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Effects of Employment on  
Stress Levels in College Students

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### Abstract

The current study examined the effects of employment on the stress levels of college students. One hundred and forty-four students completed a questionnaire composed of the Daily Stress Inventory, demographics, and questions regarding their daily activities. It was expected that working students would have higher stress levels than students who did not work. However, the results revealed that there was not a significant relation between the number of hours worked and stress levels among students. However, this is not to say that working does not have any detrimental effects on college students. The more students worked the less likely they were to study, achieve high grades, and have time available for leisure activities. Additional factors such as sex, the amount of money earned per week, and the means by which students were paying for college also contributed to variability in stress levels among students. Further research into the effects of working on college students is necessary due to the rising number of working college students.

### Effects of Employment on Stress Levels in College Students

Stress is common in every college student's life; not only because of the amount of course work or the expectations to succeed, but also because of their lives away from the classroom. The college years bring separation from home and parents, academic demands that are greater than those demands in high school, and questions about personal identity and career choice (Whitman, Spendlove, & Clark, 1984). Other determinants that may intensify stress include financial concerns due to college expenses, increased competition, and an uncertain job market (Whitman et al., 1984).

Selye (1976) defined stress as a response elicited by a variety of external events. An event or an environmental stimulus that makes a person feel tense or aroused is a stressor. The experience of stress can be a mental state of tension and arousal in which interpretive, emotive, defensive, and coping processes occur inside a person, possibly creating a mental strain. Stress can also be defined as the body's response to physical demands of the environment (Rice, 1992).

Although there are various sources of stress outside of the university setting, requirements of the university – such as exams, papers, and projects, along with the pressure to earn good grades – can cause mental stress (Ross, Niebling, & Heckert, 1999). In addition to the demands of college classes as well as other college stressors, many students are also working at jobs outside of school. Kramer (1994) stated that college-board data revealed that 75 percent of all traditional college students are employed and suggested that high tuition rates may account for the increase employment.

In an article entitled “Paying for College” (1986), it was reported that although 86 percent of parents want their children to attend college, only 54 percent put money away to help them. Of

those families who had put money away, only 11 percent believed that their savings would cover all of the college expenses. Tuition rates are unaffordable for most families and can be a great burden for students. The money students receive from their families is often not enough to cover all of their expenses, so students must work to help defray the costs.

An increasingly popular strategy among working students is to combine work and education by finding work during their college years that has a connection to their long-term plans (Misra & McKean, 2000). Although these jobs also come with more responsibility, they also may demand more hours and increased accountability – which can ultimately increase stress. One traditional manifestation of increased stress among college students is a corresponding drop in grade-point average. However, many students working in jobs connected to their long-term plans achieve grade-point averages higher than do those students not working. It may be that students who have to pay for some or all of their education themselves will work harder because of the monetary sacrifice they are making to attend college.

In addition, Misra and McKean (2000) discovered that, although women had more effective time management behaviors than men, they experienced higher academic stress and anxiety. Stress in small amounts can be positive for some people but stress also can be negatively associated with a student's self-concept. A survey on stress at college and the effects on health habits, health status, and self-esteem found that stress was especially high among college females (Hudd et al., 2000). The researchers also found that students with higher levels of stress were much less satisfied with several life factors that contribute to self-esteem.

Students must devote their time not only to school and work, but also to finding enough hours in the day to study, spend time with their family and friends, and sleep. Misra and McKean

(2000) found that leisure time was a predictor of stress. They defined leisure satisfaction as the positive feeling of contentment a person perceives as a result of meeting personal needs through leisure activities. The results of their research indicated that the greater the satisfaction with leisure that students indicated, the lower their perceived academic stress was. Ragheb and McKinney (1993) also found a negative association between academic stress and leisure activities.

In the present study, students completed a survey that addressed stress, grade-point average, leisure time, and source of income. Working students were hypothesized to have higher levels of stress than those students who did not work. In addition, women were hypothesized to have higher levels of stress than men. Furthermore, students who helped to pay for college by working were hypothesized to have higher grade-point averages than those students who received money from alternative sources (e.g., loans, tuition remission). Finally, those students who spent less time participating in leisure activities were hypothesized to have higher levels of stress than those participants who spent more time participating in leisure activities.

## Method

### *Participants*

Participants were 144 undergraduate students (39 men, 105 women) at a mid-sized Midwestern university. The ages of the students ranged from 18-25, with the majority of the students falling between 18 and 21. All participants were enrolled full time at the university, the mean number of course hours was 16 hours for the semester. Of the participants, 36 were in their first year of school, 43 in their second, 33 in their third year, and 32 in their fourth year or higher. The mean self-reported grade-point average for students was 3.61 on a 4.0 scale. The job status of the students who responded was as follows: 22 did not have a job at the current time, 53 had one

part-time job, 25 had a work-study job, 32 had a work-study and a part-time job, and 12 had two or more part-time jobs, or a full-time job.

### *Materials*

The Daily Stress Inventory (Brantley, Waggoner, Jones, & Rappaport, 1985) assessed student stress levels. The inventory consists of 58 items that provide a daily assessment of the sources and individualized impact of relatively minor stressful events. Participants were instructed to indicate whether the potential stressor had occurred within the past 24 hrs and if so, rate the stressor on a scale of 1 to 7 (1 = *not stressful*; 7 = *an event that caused the respondent to panic*). If the event did not happen within 24 hrs, the participants indicated so by placing an X in the space provided. The Cronbach's  $\alpha$  for the Daily Stress Inventory was found to be 0.94.

The survey included questions about the students' sex, age, year in school, and major area of study. The students also answered questions about their current semester, course load, and their grade-point average. In addition, students responded to questions about how they spent their time and whether they were working during the current semester.

### *Procedure*

The researcher distributed surveys to 34 classes from all areas of the university. As a result, 625 undergraduate students received the Daily Stress Inventory and demographics questions. The students completed and returned the survey by the end of that same week. Twenty-three percent of the surveys were eventually completed and returned.

## Results

### *Employment and Daily Activity*

A series of analyses examined the relation between the number of hours worked and time spent on other daily activities. Hours worked and leisure time were negatively correlated,  $r(142) = -.49, p < .01$ ; the more time individuals spent working, the less time they had for leisure activities. Also, students who spent more time working slept less hours during the night,  $r(142) = -.29, p < .01$ . Hours worked and time spent on academic activities also were negatively correlated,  $r(142) = -.31, p < .01$ ; those students who spent more hours working spent less time at school or studying. This finding may account for the negative correlation between hours worked and grade-point average,  $r(110) = -.19, p < .05$ .

### *Employment and Stress*

An analysis of variance (ANOVA) indicated that there was no significant difference in stress level as a function of job status,  $F(4, 139) = .44$  (see Table 1), nor was there a difference in stress level because of the numbers of hours worked per week,  $F(4, 139) = .53$  (see Table 2). However, the results did reveal a significant difference in stress level due to the amount of money students made per hour,  $F(1, 117) = 4.89, p < .05$ ; students who earned more than \$8 per hour had significantly higher stress levels ( $M = 102.87$ ) than students who earned less than \$8 per hour ( $M = 80.50$ ).

### *Stress and Sex*

An ANOVA revealed a significant difference between stress levels and the sex of the participants,  $F(1, 138) = 4.10, p < .05$ ; women reported higher stress levels ( $M = 95.31$ ) than men ( $M = 75.24$ ). The five highest stressors are reported in Table 3. Analyses revealed a significant

difference between men and women on “Thought about unfinished work”,  $t(138) = -2.104, p < .05$ , and a trend towards significance for “Had money problems”,  $t(138) = -1.944, p = .054$ . There were no significant differences found between men and women among the remaining three stressors reported in Table 3.

### *Stress and Leisure Time*

The current study defined leisure time as the number of hours spent with family, friends, and doing other activities unrelated to work or school. Participants who had the least amount of leisure time tended to have the most stress,  $r(144) = -.16, p = .053$ . Also, individuals who slept more during the night had lower levels of stress,  $r(144) = -.21, p < .05$ .

### *Money for Tuition and Grade-Point Average*

A series of analyses examined students’ financial investment in their education. It was expected that students who worked to pay for their education would have higher grade-point averages. Students who paid for their education using tuition remission or loans were expected to have lower grade-point averages. Analyses revealed no significant correlation between self-reported grade-point average and money used from work to pay for tuition. However, there was a negative correlation found between self-reported grade-point average and money received from loans,  $r(111) = -.29, p = .01$ , and from tuition remission,  $r(111) = -.23, p = .05$ . Students who received money from loans or tuition remission were significantly more likely to have lower grade-point averages. A positive correlation was found between self-reported grade-point average and money received from grants,  $r(111) = .26, p = .01$ . Students who had higher grade-point averages were significantly more likely to receive grants, which are often based on academics, to help pay for their education.



## Discussion

The primary goal of this study was to examine the relation between stress and employment. Specifically, students who did not work or worked only minimal hours were expected to have significantly lower stress than students who worked part-time or full-time. This hypothesis was not supported by the results. There was, however, a positive correlation found between stress and money earned per hour. Significantly higher stress levels were evidenced among students who made more than \$8 per hour as compared to students who made less than this amount. These more challenging, higher-paying jobs may be creating a more stressful working environment for students.

Another important finding was the difference in stress between men and women. Women had significantly higher stress levels than men. This result may be due to a tendency for women to handle stress differently than men. Women also may be more apt to report stress because they feel that it is more accepted and natural to communicate feelings of stress. In addition, there may be more pressure on women to succeed in college as opposed to men – resulting in higher stress levels. Specifically, women may feel that they have to work harder in order to succeed given the paternalistic nature of society.

Students who helped to pay for college by working were expected to have higher grade-point averages than those students who received money from alternative sources (e.g., loans, tuition remission). This hypothesis was based on the premise that students who have to pay for some or all of their education themselves will work harder because of the monetary sacrifice they are making to attend college. Unfortunately, the results did not reveal a significant correlation between self-reported grade-point average and money used from work to pay for tuition. However,

the results did reveal that the more money students received from loans and tuition remission, the lower their grade-point average.

The negative correlation between leisure time and stress levels is similar to those results found by previous researchers (Misra & McKean, 2000; Ragheb & McKinney, 1993). These researchers found that increased satisfaction with leisure time activities was associated with less stress.

Although the results of the current study supported several of the hypotheses, there was no significant relation between the number of hours worked and stress levels among students. One possible explanation for the lack of significance may be that the Daily Stress Inventory is not an effective measure of stress in college students. It should be noted, however, that the Daily Stress Inventory is a valid measure for identifying daily stress in the general population (Brantley et al., 1985). However, a measure of stress more specifically designed for college students may be more sensitive to the types of stress experienced by students.

Another reason could have been the timing of the survey. The researcher administered the survey at a time of high stress for college students – the week of midterms. Because of the timing, some students may not have had time to complete the survey. Furthermore, the students who did have time to complete the survey may not have had stress levels as high as students who did not have time to complete it. The students who did complete the survey may also have had better coping or time management skills.

Overall, the results found in the current study suggest that working, per se, may not increase stress in students. However, the more hours students spend working the less time they have available for leisure time activities, which may increase the stress students experience. Another

potential variable that impacts educational success is the degree to which students are financially invested in their future. For example, students who are going to school using loans or tuition remission tend to have lower grade-point averages. Further research into the effects of working on college students is necessary because the number of college students who work is rising each year.

## References

- Brantley, P. J., Waggoner, C. D., Jones, G. N., & Rappaport, N. B. (1985). A daily stress Inventory: Development, reliability, and validity. *Journal of Behavioral Medicine, 10*, 61-73.
- Hudd, S. S., Dumlao, J., Erdmann-Sager, D., Murray, D., Phan, E., Soukas, N., & Yokozura, N. (2000). Stress at college: Effects on health habits, health status and self-esteem. *College Student Journal, 34*, 217-30.
- Kramer, M. (1994). Earning and learning: Are students working too much? *Change, 26*, 6-12.
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies, 16*, 41-53.
- Paying for college. (1986, June). *American Demographics, 8*, 13.
- Ragheb, M.G., & McKinney, J. (1993). Campus recreation and perceived academic stress. *Journal of College Student Development, 34*, 5-10.
- Rice, P. L. (1992). *Stress and health*. (2<sup>nd</sup> ed.). Pacific Grove, Ca: Brooks/Cole.
- Ross, S. E., Niebling, B. C., & Heckert, T. M. (1999). Sources of stress among college students. *College Student Journal, 33*, 312-18.
- Seyle, H. (1976). *The stress of life*. (2<sup>nd</sup> ed.). New York: McGraw-Hill.
- Whitman, N. A., Spendlove, D. C., & Clark, C. H. (1984). *Student stress: Effects and solutions*. Washington, D. C.: Association for the Study of Higher Education.

Table 1  
*Stress and Job Status*

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Job Status	Stress	
	Mean	Standard Deviation
No job	89.00	40.55
Part-time job	84.89	51.42
Work study job	89.32	51.11
Work study and part time job	93.00	44.68
2+ part-time or full-time job	105.92	93.49

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Table 2  
*Stress and Hours Worked*

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Hours Worked	Stress	
	Mean	Standard Deviation
No hours	89.0	40.55
Less than 14 hours	80.74	50.63
14.01 - 20 hours	91.15	52.76
20.01 - 30 hours	91.06	47.45
30.01 hours or more	100.84	71.93

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Table 3  
*Five Highest Reported Stressors*

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Stressor	Men	Women
Thought about unfinished work	4.00	4.58
Hurried to meet a deadline	3.42	4.06
Thought about the future	3.26	3.73
Unable to complete all tasks for the day	2.82	2.92
Had money problems	2.05	2.92

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