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The Price of Calm: How Socioeconomic Stressors Shape High School Student Well-Being

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ABSTRACT

This research article examined the correlation between socioeconomic situation (SES) and the mental and emotional well-being of high school students during the 2022-2023 academic year. The study aimed to gain a comprehensive understanding of how SES-related stressors impact students' well-being. The research covered 49 students, collecting data through a 31-question survey that included demographic information and well-being measures modeled after established mental health questionnaires. The findings demonstrated that SES has an influence on the mental and emotional well-being of high school students, with lower SES backgrounds being associated with increased stressors that affect calmness, stress levels, and overall well-being. Higher income levels were significantly linked to higher calmness levels, while longer working hours during the academic year were significantly connected to higher self-reported stress levels. However, there were no statistically significant relationships between income and self-reported sadness and anxiety. The study also highlighted the importance of access to healthcare, as students with health insurance and therapy services reported slightly lower stress levels. While this research provides valuable insights, further studies are needed to deepen understanding and inform targeted interventions for student support.

Introduction

The emotional and mental well-being of high school students has become a focal point of research, policy, and public discourse in recent years, especially in light of increasing recognition of the myriad stressors they face. High school is an integral phase in adolescent development, setting the tone for their future academic pursuits, personal growth, and eventual transition into adulthood. At the crux of this transformative stage are various internal and external stressors such as rigorous academic demands, expectations from families, engagement in extracurricular activities, and the looming decision about post-secondary education pathways [1].

Multifaceted pressures faced by students have significant ramifications for their mental health, impacting their immediate well-being and potentially forecasting adulthood challenges. Students often grapple with a complex array of expectations from parents, teachers, peers, and their own self-imposed standards. Navigating these demands can often amplify stress levels and trigger mental health concerns. Moreover, these experiences vary greatly depending on individual circumstances, with socioeconomic situation (SES) emerging as a pivotal determinant. Increasing evidence suggests that students from lower SES backgrounds encounter additional stressors, such as increased work hours and greater domestic responsibilities, which have the potential to profoundly affect their well-being and academic trajectory.

Existing scholarly literature consistently underscores the profound impact of these stressors on students' mental health. Academic challenges, which, when overly intense, can deter academic performance and even lead to dropouts [2]. Intriguingly, the implications of SES extend beyond tangible factors. Empirical studies indicate that students' perceptions rooted in SES, such as viewing their surroundings as unsafe, can intensify

stress [3]. Furthermore, SES-related factors compound household challenges, thus augmenting the daily stress levels experienced by students [4].

This study investigates the correlation between the SES and the mental and emotional well-being of high school students. The objective is to present a nuanced understanding of how life stressors, shaped by socioeconomic factors, influence students' mental and emotional wellbeing. Through a thorough examination of this relationship, the goal is to develop more targeted and efficacious interventions that can effectively support high school students across all socioeconomic backgrounds.

Methods

A comprehensive survey was conducted with a sample size of 49 high school students from New York and New Jersey. The primary objective of the survey was to evaluate the students' demographics, mental and emotional well-being, access to healthcare, and job-related stress. To explore the correlation between SES and student well-being, a range of statistical analyses was employed.

Inclusion/Exclusion Criteria

All participants were required to be high school students in the 2022-2023 academic school year. They were provided with an informed consent form and agreed to take the survey.

Survey

The research survey comprised of a comprehensive set of 31 questions, encompassing demographic inquiries and study-specific questions. The demographic section included variables such as participants' age, grade during the 2022-2023 academic year, family income, gender, and high school course load. The study-specific section focused on evaluating the participants' accessibility to physical and mental healthcare, the presence of job-related stress, and their overall emotional well-being. To enhance reliability, certain survey questions were adapted from established mental health surveys such as the QuestionPro survey and the National Institute of Health Mental Health Questionnaire. Notably, the demographic questions were mandatory to ensure comprehensive data collection, while all other inquiries pertaining to well-being and healthcare access were optional, allowing participants to provide information based on their individual experiences and comfort levels.

Statistical Analysis

The results were analyzed using Graphpad Prism 10 software. Multiple statistical analyses were performed using one-way ANOVAs and Student's t-tests. All charts were constructed using Graphpad Prism 10.

Results

The research findings indicate that income has a notable influence on students' calmness levels, as higher income is linked to higher calmness levels. Additionally, the number of hours worked by students during the academic year is correlated to higher self-reported stress levels. However, there is no statistically significant relationship between income and participants' reported sadness or anxiety levels. Similarly, there was a negative correlation between income and anxiety, albeit the relationship was not statistically significant.

Student Well-Being

Various indicators of student mental and emotional well-being were examined. Income was found to have a significant impact on participants' calmness levels during the school year. Specifically, the data revealed a positive correlation between income levels and self-reported calmness levels, with statistical significance observed between different SES brackets (Figure 1).

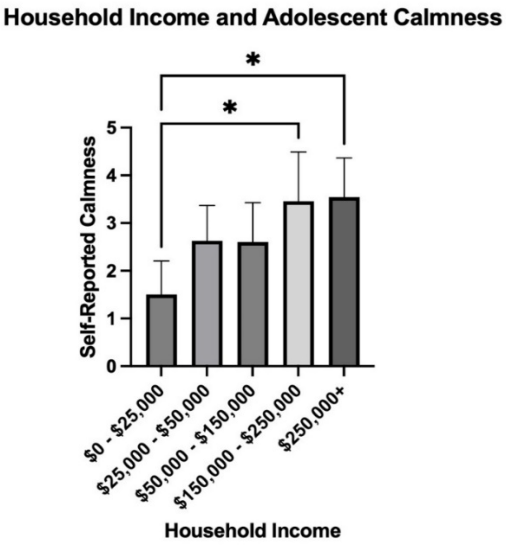

Figure 1. Effect of income on self-reported calmness. Statistical significance ($p<0.05$) in calmness levels of participants between income levels \$0 - \$25,000 and \$150,000 - \$250,000, and income levels \$0 - \$25,000 and \$250,000+.

Our findings revealed a negative correlation between income and anxiety among participants. Surprisingly, our study did not establish a significant impact of income on participant anxiety. Similarly, there was an unexpected overall negative correlation observed between income and self-reported sadness among participants, with no significant association found.

An examination of participants' work hours during the academic school year revealed a statistically significant influence on their self-reported stress levels (Figure 2). Notably, individuals who were not employed reported significantly lower stress levels compared to those with either 15-20 hours or more than 20 hours of weekly work commitment during the 2022-2023 academic year. Intriguingly, while the number of Advanced Placement (AP) classes taken by students exhibited a positive association with heightened stress levels, this connection did not attain statistical significance.

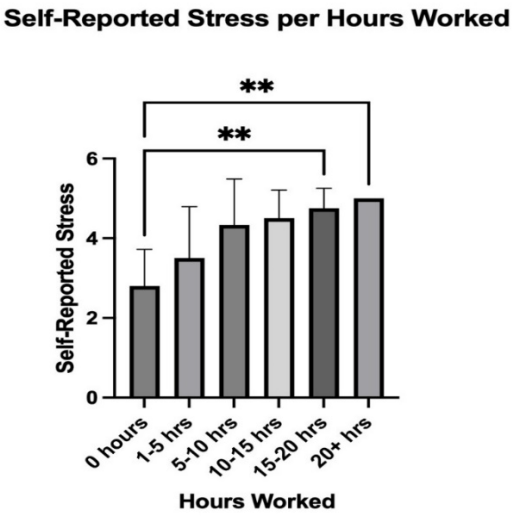

Figure 2. Effect of hours worked on self-reported stress. Statistical significance ($p<0.05$) in stress levels of non-working participants and participants who work either 15-20 hours a week or 20+ hours a week.

Access to Healthcare

Several correlations between access to, and utilization of, healthcare services and reported wellbeing metrics, were examined. Income had a significant effect on practical medical accessibility (Figure 3). However, income did not significantly influence perceived medical accessibility – student's assessment of ease of accessibility to healthcare services – though an overall positive correlation between income level and participant perception of access to healthcare was observed.

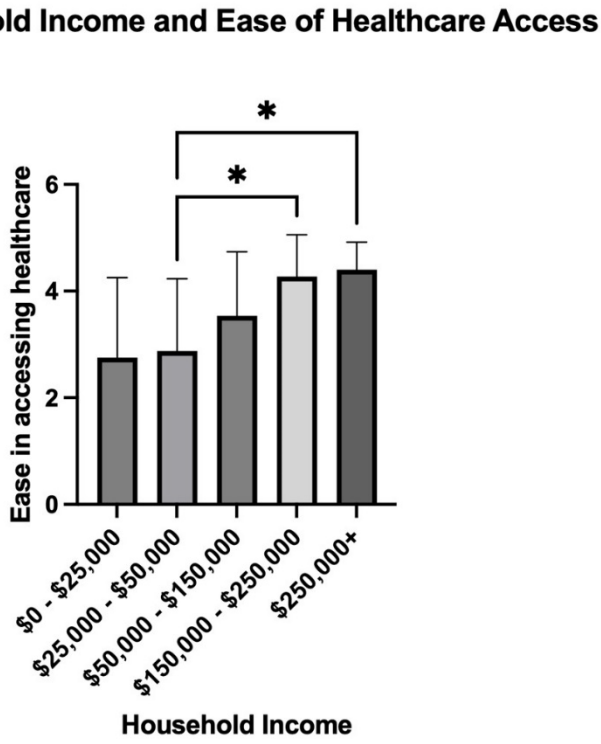

Figure 3. Effect of income level on practical medical accessibility. Statistical significance ($p<0.05$) in practical medical accessibility between income levels $25,000 - $50,000 and $150,000 - $250,000, and $25,000 - $50,000 and $250,000

The impact of access to health insurance on participants' stress levels was not statistically significant, but those without insurance reported slightly higher stress levels. Therapy services (either independently or offered by their school) did not significantly affect stress levels, but participants attending therapy reported slightly higher stress rates.

Discussion

Our findings indicate lower SES negatively affects the mental and emotional well-being of high school students. Stressors such as academic difficulties, food insecurity, unstable housing, and exposure to violence contribute to higher stress levels, anxiety, sadness, which can in turn impact academic performance and overall well-being.

Income significantly influences participants' calmness, suggesting financial stability might reduce student stress and enhance calmness. Surprisingly, income didn't noticeably affect anxiety rates, implying that financial stability might not directly correlate with negative mental experiences, however does promote feelings of calmness and settledness.

Additionally, data indicated that the level of commitments influence students' mental wellbeing by elevating stress. While the correlation between AP course load and stress wasn't statistically significant, the relationship between work hours and stress was. Prolonged work hours during the academic year significantly contribute to students' stress, potentially affecting long-term wellbeing.

Our study highlights the importance of healthcare access for all SES-background students. Those with health insurance and therapy access reported reduced stress levels, suggesting that healthcare availability can counteract stress-induced impacts on mental and emotional health.

Strengths

A core strength of this research is the sample's representativeness of the local demographic. Age and grade distributions were balanced: 30.6% 9th, 34.7% 10th, 14.5% 11th, and 10.2% 12th graders. Socioeconomic situation (SES) distribution showed: 8.2% under $25,000, 16.3% at $25,000-$50,000, 30.6% at $50,000-$100,000, 22.4% at $150,000-$250,000, and 22.4% over $250,000. The survey incorporated preset questions from reliable sources ensuring a robust assessment of wellbeing metrics. Data spanned public and private schools in New York and New Jersey, implying broader applicability beyond a singular school context.

Limitations

While our sample was representative, it covered only 12% (49/400) of the student body. A larger study might validate trends observed in prior literature but deemed sub-significant here. For example, the relationship between income level, course intensity, and anxiety. Previous studies hinted at their significance; a broader sample might affirm this.

Furthermore, the survey's voluntary nature might introduce bias, capturing only willing participants. Being solely from NY and NJ, the sample may not reflect the broader US student population due to regional variations.

Lastly, the gender distribution in our sample was skewed, with 63.3% female and 36.7% male participants. This does not align with the typical near 50/50 gender ratio observed in most student bodies.

Next Steps

This research serves primarily as a pilot study examining student healthcare accessibility and wellbeing. To enhance understanding of these interrelations, a comprehensive study should be mandatorily conducted across the entire high school population and extended to other U.S. high schools. Trends observed, but not deemed significant in this limited scope, might gain significance, guiding potential policy-driven interventions.

These representative results indicate income level significantly influences student-reported calmness, a wellbeing indicator, and thereby impacting healthcare utilization. These insights on the effects of income on student experiences necessitate heightened awareness and further research by school officials to ensure comprehensive support for their entire student body.

This study revealed several observable trends, which may gain significance with a larger sample size. For example, the positive correlation with the amount participants contributed to household income and stress levels. Additionally, there is a negative correlation between income and sadness, a positive link between income and healthcare accessibility, and a direct relation between the number of AP classes taken and stress.

Overall, to gain a comprehensive understanding of SES and mental wellbeing, future studies should expand in scale and geography, targeting a representative sample. This is especially critical since identifying and addressing disparities will be crucial to optimizing students' wellbeing and success.

Conclusion

The study explored the correlation between high school students' SES and their mental and emotional wellbeing, specifically regarding daily stressors. Key findings include lower SES students experiencing reduced calmness and those working extended hours during the academic term reporting heightened stress. There is a notable disparity between perceived and actual healthcare access, with lower SES students facing restricted healthcare when dealing with physical injuries. Strengths of this study encompass a balanced participant distribution and using validated questions from trusted sources. Limitations include a gender imbalance, geographically confined participants, and a small sample size. A broader, compulsory survey might offer more precise outcomes, potentially revealing statistically significant trends previously unnoticed. Continuous efforts to decipher the SES-wellbeing relationship are vital, illuminating disparities and informing policy-based interventions to bolster student well-being.

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