This then could negatively impact how these college students are able to pay attention in class and complete their schoolwork. These findings are consistent across race/ethnicity, gender, year in college, and feeling of adulthood status. This indicates that these findings are likely to be universal within emerging adults in college. One important thing to note though, is that most participants in this study were female, so more studies should be done to look at a more equal number of males and females to note any differences or changes in results.
According to the study conducted by Stothart, Mitchum, and Yehnert (2015), our phones can pose a distraction with a notification even if we try to ignore the notification. Anyone can receive notifications from TikTok when someone they are following either posts a new video or does a livestream on the app. This could potentially contribute to how often participants go on TikTok each day. The more notifications they receive, the more likely they would be to click on the app and use it, therefore affecting variables such as amount of time spent on TikTok each day, losing track of time on TikTok, paying attention in class, and completing schoolwork. However, there is also a way to turn off notifications from the app, so it is possible that these types of notifications from TikTok might not play a role in any of the variables that were used in my study. Future researchers could look at how notifications impact time spent on TikTok and their impact on distracting students.

Thornton, Faires, Robbins, and Rollins (2014) studied how the proximity of our phone plays a role in being able to complete a task. Seeing how much influence just using the app during classes or when completing schoolwork has, I think we could infer that like this specific study, if someone has their phone out on their desk or table when in a class and they see a notification about a TikTok post, they will want to pick up their phone and look at the new post. Whereas if their phone is not near them or out on their desk or table, they might do better in class because they will not see the notification and be tempted to open the app. This could be looked at by future researchers to see what kind of an impact phone proximity has on students during class, especially if they are to receive notifications from TikTok.

Another study conducted by Bovonsunthonchai, Ariyaudomkit, Susilo, Sangiamwong, Puchaphan, Chandee, and Richards (2020) found that using a phone while someone is trying to complete certain tasks can be distracting. My findings were similar: when students were spending time on TikTok, they were often using the app at inappropriate times, such as when they were supposed to be paying attention in class and completing their schoolwork. This can be detrimental to students’ grades because they are not actively learning and doing their assigned work in the class.

A study by Kuznekoff and Titsworth (2013) found that trying to pay attention while texting or posting on a phone can influence students’ grades. This goes along with my research, as I found that students were constantly becoming distracted on TikTok when they should have been paying attention in class and completing schoolwork. If students do not pay attention in class or do the work that is assigned to them, they will most likely get a worse grade than if they were to truly put in their full attention to the class. This ends up affecting students’ grades in a negative way, just like this specific study found where texting and posting on a phone has negative influences on students’ grades and note taking.

Spence, Beasley, Gravenkemper, Hoefler, Ngo, Ortiz, and Campisi (2020) found that students find it easy to pay more attention to their social media accounts than what is being taught right in front of them. This directly relates to my study since a lot of participants recorded on the online survey that they would use TikTok in class and when completing schoolwork. Students are more likely to look at social media, especially TikTok, instead of listening to their professors, which in turn impacts their ability to comprehend the latest information that is being taught to them.

These results show us that there is a clear pattern where the more participants use TikTok, the more they become distracted from various parts of their lives. This includes when they are in class, when they are completing
schoolwork, and just losing track of time throughout their day. If students have their phone near them, then they are more likely to go on social media accounts, and TikTok is one of the social media accounts that has become immensely popular. The more time that a college student spends on TikTok, the more they will lose track of time and then that impacts what they are able to complete for their classes. This could in turn cause them to get worse grades than if they were to not go on TikTok as often or at all because they would not have the distraction from the app. It does not matter what year students are in, so if professors have one class full of sophomores and another class full of seniors, both classes will use around the same amount of time on TikTok each day. Professors should find diverse ways to keep their students engaged, so that way if a student sees a notification from TikTok, they will not want to look at their phone because they are engaged with what is being taught. College students also need to become more aware of this issue by monitoring their usage of this app and limiting the amount of time that they spend using TikTok.

For future studies, researchers should investigate the differences between taking online or in-person classes. It is possible that students taking online classes are more likely to become distracted using their phones compared to those taking in-person classes. Taking classes online on platforms such as Zoom provides an easy opportunity for students to use their phone without their professor seeing since the audio is usually muted and they can just hide their phone from their laptop camera. When students are in person, it is a lot harder to hide their phone from their professor, let alone listen to the audio coming from TikTok. It is important to consider that some of the people who participated in my study might be attending in-person classes, while a lot of people are still attending online classes, which is why it is important for future research to look at the different impacts TikTok has on in-person classes and online classes.

References


About the Author

Audrey Mekler is a junior double majoring in Elementary Education and Psychology. Her research project was completed in the spring of 2021 under the mentorship of Dr. Joseph Schwab (Psychology) through her Research Methods II class on conducting research. Audrey plans to pursue her Master’s degree in Elementary Education after she graduates, and may also further pursue a career in psychology, as well.
Freedom on the Inside: How Enslaved People Created Freedom in Bondage through Song

Mercedes Reid

When we think of enslaved people and freedom, we often think of freedom in terms of something that they could not achieve due to the constraints of slavery; in fact, in America we know they did not achieve it until after the Civil War ended in 1865. Because the practice of slavery was such an affront to Black people’s ability to move freely, freedom is often measured in terms of how much control one has over his or her movement. Reducing freedom only to how it applies to one’s physical condition prevents us from realizing how enslaved people managed to be free in spite of their social status. When we examine slavery from an outside lens, we are so often astonished by the obvious ways enslaved people created resources for their own survival that we neglect to notice the ways in which they created a type of personal freedom within themselves to survive as well. This freedom is most prevalent in the spirituals they sang and shared amongst one another. In analyzing the slave spirituals, many scholars have either spent time looking closely at the songs’ deep ties to Christianity or examined the clear desire for freedom from bondage, but very few have investigated what these songs meant to the people who sang them on a personal level. When enslaved people sang their spiritual songs, they created a space within themselves where they could access a sense of freedom that helped to sustain them both spiritually and emotionally. They successfully illustrated that freedom can be something people create within themselves, which has been long overlooked by reducing it to its physical capabilities.

Enslaved people created spirituals out of the need to access freedom on some level. These songs allowed them to redefine freedom so that they too could share in its glory. The Norton Anthology of African American Literature states: “For one thing, along with a sense of the slaves’ personal self-worth as children of a mighty God, the spirituals offered them much needed psychic escape from the workaday world of slavery’s restrictions and cruelties” (10). They were able to create a place to escape to in their songs that helped them push through. Scholars are often caught up in trying to define what exactly the enslaved people were saying, but we should instead be more focused on what they were doing. The truth is two people could have been singing the same song and both have different meanings for it, but what it personally means to them remains the same: a sense of personal freedom to help them cope. This was a new way to access life and live it on their own terms. Shane and Graham White implore us not to get too caught up in trying to define what the songs meant. In their book The Sounds of Slavery, they ask us instead to focus on the intention behind singing the songs: “Undoubtedly, slaves did encode veiled meanings in their spirituals, but that was hardly the main purpose of these African American songs. As Christianity took a powerful hold on the slave community in the decades before the Civil War, slaves, through their spirituals, sang a different world into existence, a syncretic world that subtly blended Anglo-American and African religious belief and practice and gave promise of deliverance that transcended human time” (White & White 119). Another way of putting this is that in their music, they were able to “escape” slavery, creating a sense of freedom within.

In order to understand the deep connection that Black people had with the spirituals, one first has to understand their connection to religion. Enslaved people had a tie to Christianity through slavery. They were drawn to the stories in the Bible in which those who were in danger or oppressed were rescued or saved by God. They connected deeply with the story of Moses and the Israelites
because they were able to draw a lot of similarities to their lives. Taking notice of the way God fought to free his chosen people, they believed that they too were chosen, and that God would come to free them as well. White and White note that enslaved people were “Keenly attentive to Old Testament stories” (116). The Old Testament stories helped Black people to build up a spiritual resistance. They were able to understand all too well the struggle of the oppressed; all they needed was a savior. In drawing inspiration from the Old Testament, “They sang proudly of David, who defeated the giant Goliath, of Samson, who brought down the temple of his enemies, of the Hebrew children who were delivered from the fiery furnace, but much less frequently of the New Testament followers of Jesus, who often suffered persecution for their faith” (White & White 115). As they sang, they were celebrating the defeat of the oppressor both in the Bible and of their own, which they believed was to come.

The ties to religion help us understand enslaved people’s faith, but in addition to using religion in their music, they also often expressed the desire for freedom. This can be interpreted in many ways: escape/freedom from slavery, the end of slavery, or death. They believed that when they died, they had a special place prepared for them in God’s kingdom where they’d be relieved of their burdens and finally given the rest they deserve. Their faith, along with their immense desire for freedom, came together in the spirituals to offer them relief and give them a sense of peace that encouraged them to stay strong and keep going. In their music they were able to create a space for themselves where they could access those basic freedoms they were denied.

Famed activist, orator, and writer Frederick Douglass took time to illustrate the major importance of the spirituals in his three autobiographies. His intention was to communicate how important the singing was while also clearing up any misconceptions that singing meant enslaved people were happy. In his first autobiography, Narrative of the Life of Frederick Douglass (1845), Douglass pays special attention to the depth of emotion that went into the spirituals and what that represented to the enslaved people: “The songs of the slave represent the sorrows of his heart; and he is relieved by them, only as an aching heart is relieved by its tears. At least, such is my experience. I have often sung to drown my sorrow, but seldom to express my happiness. Crying for joy, and singing for joy, were alike uncommon to me while in the jaws of slavery” (24). Douglass wasn’t singing to celebrate. By his own definition he sang to relieve his pain. White people often mistook singing for a sign that enslaved people were compliant with their forced condition; Douglass’ statement of the opposite showed them how far from the truth they were. Singing was an outlet for all of the painful emotion he had to carry while being forced into slavery. He knew that singing could not change his physical situation, as he would still be held in bondage despite releasing his sorrows into songs but singing helped him to release some of the pain. In no way should any White person relieve themselves of guilt by thinking these songs meant that the practice of slavery wasn’t horrendous. Douglass highlights the need to sing by comparing it to crying when you are broken hearted. Tears do not heal your heart, we all know that, but they are a step to releasing your pain. They give you a chance to let go of but also to process some of the emotional burden that can be too heavy to carry.

Slave spirituals also served as a reminder for how physical death and spiritual ascension to heaven remedied the destruction of their families caused by slavery. “Soon I Will Be Done” is one example of a song where Black people were not only free but would reunite with their loved ones in the afterlife. “Goin’ to live with God” is repeated eight times, drawing emphasis on their belief of gaining freedom in heaven. “I want t’ meet my mother”
but it is necessary. They will be freed because God said so. The lyrics were intended to give them comfort that they too would be led to their freedom:

   The Lord told Moses what to do
   Let my people go;
   To lead the children of Israel through,
   Let my people go, (Norton 16-20).

Believing their freedom to be coming gave them the opportunity to celebrate it in their music, to demand it and fight for it. In an analysis of the meaning and importance of slave spirituals, Jon Cruz, in his book Culture on the Margins, writes, “The production of music and other cultural forms enabled slaves to collectively exercise symbolic control. Song making helped them comprehend their fate and wrest from their conditions some sense of order” (48). This symbolic control is highlighted in songs like “Go Down Moses” because the enslaved people were able to use the story of Moses symbolically to represent their own bondage, desire for freedom, and their promise from God of eventual freedom from slavery. In the song God says:

   No longer shall they in bondage toil,
   Let my people go;
   Let them come out with Egypt’s spoil,
   Let my people go (Norton 16-20).

The fact that these are God’s words in the song makes them even more meaningful. Not only are enslaved people celebrating the promise of freedom, but they are demanding what is rightfully theirs. Singing about Moses and believing themselves to be chosen people destined for freedom allowed them to create hope within themselves. Their day was coming. Not only would they achieve their freedom,
belief in God’s works. In The Spirituals and the Blues, James Cone breaks down what exactly the enslaved people intended in their spirituals: “They ritualized God in song and sermon. That was what the spirituals were all about—a ritualization of God” (Cone 66). Praising God in their music was important to them as a way not only to glorify God but also to obtain and claim the promise of freedom that he offered them. Ritualizing God in song made His promise of freedom accessible to them by serving as a constant reminder of God’s glory and power. Through their music, they illustrated their freedom as a sort of “divine liberation. Their experience of it and their faith in its complete fulfillment became factual reality and self-evident truth for the slave community” (Cone 67). Their music represented the power of their promise of freedom.

Through slavery, people forced into bondage molded freedom into something that they could carry within themselves. They often claimed freedom as if they were already free, because through their faith in God they are free. In, “Didn’t My Lord Deliver Daniel” freedom is not only possible, but it has also already been obtained. The lyrics illustrate that that singer is free, never to be enslaved again.

I set my foot on de Gospel ship,
An’ the ship begin to sail.
It landed me over on Canaan’s shore
And I’ll never come back no more (Norton 30-34).

Canaan is considered the promised land, so referencing it in song represents how their belief in God provided them with a type of personal and spiritual freedom that couldn’t be taken away from them, even in slavery. Being enslaved was an extremely unfortunate condition in their lives, but as Cone explains: “Through the song, black people were able to affirm that Spirit who was continuous with their

but they would be rewarded for their faithfulness.

In many of the spirituals, it can be easy to get too caught up in the lyrics and misconstrue the message. What sounds like anger can really be passion, and what appears as a lack of faith is just a misunderstanding of the intention in the song. “Didn’t My Lord Deliver Daniel” can be mistaken as the people angrily questioning God, asking, ‘How come he can’t deliver everyone the way he delivered Daniel? What makes Daniel so special?’ The words “Deliver Daniel” appear twenty-two times in the text, all in the form of a question, but the singers did not doubt that Daniel was delivered; instead, their repeated question highlights the passion of their belief and their celebration of God’s work. A closer listen to the lyrics illuminates an interpretation of the song that is important. Many versions of this song are sung upbeat. The lyrics draw attention to the many works of God in the second verse:

He delivered Daniel from the lion’s den,
Jonah from the belly of the whale.
And de Hebrew children from the fiery furnace,
An’ why not every man? (Norton 5-8).

They call attention to these acts of God to provide examples of his glory. They are saying that they believe in God’s power, they know that he has performed great miracles and saved those who are faithful to him. They have been faithful, and they will continue to be, but they are also ready to be delivered from slavery. The setup of this verse highlights how powerful God is and ends by the singers asking the listener (and themselves) to think about this: If God can do all those amazing things, how could it be that he couldn’t save you?

When analyzing the spirituals, it’s important to realize that first and foremost, enslaved people had a deep respect for God. This respect came in large part by their
existence as free beings” (Cone 29). In their music they claim a freedom in the presence of God that is all their own, to be rejoiced about and celebrated.

When we focus in on defining the spirituals, we can easily get lost in the many different possibilities that the enslaved people could have been communicating. When we take time to focus instead on the way the enslaved people used these songs to help uplift themselves, we come to understand that in singing these songs, they were giving themselves permission to access the freedom that slavery prevented them from. This was something that was made by them specifically for them. Douglass highlights that their songs, “To many would seem unmeaning jargon, but …nevertheless, were full of meaning to themselves” (23-24). Their ability to create freedom where there was none highlights their emotional and spiritual strength. We live in a world where we take for granted the small things, like choosing to be a Vegan or going around the corner to play basketball at the park, but enslaved people didn’t even have the right to tell those who held them in slavery that they were sick and couldn’t work or that they wanted their family unions to be honored. The horrors of what slavery was meant that they had to find a way to survive. Cone points out that in their music, “Black slaves were in fact carving out a new style of earthly freedom. Slave religion was permeated with the with the affirmation of freedom from bondage and freedom-in-bondage” (28). By believing they were destined to be free, they created a sense of freedom within that was accessible through song. The songs helped to remind them of God’s promises, illustrating what was to come and imploring them to remember what God was capable of.

To create freedom within oneself highlights an extremely oppressive situation and an admirable hunger to survive it. Enslaved people didn’t always have the option to try to make a physical escape because the truth is simple: everyone couldn’t run away. For those who couldn’t run from it, they had to create a place where they could go within themselves that would help them make it through. In creating this place for themselves, they literally redefined freedom so they could share in it in some way as well. Their music allowed them to be free in their minds and spirits despite being bound by the chains of slavery.

Works Cited


About the Author
Mercedes Reid is a junior majoring in English and Secondary Education. This research project was completed in the fall of 2020 under the mentorship of Dr. Emily Field (African American Studies) and made possible with funding provided by an Honors Program semester grant. Mercedes took a course with Dr. Field and immediately thereafter picked up the African American Studies Minor.
What I Learned from Anthropological Linguistics: Implications for Teaching

Autumn Strickland

Abstract

In this article, I explore the connections between linguistic anthropology and education through a summer course at Bridgewater State University (BSU) framed by Laura M. Ahearn’s *Living Language: An Introduction to Linguistic Anthropology* (2021) as well as my personal experiences in courses at BSU and my 2021 summer internship at a private school focused on students with learning disabilities. The purpose of this article is to highlight some of the ways in which both education courses and educational experiences in the field unknowingly reproduce western ways of thinking and being, specifically in terms of language use and ideologies. To frame these observations, I utilize linguistic terms discussed throughout my course and Ahearn’s own observations in the field. I conclude with suggestions for both professors and educators in the field to create a decolonizing classroom focused around linguistic and racial equity and justice.

Introduction

I would like to preface this article with background on myself not only to show you as a reader where I have drawn my knowledge from and to offer credibility, but also to highlight the places in which I lack experience or in which I may still have unperceived biases regarding anthropological linguistics and its value for classroom teaching. As a recent graduate from Bridgewater State University (BSU) with a degree in cultural anthropology, a minor in special education, and a second major in early childhood education, I have plans to return to graduate school for severe special education. I aim to teach in the school system in Massachusetts in the future, particularly with young students and possibly in an inclusion classroom that accommodates children with special needs. I am a white woman who grew up in a predominantly white Catholic town, so up until my college experience at BSU, I had very little personal experience with people from cultural, religious, racial, and ethnic groups and languages that differed from my own. That being said, in my college career as well as through my work and volunteer experiences such as in the Children’s Physical Development Clinic (CPDC), I have had the privilege of working with diverse groups of people with multiple language backgrounds, though my experience is still limited to my exposure in the southeast region of Massachusetts.

During the summer session of 2021, I had the privilege of taking a directed study (an independent study course offered by the university) on linguistic anthropology under the guidance of Dr. Diana Fox framed around Laura M. Ahearn’s third edition of *Living Language: An Introduction to Linguistic Anthropology* (2021) as well as personal experiences in my previous jobs in the education field, my summer internship in a private educational school for people with learning disabilities, ages 6-21, and my educational experiences, both in college and in my earlier years. The goal of the course was to apply anthropological linguistics in classroom settings to create more inclusive classrooms focusing on diversity and equity, as discussed through the above frames of reference. There were many key anthropological linguistic concepts used throughout the course in our discussions. Three of the most used when it came to our critiques of the system were practice, or the ways language creates, is created by, and recreates human actions; communities of practice, or “aggregates of people who come together around a mutual engagement in an
endeavor… defined simultaneously by its membership and by the practice in which that membership engages” (Ahearn 2021; 132); and language ideologies, or “attitudes, opinions, beliefs, or theories that we all have about language” (Ahearn 2021: 24, 123).

In writing this article, I aim to use my personal experiences and what I have taken away from this course to examine some of the ways that my education at BSU has reproduced western biases, especially in terms of language. Best practices, however, recognize linguistic diversity and intersect with the ideals of anthropological linguistics. In analyzing my own educational experiences, I also hope to further discussions taking place both at BSU and worldwide on ways to continue decolonizing the curriculum and prepare BSU students, particularly those in education, to work with people of diverse backgrounds. In the following section I discuss what I believe to be the value of bringing an awareness of linguistic anthropological approaches into any course that pertains to language teaching and learning. I am aware from some of my anthropology courses that interdisciplinarity is increasingly valued in academia and that sharing the cross-cultural insights into linguistic relativity that come from anthropological linguistics is but one contribution toward that goal. Next, in order to provide some specific ways this interdisciplinarity can emerge, I delve into the ways in which linguistic anthropology ties directly into the education field through my work experiences, bringing to light some concerns. Finally, I conclude with ways to combat some of these concerns in both education courses and the field of practice to further the decolonizing of the discipline of education as a whole.

**College Courses and Reproducing Western Language Ideologies**

The two main points of discussion regarding the ties between linguistic anthropology and education came with my experiences in education courses I have taken at BSU, and in the practices in the field through my work in various school settings. At BSU, my educational focus was in early childhood and special education, and thus my experiences revolved around the classes and professors within these specific fields. In my courses, there were many ways in which Western biases were reproduced, but I would also like to highlight the ways in which some professors incorporated some linguistic ideas without recognizing the connection to anthropology. The summer course in which I made these connections was *Introduction to Linguistic Anthropology*, as described above, one of the four subfields of anthropology which, through Ahearn’s descriptions, can be defined as the study of the connections between language and social life, as well as the ways in which they both influence and are influenced by each other to produce, reproduce, or completely reconfigure one another (Ahearn 2021, 7-34).

Throughout this summer course, we also examined three key linguistic concepts that Ahearn discussed - namely, speech communities, communities of practice and linguistic ideologies. We examined their defining criteria as well as what these communities mean for people in the world. Ahearn offers a general definition of speech communities as groups of people who share frequent interaction, a “verbal repertoire” and an asset of social norms regarding language use (Ahearn 2021,127). However, she also observes that speech communities are difficult to define. This is because size, location, the nature and regularity of communication among members are all variables that are hard to define. Communities of practice is a more specified idea and includes mutual engagement,
a shared “enterprise” or purview, and a shared repertoire such as vocabulary, agenda, norms of engagement (Ahearn 2021, 134-5). Communities of practice are not necessarily structured by ethnicity, age, sex, or geography, which tend to be the confounding characteristics of speech communities (Ahearn 2021, 135). Communities of practice are more bounded, and can be intentionally created; hence, the term was especially useful to me thinking about my own role as a teacher in a classroom setting working with students from many different ethnic and linguistic backgrounds.

Thus, when I learned about speech communities and communities of practice, I thought about one professor who emphasized to her students the importance of building a classroom community. The idea of creating a classroom community is taken for granted by teachers who end up using the same icebreaker games and community building exercises with their new students every year. However, this professor stressed to us that every student is coming from their own unique background, and that it was important not only to get to know every single one, but to build a new classroom community with the students in which every single one felt safe, welcomed, and understood. This idea of reflective teaching practices is a cornerstone of pedagogical practice (Brookfield, 2017).

While it seems like such a simple concept to take to the classroom as a teacher, what this professor was hinting at without using the terminology, and therefore possibly without being aware of the concept, was creating a new community of practice. By building such a community, students are able to form bonds with one another and are able to communicate in common ways. This is an opportunity to create equity in the classroom that is often not explored because it is not known.

For example, when teachers create classroom rules that every child knows and follows and expectations about how to behave when in school and during different times, a community of practice is created. Every classroom has its own unique set of rules, expectations, groupings, friendships, and communication styles, all of which create a community of practice. However, many classroom norms reflect the unexamined cultural norms of teachers and students of the dominant culture, and instructors do not recognize their cultural underpinnings, then there is inequity. Classrooms should strive for equity, which is necessary for equality. Equality refers to giving every group of people the same treatment, resources, and opportunities so that every person is treated the same exact way. Equity, by contrast, takes into consideration the unique needs of the individual and allocates resources and opportunities so that there is an equal outcome despite these differences. An explicit classroom culture that all students are required to learn; where teachers can find ways to weave in students’ cultural norms so that students are represented contributes to equity. Another professor of mine focused significantly on language, and more specifically, urged us to ask children questions- such as those that make them ponder and explain their thoughts, like, “why did you use those materials?” or “What does this mean to you?”- to spark their creativity. This directly tied to much of Ahearn’s work in the field of linguistic anthropology, again drawing connections between the fields in practice. These pedagogies, which stress deep awareness of cultural diversity in language, and therefore thought, were not typical.

Anthropological linguistics helps future and current teachers to think about the reasons we speak a certain way with, to, or about children. In her text, Ahearn mentions the ways in which separate groups of people speak to or about babies and children and how they are socialized into their language and culture through these
written word does so (Ahearn 2021, 154). However, neither oral traditions nor literacy conform to one universal method or approach. In fact, Ahearn and other linguistic anthropologists argue that there is no such thing as one “literacy,” but rather literacies. Quoting Baynham, she argues for a “situated approach” to literacies: “…we need to understand literacy as social practice, the way it interacts with ideologies and institutions to shape and define the possibilities and life paths of individuals” (1995: 71, cited in Ahearn 2021, 158). This is critical given that classrooms are cross-cultural spaces.

Recognizing classrooms as cross-cultural spaces also means that students bring distinct thought patterns and worldviews to the classroom, and not just celebrations, food and dress—the “celebrate diversity” model of human differences. Studies have shown that greater diversity in the classroom improves learning outcomes for all students (Kubal et al. 2003, 441-455). Ahearn explains that understanding language acquisition can have a direct impact on what we consider as literacy in the school setting. She states, “Literacy is less a set of acquired skills and more an activity that affords the acquisition and negotiation of new ways of thinking and acting in the world” (Ahearn 2021, 153) and that “it is impossible for literacy skills to be acquired neutrally (Ahearn 2021, 158). Thus, ignoring specific outlooks on literacy in the classroom and different beliefs about what constitutes literacy can lead to harmful language ideologies that are reproduced by notions such as "language deficits” and “learning gaps” (Ahearn 2021, 79). When students studying to become teachers are only taught one specific concept that applies to one culture, language, region, and so on, and believe it to be the only right way, their future students will suffer from the expectations placed on them by a system that does not pertain to them. When it comes to language acquisition and literacy worldwide, there are no universals, and to combat this, we need to educate our teachers in
While the skills taught through these lessons are immensely helpful in some ways and promote learning for our students with autism, I have also witnessed many ways in which students have provided answers which have been deemed incorrect because they did not match what the teacher was expecting but were nevertheless not incorrect. For example, one student consistently got tactual cards “incorrect,” but based on the pictures, he is usually not wrong either. For example, some of his targets are “crossing guard” and “crossing sign,” both of which he has unique answers for. When shown the crossing guard card and asked, “what is it?,” he replies, “stop sign,” which is deemed incorrect, but the picture shows a crossing guard who is holding a stop sign. For the crossing sign card, he says “school crossing” instead of “crossing sign,” but this specific picture is of a school crossing sign.

These instances are not isolated to just one student either. There have been other examples like a picture of a man who is eating pizza, and when asked what they see, instead of saying “man eating” (the “correct” response), the student said “pizza.” In an example of an intraverbal exercise that asked another student “you write with a…?” the student responded “pencil”; however, the answer deemed correct is “pen.” In all these instances, the students did not reach their target goal because they did not respond with the correct answer, but they were not wrong either. There is no direct punishment for getting cards incorrect, but the students are not immediately rewarded as when they get the “right” answer. They are then taught to repeat back the “correct” answer until they can successfully get the card right three consecutive times with no prompting. Here, they are simply learning to memorize, not the underlying cognitive reasons why one answer is considered right and
another wrong. In instances where the student is completely wrong outside the realm of possibilities (e.g., you write with a “chair”), this is an understandable route to take, but in correcting these responses that go beyond the limits of what the teachers expect, teachers are unknowingly shutting down creativity and any sense of linguistic interpretations and differences that can come from such lessons. In many cases, it is indeed necessary to make corrections for the children to learn new concepts and meet IEP goals that will later transfer into more complex goals that build off their newly acquired skills, but in instances like these, it is hard not to see where the potential was lost, and differences shut down for the sake of academic success based on the language ideologies of the teachers and other specialists.

Some of these pedagogical approaches may reflect individual teacher bias, but it is important to understand that such bias is not merely idiosyncratic but part of a larger universe of language ideologies. The discipline of Cultural Studies offers insights into the ways in classroom instruction reflects deeper dominant ideologies that permeate classroom curriculum. For example, Louis Althusser describes in depth how systems of power, and in our interest specifically, school systems, reflect, shape, and reproduce dominant ideologies in the classroom, including language ideologies. In his 1970 essay, Althusser ponders:

What do children learn at school? They go varying distances in their studies, but at any rate they learn to read, to write and to add – i.e. a number of techniques, and a number of other things as well, including elements (which may be rudimentary or on the contrary thoroughgoing) of ‘scientific’ or ‘literary culture’, which are directly useful in the different jobs in production (one instruction for manual workers, another for technicians, a third for engineers, a final one for higher management, etc.). Thus, they learn know-how.

But besides these techniques and knowledges, and in learning them, children at school also learn the ‘rules’ of good behaviour, i.e. the attitude that should be observed by every agent in the division of labour, according to the job he is ‘destined’ for: rules of morality, civic and professional conscience, which actually means rules of respect for the socio-technical division of labour and ultimately the rules of the order established by class domination. They also learn to ‘speak proper French’, to ‘handle’ the workers correctly, i.e. actually (for the future capitalists and their servants) to ‘order them about’ properly, i.e. (ideally) to ‘speak to them’ in the right way, etc.

To put this more scientifically, I shall say that the reproduction of labour power requires not only a reproduction of its skills, but also, at the same time, a reproduction of its submission to the rules of the established order, i.e. a reproduction of submission to the ruling ideology for the workers, and a reproduction of the ability to manipulate the ruling
ideology correctly for the agents of exploitation and repression, so that they, too, will provide for the domination of the ruling class ‘in words’.

In other words, the school (but also other State institutions like the Church, or other apparatuses like the Army) teaches ‘know-how’, but in forms which ensure subjection to the ruling ideology or the mastery of its ‘practice’ (Althusser 1970).

Given this in-depth analysis of the ways in which the school and other state institutions shape, reflect, and reproduce dominant ideologies, it is critical to unpack both the biases of teachers and other staff that live within this system, but also to delve into federal and state standards that shape the curriculum taught in the classroom and tend to reproduce western knowledge systems and ideologies. Challenging these assumptions and ideologies is part of a decolonizing practice because it involves unpacking assumptions about the primacy of western knowledge systems.

Conclusion: Decolonizing the Linguistic Classroom

Throughout this article, I have brought attention to many of the ways in which college courses and the field of education are failing to meet the needs of an ever-growing diverse linguistic world. To conclude, I would like to draw attention to some of the ways that college professors and schoolteachers alike can work toward decolonizing the classroom and overall education. At Bridgewater State University, there are already efforts in place and ideas in the works on how to create such an environment of decolonization, especially after last year’s outcry for equity and justice (Special Presidential Task Force on Racial Justice, 2021). Considering these efforts, it is relevant to discuss not only that we should continue to listen to and legitimize BIPOC experiences and ideas at the university level as well as in local schools and classrooms, but also that the work of decolonizing should be continuous.

One example that points to pathways for decolonizing the university come from Carter Remy’s 2018 ethnographic study focusing on the experiences of black immigrant male students seeking linguistic preparedness at Bridgewater State University (BSU). Remy examines the experiences of this small subgroup of students and highlights the challenges faced by this linguistically diverse group, surfacing the ways in which language ideologies shape the curriculum and therefore, their academic experiences. Remy concludes through his research that “domestic, immigrant, ESL Black men who have completed their first year of college at BSU feel that they are not being provided with enough resources to help them to acquire enough linguistic competence to be fully prepared for the college realm (Remy 2018, 122)”, and identified challenges faced by this subgroup including lack of resources, and resources such as the Academic Achievement Center (AAC) which did not help any of the interviewed students due to lack of linguistic diversity and trainings (Remy 2018, 119-122).

Remy identifies pedagogical changes that would render college classroom speech communities and writing requirements accessible to a linguistically diverse group of people. To name just a few, Remy recommends that the writing studio should “… revisit their training of their staff members to include empathy training.” He also suggests the use of a “focus correction” technique when tutoring; for BSU “to host campus tours, or family orientation programs in a student’s native tongue for both the students and their parents;” and “that faculty and tutors understand the emotional profile of many ELL/ESL students” to
better serve the community (Remy 2018, 122-124). Black, Indigenous, and People of Color (BIPOC) students such as Remy have a multitude of experiences displaying the need for decolonizing academics, and the voices of these students and others of minority groups, including direct recommendations for change, need to be amplified. We should never be complacent with the strides being taken, and individuals as well as communities, including those at BSU and in the surrounding areas, are obligated to continue their efforts, communicate, learn, and change for the better.

From my experiences as listed above, it is important that students studying to become teachers should be required to take a humanities course that ties racial justice to education and the classroom. College professors and licensed teachers should also be subject to professional development that expands understanding of linguistic diversity, the relationship between language, culture, and thought, and the goals of equity. This is just one suggestion of many that have already been brought to the attention of the university, many of which from students of color demanding changes be made to enforce racial justice on campus and beyond, like through the 2020 Letter of Demands from Black and Brown student alum (Lopes et al., 2018) that was sent to BSU’s President Fred Clark. While I hope my personal experiences have been helpful in adding to the ongoing conversation, I want to stress again that these experiences cannot mimic the lived experiences of BIPOC students, professors, teachers, children, and parents, and that it is imperative to amplify these voices in our mission of decolonizing the system and to promote linguistic and racial justice. Toward this end, I would like to conclude by offering some specific recommendations for professors, staff, and faculty (Ahmed, 2021):

- Develop skills to navigate cross-cultural variations of thought and practice in the classroom, especially around linguistic diversity;
- Explore the assumptions and norms that continue to shape higher education pedagogy pertaining to “literacy;”
- Create equitable opportunities by challenging practices that privilege western ways of knowing;
- Create new, inclusive norms for the classroom such as communities of practice;
- Add a requirement in the Core Curriculum for “Racial Justice and Decoloniality” instead of a vaguer “Multicultural” requirement that could too easily fall into the “celebrate diversity” approach discussed above that does not account for the depths of diverse patterns of thought shaped by culture and structural inequities.

References


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**About the Author**

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Population is one of the biggest issues that the modern world faces today. For some, there are too many people and for others there are too few. Depending on where you live, the discussions of population often bring different connotations. But for most in what is considered “the developed world,” citizens are often afraid of overpopulation. This is in spite of the fact that in many of these same nations there is actually a trend of lowering birth rates. Many times, the outcry of over population and discussions of its control are often linked to classism, economic fear, and oftentimes misogyny. No better proof of this idea is clearer than the One-Child Policy, the most high profile case of population control by a single government in the history of modernity that was enacted by the People’s Republic of China (PRC) in the early 80s. Overall, this essay will stress that the One-Child Policy was a political move that sought to correct the short-sightedness of the Maoist policies towards family planning with its own short-sighted policy that manufactured a crisis, and in return, that did more lasting damage than good.

To begin, as in all discussions on contemporary China seemingly start, you have to begin with Chairman Mao’s views on family planning. In her book, Just One Child: Science and Policy in Deng’s China, Susan Greenhalgh writes that the One-Child Policy was just one of the pieces of legislation born out of the trauma inflicted by Maoist Policies, in a similar trend for many of the policies enacted during the Deng era. She continues to note that while Mao did not have any single ideology on population control during his time as paramount leader of China. Mao, overall, seemed to have believed that the large population of China was his foremost strength. He praised increasing birthrates and believed strongly that a large population would fuel China’s labor force. This left plans within his government for family planning in a state of limbo. Contraceptives were even banned for some time. Even so, it was clear that there was at least some growing worry within Mao’s government as early as the cultural revolution on the subject of population. While near the end of his life, Greenhalgh puts forth that he may have revised some of his views on the large population, Mao’s actions allowed China’s population to grow from 542 million in 1949 to 830 million in 1970. This was extremely distressing for the government of China, as one can expect. Most of the increasing population remained poor and rural. In the eyes of leaders like Deng Xiaoping, this posed a threat to his plan for furthering China’s burgeoning economic progress and competition in the global arena.

The road to the One-Child Policy within itself is important to acknowledge. As aforementioned, Deng Xiaoping and his government saw the large population, most of which was poor and rural, as a roadblock to the achievement of Deng Xiaoping’s “Four Modernization,” his personal political plan to modernize China after the disasters of the Mao era. He felt that the large and poor population would unnecessarily burden the state. It was throughout the 1970’s that one started to see the government advocate for much smaller families. At first the policy of the government in the early 70s was expressed as “one is best, and two at most.” However, by 1979, this had

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2 Susan, Greenhalgh, Just One Child: Science and Policy in Deng’s China, 46.

3 Susan, Greenhalgh, Just One Child: Science and Policy in Deng’s China, 52.
burdening the newly rich. It is then in one’s best interest to analyze the troubling ways the policy was implemented.

When examining the One-Child Policy in action, one can immediately understand the damage it’s going to cause to those within at risk populations. Inherently the One-Child Policy always had classist underpinnings. This is why it is best to call the situation China faced in terms of population both a manufactured crisis and a real problem. While it was true China’s population was overly large and an issue, you can see how the population crisis was then manufactured in a way that scapegoated poor people as state burdens giving justification for increased state involvement in their lives to decrease their numbers for the good of Chinese economic aims. Instead of focusing on larger issues of growing class inequality and how growing poverty within China were directly attributed to being the effects of Deng Xiaoping’s own modernization policies allowing for some to get extremely rich very quickly, while many more rural individuals remained poor and started to get poorer.

It was easier to address an issue like population control, than address how the government modernization plan is making a large majority of people poorer. It is understandable why then the One-Child Policy ended up doing more damage to the poorer rural communities than it did to urban communities.

Rural families in China relied heavily on large families to act as an in-house workforce that allowed their farming ventures to function as many small families could not really pay for workers. So to be told that one could now only have one child was problematic. It was clear that for the Deng Xiaoping government enacting this policy, it was more important to protect the economic interests of a few than those of the poor. The less poor there were, the

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less the state would be burdened, after all. In cities where the policy was still heavily enforced, families had been having less kids anyway. While the government tried to give some financial aid to rural families suffering because of the policy, overall, that aid could not totally take the place of the investment of more than one child for many families. Along with that, while in urban communities authorities had made the business of policing the policy an issue between coworkers or neighbors and threats of revoking government privileges. Inside rural communities, however, family planning was a lot stricter and invasive. Family planners, often volunteers, were required to keep track of everyone in a village. In practice, family planners found it easiest to police the policy through policing women’s bodies in increasingly invasive ways. Including keeping detailed records of individual women’s past births, contraceptive use, and menstrual cycle.

The One-Child Policy from the beginning was explained as a joint effort between state officials and regular citizens. This was clear in the PRC’s own words, as they put it in an open letter to the people, the PRC wrote “[the government] calls on all Communist party members and Communist Youth members, and especially cadres at all levels, to care about the country’s future,” and going on later to say that compliance with this policy would not only be the responsible thing to do but safeguard a future for later generations of Chinese. While this call to action was meant to strengthen communal resolve, in practice it outlined the way the government would use citizen accountability in the way of family planning volunteers and types of “neighborhood watches” to invade citizens’ lives to ensure that they were following the policy. In a way, the policy was basically policed through a kind of government-sanctioned blackmail. Along with the threat of how much a single family could lose from not following the policy. This included being barred from employment opportunities, fines, and restricted or even revoked government assistance to name a few things.

The One-Child Policy remained in place until 2015. So far this piece has spoken only in the realms of the economy. Both because it was the biggest reason for the policy’s implication as well as because it is important to understand how the policy negatively affected communities economically. But that is only one side of the story. There was a real human cost that was paid with the implementation of this policy. The government had basically “entered the bedroom,” but it went further than that when it came to women. In fact, women were the group that one could argue were most affected by the policy in the most traumatic of ways.

Most of the responsibility of “family planning” fell onto women more than men. This meant it was women’s bodies that were highly scrutinized. Many within the PRC, who were mostly men, followed a line of thinking that can only be described as a biological determinist stance. Even though women’s liberation was seemingly a tenant of the Chinese Communist Party, it still remained a belief within the party that as it was first and foremost in a woman’s biological essence to be the reproducers of the human species. In practice it was then implied that it was a woman’s job to take sole responsibility for the use of contraceptives. This goes a long way to explain why

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9 China’s One Child Family Policy, ed. Elisabeth Croll, Delia Davin, & Penny Kane (New York: St. Martin’s Press, 1985), 95.
14 Susan, Greenhalgh, Just One Child: Science and Policy
female sterilization was more practiced than vasectomies as a prevention method to halt multiple births. It also explained why the reasons cited for this were as baseless and simple as the vasectomy would cause men “to lose their strength” over anything substantial. Especially in rural communities, the most affected group was those communities’ women.  

As constantly stressed due to the aforementioned classism and now explained misogynist underpinnings in this policy, those most blamed for the increase in population were rural peasant women. As Greenhalgh explains, it was identified within the party and among scholars, both men and women, that “it was peasant women’s bodies that were overly productive,” and thus required drastic actions such as forced sterilization and abortions, even at late term, to stop them from producing. There was very little to be done about this clear dehumanization of poor women. There were only a small number of scholars who were noted to be lamenting this type of treatment and so the scars of what these women endured were allowed to accumulate as unfortunate but necessary consequences to protect China’s economic interests.

Another important feature of the effects that the policy had on women was the issue of infant girls. Culturally in China, society has mostly been patriarchal. In practice, this meant that the family line is carried through sons while daughters ‘marry out’ of the family and into their husbands. This coupled with the other culturally understood fact that in old age parents stay with their son’s families more than their daughters made it so there was a strong preference within China for male children.

These culturally understood facts had always left infant girls in a precarious situation, as the problems with female infanticide often plagued China since the Imperial times. A morbid example of this cultural climate would be to imagine that you were a poor couple and you have two children. One an infant girl and the other an infant boy, and you knew you could only feed one. So in the end, the couple chooses to keep the boy while the daughter ‘disappears.’ For many families now forced to have only one child, both wanting old age security and a furthering of their family name, if they gave birth to a baby girl sometimes that would often ‘disappear’ so that a couple could be free to ‘try again’ for a boy. This cultural reality was not lost on the PRC, however, they had expected this may happen. In their open letter to the public, they write that “when girls grow up they work in the labor force just like boys,” as well as to note that women are very skilled in plenty of fields that the Chinese people need. For example, the PRC noted one of these fields was domestic labor, which the PRC makes special note to say that women are better at than men. Despite this ‘glowing’ endorsement of women as species, it still did very little to wipe away centuries of culturally centered bias among Chinese couples for male children.

It remained a reality that the policy led to massive waves of infant girls being abandoned. Sometimes in public spaces in hopes that they would be adopted by some other family, and other times those babies just died or were trafficked into orphanages in which they would be adopted by wealthy families abroad. Despite this obvious humane crisis, the government in China refuses to allow people to talk freely about this topic. Either because they wish

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15 China’s One Child Family Policy, ed. Elisabeth Croll, Delia Davin, & Penny Kane (New York: St. Martin’s Press, 1985), 47.
16 Greenhalgh, Susan, Just One Child: Science and Policy in Deng’s China, 266.
to not entice criticism or it being a case of “out of sight, out of mind.” But even if the government is unwilling to talk about the issue of the fates of infant girls, it may be forced too. According to one article on the effects of the One-Child Policy, China has become one of the worst, if not the worst, gender-imbalanced countries in the world. As they note, in 2019 the gender ratio in China was 114 men for every 100 women. This clear imbalance was an effect created by the One-Child Policy. Now within China there is a climate in which there are “not enough” women for men to marry, leading to a further accelerating loss in birth rates which now has become a problem within itself for Chinese government policy. This new reality puts immense social pressure on Chinese women to now get married younger and have kids quicker as the government makes it clear they see this crisis as a threat to social stability. This once again puts the brunt of campaigns to increase the nation’s birth rates on women’s shoulders. This pressure does nothing to erase the years of pain the policy inflicted on women, it only creates more stress on already open wounds. It feels almost like a tragic comedy, that for years women were threatened to be subjected to forced sterilizations, large fines for having a second child that could destroy whole households, as well as traumatic late term abortions and now the government has flipped the script on its women demanding now that regardless of what those women might want, they must now have more children.

Finally, after discussions of class and misogyny, the final group suffering is the elderly, which is an ever growing classification group in China as an after-effect of the Policy. As briefly mentioned above, in traditional Chinese society it falls on children (usually the son) to take care of their parents when they get older. However, as times have progressed, the reality is that the person who is taking care of the elderly the most is the government. As the workforce in China is not just aging but also shrinking due the after effects of the One-Child Policy. It is clear that by its own metrics, the One-Child Policy achieved its goal to decrease the overall birthrate of China. By 2018, women were giving birth to an average of 1.7 children. However, this has created new problems for the government. Now China is facing an ever increasing aged population, meaning within the country there are increasingly more people entering retirement age or middle age than people being born. This creates a problem since as the older population retires from the workforce there will not be enough youths to refill their ranks. For some statistics to make it more real, China’s workforce has been falling consistently at 0.5% for the last seven years. Once again the PRC expected this problem as seen in their open letter. However, they dismissed it. Basically saying that it was an issue that would be solved through the advancements made in the future, meaning the PRC just kicked that can down the road and hoped to deal with it another day. This obviously came back to bite them, as seen above. It was a strain on economic progress being made apparent that caused the relaxing and later revoking of the One-Child Policy. It would also explain the government’s new push for women to have more children and marry younger. In the end, what killed the One-Child Policy is the same thing that encouraged its implication: the economy.

The bottom line is that the One-Child Policy was the co-opting of a true problem, population, into a manufactured crisis that sought to scapegoat the poorest in

21 Alice, Zhang, “Understanding China’s Former One-Child Policy,” Investopedia, November 23, 2020
23 Alice, Zhang, “Understanding China’s Former One-Child Policy,” Investopedia, November 23, 2020
24 Alice, Zhang, “Understanding China’s Former One-Child Policy,” Investopedia, November 23, 2020
the country as burdens to modernization and the economic progress of China through a short sighted solution that brought multitudes of harm to families. Most especially those rural communities and generations of women as a whole. And now, after the policy fulfilled its goal, the PRC is dealing once again with the effects of short sightedness of government policy. Just like how Deng Xiaoping had to deal with Mao’s, now it is the modern PRC’s job to deal with the effects of Deng’s. One must wonder what they will do to ease the pains of ever decreasing birth rates, lasting cultural trauma of the population, and their increasingly shrinking workforce. Hopefully, for their sake, their revocation of the law in 2015 will allow for changes to come however slowly. But after studying the estimations, I cannot say how possible that’s going to be in the near future.

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About the Author

Allyson Surette is currently a senior majoring in History and Secondary Education, with a minor in Social Studies. Her research project was completed during the winter of 2020 as a final project in Dr. Bingyu Zheng’s (History) course on the history of China under communism. It was made possible through extensive use of the Maxwell Library and its staff, which helped compile the sources necessary to make this essay possible. She plans to pursue a Ph.D. in Medieval History after a few years of work as a high school history teacher in Massachusetts.
The Emergence and Recognition of Symptoms of “Shell Shock” or Post-Traumatic Stress Disorder

Julia Swirbalus

World War I is arguably the most tragic event to occur in world history. The generation that served in World War I is referred to as the “lost generation” due to the gross loss of life and the brutality of the horrific combination of old battle tactics and industrialized warfare. The young men who survived the war were mentally and physically scarred, and grossly misunderstood due to the repeated traumas they endured. During the war, many did not understand the psychological ramifications horrific trench warfare and artillery bombardments would have on the soldiers. Before World War I, there was very little understanding regarding the psychological ramifications of trauma and unfortunately continued to be misunderstood until quite recently. However, one man during World War I studied the individuals who became psychologically damaged and sought ways to treat these individuals to protect them from the wrath of the British Military. As a result of Charles S. Myers’s research, recognition of causations and symptoms, and treatment of soldiers with “shell shock” during the war he unknowingly provided the world with a basic understanding of post-traumatic stress disorder and how stress effects humans.

Before World War I, Charles S. Myers was a doctor and a psychologist. When Britain joined the war, Myers was forty-two and was denied his request to serve on the front line due to his age, however, he was accepted as a psychologist in the Royal Army Medical Corps. He was stationed at the Duchess of Westminster’s War Hospital, Le Touquet in France in 1914. At this hospital, Myers would witness the effects of trauma and come to understand that trauma manifests differently in every case. Myers would be recognized by the British Military years after his service in World War I as being correct to his previously published theories regarding “shell shock” in 1940; when the British government realized they would have to deal with “shell shocked” soldiers once again during World War II. As a result, Myers in 1940 published his memoirs and journals he wrote while he was stationed in France from 1914 through 1918. It is in this publication by Myers that many of the terms used in discussing post-traumatic stress disorder or symptoms of post-traumatic stress originate. Many are still misinformed that “shell shock” and post-traumatic stress disorder are not the same mental illness, however according to the American Psychiatric Association’s section on “Post Traumatic Stress Disorder” in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders “shell shock” is an out-of-date term that refers to an extreme form of post-traumatic stress disorder.

Charles S. Myers unknowingly provided the world with a basic understanding of post-traumatic stress disorder and how stress effects humans through his research on “shell shock”. While Myers may not have coined the term “shell shock” or post-traumatic stress disorder, whatever term is used refers to the same mental disturbance in all his writing. According to Myers in his article titled “A Contribution to the Study of Shell Shock” published in The Lancet on February 13, 1915, “shell shock” was a term coined by the soldiers to describe the pattern of behaviors they were witnessing their comrades suffering from as a result of being traumatized and being exposed to artillery bombardments. While it was hard for many individuals during the war to understand what was happening to the soldiers who were exposed to artillery bombardments, it was widely believed that the soldiers were suffering from concussions after being blasted into the air, being buried alive in trenches, being extremely injured as a result of said bombardments, and witnessing carnage caused many
to suffer psychologically. Since the symptoms of “shell shock” were unique in every case it was difficult for the soldiers in the trenches, the officers, field medics, and upper military personnel to understand what was happening to these soldiers.

When Myers arrived at the Duchess of Westminster’s War Hospital, Le Touquet he immediately began attempting to collect as much information as possible on the soldiers he was supposed to treat for “shell shock”. In Myers’s article titled “A Contribution to the Study of Shell Shock” published in The Lancet on February 13, 1915, he presents his study of three different cases of “shell shock”. In all three studies Myers recorded the cause of everyone’s symptoms, while daily checking their vision, hearing, smell, taste, other sensations, defecation, micturition, memory, and result of treatment. Each case has different symptoms though they are very similar in cause, loss of memory, and loss of different senses. Myers’s thorough research and trial and error treatments allowed others to be aware of the different symptoms of “shell shock” and possible treatments for it when he published his article “A Contribution to the Study of Shell Shock” in The Lancet. For Captain Myers’s published research and understanding of “shell shock,” in March 1915 he was given the rank of Lieutenant Colonel as well as being granted access to four other hospitals in France.

Charles S. Myers unknowingly provided the world with a basic understanding of post-traumatic stress disorder and how stress affects humans through his recognition of causations and symptoms from “shell shock”. As previously mentioned, Myers was an incredible record keeper when it came to monitoring different variables daily in each case he treated. The first thing he did whenever he received a new patient who had “shell shock” was to identify the causation of their distress. While many of the soldiers Myers encountered had been physically injured or witnessed others being harmed by artillery bombardments, he realized that soldiers were being affected by witnessing violence and living in a state of constant hopelessness and fear. According to the American Psychiatric Association’s section on the criteria for “Post Traumatic Stress Disorder” in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, to have post-traumatic stress disorder one has to have been exposed to trauma in a way that fits the below criteria:

You were exposed to one or more events that involved death or threatened death, actual or threatened serious injury, or threatened sexual violation. In addition, these events were experienced in one or more of the following ways: you experienced the event, you witnessed the event as it occurred to someone else, you learned about an event where a close relative or friend experienced an actual or threatened violent or accidental death, you experienced repeated exposure to distressing details of an event, such as a police officer repeatedly hearing details about child sexual abuse.

When anyone reads this modern criterion carefully and creates a check list for how a soldier in World War I may have been traumatized or reads accounts of soldiers who had been diagnosed with “shell shock” by Myers, one can check off multiple if not all of the elements of exposure.
to trauma. Once Myers understood that the causation of symptoms may vary, he needed to identify symptoms to treat them.

One of the main problems Myers and others had in World War I was dealing with soldiers who were dealing with “intrusive symptoms” and “functioning dissociation.” According to the American Psychiatric Association’s section on the criteria for “Post Traumatic Stress Disorder” in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders memory loss and dissociation are considered “intrusive symptoms” of post-traumatic stress disorder. Dissociation refers to feeling that the traumatic event is happening again which causes the patient to become unresponsive and possibly act erratically.” In his book Shot at Dawn: Tells the Story of the Welsh Soldiers who were Among the Executed, Robert King explains the circumstances surrounding the executions of fifteen Welsh soldiers in World War I. Among those circumstances, Private Joseph Byers was executed at the age of seventeen by firing squad after he pleaded guilty to desertion even though he admitted he had no recollection of the event. Most soldiers executed for murder had been severely intoxicated in trenches when they reacted to their comrades with deadly force. In most cases, those soldiers were executed for dissociating in the same environment where their trauma occurred. King also remarks that three hundred and six British Soldiers were “Shot at Dawn” due to desertion, treason, cowardice, and sometimes murder. Myers understood those threats, which, made him more determined to find effective treatments for “shell shock,” but also strained his relationship with the military.

Charles S. Myers unknowingly provided the world with a basic understanding of how to treat post-traumatic stress disorder through his successful treatments of soldiers with “shell shock”. Myers surprisingly had great progress with treating soldiers by hypnotizing them and by also using sensory integration and physical therapy to ground a soldier suffering from intrusive symptoms such as dissociation. All these types of therapy are still used to treat post-traumatic stress disorder to this day. Myers remarks that it is important that the military understands how to treat shell shock when it happens but also needs to learn how to prevent it from occurring. In Myers’s “A Final Contribution to the Study of Shell Shock: Being a Consideration of Unsettled Points Needing Investigation” in The Lancet he explained that he believed there needed to be more research conducted on the subject of “shell shock” as a whole.

There is a general agreement that war neuroses are to be regarded as the result of functional disassociation arising from the loss of the highest controlling mental functions. Yet considerable controversy exists as to how these controlling functions are lost, and precisely what occurs when they are lost. Some for example, consider that functioning nervous disorders are dependent on increased suggestibility arising from fear, power, and other emotional or fatiguing conditions; While others maintained that quite apart from suggestion, emotional conflict or excitement is capable of producing functional disorders. Some have distinguished that a so-called commotinal syndrome from an emotional syndrome; Others have insisted that whether a man has been buried in a trench or has seen his best friend’s brain scattered before him the functional symptoms are identical. All now agree that mere
concussion or the poisonous action of carbon monoxide or other noxious gases does not necessarily give rise to functional nervous disturbance.xvii

Myers at the time is stating that among psychologists and doctors in the Royal Army Medical Corps there is a consensus that more research needs to be conducted on war neuroses in general. Myers acknowledges that while some soldiers suffered from extreme forms of loss of the highest controlling mental functions due to being exposed to physical harm, he also acknowledges that it is possible for an individual to suffer from trauma while not actually being harmed themselves. The fear of being harmed or witnessing something horrific is enough to traumatize anyone. However, many upper military personnel doubted the severity of the problem and labeled those who had been executed or received a dishonorable discharge as being cowards or treasonous to save themselves from public scrutiny, which left Myers extremely cross with the British Military.xviii

In conclusion, without Charles S. Myers’s diligence and dedication to studying and treating “shell shock” the world may have neglected to understand how to help individuals suffering from trauma. As a result of Myers’s research, recognition of causations, symptoms, and treatment of soldiers with “shell shock” during the war, he unknowingly provided the world with a basic understanding of post-traumatic stress disorder and how stress affects humans. Myers’s research exposed how people react to trauma differently through his thorough record keeping. Through Myers’s incredible record keeping he was able to recognize the causations of various symptoms of “shell shock” which allowed psychologists to develop the post-traumatic stress disorder criteria in the 1980’s. Since Myers was able to recognize the causes of various symptoms of “shell shock,” he was able to develop treatments as a result. Myers’s hypnosis and sensory integration techniques are still used today to treat post-traumatic stress disorder. Without all of Myers’s work on “shell shock” it is hard to say if the world would have a great understanding of trauma today.

Endnotes


2 C. S. Myers, Shell Shock in France 1914-1918, xi.


6 Myers, Shell Shock in France 1914-1918, 14.

7 Myers, Shell Shock in France 1914-1918, 24-27.

8 American Psychiatric Association, “Post-Traumatic Stress Disorder.”

10 American Psychiatric Association, “Post-Traumatic Stress Disorder.”

11 Robert King, Shot at Dawn: Tells the Story of the Welsh Soldiers who were Among the Executed. (Great Britain: The History Press, 2014.) 26-27.

12 King, Shot at Dawn: Tells the Story of the Welsh Soldiers who were Among the Executed. 72-77.

13 King, Shot at Dawn: Tells the Story of the Welsh Soldiers who were Among the Executed. 30-36.

14 Myers, Shell Shock in France 1914-1918, 48-76.

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Charles Eastman and the Limits of his Advocacy

Jessica Vilk

A prolific figure, Charles Eastman chronicled his life and ideals in his autobiography *From the Deep Woods to Civilization*. His complex identity as both a Native Sioux and Western educated physician meant his stances on Native and Western life were not always clear. Integrated into the West at a young age, he attempted to carve a place for other Natives within civilization as well, but his efforts had varying degrees of success. Despite staunchly resisting assimilation and instead advocating for an amalgamated community, the strength of colonialism and Eastman’s personal comfort with the West limited the scope of his advocacy which could have benefited from a closer connection to Native cultures and traumas.

Although ultimately Eastman had an uncommonly positive introduction to the West, as a young Native Sioux he himself experienced trauma before and during his educational journey. Eastman confessed that his people were deceptively “turned out of some of the finest country in the world…” (Eastman 2). According to him, the United States falsely offered to buy the land on which the Sioux lived, but at the time of the narrative’s publication the agreed upon price “stands unpaid…” (Eastman 2). This injustice naturally led to tension and bloodshed between the Sioux and Americans. Eventually, because of his participation Eastman’s father was captured and believed to be executed. Thus, at a young age, Eastman experienced the trauma of being cheated, and losing a parental figure. He also revealed that because of this damaged relationship between the Sioux and Americans, his uncle instructed him never to spare an American. Although Eastman did not personally contribute to this generational violence, it is a story that other Sioux members and many Natives can relate to. Despite his obvious disdain for this event, compared to the rest of his narrative, Eastman spends little time discussing the traumas and troubles of his tribe. In contrast, he prefers to focus on traumas where he was an outside participant, and not a victim, like the Ghost Dance massacre, or the reparations scandal of 1891. However, Eastman does dedicate more time to discussing his shock while initially attending Western schools.

It is important to note that while Eastman voluntarily attended Western schools and adapted his life to the Western world, that did not make his transition painless. Eastman reflected on how he first arrived at a Western school riding his pony but was quickly confronted by another Native boy named Red Feather who said: “‘Well, as there are no more buffalo to chase now, your pony will have to pull the plow like the rest,’” (Eastman 12). While a seemingly inconsequential statement, the fact that Eastman remembered it and included it in his narrative speaks to its impression upon him. The statement immediately reduces Eastman’s Native culture to a buffalo chase, while it simultaneously forces a symbol of his culture (the pony) into a position that benefits the West. Additionally, the lack of buffalo speaks to the level of Native erasure already present at the time of Eastman’s boyhood. Surely disgruntling to Eastman, another Native boy made this statement, therefore revealing that he likewise underwent the trauma of having his culture reduced. Unfortunately for Eastman, this was only the beginning of the trauma that he would feel during his first years at school.

Upon entering the school building Eastman recalled immediately feeling uneasy and taking little comfort in the other Native students who felt similarly. Regarding his initial thoughts on Western education Eastman wrote: “…for the first time...I was an object of curiosity, and it was not a pleasant feeling” (Eastman 13). With his distinctly Native appearance Eastman felt singled out by the other Native children who had already begun to adhere to Western conventions at the expense of their Native culture. Even much later in life, there were moments in Eastman’s college
Despite his initial distress, Eastman willingly adhered to Western modes of education, and its ideals quickly became the presiding force in his life. Jacob Eastman must be credited for his son’s introduction into Western education, as he originally pushed Eastman into school. While Eastman understandably struggled and suffered from culture shock, his father’s logical arguments convinced him to remain on his new path, “‘Our own life, I will admit, is the best in the world of our own, such as we have enjoyed for ages...But here is a race which has learned to weigh and measure everything’” (Eastman 5). Jacob Eastman’s argument was neither condescending nor offensive, and instead based itself on firm logic. Resisting racist appeals, Jacob Eastman presented his son with the argument that given the advancement and encroachment of Western civilization, Natives could no longer expect to live as they had. Appealing to Eastman, he adapted this way of logical thinking and carried it throughout his narrative. Importantly, it did not degrade Native philosophies and allowed Eastman to adapt them to Western education. Likewise, Eastman avoided debasing Native cultures, and instead focused on how to adapt education to help integrate Natives respectfully into Western society.

The dedication to education that Eastman demonstrated was admirable, and it influenced his advocacy efforts as an adult. By the time Eastman had begun his college education he “absorbed knowledge through every pore. The more [he] got, the larger [his] capacity grew, and [his] appetite increased in proportion” (Eastman 31). Recognizing that education constructively introduced him to the West, Eastman’s advocacy focused on academic spheres in order to transition other Native Americans as well. However, he expressed a clear correlation between his desire to learn more, and his separation from Native cultures. As his education pushed him farther away from his past, it simultaneously blinded him to the struggles of average Native Americans, therefore limiting his ability to...
empathize with their plight and advocate on their behalf. Hence, his advocacy would have benefited from a greater focus on Native trauma and the ways in which it prevented smooth transitions between communities. This would have inspired more Natives to willingly become involved in the education that Eastman valued. Highly influential to his life, Eastman’s application of his father’s argument and later expansions are well documented.

Naturally, Eastman’s Western education inspired him to explore the West further and led him to conclude that Native cultures was irrevocably lost unless it merged with the dominant West. Fundamentally, Eastman did not propagate an assimilated society even when confronted with the grandeur of the West, but he did promote a combined society that was deeply unequal. Newly arrived at Dartmouth College, Eastman wrote “This was my ambition -- that the Sioux should accept civilization before it was too late! I wished that our young men might at once take up the white man’s way, and...wield influence in their native states” (Eastman 37). This was Eastman’s solution to the diminishing presence and agency of Native Americans. He envisioned a society in which Natives “wield[ed] influence in their native states” through an adaptation to Western civilization, in which education served a pivotal introductory role. Irrefutably confronted with a shrinking Native world, Eastman argued that because Native cultural dominion failed under the powerful Western society, in an amalgamated community Natives naturally submitted. While sensible, that statement was tone-deaf. Prompted by Eastman’s reflection on the erasure of Natives, it was uninspiring to conclude Natives must unquestionably combine with their exterminators. A genuine recognition of these traumas and their lingering effects would have better served Eastman’s advocacy efforts by attempting to heal them. Despite this pressing concern, Eastman seemed unaware that he endorsed a troubling solution to the current problem of shrinking Native sovereignty. This phenomenon is explained through his focus on education, and how it left him disconnected from present and powerful traumas that he had not himself experienced since boyhood. An examination of how Eastman applied Native thinking to Western life reveals both his advocacy’s strength, and weakness.

Eastman himself represented the ideal of a combined society that he urged other Natives to emulate, but few had the opportunity to replicate him. The ease in which Eastman applied Native thinking to Western life was a major part of the integrated society he hoped to create. As a young boy he was “consciously trained to be a man...but after this [he] was trained to be a warrior and a hunter, and not to care for money or possessions, but to be in the broadest sense a public servant” (Eastman 1). Later in life when choosing a profession, Eastman wrote, “...my choice narrowed down to law and medicine, for both of which I had a strong taste; but the latter seemed to me to offer a better opportunity of service to my race” (Eastman 34). Clearly, his Native philosophy was never abandoned and carried well into his adult life. He advocated for the right of Natives to adapt to Western civilization while still acknowledging their Native philosophies. For Natives facing forceful assimilation, Eastman’s ideal combined society was a welcoming compromise. However, the problem with this advocacy method was rooted in the fact that few Natives felt as ease to imitate him. Unfortunately, because of his comfort with the West, Eastman did not recognize this complication.

In his article, “Good Indian: Charles Eastman and the Warrior as Civil Servant”, author Drew Lopenzina identifies why Eastman’s advocacy suffered from a limitation. Lopenzina firmly believes Eastman combated assimilation given he consistently applied Native Sioux philosophies to his life but admits that Eastman’s introduction to the West complicated his promotion of
Native rights. He posits that Eastman was a distinctly rare figure, as he was spared from the reservation system (Lopenzina 729). Taking that into account, Lopenzina concludes that “He was able to reap all the benefits of a traditional Sioux upbringing, without internalizing the poverty and humiliation” (Lopenzina 729). Adhering to Lopenzina’s argument, this meant that Eastman’s idea of a combined society was rooted in the dismissal of Native traumas due to his ignorance of such matters. These past abuses culminated in both the shame and erasure of culture, and consequently few Natives felt secure enough to apply Native thinking to Western life as Eastman had. Forced to join Western society, many Natives left behind their culture and philosophy in order to belong. While his education and subsequent mentality made Eastman a strong advocate for Native involvement in Western education and society, his efforts simultaneously nearly resulted in assimilation for others. Therefore, his advocacy would have been improved through a deeper connection to Native cultures and traumas to help Natives retain their philosophies as he had. While Lopenzina discovers why Eastman’s advocacy was distinctive, there is a larger scholarly discussion on his status as either an agent of assimilation or a staunch Native defender.

As a major advocacy organization that Eastman helped found, his efforts with the Society of American Indians encapsulates the key philosophies carried throughout his life and the debate about his identity as either a loyal Indian advocate or agent of assimilation. In his article, “The SAI and the End(s) of Intellectual History”, Robert Warrior argues that it was logical for the SAI members to assume that the domination of Western civilization signaled the end of Native cultural dominion. He writes that the members saw “…themselves in a liminal space between the end of one thing and the beginning of something else…” (Warrior 225) and therefore acted accordingly in order to survive. Importantly, they carved a place for Natives in higher educational settings, both by holding meetings at institutions and “orienting Native studies toward Native leadership” (Warrior 230). The SAI’s focus on education reflected Eastman’s idea to integrate (not assimilate) Natives through education as he himself was. There was neither racism nor assimilation in SAI founders’ reactions to what they understood as a changing world. Since they regarded it as such, their efforts to save Native cultures preserved it in relation to the West, rather than distinctly. Despite their successes, Warrior addresses the organization’s main problem in that “it does not span the distances that have always plagued Native studies between the academy and the people and communities at its center” (Warrior 231). Lopenzina discovered that Eastman’s personal advocacy suffered from this particular problem because of his uncommonly gentle introduction to the West that blinded him to Native traumas. As Warrior argued, the SAI -- and subsequently Eastman -- should have acted to meet the needs of suffering Native communities, therefore inspiring smoother societal transitions. Warrior is not the only scholar to analyze Eastman’s philosophies and their relation to the SAI’s exploits.

Philip J. Deloria’s article, “Four Thousand Invitations” coincides with Warrior’s argument. He too emphasizes the logicality of the SAI member’s fatalism, as the founders lived during “a moment when Indian people had effectively reached the bottom: population severely reduced; land effectively stripped; cultural and religious practices under restriction” (Deloria 37). While Deloria states that the “shadow of assimilation” (Deloria 26) cast itself upon the SAI, it also “worked actively to preserve elements of Native cultures and societies from destruction” (Deloria 26). Founded in a society where the wounds of colonialism still bled, the SAI and Eastman recognized that defiance would quicken assimilation, while compromise would conserve limited aspects of Native cultures, importantly stemming its reduction. However,
their methods of preservation often contrasted with the Natives who continued practicing their culture in defiance of Western influence. The logical arguments that Eastman and the SAI favored placed them out of touch with these contemporary Natives. Their advocacy would have influenced a wider population had they expanded their methods to preserve Native cultures outside of Western civilization as well. Despite this disconnect, the founders’ (including Eastman’s) multiple efforts to conserve Native cultures proved that they remained loyal Native advocates. This scholarly debate represented concerns that continued throughout Eastman’s involvement with the Ghost Dance and later advocacy efforts.

The Ghost Dance and ensuing massacre at Wounded Knee were two principal moments when Eastman’s advocacy would have benefited from a closer connection to Native cultures. When news of the Ghost Dance reached Eastman on the Pine Ridge Agency where he worked, he initially regarded it as a serious, but harmless, issue. The religious ceremony intended to instigate a new era of Indian sovereignty, triggered by the arrival of buffalo at the expense of Western civilization. Rather than devolve into panicked confusion, Eastman consulted “…some of the educated and Christian Indians” (Eastman 51) to garner a better understanding. His effort to avoid the hysteria mounting around the Ghost Dance reflected his good relations with the Natives he worked with, as he trusted them to explain the situation thoughtfully. His choice to consult only “educated and Christian Indians” demonstrated his value of education, but ultimately limited his understanding of those participating in the ceremony. Due to this, Eastman’s potential to be a strong advocate regarding the Ghost Dance quickly diminished with his sudden dismissal of it.

Eastman’s response to the Ghost Dance was dismissive, but not surprising. Considering that the violence at Wounded Knee originated from a confused panic about the ceremony’s potential danger, Eastman had an opportunity to help deescalate the situation by educating the West. However, he missed this opportunity. First, Eastman reduced the dance to an anomalous “religious craze” (Eastman 55) that did nothing to qualm the distress. Secondly, Eastman adopted a decidedly fatalistic viewpoint, writing, “It meant that the last hope of race entity had departed, and my people were groping blindly after spiritual belief in their bewilderment and misery” (Eastman 55). His belief that Native cultural sovereignty was lost and his allegiance to the West minimized his ability to ease the situation on the Native’s behalf. Eastman’s response to the Ghost Dance was not random, and instead mirrored attitudes he previously expressed in his autobiography. His disparagement of the Ghost Dance originated from the fact that he wanted an amalgamated community to preserve Native cultures: neither fully Native nor western was permissible. As the Ghost Dance preached the total return of Native cultures, it contrasted sharply with Eastman’s beliefs. His distrust of the ceremony’s efficiency emanated not from pure contempt, however, but rather from a logical assumption that Native cultural dominion had ended. In consequence, Eastman refused to voice his support for the Ghost Dance, and instead allied himself with the United States Government in order to salvage his ideal combined society. A traumatizing event for Eastman, the ways in which he described the hours before the violence briefly demonstrated how it altered his attitude.

Recording the events much later in life, the diction Eastman utilized to convey the rising tension before the massacre at Wounded Knee indicated a deviation from his earlier perspectives. Horrified, Eastman wrote that women and children flooded into the Pine Ridge Agency “evidently fearing that the dreaded soldiers might attack their villages by mistake” (Eastman 60). Juxtaposed to the defenseless women and children were the “dreaded soldiers” who
Despite Eastman’s condemnation, the divide between himself and Native life persisted. Surrounded by “grief” and “death song[s]” (Eastman 65) Eastman stated: “It took all my nerve to keep my composure in the face of this spectacle” (Eastman 65). Although the massacre outraged him, Eastman did not associate himself with the grieving Natives, and instead relied on his identity as a Western educated physician in order to direct himself through the turmoil. Since he depended on the West as the medium of Native survival, Eastman “passed no hasty judgement” (Eastman 66) on civilization or Christianity--he could not afford to do otherwise. In a strictly colonial society, his hopes for Native survival hinged upon an amalgamated community. If he alienated Natives further from the West after Wounded Knee, it would rob them of a safe haven. However, Eastman’s association with the West allowed him an identity to retreat into, therefore saving himself from the trauma in a way that other Natives could not replicate. These traumas made implementing a combined society problematic, as Natives felt compelled to either resist the West or abandon their culture. If Eastman recognized these traumas, he could have combated them while still advocating the same ideals. Compared to the actions of one of Eastman’s contemporaries, his advocacy during the Ghost Dance clearly could have been improved.

Witnessing the decimation of Wounded Knee for himself, Eastman condemned Western civilization on levels unprecedented for his autobiography. Eastman volunteered to make the dangerous journey to the site of the massacre, hopeful of finding survivors. While he aided those on the scene as best he could, Eastman was struck by the numerous prone bodies at and around Wounded Knee. According to his account, multiple dead women were “found...scattered along as they had been relentlessly hunted down and slaughtered while fleeing for their lives” (Eastman 65). Eastman’s gratitude and fascination with the West did not blind him from the truth, and he regarded Wounded Knee as a horrifying, unjust, massacre. Recognizing that most of the slaughtered Natives were helpless without their guns which the government had previously confiscated, Eastman was justifiably angry as his trust in Western civilization was violated. Even in this intense moment of misery, Eastman remained separated from his Native counterparts who also embarked on the rescue mission with him.

Although not married at the time of the massacre, Eastman’s white wife, Elaine Goodale, displayed a greater respect for the Ghost Dance ceremony than her husband. The two mince no words in establishing the innocence and the heartbreaking panic of the Native Americans, but Goodale made greater strides than Eastman to understand the ceremony. Curious, she visited the dancers and documented the events in her memoirs, Sister to the Sioux, while Eastman did not. Impressed by Ghost Dance, Goodale argued “No one with imagination could fail to
Unlike Goodale, Eastman directly expressed a willingness to forgo the trauma of the Ghost Dance and Wounded Knee because he believed clutching onto the past was not a viable method for Native survival in the vastly colonized world. Consequently, he neither defended the Ghost Dance, nor did Wounded Knee diverge him from his later advocacy methods, but his perspective on the West did change.

Eastman gradually became more pessimistic about Western civilization, and the event that triggered his withdrawal from the Pine Ridge Agency demonstrated his altered attitude. The annual payment of treaty money of 1891 coincided with the government’s reparation payments for Wounded Knee, which totaled one hundred thousand dollars. Eastman agreed to witness the payments, but later uncovered a devastating truth: roughly ten thousand dollars had been stolen from vulnerable Indians. He loudly complained and campaigned on behalf of the Native victims and wrote “…in my inexperience I believed that it had only to be exposed to be corrected” (Eastman 75). In reality, Eastman’s advocacy efforts amounted to nothing, and he was harshly punished with intolerable working conditions. Finally, he left the Pine Ridge Agency “…being utterly disillusioned and disgusted with these revelations of Government mismanagement in the field, and realizing the helplessness of the best-equipped Indians to secure a fair deal for their people” (Eastman 77). His spurned faith that the reparations would heal the scarring inflicted by Wounded Knee led Eastman to further develop a severe distrust of the West, but not a deviation of his goals. The swift punishment for his direct advocacy against the United States government dissuaded him from further attempts. Also, his new pessimistic views reinvigorated his belief that Native survival hinged upon a submissive combination with Western society, as the latter was too powerful and dishonest to resist. This encouraged him to re-focus his advocacy on education, and subsequently lengthened the divide between Eastman and average Natives, even when he tried to connect with them.

Both Eastman and Goodale despised the violence inflicted at Wounded Knee and loyalty defended the Natives despite their precarious positions. According to her autobiography, a statement given by General Forsyth generated a misconception surrounding the violence at Wounded Knee. While the General labeled the American troops as brave soldiers combatting dangerous enemies, Goodale referred to the bloodshed as a massacre of defenseless women and children (Goodale 160). When requested by Commissioner Morgan to write a letter regaling the true events of Wounded Knee, Goodale jeopardized her reputation by contradicting a high-ranked officer. Recalling this moment years later, Goodale wrote “I think the Sioux story of Wounded Knee is now generally accepted, but at the time it was strongly resented by military authorities and every effort was made to suppress or discredit it” (Goodale 164). Her letter, which was later published by numerous New York papers, helped overturn the harmful delusions of Wounded Knee despite the professional risk to her career. Likewise, Eastman endangered his life to help the Native victims, and the condemnation in his autobiography was equally harsh, and arguably more graphic. Therefore, the two contrast each other in their opinions on the dance’s ability to preserve Native cultures, rather than their defense of Native lives. Unlike Goodale, Eastman directly expressed a willingness to see in the rite a genuine religious ceremony, a faith which, illusory as it was, deserved to be treated with respect” (Goodale 148). Despite her claim that the ceremony lacked efficiency, Goodale earnestly defended it. Due to her educational background and desire to accommodate Native students by learning their language, Goodale’s reception of the dance is understandable, and she was hopeful of fully comprehending such ceremonies in order to create a brighter future. On the other hand, Eastman reduced it to a “religious craze”. While neither had the freedom to advocate for a complete return of Native sovereignty, Goodale’s efforts to understand the ceremony did more to repress the dangerous confusion.

Both Eastman and Goodale despised the violence inflicted at Wounded Knee and loyalty defended the Natives despite their precarious positions. According to her autobiography, a statement given by General Forsyth generated a misconception surrounding the violence at Wounded Knee. While the General labeled the American troops as brave soldiers combatting dangerous enemies, Goodale referred to the bloodshed as a massacre of defenseless women and children (Goodale 160). When requested by Commissioner Morgan to write a letter regaling the true events of Wounded Knee, Goodale jeopardized her reputation by contradicting a high-ranked officer. Recalling this moment years later, Goodale wrote “I think the Sioux story of Wounded Knee is now generally accepted, but at the time it was strongly resented by military authorities and every effort was made to suppress or discredit it” (Goodale 164). Her letter, which was later published by numerous New York papers, helped overturn the harmful delusions of Wounded Knee despite the professional risk to her career. Likewise, Eastman endangered his life to help the Native victims, and the condemnation in his autobiography was equally harsh, and arguably more graphic. Therefore, the two contrast each other in their opinions on the dance’s ability to preserve Native cultures, rather than their defense of Native lives.
After leaving the Pine Ridge Agency, Eastman experienced a heightened connection between Native cultural values and Christianity. Through his travels, Eastman spoke to members of the Sioux, Cheyenne, Cree, and Ojibwe tribes about Christ, which inspired him to contemplate his relationship with Christianity. This reconnection with his Native origins led him to believe that Western civilization employed Christianity as a tool for colonization and was used as a “machine-made religion” (Eastman 80). He conjectured that those who professed Christianity in order to declare superiority had no real spiritual relationship with the religion. According to his beliefs and experiences, Native cultures should be willingly molded to Christianity, not eradicated by it. In response, he campaigned “…to make the Indian feel that Christianity is not at fault for the white man’s sins” (Eastman 84).

While Eastman’s travels made essential steps to bridge the divide between himself and average Indians, his immediate impulse to defend Christianity despite the evils perpetrated in its name again relates to Eastman’s lack of experience in degrading situations. While he felt at ease to adhere to Christianity without entirely ignoring his Native culture, others had their Native ties severed in favor of the Western religion and still were at the time of his travels. His arguments concerning Christianity surely appealed to some, but with his new revelations, Eastman could have directed efforts to assuage the harms done by false prophets in order to create a healthy combined society.

Born from Eastman’s Christian reinvolvement with Natives was his second effort to aid Native Americans by making a genuine appeal to combat corruptions plaguing Native lives and lands. While Wounded Knee convinced Eastman of the futility of attempting to maintain Native cultural sovereignty, the reparations scandal that followed in its wake induced him to distrust lower government officials. However, that scandal did not uproot Eastman’s trust in the leading members of the United States government. His contrasting levels of trust were exposed and amended when senior Sioux members and his brother, Rev. John Eastman, appealed to him for assistance.

Understanding Eastman to be an ardent Native supporter through his efforts at Pine Ridge and beyond, they asked him to represent their claim as a lobbyist in Washington for the lost reparations from the 1851 treaty. When Eastman agreed, he was appalled to learn that “scarcely one of our treaties with the United States had been carried out in good faith in all of its provisions” (Eastman 86). Despite this bleak reality, Eastman idealistically “was confident that a fair hearing would be granted, and our wrongs corrected without undue delay” (Eastman 88). His statement almost exactly mimics his thoughts during the reparations scandal, which infamously ended his career at Pine Ridge. Although Eastman eventually understood the fault in his assumption, his ability to form such an opinion demonstrates how separated he truly was from average Native Americans, and their struggles. He himself experienced the trauma of Wounded Knee and learned the disappointing truth of the Native treaties, but he did so under the shelter of his Western identity which allowed him to retain his trust of the West. Eastman’s short career as a lobbyist certainly exposed his disconnect, but likewise demonstrated his sincere dedication to helping Natives.

During his stay in Washington, Eastman ardently assisted not only the Sioux, but additional groups of Natives who sought his expertise. Although he could not stray far from his original purpose, Eastman gave advice and often witnessed their arguments before the Indian Commissioner or committees of Congress. Considering how urgent the cause of Eastman’s trip to Washington was, the time that he devoted to additional Indian delegations demonstrated the scope of his concern for Native welfare. Unfortunately, both Eastman’s main goal to restore the proper restorations and his side efforts amounted to nothing, and firmly disillusioned him. Frustrated,
Eastman wrote “political and personal feuds in Congress persistently delayed measures which I had looked upon as only common justice,” (Eastman 89). Besides these feuds, he was confronted by corrupt officials who requested portions of the reparations in return for their voice, unaccommodating courts who did not supply adequate translators for Natives, and personally offensive politicians who were overly fascinated by Eastman’s intelligence at the expense of his argument. In consequences of these issues, he distrusted all sectors of government, high and low, and abandoned the hope that advocating for Native causes would result in their amendment. The way in which this event altered his advocacy permanently limited its scope. Rather than waste his time in what Eastman regarded as a lost cause, Eastman’s advocacy switched solely to promoting integration to solve the gradual disappearance of Native cultures, rather than combating the roots of those injustices. Admittedly, as a single man there was little Eastman could do to combat the corruption of the United States government, but as his career advanced, he gained more allies. Especially once he helped found the SAI, crusades against governmental corruption and attempts to help amend Native injustices could have been more effective. Nevertheless, the disappointment Eastman felt because of the Pine Ridge reparations scandal and the corruption in Washington explains his complicated later efforts to conserve Native cultures.

After his failed lobbyist career, Eastman became involved with white museums in a problematic effort to share Native artifacts with Western civilization twenty years after Wounded Knee. His assignment was “...to search out and purchase rare curios and ethnological specimens for one of the most important collections in the country” (Eastman 94). Eastman felt obvious pride at his task, as otherwise “a white man would probably not have been allowed to see [the artifacts] at all” (Eastman 94). Natives were not the target audience for the museum attractions, but Eastman perceived the commission as a vital tool to integrate Native cultures into the Western world. It would combine the two societies and preserve the diminishing Native cultures in an ethnological setting. Especially after the destruction Wounded Knee, Eastman was convinced that these items needed to be specially preserved so as to not be destroyed. Although Eastman mourned the gradual disappearance of Native cultures, he did not recognize how the transfer of the artifacts contributed to that disappearance. The removal process was not disagreeable for Eastman who had lived in Western civilization for decades, but the culturally significant artifacts disappeared for Natives who had no access to Western museums. Until recently, the specifics of Eastman’s commission were unknown.

Curious about Eastman’s benefactor and the exact artifacts he received, David Martinez researched and discovered the answers to his questions. In his article, “Out of the Woods and into the Museum: Charles A. Eastman’s 1910 Collecting Expedition across Ojibwe Country”, Martinez determined that George Gustav Heye sponsored Eastman’s expedition. Despite Heye’s interest in Native artifacts, he expressed little respect for the culture, and locked the items away for decades. Eastman’s willing decision to partner with such a man potentially harmed his reputation through association. Martinez combats this idea, and instead argues that the affair was respectful, considering “…the Ojibwes who handed over their utilitarian and sacred artifacts to Eastman did so under their own volition” (Martinez 80). Although Martinez admits a personal discomfort with Eastman’s expedition, he argues that Eastman believed it to be a logical step in closely acquainting Western society with Native cultures. Therefore, he believes Eastman should not be condemned for his actions. The sentiments Martinez voices echoes similar discussions on Eastman’s advocacy.
Robert Warrior argues the same point as Martinez regarding the SAI and the uneasy reactions triggered by its seemingly assimilationist policies. Both authors reason that a modern lens distorts Eastman’s efforts, and that the challenging circumstances of a colonialist world limited his advocacy options. While Eastman’s endeavors helped integrate Native cultures into academic spheres, the unease both authors quote distinguishes where his advocacy could have been improved. Whether taking Native artifacts or espousing an “overdetermined commitment to American belonging” (Warrior 226), Eastman often failed to relate to the Natives he tried to help and instead favored increased Native involvement within academic spheres. If he had a stronger connection, Eastman could have understood these faults and directed efforts to assuage Native trauma and encouraged more to accept a combined community. In particular, Eastman himself inflicted trauma by surrendering Native items to a prejudiced benefactor, therefore disconnecting Natives from their cultural artifacts in favor of entertaining white society. Had Eastman been better connected to Natives, he would have understood the consequences of his specific museum commission by avoiding an association with Heyes who secreted the artifacts, benefiting no one. Similar to his misguided involvement with museums was another instance in which Eastman allied with the government for the intended benefit of Natives.

Eastman’s advocacy again needed improvement when he agreed to change the names of Native Sioux in an effort to simplify their transition into the Western world. According to Eastman, “Indians had no family names” (Eastman 103) which led to harmful confusion. Therefore, the government gave him the task to “...select from the personal names of a family, one which should be reasonably short, euphonious, and easily pronounced by the white man” (Eastman 103). While the government geared this effort towards assimilation, Eastman resisted that goal through a respectful compromise: the new names were carefully selected for the benefit of Natives and whites alike. For Eastman, the subjugation of Native cultures was unavoidable, and therefore name-changing was a natural progression towards a combined society. However, the result of his effort is questionable.

David J. Carlson directly contradicts Eastman’s stance on Native name-changing in his article “‘Indian for a while’: Charles Eastman’s ‘Indian Boyhood’ and the discourse of allotment”. Carlson regards it as a futile effort that “…highlight[ed] the degree to which his experience had taken him away from the traditions of his youth” (Carlson 610-11). Eastman himself adopted an English name, but freely chose to do so without outside pressure. The fact that he did not recognize this difference encapsulates Carlson’s argument that Eastman was too far removed from Native cultures to identify how forceful name-changing was traumatic. Unintentionally unaddressed, the traumas resulted in shame and erasure of Native cultures, consequently corrupting Eastman’s ideal combined society. An awareness of these traumas through a greater connection to his culture could have avoided this complication, and more could have been done to educate the Western world on Native names instead.

Contrasted to both Eastman’s museum involvement and Carlson’s argument is Lopenzina’s article. After Wounded Knee, Lopenzina posits that “suddenly Eastman’s narrative blind eye seems to have opened” (Lopenzina 743). This is semi-true: Eastman certainly became more pessimistic about Western civilization and the future of Native cultures, but his advocacy efforts and its weak points remained the same. Regarding the museum commission, Eastman respectfully acquired Native artifacts, only to mysteriously relinquish them to a racist benefactor. Until Martinez’s research, the artifacts remained missing -- certainly, this did not aid Native Americans.
Lopenzina’s article also differs with Carlson’s argument, as Carlson emphasizes a harmful persistent disconnect between Eastman and Native cultures, even after the shock of Wounded Knee. Due to this disconnect, Eastman later allied with governmental efforts that stripped Natives of their identity. Nevertheless, Lopenzina’s assertion that Wounded Knee “became the seminal event ushering him into continued advocacy for American Indians” (Lopenzina 730) is clearly true, as Eastman’s efforts never ceased, despite their few deficiencies.

A loyal advocate for Native rights, Eastman combated assimilation through his efforts to create an amalgamated community in which Natives would apply their cultural philosophies to Western life. However, the colonialist society that he lived in and his comfort with Western civilization convinced Eastman to focus his advocacy solely on education and integration, rather than alleviating Native traumas. These traumas complicated cultural transitions, and alienated Eastman from many Natives. Despite this, his efforts importantly increased Native presence in higher-educational settings that exist in modern society and leave a clear positive legacy.

**Bibliography**


**About the Author**

Jessica Vilk is a senior at Bridgewater State University majoring in English, set to graduate in July 2021. Dr. John Kucich (English) helped oversee the completion of this manuscript. She enjoys studying British literature, particularly Shakespeare and John Milton, because reading such literature offers a glimpse of past values and culture through a deeply entertaining and enlightening lens. In the future, she hopes to be accepted into graduate school and a later Ph.D. program concentrating on British literature.
**JUVENILES IN SOLITARY CONFINEMENT**

*Abbey Logan*

**Statement of the Issue**

The topic of solitary confinement has been controversial in the United States for decades. Policies regarding juveniles in solitary confinement have been especially contentious in recent years. In this essay, I define solitary confinement and provide a brief overview of its history, discuss the current state of affairs and legal issues, evaluate a case in which solitary confinement played a key role, discuss the federal policy which ended solitary confinement for juveniles, and analyze the quality and effectiveness of the case and policy. I then suggest how to move forward from this detrimental practice.

Solitary confinement can be defined as the separation of an adult or juvenile from the general population, whether it be in a jail, prison, or juvenile detention center. There are numerous reasons that incarcerated people may be placed in solitary confinement, including breaking the rules, safety concerns for staff or other inmates, concerns for the individual’s personal safety, and clinical reasons (National Commission on Correctional Health Care, 2016). Solitary confinement may entail spending 22-24 hours a day in an eight-by-ten-foot cell (Teigen & Brown, 2016). There are no windows or access points to the outside world, and along with sensory deprivation, there are few educational, rehabilitative, or vocational opportunities to pursue. Solitary confinement eliminates almost all meaningful contact with others, which is an important factor for human interaction and growth (National Commission on Correctional Health Care, 2016). The specifications of solitary confinement vary based on the facility, but generally they are similar in terms of the structure of the cell and the lack of human interaction allowed. Other terms for this practice may include *isolation, protective segregation, permanent lockdown, supermax, or intensive management* (National Commission on Correctional Health Care, 2016).

**Historical Analysis**

The practice of solitary confinement originated in the late 18th century, as a method of improving conditions and rehabilitating prison inmates (Taddonio, 2017). However, it was not long until this practice transitioned into a form of abusive punishment instead. 1829 marks the year when the first real experimenting with solitary confinement began at the Eastern State Penitentiary in Philadelphia (Sullivan, 2006). Its intended use at that point was to give inmates time and space to contemplate their actions and repent their sins; however, it resulted in inmates developing insanity, attempting or completing suicides, and no longer being able to function properly as humans in society (Sullivan, 2006). In 1890, Supreme Court Justice Samuel Miller addressed the issue of the failing mental and physical health of those placed in solitary confinement, in explicit relation to those housed at the Eastern State Penitentiary (Sullivan, 2006). Miller’s role in this case was important in highlighting the inhumane and detrimental conditions present at the facility, setting a standard for Eastern State Penitentiary, along with all other facilities around the country. In 1934, the U.S. saw a worsening trend with solitary confinement, as Alcatraz was opened and inmates there were subject to be thrown in “The Hole” (solitary confinement) with no light, no clothes, and no food (Sullivan, 2006). Marion III in Illinois was the first prison in 1983 to adopt a 23-hour lockdown policy with no inmate communication or access to the outside, as a result of inmates murdering prison guards (Sullivan, 2006).

Towards the end of the twentieth century, specifically in the 1980s, the U.S. used solitary confinement for both adults and juveniles frequently. The first supermax prison, Pelican Bay, built in 1989, was created to hold inmates in isolation for 22.5 hours per day with little space for much else (Sullivan, 2006). In the 1990s, supermax prisons became increasingly popular, being built in
numerous states around the country. In 1995, solitary confinement conditions were once again in question, as the case of Madrid v. Gomez resulted in a federal judge declaring the conditions at Pelican Bay to be borderline humanly tolerable (Sullivan, 2006). However, the judge found no constitutional basis to eradicate operations at the facility, and thereby ruled that the court turn to the states to figure out how best to incarcerate inmates (Sullivan, 2006). A decade later, in 2005, a nationwide study was conducted and revealed that forty out of fifty states run supermax prisons, holding approximately 25,000 inmates (Sullivan, 2006).

**Current State of Affairs**

Recent research demonstrates several negative impacts that solitary confinement can have on juveniles including: “depression, anxiety, and psychosis” (Teigan, 2020, paragraph three). Several states and court systems have spent recent years re-evaluating the concept of solitary confinement as it applies to juveniles (Teigan, 2020). In 2016, President Barack Obama banned solitary confinement for juvenile offenders on a federal level (Teigan, 2020). Currently, there are 29 states and jurisdictions that prohibit the use of solitary confinement for juveniles all together (Clark, 2017). However, 15 other states have been reported to limit the use of solitary confinement for juveniles (Clark, 2017).

As of 2017, there were approximately 54,000 juveniles incarcerated throughout our country (Clark, 2017). In 2014, the Office of Juvenile Justice and Delinquency Prevention declared that approximately half of juvenile detention centers in the U.S. reported using solitary confinement for juveniles for at least four consecutive hours (Clark, 2017). However, juvenile offenders are not only located in detention centers, but also long-term secure facilities and adult prisons or jails. Therefore, it is likely that the number of juveniles subjected to solitary confinement is much higher than that report leads suggests. Adult prisons and jails are believed to be the worst type of placement for juveniles currently. The Campaign for Youth Justice states that juveniles are more likely to be placed in solitary confinement when inside of adult prisons and jails due to compliance efforts with a Prison Rape Elimination Act (PREA) standard (Sawyer, 2019). PREA originated in 2003 at a federal level in order to address and eliminate sexual assaults and rapes in correctional facilities (National Sheriffs’ Association, 2019). The PREA standard addresses “‘sight and sound’ separation from incarcerated adults” (Sawyer, 2019, paragraph sixteen).

Today, there are ongoing debates regarding the use of solitary confinement for juveniles. As of February 2020, Nebraska and Washington passed laws to ban the use of solitary confinement for juveniles, and Hawaii introduced a similar law in an effort to ultimately ban the practice. Furthermore, there is controversial research arguing that brief exposure to solitary confinement may increase the risk of death (News on solitary, 2019). There are also arguments against solitary confinement for juveniles due to the severe psychological effects it may produce as a result of their underdeveloped brains. Other professionals are advocating against it due to the fact that it can be seen as a form of child abuse (Clark, 2017).

**Legal Issues**

Due to the debates regarding the negative impacts solitary confinement may impose on juveniles, several legal issues have arisen around the country. Over the last two decades there have been numerous Supreme Court cases which have addressed juvenile offenders, with a few examples being: *Roper v. Simmons* (2005), *Graham v. Florida* (2010), and *Miller v. Alabama* (2012) (Clark, 2017). Each of these cases emphasized adolescents’ underdeveloped brains, increased susceptibility to peer pressure, low impulse control, and better chance of rehabilitation in comparison to adults (Clark, 2017).
While these cases did not explicitly address solitary confinement, they highlighted the important differences between adolescents and adults, which further suggest that solitary confinement is far riskier and more detrimental to adolescent health and development.

Psychological research has found that 50 percent of juveniles who committed suicide while incarcerated (out of 100 juveniles) did so while confined to their rooms (Clark, 2017). Furthermore, studies on self-harm of incarcerated juveniles have demonstrated a correlation between being placed in solitary confinement and being under the age of 19 (Clark, 2017). Therefore, it has been found that placing juveniles in solitary confinement may lead to acts of self-harm. This research suggests that solitary confinement is increasingly bad for juveniles’ mental health, and in addition to several mental illnesses, may also lead to acts of self-harm or suicidal ideation and attempts. In addition to mental health concerns, a juvenile’s emotional, social, and physical states can be negatively altered as a result of solitary confinement. Human interaction is necessary for survival and growth, just as the ability to move around freely is necessary for physical health. Not only can solitary confinement deteriorate a juvenile’s emotional and psychological health, but it may contribute to the development of muscle atrophy or vitamin deficiency (HG.org, n.d.).

Additionally, by law juveniles cannot be subject to solitary confinement past a certain amount of time depending on which state they are in. If a juvenile is forced to endure solitary confinement longer than the maximum time as indicated by a law, there is grounds for a lawsuit. These practices and legal matters are further complicated depending upon how the juvenile was convicted. If a juvenile is tried as an adult they may be subject to solitary confinement that exceeds months or even years, whereas juveniles in detention centers are more likely to be punished using solitary confinement based on their age (HG.org, n.d.). Several lawsuits have occurred as a direct result of harsh solitary confinement conditions and have involved the American Civil Liberties Union as a result (HG.org, n.d.). Furthermore, basic human rights argue for inmates to have at least eight hours outside of their cells per day and to have access to educational and mental health services (HG.org, n.d.). Solitary confinement revokes those basic human rights.

Case

There is one case, which specifically highlights an example of legal issues regarding juvenile solitary confinement and its misuse. In 2010, a young man was put in jail for allegedly stealing somebody’s bag (Wagner, 2016). Kalief Browder, a 16-year-old from New York, spent over 1,000 days in a juvenile detention center awaiting trial (Webster, 2019). His trial date was postponed more than 30 times (OJJDP supports eliminating solitary confinement for youth, 2016). He was sent to Rikers Island, a notorious jail complex segregated from the mainland in New York known for its harsh conditions and history of inmate self-inflicted injuries and suicides. Rikers Island also has a history of violating human rights (Maule & Liu, 2020).

For nearly two years while Browder was in the detention center, he sat in solitary confinement because he refused to accept guilt for a crime he hadn’t committed - stealing a book bag (Webster, 2019). During this two-year period, Browder additionally faced numerous physical beatings at the hands of the Rikers Island correctional officers (Maule & Liu, 2020). In 2013, Browder was released after charges were dropped, and he was never brought to trial (Wagner, 2016). Over the two years following his release, Browder was hospitalized in a psychiatric facility on three separate occasions and
being subject to solitary confinement, the case of Browder seemed to strike Obama. Obama cited the Browder case when he announced his concern regarding the use of solitary confinement on youth as a punitive practice.

**Analysis of policy in terms of the case**

When analyzing the federal policy, which banned solitary confinement for juveniles and placed several other restrictions surrounding its general use, one may question whether that would have changed the life of Kalief Browder. Browder was being housed in Riker’s Island in New York. Riker’s Island is overseen by the New York City Corrections Department (Schwirtz, 2017). It is considered to be a “principal jail complex” with ten different jails on it, including those for women, youth, and more dangerous male criminals (Schwirtz, 2017). By legal terminology, Riker’s Island is not a prison, and it is not federally operated and owned. Therefore, under legal circumstances, the federal policy which banned the use of solitary confinement would not have been useful for the case of Browder and would not have protected him from this inhumane and punitive practice.

If Riker’s Island were a federal prison, solitary confinement would have been banned, and Browder would have been removed from solitary. The psychological impacts and damage of solitary confinement would have likely still followed him, but perhaps not to the extent which they did. Another factor to consider is if the state of New York had adopted a policy similar to that of Obama’s federal ban on solitary confinement for juveniles. If New York had adopted similar legislation fast enough, Browder would have been released from solitary and not kept in isolation for more than two years. It is possible that Browder would still be alive today if he had not been subject to isolation for the excessive amount of time that he was. However, the fact remains that this policy, even at the federal level, was initiated _after_ the death of Browder.

**Policy**

In July of 2015, following the death of Browder, former President Barack Obama requested that the Attorney General review “the overuse of solitary confinement across American prisons” (Office of the Press Secretary, 2016, paragraph one). The Department of Justice then conducted a thorough review of solitary confinement practices, including when it’s utilized, on whom, and the typical conditions of such confinement (Office of the Press Secretary, 2016, paragraph one). The DOJ’s review resulted in 50 guideline principles for limiting the use of solitary confinement at federal, state, and local levels (Office of the Press Secretary, 2016, paragraph one). These principles emerged out of President Obama’s leadership and initiative. In January of 2016, President Obama published an executive order which banned the use of solitary confinement for juveniles at the federal level in both jails and prisons (Krebs, 2016). This executive order additionally banned the use of solitary confinement as a punishment for lesser infractions (Pitre, 2016). More definitively, Obama’s order banned a federal prisoner from being subject to solitary confinement for a first offense for longer than 60 days at a time, a sentence significantly lower than the preexisting 365-day rule (Pitre, 2016).

**Quality of connection between case and policy**

The case of Kalief Browder and the federal ruling which banned solitary confinement for juveniles is directly correlated. While there were other unjust cases of juveniles attempted suicide twice (Webster, 2019). On a Saturday in 2015, Browder committed suicide in his home; he was only 22 years old (Webster, 2019). Reports from news outlets and medical professionals argue that Browder’s solitary confinement and the act of being locked up for 23 hours a day for two years deteriorated his mental health and evoked a trauma in his life that he could not bear (Wagner, 2016).
and ultimately could not have made a difference in his case. Unfortunately, tragedy tends to drive policy in this country. Obama’s legislation, while a step in the right direction, was not enough to save Browder and prevent his tragic suicide.

Analysis of policy’s efficiency in terms of research

Obama’s executive order banning juvenile solitary confinement has been effective in keeping juveniles out of isolation in federal prisons and jails. It impacted an estimated 10,000 prisoners when the ruling first became enforced (Pitre, 2016). However, there were only a couple hundred juveniles in federal custody, as opposed to 48,000 juveniles who were incarcerated in state facilities as of 2019 (Sawyer, 2019). While the argument can be made that Obama’s executive order created a trend towards banning the use of solitary confinement on juveniles, another argument could be made that an executive order alone is not enough.

Some law enforcement officers, psychologists, and legal service representatives argue that juvenile solitary confinement violates the Eight Amendment’s Cruel and Unusual Punishment clause, and thereby banning it on a federal level is not effective enough (Protecting America’s children: Why an executive order banning juvenile solitary confinement is not enough, 2016-2017). Obama’s executive order should instead coincide with both Congressional legislation and Supreme Court jurisprudence in order to ensure a lasting effect and keep juveniles out of isolation permanently (Protecting America’s children: Why an executive order banning juvenile solitary confinement is not enough, 2016-2017).

On the other hand, researchers argue that this executive order created a growing trend towards the banning of juvenile solitary confinement. In recent years, overall use of solitary confinement for juveniles has declined, with several states such as Colorado, Maine, California, Idaho, and Illinois taking appropriate measures to close solitary confinement units and reduce the overall number of inmates in solitary confinement (Lloyd, 2017). Today, 11 states and Washington D.C. limit or prohibit the use of juvenile solitary confinement. Prior to Obama’s executive order in 2016, a select few states had already begun to eliminate juvenile solitary confinement, but not nearly enough. West Virginia, in 1998, was the first state to ban solitary confinement for juveniles, although in 2012 the state was sued for not abiding by its own laws (Hager & Rich, 2014). Alaska, Mississippi, and Connecticut took measures to ban solitary confinement for juveniles in 2012, and in 2014 states such as Indiana and New York limited the use of solitary for juveniles (Hager & Rich, 2014). This data indicates that while some legislation existed to limit or prohibit the use of solitary confinement for juveniles, there has been a substantial increase in that type of legislation as a direct result of Obama’s executive order.

As is the case with most policies, there is always room for improvement. In an ideal world solitary confinement would not be a common punitive practice, not only for juveniles, but also for the elderly, the mentally ill, and the general jail and prison populations overall. In order to make the most significant difference, solitary confinement for juveniles ultimately must be banned at both a federal and state level since far larger numbers of our youth are found in the juvenile justice system in state and local facilities than in the criminal justice system under federal care.

Future Suggestions

Given the substantial evidence, solitary confinement for juveniles is proven detrimental to both the criminal justice system and the mental health of inmates. Solitary confinement for juveniles costs those juveniles their emotional and physical well-being. Studies demonstrated worsening depression, anxiety, suicidal
ideation, and increased cases of vitamin deficiency and muscle atrophy in juveniles who were subject to solitary confinement. Additionally, the use of solitary confinement for juveniles has created legal issues. The legal issues have resulted in negative press and increased expenses for the system. The most productive way to move forward for this point would be to ban solitary confinement at the state level as it has been banned at the federal level.

**Conclusion**

While solitary confinement has existed for hundreds of years, its intention and its outcome have resulted in two diverse meanings. Solitary confinement was built to isolate criminal adult offenders; it was not until only recently that this inhumane punishment was also inflicted upon juveniles. It is a maladaptive, punitive practice with few advantages other than being able to regain control over a prison population. It is inhumane and detrimental to the physical, emotional, and psychological development of juveniles. The abusive use of solitary confinement resulted in the young, innocent, 22-year-old Browder taking his own life. The former President Obama recognized this punishment as detrimental to juvenile development and therefore abolished it. While Obama’s executive order was effective for juveniles in the federal system, it did not have a substantial impact on the population which most needs reform: juveniles in the justice system at the state level. Ultimately, Obama’s order has set a precedent for legislative trends in which more states are moving towards banning the use of juvenile solitary confinement completely, or at the very least, placing strict policy guidelines regarding the terms of its use.

**References**


About the Author

Abbey Logan is a graduating senior majoring in Psychology and minoring in Criminal Justice. She is a member of the Honors Program at BSU. Her research was conducted during the fall of 2020 under the instruction of Dr. Jennifer Hartsfield (Criminal Justice). Abbey submitted this paper at the end of the Fall 2020 semester as her final paper for the course, Mental Health in the Criminal Justice System. Abbey plans to pursue a master’s degree in Clinical Psychology here at BSU within the next couple of years and ultimately have a career in the field of Psychology working with children.
An Exploration of Manipulatives in Math Education

Jade Monte

Abstract

Pre-existing literature has shown that the education system needs to re-evaluate mathematical teaching practices in a manner that can boost students’ confidence in mathematics. This research investigates the use of manipulatives in reducing students’ anxiety by increasing their learning experience and engagement in mathematics. The purpose of this article is to explain the interconnectedness of math manipulatives, student engagement, and problem-solving. When manipulatives, student engagement, and problem-solving are in harmony, students can achieve intellectual comprehension of abstract mathematical concepts. The article concludes with a list of recommendations to strengthen mathematical teaching practices.

Key words: manipulative, student engagement, problem-solving, math, teacher, student

1. Introduction

“I hear and I forget. I see and I remember. I do and I understand.” - Confucius (551-479 BC)

Many students find themselves struggling to understand abstract mathematical concepts. To fully grasp a concept, students must go beyond hearing and seeing mathematics, and actively participate in mathematics problems. One way to foster students’ understanding is to present problems in a way that students can comprehend easily. Manipulatives are tools that can demonstrate how effective this aid can be in the learning process. With some help and support, teachers can adjust their mathematical teaching so they can engage students with the use of manipulatives, and in return create stronger and more confident problem solvers.

This paper is organized into seven main sections: introduction, key definitions, manipulatives, student engagement, problem-solving, conclusion, and references. Each of the main areas (manipulatives, student engagement, problem-solving) is accompanied by sub-sections to highlight what the literature has indicated. The benefits and principles of effectiveness for manipulatives, as well as types of manipulatives are explored in the manipulatives section. Next, in the student engagement section, concrete, representational, abstract (CRA) instruction is examined. In the problem-solving section, the followings are discussed: challenging tasks, persistence, the teacher’s role in fostering persistence, and Polya’s method. In the conclusion section, some aspects concerning manipulative uses in mathematics are presented for teachers to consider.

2. Key Definition

One prominent issue teachers face today is keeping students engaged during mathematics lessons. Teachers need the right tools to help their students remain engaged. This can be particularly difficult with mathematics since concepts are so abstract, but research has shown that one specific tool called a manipulative is effective. A manipulative is a physical object that is used to engage students in the hands-on learning of mathematics (Jones & Tiller, 2017). The main purpose of a manipulative is to introduce, practice, and/or remediate a mathematical concept.
(Boggan et al., 2010). It is important to discuss student engagement since manipulatives are tools used to engage students. Student engagement is a term used to describe an individual’s interest and enthusiasm for school, which impacts their academic performance and behavior (Olson & Peterson, 2015). It is essential to student success because it is predictive of higher academic achievements, and lowers the risk of dropout (Fredricks et al., 2019). Manipulatives lead to student engagement by increasing success and comprehension of mathematical concepts. Problem-solving is the result of engagement, where students gain confidence in their ability to solve challenging tasks. It is a principle instructional strategy used to fully engage students in important mathematical learning at all grade levels (Kelly, 2006; DiMatteo & Lester, 2010). Manipulatives serve as a tool for students to utilize when challenging tasks arise, so they remain engaged and persist throughout the problem-solving process.

3. Manipulatives

3.1 Benefits of Manipulatives:

Manipulatives are widely used and known worldwide because there are numerous benefits for using them to teach mathematical concepts (Boggan et al., 2010). One benefit is that manipulatives increase math achievement. Although manipulatives are mainly used in elementary classrooms, research suggests using them at all levels of education to assist students (Boggan et al., 2010). Most studies show an increase in mathematical achievement after manipulatives are used as an intervention method. Those studies typically involve a pre-test and a post-test to look for students’ conceptual understanding of the specific concept the manipulative is meant to assist with, such as time and equations (Benders & Craft, 2016; Satsangi et al., 2016).

The second benefit is that manipulatives reduce mathematics-related anxiety (Boggan et al., 2010). Mathematics anxiety varies from person to person, but is described as a feeling of disorientation, in which panic sets in, and students no longer engage with learning. Mathematics anxiety has a negative impact on the students who experience it because they tend to avoid and dislike math (Barrett, 2013). Academic literature suggests that using manipulatives is a constructive approach to help students overcome misunderstood concepts and anxiety (Finlayson, 2014; Blazer, 2011). As a result of math anxiety being reduced, the classroom environment is happier.

The third benefit is that manipulatives provide the “value of interaction” when used over a long period of time. Manipulatives enable students to interact with mathematics on a deeper level, which produces opportunities for hands-on learning, discussion, and collaboration. Research shows that using manipulatives on a long-term basis is more beneficial than using them on a short-term basis. Moore (2014) states “When students are exposed to hands-on learning on a weekly rather than a monthly basis, they prove to be 72% of a grade level ahead in mathematics” (Moore, 2014, p. 2). For math manipulatives to be effective, it is essential that they are frequently used in classroom instruction and practice (Moore, 2014).

The fourth benefit is that manipulatives enhance learning. Learning is enhanced by increasing
retention, content knowledge, and critical thinking. Studies have shown that there are gains in both long-term and short-term student retention of material when using manipulatives (Boggan et al., 2010). When students are utilizing manipulatives, they tend to retain more knowledge because they are constructing their own thoughts and practicing the same concepts (Kamina & Iyer, 2009). Students typically understand the content being taught better when they fully retain it. If a student has a good grasp of the material, they tend to show improved retention in content knowledge (Kilgo & White, 2014). Critical thinking increases when manipulatives are used in a classroom because the relation between a manipulative and a concept may not be obvious (Kilgo & White, 2014). It may require some out of the box thinking if the relationship is not immediately understood. These benefits indicate that manipulatives are incredible assets to students and indicate that manipulatives support students’ academic growth.

3.2 The Three Principles for Effectiveness

Next, the three principles for maximizing the effectiveness of manipulatives are discussed in this section. The first principle is to use a manipulative consistently, over a long period of time. Using the same or similar manipulative leads to a deeper understanding of the relation between the manipulative and the mathematical concept because they have multiple opportunities to compare them (Laski, et al., 2015). Progression happens over time, and students need that time to make connections between a math manipulative and a math concept. The second principle is to begin with highly transparent, concrete representations and move to more abstract representations over time while avoiding manipulatives that resemble everyday objects. Although concrete representations of mathematics are important for helping students, research suggests that instruction should progress to abstract representations over time (Laski, et al., 2015). In other words, instruction begins with concrete manipulatives, and students gradually move to more abstract symbols (Willingham, 2017). Educators may think that perceptually rich manipulatives are always the way to go, meaning they are covered with lots of details. However, recent research indicates that manipulatives that represent everyday objects may impede learning (Laski, et al., 2015; Willingham, 2017). For example, a study found that children who solved word problems involving money using real dollar bills and coins made more mistakes than those who solved the same problems using more basic representations such as white pieces of paper with only numbers on them (Laski, et al., 2015). The reason for this may be because real dollar bills and coins have distinctive faces, colors, and textures whereas white pieces of paper all look and feel the same. Because of this, research suggests that manipulatives should be as basic as possible (Laski, et al., 2015).

The third principle is to explicitly explain the relation between the manipulative and the math concept. It is unreasonable to expect young children to make the relation between the concrete material and the mathematical concept it represents without explicit guidance (Laski et al., 2015). Explicit statements about how the manipulative represents the
mathematical concept helps direct children’s attention to the relevant features of the manipulative. This promotes learning by allowing children to cognitively focus on the mathematics rather than try to figure out what the relation is. Teachers can use these principles and research to guide their decisions when it comes to using math manipulatives in the classroom, and adjust their practices as necessary.

3.3 Types of Manipulatives

There are a vast variety of manipulatives that can be used during mathematics lessons. Teachers need to know what types of manipulatives are available so they can access them for their own classrooms. Manipulatives should foster children’s conceptual understanding in specific areas such as numbers and operations, patterns, geometry, measurement, probability, reasoning, and more (Boggan, et al., 2010). There are certain manipulatives used in each of these areas. Base 10 blocks (seen in Figure 1), two-color counters (seen in Figure 2), and pattern blocks (seen in Figure 3) are common manipulatives seen in elementary classrooms. These manipulatives, photographed by the author in 2021, can be seen below. Working with manipulatives provides a strong foundation for students to master specific concepts in mathematics and achieve success.
4. Student Engagement

4.1 Concrete, Representational, Abstract (CRA) Instruction

One of the effective teaching methods that can engage students is the concrete, representational, abstract (CRA) instruction, which was first proposed by educational theorist Jerome Bruner. Jerome Bruner (1915-2016) formed the foundation for CRA instruction with his three modes of representations: enactive, iconic, and symbolic (Gibbs, 2014; Mcleod, 2019). CRA instruction, also known as concreteness fading, is a process for teaching and learning mathematical concepts. It moves students away from relying on manipulatives to representing mathematical concepts using abstract symbols (Kim, 2020). Concepts are developed through a progression of three distinct stages: concrete, representational, and abstract (Hurrell, 2018).

The first stage of CRA instruction is the concrete stage and starts with manipulation of concrete materials. The concrete stage has been the theoretical basis for the use of manipulatives in learning mathematics (Leong et al., 2015). This is where manipulatives are used in purposeful activities through senses of sight, touch and/or sound (Hand2mind, n.d.; Hurrell, 2018). Being introduced to and working with manipulatives are critical first steps to develop students’ understanding of mathematical concepts. Manipulatives help students learn by allowing them to move from concrete experiences to abstract reasoning (Boggan et al., 2010).

The second stage of CRA instruction is the representational stage. Students transition to this stage after they have shown conceptual understanding towards the mathematical task using concrete manipulatives. This moves students to using pictures such as tallies, dots, and stamps to replace the manipulatives used in the previous stage (Jones & Tiller, 2017). Other visual representations that can be used in this stage are images, graphs, diagrams, and tables (Cabahug, 2012). In the representational stage, students should be comfortable with solving problems using visual representations. Students should also be able to demonstrate how they can both visualize and communicate the concept at a pictorial level (Hand2mind, n.d.). The purpose of this stage is to gradually move students away from relying on manipulatives and building up their skillset to reach the final stage of the process.

The third, and final stage of CRA instruction is the abstract stage. Students transition to this stage by using abstract symbols with their drawing to explain their reasoning. Students at the abstract level no longer need pictures or manipulatives to solve the problem (Jones & Tiller, 2017). This transition is the most challenging aspect of the CRA sequence because students are required to generalize their understanding in succinct ways (Hurrell, 2018). Instead of manipulatives or pictures, mathematical symbols (numerals, operation signs, etc.) are adopted and used to express the concept. In this stage, students demonstrate their understanding by using the language of mathematics (Hand2mind, n.d.).
The three stages of the CRA process are concrete, representational, and abstract. A summary of each stage can be seen in Figure 4 below. An example of CRA instruction being used with two-color counters is shown in sequential order with each stage as well. The concrete stage utilizes manipulatives. The representational stage uses visual representations instead of manipulatives. Lastly, the abstract stage uses mathematical symbols such as numerals and operation signs. By following the sequence of CRA instruction, teachers assist students on their progression to each stage, and ensure they achieve the goal of demonstrating understanding at the abstract level.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Key Elements</th>
<th>Sample Problem</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Chips, Unifix cubes, base ten blocks</td>
<td><img src="image1" alt="Concrete Example" /></td>
<td>Here, a ten frame with colored counters is used to show the equation 7 * 3 = 10.</td>
</tr>
<tr>
<td>Transition to Rep.</td>
<td>Use of concrete and representational</td>
<td><img src="image2" alt="Transition Example" /></td>
<td>Once the concrete materials have been used, students begin to draw their own ten frames using the concrete model as a guide.</td>
</tr>
<tr>
<td>Representational</td>
<td>Tally, dots, circles, stamps</td>
<td><img src="image3" alt="Representational Example" /></td>
<td>At the representational level of CRA, the student is comfortable using pictures to solve the problem.</td>
</tr>
<tr>
<td>Transition to Ab.</td>
<td>Use of representational and abstract</td>
<td><img src="image4" alt="Transition Example" /></td>
<td>Students now start using abstract symbols (numbers in standard form) with their drawings to explain their reasoning.</td>
</tr>
<tr>
<td>Abstract</td>
<td>Numbers, mathematical symbols</td>
<td><img src="image5" alt="Abstract Example" /></td>
<td>Students at the abstract level of CRA no longer need pictures or manipulatives to solve the problem.</td>
</tr>
</tbody>
</table>

*Figure 4: CRA Instruction Stages. Jones & Tiller, 2018, p. 19.*

5. **Problem-Solving**

5.1 **Challenging Tasks**

- Students often need to problem-solve because they need to overcome a challenging task. A challenge teachers face is introducing challenging tasks in a way that makes them accessible, rather than daunting (Cheeseman et al., 2016). Sullivan et al. (2011) identified the requirements of a challenging mathematical task. They require students to:
  - plan their approach; especially, sequence more than one step;
  - process multiple pieces of information, with an expectation that they make connections and see mathematical concepts in new ways;
applying themselves, believing that they can succeed, and putting in effort to learn (Roche & Clarke, 2014). Enduring uncertainty and overcoming obstacles are recognized as key practices that support learning. Students make meaning through productive struggle as they engage with mathematical ideas that are within reach, but not yet well formed (DiNapoli, 2019). Since math requires an overt amount of persistence for every student, manipulatives are tools to not shy away from when it gets hard. The amount of persistence varies by degree and by topic area for each student, but manipulatives open a door for accessibility and help students persist through struggle.

5.3 The Teacher’s Role in Fostering Persistence

Teachers play a significant role in the problem-solving process by encouraging students to persist. The National Council of Teachers of Mathematics (NCTM) recommends that teachers need to provide opportunities for productive struggle. Productive struggle is essential to learning mathematics with understanding (Livy et al., 2018). Providing consistent opportunities for students to engage with unfamiliar mathematical tasks encourages problem-solving strategies. After providing challenging tasks, teachers can take a step back and allow for students to go through productive struggle. As one student wrote in a written reflection: “We do learn more when we’re confused and we’ve got to work our way out of it” (Roche & Clarke, 2014, p. 7). As this student has stated, students do learn when they are confused even if it does not seem like it. Being confused is productive in mathematics, and means students need to critically think about the challenging task.

- choose their own strategies, goals, and level of accessing the tasks;
- spend time on the task and record their thinking;
- explain their strategies and justify their thinking to the teacher and other students;
- extend their knowledge and thinking in new ways (Sullivan et al., 2011, p. 34).

Teachers can take these requirements and foster a classroom environment that promotes productive struggle by providing students with challenging tasks. Providing challenging tasks is sometimes discomforting for teachers because they see students struggling and want to intervene too soon. However, intervening too soon is detrimental to the learning taking place in the discomfort. Productive struggle enables students to work through challenging problems that they have not seen before.

5.2 Persistence

To effectively overcome productive struggle, students must be able to persist through the problem-solving process. Persistence, also known as perseverance, is productive struggle in the moment while facing mathematical obstacles, setbacks, or discouragements. In other words, it is the ability to “stick with it” to reach a solution (DiNapoli, 2019). One major influencer on the topic of perseverance is Angela Duckworth. Her famous book entitled *Grit: The Power of Passion and Perseverance* highlights exactly what perseverance is and why it matters (Duckworth, 2016). Persistence is also described as a category of student actions that include concentrating,
It is vital for teachers to allow time for confusion without giving away the answer too quickly. To ensure a strong mathematical focus within the classroom, students need to think for themselves. For this reason, teachers need to avoid the kind of relationships that encourage dependency. Students may be highly engaged in a problem when they seek help, but they may also be over-dependent on the teacher. Therefore, teachers are encouraged to allow students to enter a zone of confusion. Ingram et al. (2016) defines a zone of confusion as “A state of confusion before a pathway for solving the problem has been identified” (Ingram et al., 2016). The zone of confusion is key because an important part of maintaining the challenge of a task is for students to make decisions about how to approach the problem. In return, students learn to appreciate and evaluate different thoughts when they undergo decision making since the mathematical reasoning is in their hands (Cheeseman et al., 2016).

It is important for students to persist until they are certain that they have fully solved the problem and feel confident with their answer. Students can develop persistence as they work and discover multiple answers that satisfy the problem. Furthermore, when students acknowledge that there are different problem-solving strategies, they have more choices to work with. Some students are better at verbalizing their strategy and thinking processes, but others may use visual aids such as tables or ordered lists to demonstrate their reasoning (Suh et al., 2011). Overall, students are encouraged to approach a problem believing that they can succeed and recognize that learning mathematics takes effort.

5.4 Polya’s Method

It is critical for students to persist through problem-solving, and for teachers to foster students’ persistence. Once students are met with a challenging task, they need to have an effective method to work through it. One strategy is Polya’s method, named after George Polya. Manipulatives and Polya’s method can be used simultaneously to conquer a problem. (In’am, 2014). Polya’s method is a four-step process for teaching and assessing problem-solving in mathematics. The four steps are: understanding the problem, devising a plan, carrying out the plan, and looking back (Ortiz, 2016). This method guides students in solving problems, and complete the result by looking back (In’am, 2014).

The first step of Polya’s method is to understand the problem. This is the step where students engage with the problem before attempting to solve it (Ortiz, 2016). By looking for information, students take a step forward to understand the problem to be solved (In’am, 2014). Tohir et al. (2020) lists some questions to guide students in understanding the problem:

- What is the unknown?
- What are the data?
- What is the condition?
- Is the condition sufficient, insufficient, redundant, or contradictory to determine the unknown? (Tohir et al., 2020, p. 1736).

The second step of Polya’s method is to devise a plan. After identifying the problem, the next step is
to plan appropriate strategies to solve the problem. Two strategies students may use are making an appropriate diagram and making an analogy with similar problems. It is important to note that different problems require different approaches, and not one strategy will be used to solve all problems (In’am, 2014). The student should try to find connections between the data and the unknown (Ortiz, 2016). Tohir et al. (2020) and Ortiz (2016) lists some questions to guide students in devising a plan:

- Have I seen the same, similar, or related problem before?
- Do I know a theorem that could be useful? (Tohir et al. 2020, p. 1736).
- Could I restate the problem?
- Do I know the vocabulary in the problem? (Ortiz, 2016, p. 6).

The third step of Polya’s method is to carry out the plan. Understanding the problem, and then planning to solve it is not useful if the plan is not implemented. Therefore, the next step is to implement the strategy from the prior step to solve the problem (In’am, 2014). Students should check each step of the solution plan to make sure they clearly see each step is correct (Ortiz, 2016). Tohir et al. (2020) lists the following guiding questions for carrying out the plan:

- Can I see that the step is correct?
- Can I prove that it is correct? (Tohir et al., 2020, p. 1736).

The fourth and final step of Polya’s method is reflection. It is critical for students to examine and review the solution they obtain at the end of problem-solving. This step might be done by using the answer through inverse method. By using the inverse method, students can check whether the answer is appropriate compared to the expected solution. For example, a student may look back on a multiplication problem by using division (In’am, 2014). The following guiding questions are from Tohir et al. (2020) for looking back:

- Can I check the result/argument?
- Can I derive the result differently?
- Can I use the result, or the method, for some other problem? (Tohir et al., 2020, p. 1736).

A challenging task will often stump students to the point where they no longer want to engage in problem-solving. Polya’s method provides students a set of steps to follow, so they can obtain a solution to a challenging task. Understanding the problem, devising a plan, carrying out the plan, and looking back help students think like mathematicians. Students must ask themselves if they truly feel comfortable at any given step before moving on to the next one.

6. Conclusion

The literature has indicated that the use of manipulatives in the classroom engages students to persist in the problem-solving process during mathematics. A manipulative is a valuable tool that enhances mathematical learning. First, manipulatives are often used in classrooms because they have multiple benefits that enhance a student’s learning experience. Those benefits include: (1) increasing math achievement, (2) reducing math anxiety, (3)
providing the “value of interaction”, and (4) enhancing learning. Secondly, the three principles for maximizing the effectiveness of manipulatives are to: (1) use a manipulative consistently, over a long period of time, (2) begin with concrete representations before moving to abstract representations but avoid manipulatives that resemble everyday objects, and (3) explicitly explain the relation between the manipulative and the math concept. These principles can help teachers make the most out of using manipulatives in their classroom.

One instructional methodology that is used to engage students is called concrete, representational, abstract (CRA) instruction. As students progress through each stage, the use of manipulatives diminishes. It helps students build up their skillset to eventually reach the point where they can use mathematical symbols and mathematical language to solve problems.

When challenging tasks arise, teachers should be there to support students and encourage them to persist. It is important for teachers to provide opportunities for productive struggle with mathematics problems, so students can think critically about how to overcome a challenging task. Polya’s method, composed of four steps – understanding the problem, devising a plan, carrying out the plan, and reflection – helps students progress through the problem-solving process. Polya’s method also allows students to reach a solution to a challenging task, and carefully look back on the solution to ensure it is correct.

The literature on manipulatives, student engagement, and problem-solving demonstrates that the approaches used to teach math could use some alterations. Based off of the literature, current and future teachers can consider:

- Re-evaluating their mathematical teaching practices.
- Incorporating manipulatives into their classrooms.
- Using CRA instruction to engage students in mathematics.
- Using Polya’s method to engage students in problem-solving.

By considering the recommendations listed above, teachers can help improve students’ attitudes towards mathematics and opportunities for success.

After completing a full literature review, more work must be done to help students reach their full potential. One approach that can be considered is to perform studies in classrooms to see if the literature accurately reflects the effectiveness of manipulatives. Studies can be done by observing and surveying teachers at all grade levels. Another approach is to create professional development workshops on manipulative use in the classroom to help teachers build up their skillset, confidence, and comfortableness while teaching with manipulatives. There are endless learning opportunities in mathematics when manipulatives and constructive instructional methodologies are used jointly.
7. References


**Figures:**

*Figure 1:* Base 10 Blocks.


*Figure 2:* Two-Color Counters.


*Figure 3:* Pattern Blocks.


*Figure 4:* CRA Instruction Stages.

About the Author

Jade Monte is double majoring in Elementary Education and Mathematics. Her two-semester thesis was completed in the 2020-2021 academic year under the mentorship of Dr. Jacquelynne Boivin (Elementary & Early Childhood Education) and Dr. Nguyenho Ho (Mathematics). Jade plans to pursue a master’s degree in Education after graduation and then teach at a school on Cape Cod.