

**CARE WORK PERFORMED BY UNIVERSITY STUDENTS DURING THE COVID-19
PANDEMIC: IMPORTANCE OF GENDER, RACE, AND AGE**

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Abstract

This study investigates the amount of time that university students spent on care work during the COVID pandemic and the types of care work they did based on gender, race, marital status, age, and perceived financial situation. Results showed that older students overwhelmingly carried out more care responsibilities than other students for most types of care work. Students identifying as female provided more care work than other genders. Students overall judged themselves more financially insecure during the pandemic. Vulnerable populations in terms of gender and race were more subjected to COVID exposure within care institutions than other students. The results are important for understanding the care responsibilities of older, nontraditional students, women, and racialized minorities at universities and colleges.

Keywords: carework, adult learners, pandemic, gender roles, nontraditional students, minoritized students

Introduction

Increasingly, scholars have drawn attention to the impact that care work has on students' success at the universities. Researchers have suggested that inappropriate university retention strategies coupled with family and work responsibilities and worries about finances have contributed to lower graduation rates among adult learners (Kettell, 2020; Plageman & Sabina, 2010). Prevalent gender norms in families have resulted in the female members carrying most of the responsibilities for the domestic workload, even as they attempt to complete a degree. Inequalities related to race, gender, and social class often result in the uneven availability of support systems in caring for families while structurally disadvantaged groups account for the growing segment of low-wage care work in institutions and at home (Folbre, 2012).

Evidence indicates that the COVID pandemic exacerbated these systemic inequalities. Around the globe, activists have directed attention to the increased domestic workload borne by women and girls because of the COVID-19 pandemic (Alon et al., 2020; Camilletti & Nexbitt-Ahmed, 2022; Sevilla & Smith, 2020; UN Women, 2020). Previous research on past crises indicates that school and childcare closures increased the care and domestic labor of women and girls, which limited their time available to study at home (Enguita-Fernández et al., 2020). Furthermore, those in low-paid, care-based employment were more susceptible to contracting COVID-19 and less able to care for their families (UN women, 2020). This current study was developed to measure the contributions students provide in the form of care work for their families and communities and the relation between the age, gender, race, and socio-economic status of students on the number of hours they dedicate to care work, both paid and unpaid.

Defining Care Work and Care Workers

Over the past decades, scholars have investigated the topic of care through various disciplinary lenses to describe and define its multifaceted components and overall impact. Within a social psychological lens, Gilligan (1982) proposed the concept of an "ethics of care" which focused on connectedness and relationality rather than an ethics based on abstract, universal principles of justice. Boris and Parreñas (2010) used the term "intimate labor" to denote activities which "promote the physical, intellectual, affective, and other emotional needs of strangers, friends, family, sex partners, children, and elderly, ill or

disabled people” (p.2). Due to the closeness to bodies and dirt that intimate labor often requires, it is stigmatized, as are the workers, who are often ethnically and racially marginalized women (Boris & Parreñas, 2010). Alternatively, Arlie Hochschild (1983) coined the term “emotional labor” in her sociological analysis of face-to-face service workers who must regulate, express, or suppress emotions as required to please the client, co-workers, or manager. Her research indicates that care workers must go beyond their job description to include this extra labor of emotional control.

From a political economic perspective, the term “reproductive labor” includes the activities required to maintain people within the family and the community through the generations and to sustain workers so that they can continue as a labor force within the productive sphere (Benoit & Hallgrímsdóttir, 2011; Fraser, 2016). From a historic perspective, domestic labor was relegated to the “non-productive” sphere as industrialization took over the production of household goods and domestic labor was separated from capitalist wage labor (Davis 1981; Ehrenreich & English 1975). Despite the millions of enslaved women workers and immigrant women who entered low-wage labor, the non-paid “housewife” became the predominant symbol of feminine identity. The secondary status afforded women and the non-economic value of domestic labor led to its devaluation, independent of gender (Benoit & Hallgrímsdóttir, 2011; Davis, 1981; Fraser, 2016; Hochschild, 1983).

With the increased access to paid labor in the mid-20th century, more women entered the capitalist market but were required to do a “second shift” in which they continued to be responsible for domestic tasks. Consequently, many middle-class women employed racially minoritized women to do the household labor according to the available population of the particular region (Glenn, 1992). These racial and class hierarchies have been maintained within the service sector of the economy in which racialized minorities, immigrants and other working-class women fill low-wage care positions in care institutions and rely on unpaid family members to provide care work for their families (Dodson & Zinbarg, 2007; Duffy, 2005; Folbre, 2012; Glenn, 1992).

Care Work by University Students during the Time of Covid

Research is emerging on the caregiving responsibilities of students during the COVID pandemic. Prior to the pandemic, adult learners reported hurdles to academic success

related to family commitments, time management, and numerous responsibilities. They also cited institutional inflexibility concerning schedules, limited course offerings, or irrelevant courses that were not directly related to their career goals and which interfered with their ability to manage family and work commitments (Kettell, 2020; Plageman & Sabina, 2010). Additionally, universities often lack services such as childcare centers which could greatly reduce concern with the logistics of finding suitable care (Hunter-Johnson, 2017; Lovell, 2014).

During the pandemic, female students reported higher levels of depression, anxiety, and stress during quarantine possibly due to their increased domestic responsibilities (Hamaideh, et al., 2022). Around the globe, activists have directed attention to the increased unpaid domestic workload borne by women and girls because of the COVID-19 pandemic (Tertilt, et al., 2020; Camilletti & Nexbitt-Ahmed, 2022). Previous research on past crises suggests that school and childcare closures have increased the care and domestic labor of women and girls, which limited their time available to study at home (Enguita-Fernandez et al., 2020). Those in low-paid, care-based employment were also more susceptible to contracting COVID-19 and less able to care for their families (UN Women, 2020).

Previous historical and socio-political research suggests that university students would also be affected by the gender and racial norms associated with care work and that these inequalities would be exacerbated by a crisis such as the COVID pandemic. Given this context, we expect that students who identify as female and/or those who are categorized as racial minorities would carry out more tasks associated with unpaid care work both in the home and for other family and community members than others. We also expect that those students who face discrimination grounded in gender, class, race, and ethnicity would engage in paid care work activities where they could be exposed to COVID. Additionally, since the responsibility for care work within the household has fallen more directly on adult students with families and since women take on more of the domestic care work (Gender Pay Gap, 2015), we expect that older students, and more particularly, older female students, spend more time with care work than younger students. Additionally, we hypothesized that due to the substantial number of layoffs and changes in work

arrangements during the pandemic, students would feel less financially secure during this time.

Data Collection

Data for the study was collected online through a survey developed in Qualtrics over a period from April 1, 2020 to April 26, 2022. Instructors received a survey participation invitation email from the researchers and were asked to forward the email to their students. The invitation briefly introduced the study, its purpose, why participants were being invited to participate, and a brief explanation of any anticipated benefits or harm. Those who were willing to participate were asked to click an embedded link to the survey. The data collection was completely anonymous; no personally identifying information that could be used to track participants who submitted specific responses was collected. At the end of the data collection period, 430 participants responded to the survey. A preliminary overview of the data showed that 6% of respondents identified themselves as divorced, while 23% identified as married and 72% of respondents identified themselves as single. The majority of survey respondents, 76%, identified themselves in the 18-25 age group, 15% of respondents were in the 26-33 age group, 7% identified as 33-41 years of age, and 3% of the respondents identified themselves in the over 42 age group. Of the participants, 66% identified themselves as female, while 30% identified as male and 3% identified as non-binary/third gender. Finally, 23% of participants identified as Asian/Pacific Islander, 11% as Black or African American, 10% as Hispanic or Latino, 2% as Native American or American Indian, 13% as Multiracial, and 41% as White. Survey respondents reported majoring in a wide range of areas of study.

Data Analysis

The dependent variables, or responses, were analyzed using SAS University Edition software (SAS Institute Inc., 2021, 2017). Analysis of variance was performed using the PROC MIXED procedure in SAS to test the null hypothesis that responses were not different between the levels of gender, age, race, marital status, and financial situation during the pandemic. Then, when the null hypothesis was rejected, the LSMEANS option within the PROC MIXED procedure was implemented to perform the Fisher's least significant difference post hoc tests to contrast the students' responses among those same levels of factors.

Results

For the purposes of our study, care work was conceptualized as a broad range of activities that involves personal interactions and activities that provide for the physical, emotional, and social needs of others or oneself, within or outside of one's living space. Care work can be paid or unpaid and include activities such as housekeeping, cooking, shopping, bathing, yard work, paperwork, and so on. However, because the research was initiated in the Spring of 2020, questions were added to the survey about the student perceptions of impact of the COVID pandemic on their economic security.

The survey is divided into five sections: 1) Unpaid care work within the household living space; 2) Unpaid care work outside the household living space; 3) Paid care work; and 4) Perceived financial situation; and 5) Demographics.

Unpaid Care Work in Household

Table 1 shows the results of the analysis of variance for each of the activities included in the category of unpaid care work within the household living space.

Cleaning: Students were asked how many hours a week they spend cleaning, doing laundry, and organizing and cleaning their household living space. There was a significant difference among the categories of marital status, age, current financial status, and gender levels on the number of hours spent cleaning and organizing the living space for the household. Married students spent more time on the aforementioned activities than single or divorced students. On average, married respondents spent 1.5** (** indicates p-value ≤ 0.01 , ** indicates p-value ≤ 0.05 , and * indicates p-value ≤ 0.10) more hours per week than respondents who were single. Those respondents in the 34 – 41 and over 42 age groups spent more time per week than respondents in the age group 18-25 and 26-33 at 11.9 and 10.3 hours per week, respectively. Those who identified as female spent 1.6** more hours per week than male students cleaning and organizing their household. Students who identified themselves as financially insecure spent significantly more time cleaning and organizing their household than students who identified themselves as financially secure.

Shopping: Students were asked how many hours a week they spend shopping for themselves and their household. The youngest age group of 18- to 25-year-olds spent on average 2.7 hours per week shopping and these hours increased progressively for every consecutive age group with the oldest group of students over 42 spending 4.6 hours per

week shopping for the household, on average. In relation to race, the highest averages of hours spent shopping for the household were spent by those identified as Native American, followed by those who identified as Black or African American and then Hispanic or Latino.

Table 1: Analysis of variance (ANOVA) table for the “Unpaid Care Work” cluster

Item	<i>Cleaning</i>	<i>Shopping</i>	<i>Meal Prep</i>	<i>Yardwork</i>	<i>Paperwork</i>	<i>Emotional Support</i>
Effect	Pr > F	Pr > F	Pr > F	Pr > F	Pr > F	Pr > F
Marital Status	0.0594	0.1612	<.0001	0.2225	0.3549	0.1597
Age	<.0001	0.0003	0.0155	0.0012	0.0921	0.0033
Gender	0.0068	0.9039	0.0834	0.0749	0.4439	0.0483
Race	0.5285	0.0397	0.5958	0.6405	0.2464	0.0231
Financial Situation Now	0.0162	0.8283	0.3613	0.7381	0.1208	0.8567

Table 1: Analysis of variance (ANOVA) table for the “Unpaid Care Work” cluster (Continued)

Item	<i>Pet Care</i>	<i>Care for Elderly and Adults with Disabilities</i>	<i>Child Care</i>	<i>Self-care</i>	<i>Hours Slept per Week</i>
Effect	Pr > F	Pr > F	Pr > F	Pr > F	Pr > F
Marital Status	0.6937	0.0487	0.6437	0.3283	0.3507
Age	0.0063	0.4547	0.0002	0.4297	0.5685
Gender	0.0595	0.2470	0.0200	0.0012	0.7434
Race	0.0012	0.5515	0.0328	0.4192	0.0462
Financial Situation Now	0.9893	0.3739	0.5076	0.0899	<.0001

Meal Preparation: Students were given a listing of different tasks associated with meal preparation. Results showed significant differences among age, marital status, and gender levels on the number of hours spent on meal preparation activities. The highest averages of hours spent on meal preparation were by married people at an average of 9.1 hours per week. On average, respondents who were married spent 2.5** and 2.3** hours more per week preparing meals than people who were divorced or single, respectively. Students over 42 spent on average 9.1 hours per week on meal preparation while those aged 18-25 spent 5.8 hours per week. Students who identified as female spent the most amount of time on meal preparation than other genders, 8.1 hours on average compared to those who identified as male and non-binary at 7.2 and 7.0 hours per week, respectively.

Yardwork: On average, the older the student respondent, the more time they spent on yardwork activities. Results also show that, on average, males spent 0.5** hours per week more than females on yardwork.

Paperwork: Students were asked how many hours a week they spend doing household paperwork. On average, survey participants in the age group of 42 and over spent significantly more time doing paperwork for themselves and their family than other age groups.

Emotional Support: Our results showed significant differences among the categories of age, race, and gender levels in providing emotional support for the household members. On average, the number of hours spent providing emotional support increased progressively for each age group starting with the youngest survey respondents in the 18 - 25 age group. Respondents who identified as Hispanic or Latino spent the most amount of time in comparison to students of other racial categories providing emotional support to someone in their household. They spent 7.5** hours more than those who identify as Native American or American Indian and 2.8** hours more than those who identify as Asian/Pacific Islander. Those survey respondents who identified as Asian/Pacific Islander spent on average 1.5** hours less than survey respondents who identified as white. Survey participants who identified as female spent significantly more time providing emotional support than those who identified as male, spending 1.6** hours more per week, on average.

Care for Elderly and Adults with Disabilities. The survey participants who identified as divorced or single spent significantly more time on care for elderly or disabled adult member(s) of their household on average compared to those who identified as married.

Childcare: There were significant differences in the number of hours spent on care of a child or adolescent in households among race groups, gender levels, and age groups. On average, students aged 42 and over spent the most amount of time on childcare at an average of 10.2 hours per week. On average, survey participants who identified as female spent 2.0** hours per week more on care of a child or adolescent in their household than those who identified as male. Survey participants who identified as Hispanic or Latino and those who identified as Black or African American spent the most amount of time in comparison to respondents from other racial categories on childcare with an average of 7.2 hours and 6.8 hours, respectively.

Pet care: Survey participants who identified as 42 and over spent significantly more time on pet care than any other age group at an average of 7.3 hours per week. Those who identified as female spent significantly more time on pet care on average than those who identified as male, spending 1.0** hour more per week. In terms of race, survey participants who identified as Hispanic or Latino spent the most amount of time on pet care, followed by those identifying as white.

Self-care: Students were asked how many hours per week they engaged in self-care activities such as meditation, going to the doctor, physical therapy, yoga, working out, and taking part in leisure activities. Students were also asked how many hours a week they slept. Survey participants who identified as males spent, on average, 2.5** hours per week more time performing personal self-care than females. Survey respondents who identified as “Very secure” in their current financial status spent, on average, 3.1** and 2.8** hours per week more performing personal self-care than those who identified as “Not Secure” and “Secure,” respectively.

There was a significant difference in the number of hours slept per week among race groups, and “Financial Situation Now” groups. On average, those who identified their current financial status as being “Very Secure” and “Very Insecure” spent the greatest number of hours sleeping per week at an average of 48.3 hours per week and 48.0 hours per week, respectively. However, survey participants who identified their current financial

status as “Not secure” and “Somewhat secure” reported the least number of hours slept per week at an average of 42.6 hours per week and 44.1 hours per week, respectively. Survey participants who identified as Black or African American spent the least number of hours per week sleeping with an average of 42.8 hours, 5.2** hours less than those respondents who self-identified as “Other”, 4.7** hours per week less than those who identified as white, 4.7** hours per week less than those who identified as Asian/Pacific Islander, and 3.7** hours less than those who identified Hispanic or Latino, on average.

Unpaid Care Work Outside the Household

Table 2 shows the results of the analysis of variance for each of the activities included in the category of unpaid care work outside the household living space.

Table 2: ANOVA table for the “Unpaid Care Work Outside the Household” cluster

Item	<i>Unpaid Childcare Work</i>	<i>Unpaid Elderly or Disabled Adults Outside the Household</i>	<i>Other Unpaid Care Work Outside the Household</i>	<i>Volunteer Work</i>
Effect	Pr > F	Pr > F	Pr > F	Pr > F
Marital Status	0.2039	0.5423	0.0035	0.0571
Age	0.0061	0.1605	0.0752	0.9792
Gender	0.3213	0.9780	0.7677	0.9758
Race	0.4262	0.0154	0.1583	0.6685
Financial Situation Now	0.6214	0.9349	0.7087	0.3196

Unpaid childcare work: Students were asked about the amount of time they spent per week doing unpaid care work for children outside the household. Survey participants in the age group 42 and over spent the most time per week at 2.8 hours per week, on average, spending 2.3** hours more than those aged 18-25, 2.1** hours more than those

aged 34-41, and 1.6** hours more than those aged 26 -33 on unpaid care work for children living outside the household per week.

Unpaid Elderly or Disabled Adults Outside the Household: Survey participants who identified as Black or African American spent on, average, 2.1 hours per week caring for elderly or disabled adults outside of the home. On average, those who identified as Black or African American spent 1.9** hours per week more than those who identified as Native American, 1.2** hours per week more than those identified as white, 1.1** hours per week more than those who identified as Asian/Pacific Islander, and 0.9** hours per week more than those who self-identified as "Other". Another significant result was that survey respondents who identified as Hispanic or Latino spent significantly more time on average than participants who identified as white at an average of 0.6* hours per week on unpaid work for elderly or disabled adults outside the household.

Other Unpaid Care Work outside the Household: Student respondents were asked how many hours per week they provided other types of care work outside the household, such as running errands for neighbors, providing rides for friends, and so on. Survey participants who identified as divorced spent the most time per week on average at 3.3 hours per week. On average, they spent 1.0** hour per week more than those identified as married and 0.8** hours per week more than those identified as single. Survey participants in the age group 42 and over spent the most time on average at 3.2 hours per week. On average, they spent 1.9** hours per week more than those aged 34 -41 and 1.8** hours more than those aged 26 -33 per week on unpaid care work for people other than those listed in previous questions. Survey participants who identified as divorced spent the most time in comparison to married or single, at 3.3 hours per week.

Volunteer Work: There was a significant difference among marital status levels between the number of hours spent per week volunteering at a facility or organization which provides basic services to people that were not included in the previous questions. Survey participants who identified as divorced spent the most time per week on average at 3.3 hours per week. On average, they spent 1.0** hour per week more than those identified as married and 0.8** hours per week more than those identified as single.

Paid Care Work

Table 3 shows the results of the analysis of variance for each of the activities included in the category paid care work.

ANOVA Table 3:ANOVA for the paid care work cluster:

Item	<i>Paid Cleaning Work</i>	<i>Paid Homecare</i>	<i>Child Care: Home</i>	<i>Child Care: Facility</i>	<i>Work at Care Facilities: Paid Elderly</i>	<i>Paid Yard Work</i>
Effect	Pr > F	Pr > F	Pr > F	Pr > F	Pr > F	Pr > F
Marital Status	0.8523	0.5753	0.6137	0.6384	0.1901	0.3461
Age	0.5991	0.7224	0.9732	0.2498	0.7290	0.0612
Gender	0.6185	0.0031	0.7195	0.0793	0.3362	0.1885
Race	0.3028	0.1935	0.0518	0.6907	0.6761	0.0168
Financial Situation Now	0.4090	0.9681	0.4319	0.4937	0.3394	0.7129

Paid Cleaning Work: There were no significant differences between the number of hours per week spent cleaning someone's living space for a fee among marital status levels, age groups, gender levels, race groups, and “Financial Situation Now”.

Homecare services: There were significant differences between the number of hours per week spent rendering paid homecare services among race groups. Survey participants who identified as Black or African American spent 2.2 hours per week receiving pay for homecare services rendered. On average, they spent 1.9** hours per week more than those who identified as white, 1.6** hours per week more than those who identified as Asian/Pacific Islander, and 1.2* hours per week more than those who identified as “Other”.

Childcare: On average, those who identified as Non-Binary/Third Gender spent more time than any other gender group receiving pay for doing childcare within a home.

On average, they spent 2.4** hours per week more than survey participants who identified as male and 2.0* hours per week more than those who identified as female.

Work at Care Facilities: There was a significant difference in the number of students receiving pay to work within a care facility among race groups and age groups. Survey participants who identified as Native American spent the most amount of time working at a care facility at an average of 6.0 hours per week. They spent, on average, 5.8** hours per week more than those respondents who identified as white, 5.2** hours per week more than those who identified as Asian/Pacific Islander, 4.7** hours per week more than those who identified as Black or African American, 4.7** hours for those who identified as “Other”, and 4.5** hours per week than those who identified as Hispanic or Latino. On average, survey respondents who identified as being in the age group of 26 - 33 spent the most amount of time receiving pay to work within a care facility at an average of 3.3 hours per week. On average, those aged 26 - 33 spent 1.75** hours per week more than those in the age group of 18-25.

Paid Yard Work: On average, the older the student respondent, the more time they spent on yard work activities. Results also show that there was a significant difference between gender levels where males spent, on average, 0.5** hours per week more time rendering paid yard work services than females.

Perceived Financial Situation

Students were asked to rate their financial security before the pandemic and during the pandemic. Over 90% of the student respondents indicated that their financial situation was somewhat secure or better before the pandemic, a percentage which dropped to less than 75% during the pandemic. These results were significant across the category of race, gender, age, and marital status, with students reporting a consistent decline in perceived economic security during the pandemic. Nonetheless, most students reported feeling at least somewhat economically secure during the pandemic.

Discussion

These results indicate that students are active in a variety of care-giving responsibilities for which they dedicate considerable time each week. This research supports the hypotheses that age, gender, and race were contributing factors related to the type of care work and

the number of hours that students spent on care work. As such, they demonstrate the inequalities in care work that were present during the COVID pandemic.

Age

In most of the categories of care work it appears that students progressively do more care work over the course of their lives. Older students spend more time cleaning, shopping, keeping up the house, and preparing meals than younger and single students. Older students attend to yard work, complete the necessary paperwork, provide emotional support, and care for children and pets more hours per week than younger students. Outside the household they also provide care for other children more hours per week than younger students.

Older students, on average, reported living in larger households than younger students and dedicating more time to the upkeep and care of the household. Because older students are more advanced in their development life stages, they may be more motivated to establish themselves within a house, either rented or purchased, and dedicate more time to its upkeep. Conversely, younger students may live in apartments or in households in which they do not feel responsibility toward its maintenance. Moreover, due to their level of financial experience and emotional maturity, older students may take on more responsibilities for household paperwork and dedicate more time to providing emotional support.

Older students share responsibilities with friends, family, or neighbors by taking care of the children outside their household. These relationships may be mutually beneficial as they may develop reciprocal caring arrangements. Nonetheless, it is interesting that those respondents who reported the most time spent on care work within their household also reported the most amount of unpaid childcare done for others outside the household.

With these results, we may ask how it is possible for older adults to be successful students at all? Sadly, adult learners have lower rates of retention than traditional 18–22-year-old students (Markle, 2015). However, while nontraditional students have reported higher levels of life stress, depression, and anxiety compared to traditional students (Trenz et al., 2015), scholars have reported that nontraditional students do not depend on emotional or social supports as much as traditional students and may fare better than

traditional students with social isolation (Carney-Crompton & Tan, 2002) and display higher levels of mental health resilience (Babb et al., 2022; Chung et al., 2017). Some studies have shown that adult students draw inspiration and motivation from their families as well as tangible support in the form of financial aid, household support, childcare, and academic help. As mentioned, mutually beneficial relationships with friends and neighbors, as suggested by our results, may help to ease some of the burden of care. Therefore, a narrow deficit approach to examining ways to increase retention among adult learners in higher education will not capture this complexity and nuance in the experiences of these students. (Sagna & Vaccaro, 2022).

Gender

The hypothesis that those identifying as female would carry on more of the responsibility toward care giving was supported by the results. Those who identified as female reported spending more time than other genders dedicated to household chores such as cleaning and organizing, caring for children, meal preparation, and care of pets. In correspondence with gender norms, female respondents reported spending more time providing emotional support to others while those identifying as male spent more time on yard work. However, contrary to ideas about women taking more “me-time” for beauty regimes, our results suggest that those identifying as males are finding more time to take care of themselves. Since female respondents are doing more care work in other activities, it may mean that they have less time for self-care or leisure activities.

The predominance of young 18–25-year-old students in this study may have skewed the results regarding gender responsibilities. Because younger students may live at home with their parents, the difference in care responsibilities among genders may be less pronounced than when they assume household responsibilities later in life. While gender differences among older students were not significant in this study, this could be due to the smaller sample size of the oldest students. Conversely, we may be seeing changes in social role expectations among genders that, while still significant, are not as prevalent as before.

Race

The hypothesis that the category of race is related to the type of caregiving roles was supported by this research. Some interesting results regarding time for shopping, emotional support, and networking may show the presence of communal support within

historically disadvantaged groups. The hours spent shopping by Native American, Black, and Latino students may be a result of the distance of communities of color from grocery stores and shopping areas or it may be experienced as a leisurely and mutually supportive activity. That Hispanic or Latino students reported providing more emotional support follows traditional cultural assumptions about Latino close-knit families who are more comfortable in demonstrating emotions and are deeply involved in one another's' lives. However, these results may also be measuring the need among Hispanic and Latino students for reciprocal emotional support due to precarious immigration status, experiences of racism and ethnocentrism, language barriers, and the work of maneuvering the educational system. The lower number of hours spent in emotional support reported by Native American or American Indian followed by Asian/Pacific Islander students could be a result of cultural differences in defining or giving emotional support or it could also imply isolation of students from close friends and family.

The division according to race infers that networking among family members to care for children is prevalent in Hispanic or Latino and Black or African American households. The results also suggest that Black community members make efforts to take care of the elderly or disabled living in their neighborhoods. While these activities may take time, they also suggest that they involve mutually beneficial relationships which build resilience in communities.

Race was a factor in self-care with Black or African American followed by Hispanic or Latino students sleeping less than other students. Previous research shows that there are disparities in the duration of sleep between racially minoritized people and white people and that this gap is growing. Since sleep also affects mood, academic success, and other physical and mental health factors (Grandner, et, al., 2016; Jean-Louis, Grandner & Seixas, 2022; Gilles & Yopez-Haro, 2018), these findings suggest the need for more consideration of student's sleep within the university setting.

Students of color and nonbinary students spent more time in paid care work, which coincides with the literature that more vulnerable populations are relegated to low-paying care work employment. Black and Latino students, followed by other racially minoritized students, spent more time taking care of the elderly in homecare situations than white students; nonbinary students, followed by female students spent more time with paid

childcare; and American Indian students, followed by other racially minoritized students, spent the most time working in care facilities. This information is disturbing when coupled with the national statistics which indicate that healthcare workers accounted for a sizable proportion of coronavirus infections (Chou, et al., 2020) and minoritized populations were also the most affected by COVID deaths (Hill & Artiga, 2022).

Economic situation

It is noteworthy that students across all social categories judged their economic situation to be worse, on average, during the pandemic than before. Economic insecurity can lead to increased levels of anxiety; however, when coupled with hours of sleep some interesting results arose. Those on the outside margins of financial security, those that responded that they were very secure and very insecure, slept more than the others. Those respondents who reported feeling not secure and somewhat secure about their financial situation reported sleeping less. It is possible that these respondents felt that they had the possibility of gaining more security and therefore spent more time working longer hours or applying for jobs. Those who were very insecure may have been unemployed and had more time to sleep or their sleeping may have been a sign of hopelessness and depression (Salami & Walker, 2014). These are conjectures and more research would need to be done to ascertain the possible reasons for these results.

Conclusion

Overall, the results reflect the inequalities associated with the provision of care based on social categories such as age, gender, and race. Educational institutions interested in maintaining a diverse group of students should take into consideration, not only the number of hours that students work in paid employment, but the extra hours of care work that they may be providing for their household and communities, and which may interfere with the time they have for their studies. This may require institutions to be more flexible in terms of due dates and to prioritize the provision of daycares and social and mental health services. On the other hand, care activities might provide important networks and feelings of inclusion and purpose which could strengthen motivation and provide needed supports for students. Finally, the study also indicates that students are embedded in the racialized, gendered and class structures of society which became more apparent during the pandemic.

Limitations And Possibilities for Further Research

The study was limited to the student population of one small, state university campus with a very diverse population which cannot be generalized to all university populations.

Research was carried out during the COVID-19 pandemic which represents an exceptional time period with no comparison with results prior or post pandemic. Nonetheless, the study provides a descriptive window of students' care activities during that time that can be compared with further research. Some categories such as Indigenous students and the very oldest students had a small sample size. These limitations suggest the need for continued research in the area of caregiving and the effects of the pandemic on students.

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