

2021

## The Influence of Intersecting Identities on Chronic Stress in College Students

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THE INFLUENCE OF INTERSECTING IDENTITIES ON CHRONIC STRESS IN COLLEGE  
STUDENTS

by

HEATHER ELYSE MEYER

A thesis submitted in partial fulfillment of the requirements  
for the Honors in the Major Program in Social Work  
in the College of Health and Professional Sciences  
and in the Burnett Honors College  
at the University of Central Florida  
Orlando, Florida

Spring Term  
2021

Thesis Chair: Asli Cennet Yalim, PhD

## **Abstract**

This study explores the influence of chronic stress in college students. It focuses on the broader chronic stressors that college students experience related to physical and mental health, financial health and wellbeing, and presence of social supports, then addresses the more specific chronic stressors related intersecting identities of race, ethnicity, gender, and sexual orientation. This phenomenon is analyzed under the theoretical frameworks of social determinants of health, intersectionality, and systems theory. An online survey with both open and closed-ended questions was conducted with undergraduate social work students from the Bachelors of Social Work program at the University of Central Florida. The results of the study found that there was links between intersecting identities of participants with higher levels of chronic stress based on their chronic stress scores and participant responses on the influence of their identities on barriers to their physical, mental, and financial health.

*Keywords:* College Students, Chronic Stress, Intersecting Identities, Intersectionality, Systems Theory, Social Determinants of Health

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## **Chapter 1: Introduction**

Chronic stress is a significant phenomenon that affects different age, race, gender, and ethnic groups. Chronic stress can have significant outcomes for overall wellbeing. In fact, chronic stress has been associated with depressive symptoms more than acute stress (McGonagall & Kessler, 1990). In addition to this, higher levels of chronic stress with associated depressive symptoms and higher levels of hostility were found to be linked to increased risk of stroke (Everson-Rose et al., 2014). One of the populations that is especially affected by chronic stress is college students. The consistent changes in routines associated with this population in sleeping and eating habits alone put this population at risk for poor health outcomes related to chronic stress (Ross, Neibling, & Heckert, 1999). There is also even higher risk of poor health outcomes for individuals with intersecting identities (Acharya, Jin, & Collins, 2018). An intersecting identity can be considered any intersecting factor related to identities such as race, ethnicity, gender identity, and sexual orientation (Crenshaw, 1994). This term is specifically used when discussing overlapping experiences of discrimination and oppression such as racism, sexism, homophobia, etc. (Crenshaw, 1994).

This study will explore the following research question: Are college students with intersecting identities at higher risk of experiencing chronic stress? Null Hypothesis ( $H_0$ ): Having an intersecting identity as a college student does not increase chronic stress. Alternative hypothesis ( $H_a$ ): Having an intersecting identity as a college student does increase chronic stress.

## **Chapter 2: Background**

### **Demographics of College Students**

Since chronic stress levels and outcomes are related to intersecting identities, it is important to understand the demographic data of undergraduate college students in the area that they will be sampled. Within the United States, approximately 80% of college undergraduates enrolled in a four year public or private university are between the ages of 18 and 24 (Hamilton Foundation, 2020) In Florida, 80 % of college students are under the age of 29 (Gates Foundation, 2020). Of these students 92% attend a four-year university (Gates Foundation, 2020). Among University of Central Florida (UCF) students, the average age for students is 23.7 with 78% of students under the age of 25. Approximately 85% of UCF students are undergraduates (UCF, 2020).

In terms of gender of undergraduate college students in the state of Florida, 42% identify as male and 58% identify as female (Gates Foundation, 2020). Among UCF students, 45% identify as male, 55% identify as female, and less than 1% did not specify their gender (UCF, 2020). These statistics on gender provide insight into possible issues surrounding gender sensitivity and cisgender normativity. While there was the possibility to not specify gender identity there was not any data on transgender and gender nonconforming students. Thus, it is uncertain if those not specified are gender not conforming, gender queer, intersex, or transgender.

Among Florida undergraduate students, 47% identify as white, 27% as Hispanic, 19% as Black, 4% as Asian/Pacific Islander, 3% with two or more races, and 53% as non-white (Gates Foundation, 2020). There are similar and more specific demographics for UCF with 46.8% of students identifying as white, 26.7% as Hispanic/Latino, 10.7% as Black, 6.7% as Asian, 4.4%

international, 3.7% as Multiracial, 1% as not specified, 0.1% as Native Hawaiian/Other Pacific Islander, and 0.1% as American Indian/Alaskan Native (UCF, 2020). Although the majority of UCF students are white, the University can be considered a Hispanic-serving institution as it has maintained a more than 25% majority of Hispanic students since 2016 (Kruckemyer, 2019). However, the U.S. Department of Education did not declare this until 2019. Due to this, the university could still be in the process of establishing programs and opportunities for students of this population as they could not compete for federal funding until 2019 (Kruckemyer, 2019). Thus, this could also present specific chronic stress outcomes for Hispanic students or those that have concerns related to their other identities such as other students of color and gender minority students.

### **Significance of the Study**

From a social work perspective, it is the ethical imperative of social workers to pursue social change on the part of people who are vulnerable and oppressed (NASW, 2017). For social workers who work with college students, understanding chronic stress and its outcomes within this population could help to maintain this ethical imperative. This study could help social workers understand chronic stress in college students; and therefore provide insight into whether intervention is needed at the micro, mezzo, or macro level. Micro level intervention could include helping students find the resources that are available to them and counseling students on how to cope with chronic stress. Mezzo level intervention could include training programs for University faculty and staff on college student's chronic stress. Macro level intervention could include advocating for funding for programs that serve minority populations or that address chronic stress in students.

## **Theoretical Framework**

One of the populations that is especially affected by chronic stress is college students. The consistent changes in routines associated with this population in sleep and eating habits alone put this population at risk for poor health outcomes related to chronic stress (Ross, Neibling, & Heckert, 1999). There is also even higher risk of these outcomes for people with intersecting identities (Acharya, Jin, & Collins, 2018). This study will explore how intersecting identities influence chronic stress in college students. In order to guide this, social determinants of health, systems theory, and intersectionality will be used.

### **Social Determinants of Health**

Social determinants of health (SDOH) are the conditions of where people seek to live, learn, work, and play that can affect a large number of health and quality-of-life risks and outcomes (Centers for Disease Control and Prevention [CDC], 2020). SDOH can include access and quality of healthcare, education, social and community context, economic stability, and neighborhood and built environment (CDC, 2020). The main way this framework helps to guide the research of the problem is to help understand if chronic stress experienced is associated with the conditions the students are experiencing such as access to services, stressors related to identity, or both. This will also help to differentiate and identify indicators of chronic stress within the overall student population. For instance, among UCF students approximately 81% of students live in off-campus non-affiliated housing. In addition, there are 11 different UCF campus locations (UCF, 2020). Thus, SDOH can be important to understand student chronic stress as there is a wide range of communities that students may live. Also, SDOH can be important when considering student homelessness and its effects on chronic stress levels for

students. This could also be important when considering access to resources such as nutritious food, physical activities, and safe neighborhoods.

### **Intersectionality**

Intersectionality is an imperative concept to examine when considering chronic stress in college students. Intersectionality which is rooted in Critical Race Theory and Black feminism, focuses on describing the multiple experiences related to identity (race, gender, etc.) intersect to create a unique experience (Crenshaw, 1994). More than 48% of UCF students identify as non-white with 3.7% of students identifying as multiracial (UCF, 2020) In addition, more than 50% of UCF undergraduates identify as female and 6% students not specifying their gender (UCF, 2020). It is not known what the racial makeup of students by gender and how many students that identified as male or female would identify as transgender. In addition, there is no data provided on the sexual orientation of UCF students provided by the University. Considering the diverse population of UCF, it is important to understand how identity effects chronic stress levels and how chronic stress will be effected by overlapping experiences of racism, sexism, homophobia, xenophobia, and transphobia.

### **Systems Theory**

Systems theory suggests that individuals and their behaviors are influenced by different factors that are considered a system (Forder, 1976). This theory focuses on implications at the micro, mezzo, and macro levels. Systems theory allows to bridge the gap to understand how SDOH and intersectionality relate and differ in relation to chronic stress. This allows for the evaluation of how micro, mezzo, and macro levels influence chronic stress in college students especially those with intersecting identities.

When considering intersectionality and experiences of racism, sexism, homophobia, xenophobia, and transphobia, systems theory can provide a broader theoretical framework to understand experiences of college students at different system levels. For example, with experiences of racism a micro level experience of racism could be one student or faculty saying or acting discriminatory directly to a student, mezzo level racism could be if there is a lack of diversity within the university, and macro racism could be institutional forms of racism throughout the educational system or policy.

When considering SDOH, systems theory allows for a holistic examination of how intersectionality affects overall quality of life and access to resources. This theoretical understanding can help to understand the cause of SDOH, revealing the micro, mezzo, and macro level influences that affect college students' quality of life. Thus, this will assist in the understanding of what factors are causing chronic stress and whether it is more heavily related to discrimination due to intersectionality, quality of life related to SDOH, or equally influenced by both.

### **COVID-19 Implications**

Although there is not much known about the long-term effects of COVID-19 related to health and well-being, it is worth considering the implications that this could have on chronic stress. Based on regulations, changes to social norms, and stress associated with being diagnosed with COVID-19, it is important to explore the implications that this could have for participants. Thus, levels of stress could be impacted by the virus alone as COVID-19 experiences are consistently associated with higher odds of probable anxiety and depression (Gallager et al, 2020). This could suggest that all participants could have the possibility of experiencing high levels of social and chronic stress due to COVID-19.

## **Literature Review**

One of the main indicators of chronic stress in college students is mental and physical health, seen through maladaptive behaviors. Maladaptive behaviors can be considered unhealthy eating in both pattern and quality, sedentary behavior, insufficient sleep, and substance abuse (Dalton & Hammen, 2018). These behaviors, especially when more than one is present, create higher difficulties in emotional regulation (Mahmoud et al., 2012). However, in contrast the presence of healthy behaviors such as increased physical activity are associated with decreases in the risk of having poor mental health outcomes (VanKim & Nelson, 2013). Thus, showing that maladaptive behaviors can have significant chronic stress outcomes and that the presence of healthy behaviors could decrease this risk.

Another more complex indicator of chronic stress is financial stability and health. College students may be dealing with increased debt and low income. Both of these financial outcomes can be associated with the presence of financial anxiety. In college undergraduate students, the main indicator of financial anxiety is overall financial satisfaction, regardless of the amount of debt (Archuleta et al., 2013). This suggests that chronic stress related to finances could be consistent with the perspective of the individual. Thus, if the student worries about their debt then there could be chronic stress outcomes present. However, students with intersecting identities can be an indicator of chronic stress as students' from low to middle class families, financially independent, and minority students are more likely to be financially at risk (Archuleta et al., 2013).

The presence of social support is also a main indicator of chronic stress in this population. Low social supports can increase stress and decrease overall wellbeing (Choa, 2012). In addition, increased non-verbal social interactions such as texting, social media, and solitary

activities in college students has been shown to be associated with lower levels of life satisfaction (Coccia & Darling, 2016). However, if these students were in interpersonal relationships and talked on the phone this was associated with higher levels of life satisfaction (Coccia & Darling, 2016). In addition to general information provided surrounding social support this provides insight into social support implications related to COVID-19. Considering social distancing, people may be more likely or are forced to communicate in other ways. Considering this study, it could be important to gain insight into how people are communicating and how that is effecting social and chronic stress.

Based on what is known about college students, chronic stress risk is higher in people that have intersecting identities. (Archuleta et al., 2013; Acharya et al., 2018). Due to these discrepancies, it is important to understand what variables can increase chronic stress related to identity in this population.

### **Race and Ethnicity**

Racial discrimination can be considered a main stressor for ethnic and racial minority college students (Ehrhardt, 2018). The risk of chronic stress in students of color increases on predominately white campuses in comparison to minority–serving institutions (Ehrhardt, 2018). This is attributed to increased racially discriminatory encounters with fellow students and faculty that occur on predominantly white institutions (PWI) (Ehrhardt, 2018). Thus, the more hostile and frequent the experiences of discrimination, the more likely a student is to experience chronic stress indicators and outcomes. This is important to note as UCF was declared a Hispanic-serving institution in 2019 and was considered a PWI previously by the U.S. Department of Education. Due to this change in the status of the university, it could be important to look at what resources are available to students of color and the utilization rates. Also chronic stress outcomes

for students of color could still be at high risk of chronic stress as there may not be the same level of support in comparison to their white counterparts.

While PWIs do have a social environment that facilitates discriminatory encounters and interactions, there are also stressors that stem from within students of color groups especially in those that identify as Black women. One of the ways this is seen is in social media use. While minority group oriented blogs and racially specific social media subgroups such as “Black Twitter” can be both liberating and detrimental to mental health of racial and ethnic minorities (Stanton et al., 2017). In a study on Black women’s mental health, researchers found that use of Black-oriented blogs was associated with more symptoms of depression and anxiety (Stanton et al., 2017). This suggests that chronic stressors in racial and ethnic minority groups is more complex than in-group/out-group interactions but can be perpetuated through in-group social and cultural expectations. This is important to note as this could have implications related to intersectionality and be attributed to social and cultural expectation imposed on Black women by Black men or even other Black women of other intersecting identities.

### **Gender**

Gender both binary and non-binary can have chronic stress outcomes. Based on what is known about chronic stress women have higher chronic stress outcomes (Acharya et al., 2018). Similarly, to race, sexism can have negative chronic stress outcomes and can cause increased risk of cardiovascular disease (Molix, 2014). In women, there two different types of sexism that are linked to stress and poor health outcomes: hostile and benevolent sexism (Molix, 2014). Hostile sexism involves the antagonistic expression of sexism, in which men are antagonistic towards women who threaten their superiority (Molix, 2014). Benevolent sexism is the expression of which men make decision for women, or where men express restrictive attitudes to and about

women for the goal of protecting or cherishing them (Molix, 2014). Both instances of sexism are linked to higher risk for cardio vascular disease, obesity, hypertension and medical sexism (Molix, 2014).

In addition to the effects of sexism on chronic stress and wellbeing there are similar implications when considering intersectionality. Lepore and Revenson (2006) compared how black and white women respond to different social stressors, especially race-related social stressors. The results showed that black women displayed increased physiological stress related to cardiovascular reactivity (Lepore & Revenson, 2006). This study also suggests that people who experience discrimination tend to become more vigilant to future maltreatment and may become more sensitive to anticipatory stressor leading to longer exposure to chronic stress (Lepore & Revenson, 2006). This is concerning as black and white women response similarly to gender-based discrimination (Molix, 2014). Suggesting that women of color may experience more intense and longer exposure to chronic stress as there may be overlapping experiences of racism and sexism. In addition, this has even more concerning implications for chronic stress among Black women as all-Black social spaces may not alleviate the stress experienced and may even increase chronic stress due to cultural expectations (Stanton et al., 2017). With this in consideration, it is important to examine if there are similar implications for other women of color. In a study on alcohol abuse in Latinx and African American individuals, there was similar patterns of chronic stress related to Latinx and African American individuals (Cerezo et al., 2020). Also this study provides further insight into the health implications for women of color related to chronic stress as chronic stress was one of the five main reasons that lead participants to abuse alcohol (Cerezo et al., 2020).

In addition to cisgender women, transgender and non-binary persons are also at risk of poor health outcomes due to chronic stressors. The largest indicator of poor mental health outcomes for transgender individuals, was related to experiences of macroaggressions and gender-based victimization (Parr & Howe, 2019). This is important to consider when accounting for the effects of intersectionality in relation to current events of violence against minority gender persons. In 2018 alone, there were at least 26 tracked deaths of transgender or gender-nonconforming individuals due to fatal violence majority of whom were Black Transgender women (The Human Rights Campaign, 2019). In 2020, there has been an increasing number with 38 transgender or gender non-conforming individuals that were fatality shot or killed by violent means, majority of whom were Black or Latinx transgender women (The Human Rights Campaign, 2020). This also suggest that SDOH and intersectionality could both be of influence in chronic stress as identity is heavily related to quality of life.

### **Sexuality**

In addition to gender and race, sexuality can have implications for the effects of chronic stress on individuals. Sexual minority individuals or LGBTQ+ individuals have higher levels of stressful interpersonal conflicts with others because of their division from heterosexual social norms (Parra et al., 2016). The stress associated with this trend has been found to be correlated with higher levels of depressive symptoms in LGBTQ+ individuals (Parra et al., 2016). According to Mays et al. (2019), the effects of chronic stress on LGBTQ+ individuals are experienced in two ways: proximal minority stress and distal minority stress. Proximal stress refers to the internalized homophobic and concealment of one's own sexual orientation. Distal stress refers to stressor such as discrimination and violence against LGBTQ+ individuals (Mays

et al., 2019). However, chronic stress in LGBTQ+ individuals can also have implications relating to intersectionality.

Inherently there are implications for the LGBTQ+ community as people with differencing and intersecting identities are forced in one category. One of the largest negative implications for the LGBTQ+ community is the blurring of the distinction of gender identity and sexual orientation. Within the LGBTQ+ community, the lack of differentiation between gender and sexuality has led to the marginalization and oppression of transgender individuals. Historically, this has been seen played out in the work of activists Sylvia Rivera and Marsha P. Johnson, who were banned from the 1973 gay pride parade by the gay and lesbian committee (Ellison & Hoffman, 2019). This event and the work of these activist exemplifies the marginalization of transgender and queer individuals, especially those who were Latinx and Black (Ellison & Hoffman, 2019). In addition, this separation and marginalization can even be seen in the literature as a majority of LGBTQ+ community research tends to concentrate mainly on gay and lesbian participants, with the majority being focused around gay men (Nadal et al., 2012). Thus in turn the research fails to focus on the differing effects of chronic stress related to gender and instead focuses around chronic stress related to sexual orientation (Nadal et al., 2012). However, implications for intersectionality go beyond the category of gender as this is also seen even in sexual orientation related chronic stress.

Among LGBTQ+ individuals, bisexuality can be considered a minority within this population. Bisexual individuals may experience alienation and stigmatization from both heterosexual and homosexual communities (Mays et al., 2019). Consistent with this bisexual women and men report lower levels of connection to their own community than lesbian and gay individuals (Mays et al., 2019). Thus, this could suggest the possibility of overlapping

experiences of social stressors which could lead to higher levels of chronic stresses as bisexual individuals feel underrepresented in both homosexual and heterosexual spaces.

Another identity intersection that may have implications for chronic stress is race. Among LGBTQ+ youth, LGBTQ+ youth of color are more likely to experience suicidal thoughts and depression (Schmitz et al., 2019). Among Latinx and African American sexual minority and gender expansive women one aspect that led the participants to drink was chronic stress as well as other social pressures and norms perpetuated within participant cultural groups and the LGBTQ+ community (Cerezo et al, 2020). Similarly, to bisexual individuals this could indicate the potential of overlapping social stressors in racial and ethnic communities and the LGBTQ+ community.

### **Chapter 3: Methodology**

The study employed a cross-sectional survey design. This research design allowed the gathering of data at one point in time. The data was collected through a one-time survey with closed and open-ended questions. This allowed for a holistic and thorough understanding of the findings that can be measured. In addition to the closed-ended survey questions, the use of open-ended questions helped to find patterns that may emerge in participants. For example, this allows the comparison of a numerical score of chronic stress as well as descriptions from participants. It also provides a picture into how intersecting identities affects chronic stress levels in college students. In order to collect data, an online survey was given to the college students. The sample of this study consists of the undergraduate students at UCF School of Social Work.

The main independent variables to consider when assessing for chronic stress are informed by the demographics of participants, stressors at micro, mezzo, and macro levels, and SDOH. The dependent or outcome variable is chronic stress. Other important variables to consider are trauma and stress associated with COVID-19.

The survey consists of three parts: *College Student-Stress Survey*, SDOH, and demographics (Acharya, Jin, & Collins, 2018). Each part includes open-ended questions to explain why the participants selected certain quantitative data and to gain further elaboration on questions surrounding intersectionality, stressors, and SDOH.

The method of sampling is convenience sampling. This method allows whoever is available to fill out the survey. Considering the implications of COVID-19, there is low access to the student population. Thus, anyone that is available and meets the criteria for the study was able to take the survey. The inclusion criteria for this study are being an undergraduate social work student at UCF. The total of 29 students completed the survey in March 2021.

## **Ethical Considerations**

Considering the current stressors under COVID-19, the presence of human participants, and the nature of the questions that are desired to be asked of participants, it is important to consider ethical considerations in conducting this study. Prior to completing sampling, the study sought approval by an IRB. In order to protect participants, a consent form provided information on what their rights are and how they will be protected. The form includes their right to withdraw from the study at any time during the survey process. In this case, all data such as paper documentation and electronic use to receive information is discarded. In addition, due to the sensitive nature of the questions this may increase student's anxiety or become more aware of their struggles. In order to address this concern, the contact information of UCF CARES and CAPS was provided at the end of the survey.

## **Measurements**

The researcher developed a demographic form to explore demographics and SDOH. The *College Student- Stress Survey (SSS)*. This measurement tool is an 11- item 5-point sliding scale survey (Feldt, 2008).

## **Data analysis**

In order to analyze the data collected from participants, the researcher ran analysis of the quantitative data and compared different variables in order to find links in chronic stress as it relates to the intersecting identities of participants. This included finding the average college student stress scores of each participant for comparison and the overall score for participants. In addition, the qualitative data provided was analyzed by the researcher by comparing those answers to other quantitative variables.

## Chapter 4: Results

### Demographics of Participants

After completing the data collection process, a total of 29 participants completed the survey. Among these participants, the data showed a diverse amount of information. The average age of participants was approximately 27 years old. However, the ages of participants ranged from the youngest at 19 and the oldest at 59. While there was large range in ages 18 - 59 of female participants, both male participants indicated that they were in their 30s. When considering the age break down as it relates to race the average age of White participants was approximately 29 with ages ranging from 20 to 59. The average age of Black/African American participants was approximately 26 with ages ranging from 19 to 49, with 4 out of 6 identifying as either 19 or 21 years old. The average age of Hispanic/ Latino participants was 25 with ages ranging from 19 to 34, with 4 out of 5 participants being in their early to mid 20s. Among the 2 participants that identified as Asian/ Pacific island one was 18 and the other was 19. The one participant that identified as mixed race indicated that they were 46 years old.

Among the participants, there was 27 females (93.1%) and 2 males (6.9%) participants. Both male participants identified as White, with one male identifying as gay and the other identifying as heterosexual. Among the female participants there was 13 (48.1%) that identified as White, 6 (22.2%) that identified as Black/ African American, 5 (18.5%) identified as Hispanic/Latino, 2 (7.4%) identified as Asian/ Pacific Islander, and 1 (3.7%) identified as Mixed.

The majority of participants identified as heterosexual with 21 (72.4%) participants identifying this as their sexual orientation. While 2 (6.9%) participants preferred not to answer this question, 2 (6.9%) identified as bisexual, 1 (3.4%) as lesbian, 1 (3.4%) as gay, 1 (3.4%) as Pansexual, and 1 (3.4%) as questioning. Among women 20 (74.1%) identified as heterosexual,

2 (7.4%) did not answer, 2 (7.4%) identified as bisexual, 1 (3.7%) identified as lesbian, 1 (3.7%) identified as pansexual, and 1 (3.7%) identified as questioning. Among participants that identified as Asian/ Pacific Islander, Black/ African American, and Hispanic/ Latino 100% also identified as heterosexual. While those participants that identified as LGBTQ+ also identified as White. The one participant that identified as Mixed did not indicate their sexual orientation.

The religious affiliation of participants was majority Christian 16 (55.5%), 4 (13.4%) had indicated no affiliation, 3 (10.3 %) as Atheist, 2 (6.9%) as Muslim, 2 (6.9%) as other, 1 (3.4%) as Agnostic, and 1 (3.4%) as Christian during childhood. Among those participants that identified as Muslim, 100% also identified as Asian/Pacific Islander. Among those that identified as Black/ African American 5 out of 6 participants identified as some denomination of Christian. Among those that identified as Hispanic/ Latino 100% also identified as Christian with 3 out of 5 participants indicating a Catholic background. The one participant that identified as Mixed they also identified as Christian. Among the participants that identified as LGBTQ+ 3 (50%) participants identified as Christian with the other 3 (50%) participants identifying as Atheist or other.

### **Academic Status**

Among the 29 participants that completed the survey, 24 (82.8%) are enrolled full-time of which 12 (50%) are Seniors, 10 (41.7%) are Juniors and 2 (8.3%) are Sophomore. 5 (17.2%) participants are enrolled part-time of which 4 (80%) are Juniors and 1 (20%) is a Sophomore. When looking at those that are enrolled full-time 4 (33.3%) do not work, 4 (33.3%) work part-time more than 20 hours, 3 (25%) work full-time 40 hours or more, and 1 (8.3%) works part-time less than 20 hours. In those that are currently enrolled part-time 2 (40%) work full-time 40 hours

or more, 2 (40%) work part-time more than 20 hours, and 1 (20%) work part-time less than 20 hours.

### **Social Determinants of Health**

When looking at access to food, participants bought groceries at least 1-2 times per week. 21 participants completed a majority of their grocery (fruits and vegetables) shopping at a large grocery store with participants also indicating that they did shop at small grocery store and/ or a farmers' market/ food co-op/food stand.

When looking at physical health, 35% of participants indicated that they had been diagnosed with a chronic health condition and 63.6% of participants indicated having severe menstrual induced symptom and/or severe migraines that interfered with their daily life. Out of the female participants 66.6% of Black/African American, 50% of Asian/ Pacific Islander, 66.6% of White, and 50% of Hispanic/Latino women experience one or more severe menstrual symptoms. With 81.8% of non-white and 45.5% of white participants indicating severe menstrual symptoms. In addition to this, 27.5% of participants indicated that they exercise at least once per week with 10.3% of participants indicated that they exercise every day. For smoking, 26 (89.7%) of participants indicated that they did not smoke. For alcohol consumption 37.9% of participants indicated that they did not drink. Among those that do drink, 31% drink 1 or less per week and 6.9% drink more than 7 drinks per week.

When looking at mental health 72.4% of participants indicated that they have been diagnosed with some kind of mental health disorder with 51.6% having been diagnosed with depression and 41.2% having been diagnosed with anxiety. Among these participants, 37.8% indicated having more than one diagnosis. The most common multiple diagnosis among participants was depression and anxiety with 30.9% having been diagnosed with both disorders.

When looking at financial health 48.3% of participants indicated that they experience worry or fear about future financial challenges very often. When asked about homelessness 3 participants indicated that have previously been or at risk of homelessness but are not anymore. All 3 participants indicated that they experience fear or worry about future financial challenges very often.

### **Intersectionality**

When considering intersectionality, 24.1% of participants indicated that there were barriers to their physical health related to one or more of their identities. When asked the same about their mental health, 27.6% of participants indicated that there were barriers to their mental health related to one or more of their identities. Out of these participants 62.5% of participants identify as Asian/ Pacific Islander, Black/African American, or Hispanic/Latino. When asked the same about their financial health 17.2% of participants indicated that there were barriers to their financial health related to one or more of their identities. Among these participants 100% of participants identify as Asian/Pacific Islander, Black/African American, or Hispanic/Latino.

### **College Student Stress Survey**

The highest score the participants can get for each question is a score of 5. The overall average score for the *College Student Stress Survey* was 3.08. The specific questions with the highest score was academic matters, being overwhelmed by difficulties, and financial matters. Among female participants the average score is 3.17. The students with the highest scores were the one participant that identifies as pansexual with a score of 4.36 and both of the Asian/ Pacific Islander participants with one having an average score of 4.09 and the other with an average score of 3.73. The average score of Asian/ Pacific Islander participants is 3.86, 3.5 for Black/African American participants, 2.9 for Hispanic/ Latino participants, 3.27 for Mixed

participants, and 2.87 for White participants. When considering sexual orientation those participants that identify as LGBTQ+ had an average score of 2.97. Participants that identified as heterosexual had a score of 3.09. Based on the findings of the college student stress survey students worry about academic matters, financial matters, and being overwhelmed by difficulties most in comparison to other challenges that they face.

## Chapter 5: Discussion

The purpose of this study was to examine the influence of intersecting identities on chronic stress in college students. This study explored this by providing demographics of college students; common stressors for college students; and chronic stress implications for race, ethnicity, gender, and sexuality. The results of this study showed that having overlapping identities can increase chronic stress scores and create barriers to physical, mental, and financial health. The main chronic stress implications as it relates to intersecting identities are centered around the identities of race, gender, and sexual orientation.

The ethnic and racial breakdown within this study still allowed for quality data analysis and for patterns of chronic stress to emerge even though the demographics were slightly inconsistent with UCF. When looking at chronic stress scores Asian/ Pacific Islander, Black/ African American, and Hispanic/ Latino participants were more likely to have higher chronic stress scores than their White counterparts. Among these groups Asian/ Pacific Islanders had the second and third highest chronic stress scores. This could also show the influence of intersecting identities on chronic stress as these same participants that identified as Asian/ Pacific Islander also identified as Muslim, with one participant listing these overlapping identities as a barrier to their mental health. In addition to race the results showed some possible chronic stress implications as it relates to the difference between race and ethnicity. Among non-white participants Hispanic/ Latino participants had significantly lower chronic stress scores.

The majority of the participants were white women with the median age of 27. Although the participant population was mainly female this still allowed for analysis. Among those that identify as female, the majority of participants had one or more severe menstrual issues that effected their daily lives. Some of these participants listed it as one of the barriers to physical

health as it relates to their identity as female. In addition, this showed the influence of intersecting identities as it relates to chronic stress as non-White women were more likely to experience one or more severe symptoms in comparison to their White counterparts.

The result of the study provided inconsistent data on the influence of sexual orientation as it relates to chronic stress. Many participants did not list this identity as a barrier to their physical, mental, or financial health. Also there was not consistent data that suggested any difference in chronic stress scores between those that identified as LGBTQ+ and those that identified as heterosexual. However, the participant that had the highest overall average chronic stress score identified as pansexual. Considering this there could be some influence of this identity on chronic stress.

In addition to the influence of race, ethnicity, gender, and sexual orientation there are specific chronic stress implications as it relates to the identity of being a college student. This identity has specific implications as it relates to physical, mental, and financial health. The majority of participants are enrolled in classes while also working at least part-time. In addition, the majority of participants had one or more physical and mental health disorders. The most prevalent issue related to this population was financial health. The majority of participants indicated that they worried about future financial challenges and this was one of the main concerns following COVID-19. In addition, a majority of participants indicated that they work while attending school. Thus indicating that a majority of participants have to work in order to live.

The results of the *College Student-Stress Survey* showed that participants worry most about academic matters, being overwhelmed by difficulties, and financial matters. These results are consistent with the literature that college students have higher levels of self-imposed

academic stress related to pressure to perform imposed by professors and family (Bedewy and Gabriel, 2015). The results relating to financial stress are consistent with the literature, that it provides significant stress to college students and that perceptions of debt at graduation are larger stressors than current loan debt (Heckman et al, 2014). Thus the stressors found from the *College Student-Stress Survey* could be connected as academic stress and financial stress could work together leading students to feel overwhelmed by difficulties.

The results of the study showed that while students have access to food including fruits and vegetables, exercise, and have low levels of smoking and drinking, there was still significant poor physical, mental, and financial health outcomes for participants. The literature is consistent with these results as it shows that mental health problems (depression, anxiety being the most common) are common even showing some links to the *College Student-Stress Survey* as this can be linked to academic pressure (Pedrelli, 2015). This could suggest that the results found related to SODH and the *College Student-Stress Survey* work together holistically to increase chronic stress in college students.

### **Limitations**

As this research was conducted as part of an Honors in the Major Thesis, there were several limitations related to this. The first major limitation to this research was access to the population and time needed to gather more participants. The participant population was not completely reflective of college students and UCF's overall population. In addition, there was a lower level of participants than initially anticipated. Thus, in order to further study the implications shown in this research a study with a larger participant population would be recommended. Also, as the research population was undergraduate social work students it would

be beneficial to broaden the sample to all UCF undergraduate students in order to get a more accurate sample of the UCF student population.

Another main limitation was that the survey did not include question(s) about where the participants live. This limited the understanding around participant community resources and access to physical, mental, and financial services.

## **Chapter 6: Implications for Practice and Future Research**

This study may be of interest for social workers that work with this population and colleges in order to address chronic stress implications related to intersecting identities and overall chronic stress implications for this population. As a social worker, it is imperative to remain committed to addressing social justice concerns. Based on the findings of this research, there could be chronic stress implications related to systemic oppression that college students face due to their overlapping and intersecting identities. It is important to address the social, financial, physical ,and mental health concerns explored in this research. In addition, it should be the imperative of colleges to increase student success of which includes their overall wellbeing. Findings suggest that the University could address the chronic stress concerns of this population by providing more resources related to physical, mental, and financial health.

Through this research there has been significant insight into the chronic stress implications of race on chronic stress. In addition, some insight has been gained into the chronic stress implications as it relates to gender and sexual orientation. However, the small sample has limited the amount of variables that can be studied. Future research should include an increase in sample size in order to more closely study the effect of gender and sexuality.

Based on the findings of this research there are specific implications that could be implemented on the Macro level to address the chronic stress implications for students with intersecting identities. Among the most prevalent implications is the need for more quality medical and more specifically OB/GYN care for non-White women and gender minority persons that this issue effects. According to Chinn et al (2021) evidence based care models that are informed by health equity and reproductive justice could be important to address this issue.

In addition to this these finding suggest there is need for more quality mental health care that address chronic stress implications related to intersecting identities. For example, UCF could hire more culturally aware and diverse health care professionals from different backgrounds. Also the UCF CARES department could allow more opportunity for students to choose a mental health care professional that reflects their identity or has a specialty/theoretical framework related to intersectionality. With this UCF could delegate more funding for mental health care services in order to provide longer individual services to students. Also intersectional and equity based finical education could be provided by UCF. Considering the access services, an increase in mental health funding could allow the University to provide services to students taking classes on other UCF campuses.

Related to financial equity social workers could advocate for fiscal policy that focuses on equity over equality. Based on the findings of the research, financial and academic stress work together to increase chronic stress. Thus intervention on financial stress could decrease academic stress. Considering this it could important to advocate for free college in order for students to be able to fully focus on their education.

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# Appendix A: IRB Approval Letter



UNIVERSITY OF CENTRAL FLORIDA

## Institutional Review Board

FWA00000351  
IRB00001138, IRB00012110  
Office of Research  
12201 Research Parkway  
Orlando, FL 32826-3246

### EXEMPTION DETERMINATION

February 17, 2021

Dear Asli Yalim:

On 2/17/2021, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Category 2(i)
Title:	The Influence of Intersecting Identities on Chronic Stress in Bachelors of Social Work Students
Investigator:	Asli Yalim
IRB ID:	STUDY00002751
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"><li>• College Student Stress Scale , Category: Survey / Questionnaire;</li><li>• Demographic and Social Determinants of Health , Category: Survey / Questionnaire;</li><li>• HRP-254, Category: Consent Form;</li><li>• Protocol , Category: IRB Protocol;</li><li>• Recruitment Email , Category: Recruitment Materials;</li><li>• Recruitment Flyer , Category: Recruitment Materials</li></ul>

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or [irb@ucf.edu](mailto:irb@ucf.edu). Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Katie Kilgore  
Designated Reviewer

## Appendix B: Survey Questions

1. What is your age?
2. What is your race and ethnicity?  
Hispanic/ Latino  
Asian/ Pacific Islander  
American Indian/ Alaskan Native  
Black/ African American  
White  
Mixed Race  
Other (Please Specify)
3. What is your gender identity?
4. What is your sexual orientation?
5. What is your religion or spiritual background?
6. What is your place of birth?
7. What is your current status?  
Freshman  
Sophomore  
Junior  
Senior
8. Are you enrolled Part-Time or Full-Time?  
Full-Time  
Part-Time
9. Do you currently work while going to school? If, yes how many hour?  
No  
Yes, Part-time less than 20 hours  
Yes, Part-time more than 20 hours  
Yes, Full-time 40 hours or more
10. How often do you buy groceries?  
Never  
1-2 times per month  
1 time per week  
More than once per week
11. Where do you get the majority of your groceries? (select all that apply)  
Large grocery store/ supermarket  
Small grocery store  
Farmers market/ food co-op/ farm stand  
Food bank  
Other  
I don't buy groceries

Where do you get fruits and vegetables? (select all that apply)

- I do not buy fruits and vegetables
- Large grocery store/ supermarket
- Small grocery store
- Farmers market/ food co-op/farm stand
- Food bank/ food pantry
- Other

12. Do you smoke? If yes, how much do you smoke?

- No
- Less than 10 cigarettes a week
- Less than 1 (20) pack a week
- More than 1 (20) pack a week
- Multiple pack per day

13. Do you drink alcohol? If yes, how much do you drink in a week?

- No
- More than 7 drinks
- More than 4 drinks
- Less than 4 drinks
- 1 or less drinks

14. How often do you exercise?

- Never
- 1 to 2 times per month
- 1 time per week
- More than once per week
- Everyday

15. Have you been diagnosed with any of the following? (select all that apply)

- Diabetes
- Heart Disease
- Autoimmune condition
- Asthma or other chronic lung condition
- Any other chronic health condition
- not applicable

16. Have you experienced any of the following that has interfered with your daily life?

- (select all that apply)
- Severe menstrual cramps
- Endometriosis
- PCOS
- Severe migraines
- Any other severe menstrual related symptoms
- not applicable

17. Are there any barriers to your physical health related to one or more of your identities (gender, race, etc.) please explain in a few sentences? Do not include personal

information such as your name or medical information that may introduce identifiers in order to keep the research anonymous.

18. Have you been diagnosed with any of the following? (select all that apply)
  - Depression
  - Anxiety
  - OCD
  - Bipolar Disorder
  - Other
  - not applicable
19. Are there any barriers to your mental health related to one or more of your identities (gender, race, etc.) please explain in a few sentences? Do not include personal information such as your name or medical information that may introduce identifiers in order to keep the research anonymous.
20. How often do you have concern or fear about not having enough money to pay rent/bills/utilities?
  - Never
  - Rarely
  - Sometimes
  - Often
  - Very often
21. How often do you experience worry or fear about future financial challenges?
  - Never
  - Rarely
  - Sometimes
  - Often
  - Very often
22. Have you been or are at risk of experiencing homelessness or not know where you were going to sleep?
  - Yes
  - Yes, previously but not anymore
  - No
23. Are there any barriers to your financial health related to one or more of your identities (gender, race, etc.) please explain in a few sentences? Do not include personal information such as your name or medical information that may introduce identifiers in order to keep the research anonymous.
24. I have seen or heard about COVID-19
  - Never
  - Rarely
  - Sometimes
  - Often
  - Very often
25. I am concerned that I will get COVID-19
  - Never

Rarely  
Sometimes  
Often  
Very often

26. I am concerned that my family/ friends will get COVID-19

Never  
Rarely  
Sometimes  
Often  
Very often

27. I am immune compromised

Yes  
No

28. Are you concerned about any of the following due to COVID-19 (select all that apply)

Financial stability  
Employment status  
Availability or affordability of food  
Availability or affordability of housing  
Access to reliable transportation  
Access to a clinic or doctor  
Access to childcare  
not applicable

29. Are you currently attending classes on campus? If yes, how many?

No  
Yes, less than half of my classes are on campus  
Yes, more than half of my classes are on campus  
Yes, all of my classes are on campus

30. Do you feel safe on campus?

Yes  
No

Student Stress Scale

1. Felt anxious or distressed about personal relationships

Never  
Rarely  
Sometimes  
Often  
Very often

2. Felt anxious or distressed about family matters

Never  
Rarely  
Sometimes  
Often  
Very often

3. Felt anxious or distressed about financial matters

- Never
  - Rarely
  - Sometimes
  - Often
  - Very often
4. Felt anxious or distressed about academic matters
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  5. Felt anxious or distressed about housing matters
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  6. Felt anxious or distressed about being away from home
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  7. Questioned your ability to handle difficulties in your life
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  8. Questioned your ability to attain your personal goals
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  9. Felt anxious or distressed because events were not going as planned
    - Never
    - Rarely
    - Sometimes
    - Often
    - Very often
  10. Felt as though you were NO longer in control of your life
    - Never
    - Rarely
    - Sometimes

Often  
Very often  
11. Felt overwhelmed by difficulties in your life  
Never  
Rarely  
Sometimes  
Often  
Very often

## Appendix C: Tables

**Table 1**

Ages of Participants

Age									
Less than 20		20 – 29		30 - 39		40 – 49		50 - 59	
6	20.7%	13	44.8%	7	24.1%	2	6.9%	1	3.4%

Note: This Table indicates the number and percentages of participants in different age ranges.

**Table 2**

Ages of Participants by Racial/ Ethnic Identity

Race/ Ethnicity					
Ages	Asian/ Pacific Islander	Black/ African American	Hispanic/ Latino	Mixed	White
Less than 20	2	2	1	0	1
20 - 29	0	3	3	0	7
30 – 39	0	0	1	0	6
40 – 49	0	1	0	1	0
50 – 59	0	0	0	0	1

Note: This table shows the breakdown of participants by age and race.

**Table 3**

### Sexual Orientation of Participants

Sexual Orientation						
Heterosexual	Gay	Lesbian	Bisexual	Pansexual	Questioning	Did not answer
21	1	1	2	1	1	2
72.4%	3.4%	3.4%	6.9%	3.4%	3.4%	6.9%

Note: This table shows the number and percentage of participants that identify as LGBTQ+.

**Table 4**

### Religious Background of Participants by Racial/ Ethnic Identity

Race/ Ethnicity					
Religion	Asian/ Pacific Islander	Black/African American	Hispanic/ Latino	Mixed	White
Christian	0	5	4	1	6
Christian in Childhood	0	0	1	0	0
Muslim	2	0	0	0	0
Atheist	0	0	0	0	3
Agnostic	0	0	0	0	1
Other	0	0	0	0	2
None	0	1	0	0	3

Note: This table shows the breakdown of participant's religious identity by race.

**Table 5**

Academic and Employment Status of Participants

Employment	Enrolled Part-Time		Enrolled Full-Time	
None	0	0.0%	7	24.1%
Full-Time more than 40	2	6.9%	4	13.8%
Par-Time more than 20	2	6.9%	7	24.1%
Part-Time less than 20	1	3.4%	6	20.7%
Total	5	17.2%	24	82.7%

Note: This table indicates the number and percentage of participants based on their employment and academic status.

**Table 6**

Participants Access to Food/ Grocery Shopping

Access to Food			
Never	More than once per week	1-2 times per month	1 time per week
4	7	11	7
13.8%	24.1%	37.9%	24.1%

Note: This table shows participants access to food such as grocery shopping.

**Table 7**

Physical Health of Participants

Smoke	Drink	Exercise	Chronic Health Condition	Severe Menstrual Symptoms
3	18	22	14	22
10.3%	62.1%	75.9%	35%	63.6%

Note: This table breakdown participants physical health.

**Table 8**

Alcohol Consumption of Participants by Week

Alcohol Consumption Per Week	
No	11
1 drink or less	9
Less than 4 drinks	7
More than 7 drinks	2

Note: This table shows how many drink participants consume in a week timespan.

**Table 9**

Mental Health of Participants

Anxiety	Depression	OCD	Other
12	15	3	4
41.4%	51.7%	10.3%	13.8%

Note: This table indicates how many participants have each mental health disorder.

**Table 10**

Financial Health of Participants

	Worry about Living Expenses	%	Worry about Future Financials	%	Total
Never	6	20.7%	0	0.0%	6
Rarely	3	10.3%	5	17.2%	8
Sometimes	9	31.0%	5	17.2%	14
Often	7	24.1%	5	17.2%	12
Very Often	4	13.8%	14	48.2%	18

Note: This table indicates the financial health of participants including financial worries of participants.

**Table 11**

### Average College Student Stress Scores

Item	Average
1. Personal Relationships	2.97
2. Family Matters	3.03
3. Financial Matters	3.48
4. Academic Matters	4
5. Housing Matters	2.28
6. Away From Home	2.10
7. Handle Difficulties	3.03
8. Attain Your Personal Goals	3.41
9. Events Not Going as Planned	3.28
10. No Longer in Control	2.79
11. Overwhelmed by Difficulties	3.52
Average Overall	3.09

Note: This table shows the breakdown of average participant responses to the *College Student Stress Survey*.