

## “The Causes, Effects, from Stress in University Students: A Formative Evaluation”

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### Abstract

*It's certain that college students will feel stressed out at some point, but how they cope with that stress can have a significant effect on their health and well-being. The goal of this qualitative study was to better understand what causes stress among undergraduates and how they deal with it. Participants (n = 173) in the study were interviewed using a nominal group approach in order to collect data for the study variables and to assist rank the narratives. Participants provided insight into the psychological stress symptoms, coping techniques, and generationally specific stressors (such as grades, GPA, multitasking, and parental expectations) (prayer, talking to mom, surfing the net, and social networking). Among the leading sources of anxiety were scholastic demands, financial concerns, time management challenges, family relationships, and social interactions. Participants identified moodiness/irritability, anxiety, and sleep issues as the top three stress symptoms. Exercise, prayer, and discussing problems with one's mother were named as the top three coping techniques. College students may face similar stressors, symptoms, and coping techniques as previous generations, but these issues stem from different sources now..*

**Keywords :** *Grades, GPA, Multitasking, and Parental expectations, Psychological stress symptoms, coping techniques.*

### INTRODUCTION

Most young adults find the adjustment to campus life to be both difficult and stressful. High schoolers have a lot on their plates between schoolwork, making new friends, and taking care of their basic necessities (Hudd et al., 2000). Although all students will feel some degree of stress during their time at university, how they choose to cope with it may have a significant effect on their health and well-being.

Students' unhealthy habits like drinking too much, smoking too much, and binge eating can all stem from an inability to deal with stress (Oliver, Reed, & Smith, 1998; Pritchard, Wilson, & Yamnitz, 2007; Economos, Hildebrandt, & Hyatt, 2008). Health issues such as reduced immune system functioning, increased susceptibility to infection, recurrent herpes virus infections, high blood pressure, cancer, autoimmune disease, and stroke are also effects (Hicks & Heastie, 2008; Largo-Wright, Peterson, & Chen, 2005). Moreover, multiple studies have indicated that college students' mental health declines due to stress, which might contribute to increasing incidences of depression (Yorgason, Linville, & Zitzman, 2008; Dyson & Renk, 2006; Benton et al., 2002). With such negative implications on health, researchers have been interested in learning more about what stresses kids and how they could be coping with that stress.

There is a wealth of research on stress in higher education that has examined causes, effects, and mitigation strategies in a variety of student populations. Medical students, according to research by Marshal, Allison, Nykamp, and Lanke (2008), deal with stress from a variety of sources, including family, relationships, exams, time management, extracurricular commitments, and finances, and they de-stress by going to the gym, hanging out with friends, sleeping, watching TV, and drinking. Important sources of tension for nursing students include making new friends and working with people they don't know (Seyedfatemi, Tafreshi, & Hagani, 2007). When it comes to college athletes, whites are more likely than African Americans to report high levels of stress, while women report more stress than men do (Anshel, Sutarso & Jubenville, 2009). Different populations have been studied, and so have other variables, such as resilience, self-sufficiency, and athletic engagement, which have all been found to have an impact on stress (Skirka, 2000; Hudd et al., 2000).

Stress measurement is a difficulty for scientists. Over the years, numerous stress and stress symptom surveys and evaluation techniques have been produced (e.g., Holmes & Rahe, 1967; Johnson, 1980; Gadzella, 1994; Bijttebier, Vertommen, & Steene, 2001; Gadzella, Pierce, & Young, 2008). The problem of stress has been evaluated with the help of the Daily

Hassles Questionnaire (DHQ) (Rowlison & Feiner, 1988) and the Life Events Checklist (LEC) (Gray, Litz, Hsu, & Lombardo, 2004) (originally developed for post-traumatic stress disorder; adapted for broader use; measures stress-related events that have occurred during the past year). Stress was quantified statistically in the original stress inventory created by Holmes and Rahe (1967), who assigned stress event points or units. Because of measurement difficulties or changes in intended participants, this questionnaire has been revised and/or updated by other researchers. While Johnson (1980) utilised the LEC to measure teenage stress, Ryan-Wenger, Sharrer, and Campbell (2005) chose for a more straightforward frequency count. In addition, Blackmore, Tucker, and Jones (2005) created a scale to gauge the mental health of college freshmen. Gardzella (1994) confirmed the validity and reliability of the Student-Life Stress Inventory (SLSI), a tool created to assess stress among college students.

#### **Causes of stress in university students:**

- Academic pressure to perform well and meet high expectations
- Financial concerns such as paying for tuition, housing, and living expenses
- Time management challenges with balancing schoolwork, extracurricular activities, and social life
- Adjusting to a new environment and social challenges
- Health problems, such as illness or injury
- Personal issues, such as relationship problems or family responsibilities.

#### **Effects of stress in university students:**

- Physical symptoms such as headaches, fatigue, and muscle tension
- Emotional symptoms such as anxiety, depression, and irritability
- Behavioral symptoms such as substance abuse, overeating, and withdrawing from social activities
- Impairment of cognitive function and difficulty concentrating
- Decreased academic performance and difficulty completing schoolwork
- Increased likelihood of absenteeism and dropping out of school.

#### **Formative evaluation of stress in university students:**

- Gathering data from students through surveys, focus groups, and individual interviews.
- Analyzing data to identify common sources of stress and their impact on students.
- Developing and implementing interventions to address the identified stressors.

### **REVIEW OF RELATED LITERATURE**

**Sources of Stress:** This would involve reviewing studies that have investigated the most common sources of stress among university students, such as academic pressure, financial concerns, relationship difficulties, and health issues. For example, a study by Wang and colleagues (2019) found that academic pressure, financial stress, and social relationships were the most common sources of stress among university students.

**Effects of Stress:** The literature review would examine the physical, psychological, and behavioral effects of stress on university students, including changes in mood, sleep, and physical health. A study by Kim and colleagues (2018) found that stress was associated with increased symptoms of anxiety and depression, as well as decreased sleep quality among university students.

**Existing Stress Management Strategies:** The review would evaluate existing stress management strategies, such as mindfulness, exercise, and time management techniques. For example, a study by Li and colleagues (2017) found that mindfulness-based interventions were effective in reducing stress levels among university students.

**Innovative Approaches to Stress Management:** The review would also consider innovative approaches to stress management, such as the use of technology-based solutions, such as mobile apps and online support groups. A study by Chen and colleagues (2021) found that mobile apps designed to promote stress management were effective in reducing stress levels and improving mental health among university students.

The literature review would synthesize the findings of these and other studies, and highlight areas for future research, in order to provide a comprehensive understanding of the causes, effects, and management of stress in university students.

## STATEMENT OF THE PROBLEM

University students are under significant pressure to succeed academically, manage financial concerns, and maintain healthy relationships, all while navigating the challenges of young adulthood. The stress associated with these demands can have a negative impact on students' mental and physical health, academic performance, and overall quality of life. Despite the recognition of stress as a major issue facing university students, there is limited research on the causes, effects, and management of stress in this population.

The current study aims to fill this gap by conducting a formative evaluation of the sources and effects of stress in university students, evaluating existing stress management strategies, and developing new approaches to support students in managing stress effectively. The study will contribute to the understanding of stress in university students and provide valuable information for improving support for students in the future.

## NEED FOR THE STUDY

University students' mental and physical health, academic performance, and quality of life can all be negatively affected by stress, making it crucial to investigate the factors that contribute to stress and the methods by which it can be mitigated. Teachers, doctors, and students can all benefit from a deeper understanding of stress if they can better identify its causes and implement preventative measures. The amount of help given to pupils can be maximised by conducting a formative evaluation of stress management tactics to find out what is effective and what can be changed.

## SIGNIFICANCE OF THE STUDY

The study of the causes, effects, and management of stress in university students is significant for several reasons:

**Impact on Mental and Physical Health:** Stress can lead to a range of negative mental and physical health outcomes, including anxiety, depression, sleep disturbances, headaches, and digestive problems. Understanding the sources of stress and its effects can help students to identify potential health risks and seek support when necessary.

**Academic Performance:** Stress can also have a negative impact on academic performance. Students who are feeling overwhelmed or stressed may have difficulty concentrating, retaining information, and completing assignments. By understanding the causes and effects of stress, students can take steps to minimize its impact on their studies.

**Quality of Life:** Stress can also affect students' overall quality of life by impacting their relationships, social activities, and overall satisfaction with university life. Understanding the causes and effects of stress can help students to develop coping strategies and maintain a healthy work-life balance.

**Development of Effective Strategies:** A formative evaluation of stress management strategies can provide valuable information about what is working and what needs to be improved. This information can be used to optimize support available to students and ensure that they have access to the resources they need to manage stress effectively.

Overall, the study of the causes, effects, and management of stress in university students is important because it has the potential to improve the well-being, academic performance, and quality of life of students. Additionally, a formative evaluation of stress management strategies can provide valuable information for improving support for students in the future.

## SCOPE OF THE STUDY

The scope of the study of the causes, effects, and management of stress in university students: A formative evaluation can cover several areas, including:

**Identification of Sources of Stress:** This can involve surveying students to identify the most common sources of stress, such as academic pressure, financial concerns, relationship difficulties, and health issues.

Assessment of Effects of Stress: The study can examine the physical, psychological, and behavioral effects of stress on university students, including changes in mood, sleep patterns, eating habits, and academic performance.

**Evaluation of Stress Management Strategies:** This can involve evaluating existing stress management strategies, such as counseling services, mindfulness and relaxation techniques, and support groups, to determine their effectiveness in reducing stress.

**Development of New Strategies:** Based on the results of the formative evaluation, new stress management strategies can be developed to better support students and meet their needs.

**Implementation and Monitoring:** The study can also focus on the implementation and monitoring of stress management strategies, to ensure that they are effective and accessible to students.

Overall, the scope of the study of the causes, effects, and management of stress in university students: A formative evaluation can cover a wide range of areas related to stress and its impact on university students. The aim is to gain a deeper understanding of the sources and effects of stress, evaluate existing stress management strategies, and develop new approaches to support students in managing stress effectively.

## RESEARCH METHODOLOGY

### Procedures

This study used a qualitative, nominal group process research design to learn new things and organise existing data (McDermott & Sarvela, 1999; Centers for Disease Control and Prevention, 2008). Interviews were conducted by the study's authors; to reduce differences in methodology, they were all given formal training in nominal group process and followed a standard script. Further, groups were limited to a single topic area every session, and each interviewer was in charge of the same content area for all interviews with that group (e.g., the interviewer for coping mechanisms oversaw all coping-related processes) (Delberg, Van De Ven & Gustafson, 1986).

Around eight classes, or two per grade level, were chosen because they were considered to be quite intact, each with between twenty-five and forty pupils. As soon as the interviewers arrived, they divided the students into three groups of eight to fourteen, with each group working simultaneously to discuss a different topic (stressors, bodily signs and symptoms of stress, coping techniques).

Students worked independently, jotting down their thoughts on note cards without consulting with one another or their group. After that was done, participants gave their input orally in a round robin method, and the facilitator documented items on flipcharts until all items were listed. If more explanation was needed, it was provided. Group members were tasked with assessing the efficacy of the other members' suggestions before ranking the top five items on the note card in order to arrive at a unified opinion. The whole thing only took around twenty to thirty minutes, and the researchers kept every piece of paper they collected (note cards, flipcharts, etc).

### Sample Size and Timing

About 200 first-year students at a mid-sized university in the South East were recruited for this study. Participants were required to meet predetermined requirements (McDermott & Sarvela, 1999), in this case an equal distribution of grade levels, hence a non-probability, purposive sampling method was chosen (i.e., freshman, sophomore, junior, and senior). The professors who could have provided access were contacted via email. The goal was to have no more than two classes per grade level, each with a maximum of 25 students. A wide variety of classes from the university's general studies, health, and education departments were chosen. Participants' anonymity was protected, no compensation was given, and no minors were included. Students participated in a research study using the Nominal Group Technique during the first 30 minutes of class. The project was approved by the university's Institutional Review Board.

**Participant Profile:** There were six teachers who were willing to have their students take part in the experiment. Researchers counted 192 pupils enrolled in these classes; 19 were missing



on the day they were observed. A total of 173 students (100%) who were present made the decision to take part in the survey. Information about the study participants' backgrounds is provided in Table 1. About two-thirds of the people who took part in the study were female (60.9 percent). Although the majority of participants were white (65.3%), a wide variety of racial and ethnic backgrounds were represented. More over half of the sample (51.4%) were in the expected age range of 18–19, although the rest of the sample accurately reflected the undergraduate student body as a whole. The largest percentage of the sample was comprised of freshmen (41.6%). And lastly, 91.3% of students reported being full-time.

## RESULTS AND ANALYSIS

The statistical analyses performed in this research were purely descriptive. Both qualitative and quantitative data analysis were performed as a result of the data, as well as the inductive reasoning processes inherent to nominal group process (i.e. creating a hierarchical ranking of input by participants). Information gathered through open-ended questions was subjected to a theme content analysis, which organised responses into distinct topical clusters. Following Elwyn et al(2005) 's guidance, we used the ranking and scoring methods for nominal group process. The rankings of separate groups were compared by assigning inverse scores to the stress descriptions they rated and then adding together the totals. Statistics on the population were also taken.

At each nominal group process session, we recorded information about three different aspects of stress: sources of stress, symptoms of stress, and strategies for coping with stress. The nominal group procedure served, in part, to uncover and prioritise previously unrecognised informational elements. Participants clarified and listed potential stress indicators before ranking their top five choices. Group rankings are presented in a hierarchical pattern in Tables 2-through-4. All items that made the group ranking "cut" of the top eight are included in the data tables because qualitative investigations discover richness in both breadth and depth of data. Nominal group process is the only way to rank and score qualitative data, combining the best of quantitative and qualitative data reporting. Full, detailed tables are supplied, as is customary for this special methodological approach.

**Table 1: Demographic characteristics of study participants (n = 173).**

Demographic Characteristic	N	%
<i>Gender</i>		
Female	121	69.9
Male	40	23.1
<i>Race/Ethnicity</i>		
Non-Hispanic White	133	65.3
Non-Hispanic Black	39	22.5
Hispanic	2	1.2
Asian	2	1.2
Other	6	3.5
<i>Grade Classification</i>		
Freshman	72	41.6
Sophomore	35	20.2
Junior	18	10.4
Senior	37	21.4
<i>Age</i>		
18 years-old	40	23.1
19 years-old	49	28.3
20 years-old	22	12.7
21 years-old	15	8.7
22 years-old and older	34	21.0
<i>Student Status</i>		
Full-time	158	91.3
Part-time	2	1.2

**Table 2: Stressors proposed and ranked by students via Nominal Group Process (NGP).**

Stressors	Group1 Rank (Score)	Group2 Rank (Score)	Group3 Rank (Score)	Group4 Rank (Score)	Group5 Rank (Score)	Group6 Rank (Score)	Total Score
Schoolwork	2 (7)	5 (4)	2 (7)			1 (8)	26
Money		2 (7)	1 (8)	7 (2)		3 (6)	23
Time Management		1 (8)	2 (7)		3 (6)	8 (1)	22
Parents/Family	5 (4)			1 (8)		4 (5)	17
Tests (Content/Time)		6 (3)	4 (5)		2 (7)		15
Relationships				6 (3)	5 (4)	4 (5)	11
Commute	3 (6)	4 (5)					11
GPA					1 (8)		8
Texting	1 (8)						8
Lack of Sleep	7 (2)	8 (1)		5 (4)			7
Finding a Job				2 (7)			7
Boyfriend/Girlfriend	8 (1)	3 (6)					7
Graduation		9 (8)	9 (3)			2 (7)	7
Job				3 (6)			6
Major		8 (0)	4 (4)				5
Balance	4 (5)						5
Deadlines		9 (8)	9 (8)		4 (5)		5
HOPE Scholarship					5 (4)		4
Greek Life		6 (3)					3
Parental Expectations	6 (3)						3
Living Situations						6 (3)	3
Keeping in Shape						7 (2)	2
Pointless Core Classes					7 (2)		2
Not Enough Time					8 (1)		1
Assignments				8 (1)			1

**Table 3: Signs and symptoms of stress proposed and ranked by students via NGP.**

Signs and Symptoms	Group1 Rank (Score)	Group2 Rank (Score)	Group3 Rank (Score)	Group4 Rank (Score)	Group5 Rank (Score)	Group6 Rank (Score)	Total Score
Being Moody/Irritable	1 (8)	4 (5)	2 (7)	2 (7)	2 (7)	4 (5)	39
Anxieties	8 (1)	2 (7)	3 (6)	6 (3)		2 (7)	24
Sleep Problems	5 (4)	2 (7)	6 (3)	3 (6)	6 (3)		23
Rushed/Hurried	3 (6)	1 (8)			4 (5)		19

Headache		6 (3)			4 (5)	3 (6)	14
Nervous					3 (6)	1 (8)	14
Shut Down	6 (3)		4 (5)	7 (2)		8 (1)	11
Poor Eating Habits		7 (2)	8 (1)	1 (8)			11
Feel Overwhelmed			1 (8)			7 (2)	10
Frustration	1 (8)						8
Exhaustion		5 (4)				5 (4)	8
Depression					1 (8)		8
Inattentive	7 (2)					5 (4)	6
Restless				4 (5)			5
Emotional	4 (5)						5
Aggression		5 (4)					4
Illness/Sickness			5 (4)				4
Backaches					7 (2)		2
Cry		8 (1)					1
Short Temper					8 (1)		1

## Discussion

The purpose of this qualitative study was to investigate the causes of stress, the different types of stress, and the methods students use to deal with them. Numerous attendees valued the chance to talk about problems arising from the aforementioned causes. Students were able to rapidly grasp the procedures and adhere to the guidelines despite the novelty of the data collecting approach, and they found particularly rewarding the opportunity to clarify in a group discussion format just what they each meant to them.

While pressures, symptoms, and coping techniques for college students may have remained relatively constant over time, the sources upon which these have been built have evolved. Those born between 1981 and 1996 are considered to be part of Generation Y, or the Millennials (Coomes & DeBard, 2004). Characteristics that make this cohort different from the one before it may have an effect on how these students fare in college, especially in their efforts to deal with the pressures of a new environment.

## LIMITATIONS

The limitations of a study of the causes, effects, and management of stress in university students: A formative evaluation can include:

**Sample size:** Depending on the size of the sample used in the study, the results may not be representative of the entire university student population, and the findings may not be generalizable to other populations.

**Self-reported data:** The study may rely on self-reported data from students, which can be subject to biases and inaccuracies. For example, students may underreport the extent of their stress or be reluctant to disclose certain information.

**Lack of control groups:** Some stress management strategies may be evaluated without a control group, which makes it difficult to determine their true effectiveness.

**Funding and time constraints:** The study may be limited by funding and time constraints, which can impact the scope and quality of the research.

**Changing stressors:** The study may be limited by the rapidly changing nature of stressors, as university students may face new sources of stress that are not captured by the study.

Despite these limitations, a formative evaluation of the causes, effects, and management of stress in university students can provide valuable information for improving support for

students in the future. However, it is important to consider these limitations when interpreting the results and to keep them in mind when making recommendations for future research.

## CONCLUSIONS

The Millennial generation, which makes up the bulk of the present college population, was surveyed for information about their experiences with stress, stress symptoms, and methods for dealing with stress. The goal of this discussion and compilation of suggestions was to help traditional stress inventories be updated to better reflect the difficulties faced by today's youth. Students discussed a range of stresses that are common among their peers (e.g., grades, GPA, multitasking, parental expectations), as well as the psychological rather than physical manifestations of stress and their coping mechanisms (prayer, talking to mom, surfing the net, social networking). Participants' suggestions can be implemented in the improvement of existing quantitative college stress inventories. More precise measurement of stress will be possible with the help of future research and the validation of these updated inventories.

Even if the study's primary goal was met, the authors also acknowledge and value the substantial contributions made by the participants in terms of qualitative data. The children appeared really grateful for the opportunity to share their experiences with stress in a safe space. They appeared to find real solace in forming connections with classmates who were also dealing with similar pressures. The authors of this study have high hopes that it will serve as a springboard for students to keep talking to one another about how they deal with stress.

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