



# Effect of Psychological Stress on the General Health of Young Adult Girls

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## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

## Article Information

DOI: <https://doi.org/10.9734/acri/2024/v24i10902>

## Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/123676>

**Original Research Article**

**Received: 24/07/2024**  
**Accepted: 28/09/2024**  
**Published: 01/10/2024**

## ABSTRACT

Stress is a condition of anxiety or mental fatigue brought on by difficult situation. Stress is prevalent among young girls. Psychological stress has been shown to have a significant effect on general health, particularly in young adults traversing a challenging stage of life marked by emotional, social, and intellectual obstacles. Young adult girls (ages 18 to 25) should pay special attention to this since they experience particular stressors from burgeoning careers, social expectations, body image concerns, and scholastic constraints. Given that stress has been connected to both physical and mental health issues, it is imperative that they comprehend how these stressors are affecting

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**Cite as:** Anjali, Zeba Jamal, Prachi Shukla, and Akanksha Singh. 2024. "Effect of Psychological Stress on the General Health of Young Adult Girls". *Archives of Current Research International* 24 (10):1-7. <https://doi.org/10.9734/acri/2024/v24i10902>.

their overall health. This study aims to explore the effects of psychological stress on the general health of young adult girls by examining the relationship between stress levels and various health outcomes. The present study investigates the effects of mental stress on the general health of young adult girls. The study conducted in the Month of April-May 2024. Insight of the Study Data collection from 100 respondents (girls) from Acharya Narendra Deva University of Agriculture & Technology were gathered from a varied sample of young girls using a self-structured questionnaire (Google form). Descriptive research design was opted for the study. The study shows that 85% of girls get stressed and 46% of respondents suffer stress from career or family pressure. Sleeping (33%) is the major activity that is performed for the release of stress. 31% of girls suffer from irregular periods due to stress. The study also find that the diet of the respondents was also a major concern. The study concluded that there is significant relationship between mental stress and the health of young adult girls. Mental stress can be controlled through regular meditation and good sleeping patterns.

*Keywords: General health; mental stress; young adult girls.*

## 1. INTRODUCTION

Stress is defined as a condition of anxiety or mental fatigue brought on by difficult situations. It is a typical human response intended to inspire people to face and overcome obstacles and difficulties they may experience on a daily basis. In general, everyone suffers stress to varied degrees. Still, a person's general health and well-being are greatly impacted by how they handle stress (WHO, 2023). Stress is a physiological response to high expectations, whether they are the result of happy or negative events. The body produces hormones into the bloodstream in reaction to triggers, which increases strength and energy levels. This reaction can be useful in situations where there is activity required. In contrast, it may be harmful in situations with strong emotions and no physical means of releasing out stored energy. The discussion will cover the different sources of stress, how it affects people, how to distinguish between "positive" (stress) and "negative" (distress) stress, and common information on how stress affects people in the modern world. When people are under positive stress, they are more motivated to give it their all and perform better than when they are not. Positive aspects of stress include focused energy that is motivating. Positive stress is a coping strategy that makes things exciting and enhances performance on a physical and mental level. The antithesis of positive stress is known as negative stress. A feature of negative stress is anxiety which brought on by negative stress. Feels bad reduces performance as well as endurance may result in issues that are both mental and physical. Stress has a negative effect on the body and the mind. Stress in limit can be beneficial and even useful in carrying out daily

tasks. Problems with mental and physical health can result from excessive stress. Acquiring coping skills can alleviate feelings of overwhelm and promote both our mental and physical health. Stress affects ability of relaxation and may cause a variety of negative emotions, such as fear and frustration. Stress can make it harder for us to focus. One can feel queasy or unable to sleep, or we might get headaches or other body pain. Sometimes we experience appetite loss or excessive consumption in food. Prolonged stress could worsen pre-existing medical conditions and lead to a rise in alcohol, tobacco, and other drug consumption. Stressful circumstances can also lead to or worsen mental health issues, the most frequent of which are anxiety and depression, which call for medical attention. When experience mental health issues, it could be because our stress symptoms have gotten worse and are interfering with our day-to-day activities, such as going to work or school. Stress is normal under demanding circumstances like job interviews, exams, excessive workloads, unstable employment, or disagreements with family, friends, or coworkers. Many people experience a decrease in stress as things get better or as they develop emotional coping mechanisms. Events like significant economic downturns, disease outbreaks, natural disasters, war, and acts of communal violence can result in high levels of stress. Stress, defined as the physical and mental response to an out-of-balance situation, is one of the conditions that can jeopardize our mental and physical health [1]. Stress can impact individuals of any age, gender, educational level, or socioeconomic status [2]. Youth are the leaders of the future generation, in charge of the country and contributing to its economic development, but their performance and lives are impacted by a

variety of mental pressures, including academic pressure, social pressure, and the pressure to land a good job with a competitive salary, among other things. They become stressed out by working too hard or staying up too late to complete tasks, overanalyzing, and exaggerating every circumstance. These behaviors have a terrible impact on their life. Several factors such as inadequate sleep, difficulties at school and at work, stress, and pains brought on by all of these circumstances, contribute to their poor health. According to WHO [3], mental health is a condition of well-being in which a person recognizes their capacity to manage everyday stressors, engage in fruitful and productive employment, and give back to their community.

Many adolescent girls suffer from a range of mental health issues, such as anxiety, depression, eating disorders, adjustment problems, and addictive behaviors. According to data from the Centers for Disease Control and Prevention, one in five children between the ages of six and seventeen suffers from a mental illness each year [4]. There are various types of stress, including acute, episodic, and chronic stress. Acute stress is a typical type of brief stress that happens [5]. It is brought on by persistently contemplating the stresses of current or impending circumstances or occurrences. Stress will naturally decrease or disappear if the issues are resolved [6]. Many different variables, including psychological, mental, emotional, physical, and other kinds, are used to measure stress [7]. Unhealthy environments, which might stem from unforeseen childhood events and last a lifetime, are typically the source of stress. Unmanaged stress can be a contributing factor to a number of health issues, including heart disease, high blood pressure, diabetes, obesity, and more. Some physical symptoms of stress include headache, chest pain, exhaustion, muscle tension or pain, changes in sex drive, upset stomach, and difficulty sleeping.

The aim of this research is to investigate the impact of psychological stress on the overall health of young adult girls by analysing the correlation between stress levels and different health outcomes. Through the identification of important stressors and their effects, the study aims to offer valuable insights into the processes by which stress influences health and to guide the creation of focused interventions to assist this susceptible group. Knowledge of these dynamics is crucial for encouraging healthier lifestyle choices and enhancing the mental and physical health outcomes of young adult girls.

## 2. OBJECTIVES

- 1) To assess the causes of stress in young adult girls.
- 2) To analyze the relationship between health issues and stress in young adult girls.

## 3. REVIEW OF LITERATURE

Sontag et al. [8] conducted the study on Coping with Social Stress: Implications for Psychopathology in Young Adolescent Girls. The Study investigated Responses to stress mediated the association between social stress and symptoms of internalizing distress and aggression. Specifically, early maturers and girls with higher levels of peer stress exhibited more problematic responses to stress, in turn demonstrating higher levels of internalizing distress and aggression. Significant moderation effects also emerged. Early maturers, who experienced higher levels of emotional/cognitive numbing in response to peer stress were at greater risk for aggression. Findings identifying coping strategies that may be used in evidence-based programming to help girls transition more successfully into adolescence will be discussed.

Hoseini-Esfidarjani et al. [9] conducted study on satisfaction with life, depression, anxiety, and stress among adolescent girls in Tehran: a cross-sectional study. This study revealed More than half of the adolescents experienced common symptoms of depression, anxiety, and stress. About 30% of adolescents were dissatisfied with life to some extent. Satisfaction with life was negatively correlated with age, depression, anxiety, and stress. Age and depression were predictor variables of life satisfaction based on the regression model.

Thomé et al. [10] conducted a study on mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults - a prospective cohort study. This study concluded there were cross-sectional associations between high compared to low mobile phone use and stress, sleep disturbances, and symptoms of depression for men and women. When excluding respondents reporting mental health symptoms at baseline, high mobile phone use was associated with sleep disturbances and symptoms of depression for the men and symptoms of depression for the women at 1-year follow-up. All qualitative variables had cross-sectional associations with mental health outcomes. In prospective analysis, overuse was

associated with stress and sleep disturbances for women and high accessibility stress was associated with stress, sleep disturbances, and symptoms of depression for both men and women.

#### 4. MATERIALS AND METHODS

**Research Design-**The research design was descriptive in nature.

##### Phase-wise plan of work:

**Step I:** Framing of objectives, designing of tools and identification of sample

**Step II:** Collection of data from the selected sample

**Step III:** Analysis of data and report writing.

**Area of the study -** The present research work has been selected in the girl's hostel, Acharya Narendra Deva University Agriculture Technology, Kumarganj, Ayodhya district of eastern Uttar Pradesh.

**Sample size-** The sample comprised of young adult girl in the age range of 17 to 25 years. The total number of sample size is 100. The sample was chosen using random sampling method.

##### Study of variable-

- 1) Dependent Variables-Health
- 2) Independent Variables- Stress

**Tool and technique-** The data collection was done using the questionnaire method. Data was collected via Google Forms.

**Analysis and interpretation of data:** Appropriate analysis of the collected data was applied by using frequency distribution and chi-square and interpreting the data accordingly.

#### 5. RESULTS

Table 1 indicates that 59% of respondents belonged to nuclear families followed by 41% as joint families. The majority of the respondents (78%) of girls live in hostels and the remaining 25 % are day scholars. More than half (60%) of girls fall under the 22-25 years of age group followed by 21% (20- 21 years), 13% (19- 20 years) and 6 % (18-19 years). 46% were graduates followed by 30 % post-graduates and 24 % were research scholars. 86 % of respondents possess the relationship status as single and 14 % are married. 35% respondents had highest body weight and 58% of respondents take balanced diet. 75% of girls liked junk food and 67% intake of junk food in their diet.

**Table 1. Distribution of the general information & eating habits**

Particulars	Category	Frequency
Types of family	Joint family	41 (41%)
	Nuclear family	59 (59%)
Residential status	Hostel	78 (78%)
	Day scholar	22 (22%)
Age	18- 19	6 (6%)
	19-20	13 (13%)
	20-21	21 (21%)
	22-25	60 (60%)
Education	Graduation	46 (46%)
	Post Graduation	30 (30%)
	Ph.D.	24 (24%)
Marital status	Married	14 (14%)
	Single	86 (86%)
Body weight	38-40	10 (10%)
	40-45	18 (18%)
	45-50	25 (25%)
	50-60	35 (35%)
	60- above	12 (12%)
Intake of balanced diet	Yes	58 (58%)
	No	42 (42%)

Particulars	Category	Frequency
Frequency of taking balanced diet	Daily	4 (4%)
	Twice a week	7 (7%)
	Four times a week	5 (5%)
	Once a week	84 (84%)
Liking of junk food	Yes	75 (75%)
	No	25 (25%)
Intake of junk food	Yes	67 (67%)
	No	33 (33%)
Frequency of intake of junk food	Daily	8 (8%)
	Twice a week	20 (20%)
	Once a week	24 (24%)
	Sometimes	48 (48%)

N=100

**Table 2. Distribution of respondents based on mental stress, reason & coping mechanism**

Particulars	Category	Frequency
Are you feeling Stressed	Yes	85 (85%)
	No	15 (15%)
If yes then	College Work	22 (22%)
	Career or Family Pressure	46 (46%)
	Having Problem with Friend	8 (8%)
	Study of Pressure	15 (15%)
	Economic Condition	8 (8%)
The kind of activity you perform releases the stress	Mediation	13 (13%)
	Listening music	30 (30%)
	Sleeping	33 (33%)
	Cooking	16 (16%)
	Dance	5 (5%)
	Singing	3 (3%)
Do your friends support you in the stress situation	Yes	91 (91%)
	No	9 (9%)
Your periods are regular	Regular	69 (69%)
	Irregular	31 (31%)
Physical activities	Yes	90 (90%)
	No	10 (10%)
Performance physical activity	Walking and running	66 (66%)
	Swimming and jumping	4 (4%)
	Mediation	23 (23%)
	Cycling	6 (6%)
How often do you physical performance	Daily	6 (6%)
	Twice a week	4 (4%)
	Once a week	66 (66%)
	Sometimes	23 (23%)
Sleeping time	9-10	4 (4%)
	10-11	14 (14%)
	11-12	31 (31%)
	12-1	27 (27%)
	1- above	23 (23%)
Sleeping hour in a day	3-4	7 (7%)
	4-5	13 (13%)
	5-6	40 (40%)
	6-7	26 (26%)
	7-8	14 (14%)

**Table 3. Relationship between mental stress and health**

Mental stress	$\chi^2$	Critical value	Degree of Freedom	Level of significance
Health	13.706	5.991	2	0.05

*A chi-square test was performed to examine the impact of mental stress on health. N=100  
 Since the chi-square value 13.706 is greater than Chi-Square Critical Value (at DF=2,  $\alpha=0.05$ ): 5.991 this indicates that there is significant association between mental stress and health of the respondents*

Table 2 shows that most of the respondents (85%) accepted that they were getting stressed whereas very felt 15 % were not getting stressed. Sleeping (33%) is the major kind of activity that is performed for the release stress by listening to music 30%, cooking 16% dancing 5% and singing 3%. The majority of respondents (91%) of respondents say that friends support in stressful conditions. Most of the respondents (69%) had regular periods, and 31% had Irregular periods. According to the report, (91%) of respondents say that friends support in stressful conditions, 9% were not supported. Major responded (90%) of adult girls were doing physical activity, and 10 percent were not doing physical activity. The Table 2 explains that 66% were walking & running and 23% were in meditation, 6% were in cycling, and 4% were swimming & jumping. Finding of the Table 2 show that doing physical activity performance 66% once a week, 23% sometimes, 6% were daily, 4% were twice a week respectively. Responded that most of the respondents 31% were girls sleeping time in 11-12. Majority of the respondents (40%) were girls sleeping hours in the day respectively.

**6. MAJOR FINDINGS**

- The findings of the study show that 85% of girls get stressed and 46% of respondents suffer stress from career or family pressure.
- Sleeping (33%) is the major activity that is performed for the release of stress by listening to music (30%), cooking (16%), dancing (5%) and singing (3%).
- Key findings are that only 69% of girls got regular periods remaining 31% of girls suffer from irregular periods. This may be due to mental stress.
- A balanced diet is also a major issue, only 58% of respondents took balanced and healthy diets.
- 75% of girls liked junk food and 67% took in their diet is also a major issue. This negatively affects the health of the girls.
- A significant association between mental stress and health ( $\chi^2=13.706, p<0.05$ ).

**7. DISCUSSION**

Young adults remain engaged in research studies examining the health and psychological impact on health. This study found that career and family pressure among young adult’s girls are affected by irregular periods. This may be due to psychological stress. Thus, adolescence is stress and psychological wellbeing [11], family school was shown among the peer [12]. The present study on the impact of irregular menstruation on health. Therefore, an important health indicator among women. Physical, mental, social, psychological are often associated with menstruation irregular.

**8. CONCLUSION**

This study indicates how young adult girls get stressed which affects their health. The majority of career and family pressure is responsible for stress in girls. Irregular periods and duration of sleep are affected by mental stress. Reduction in junk food and effectively helping and supporting young adult girls in accomplishing their academic and personal goals are important for stress-free living. Increasing time for physical activity also helps in stress-free living. Stress-free living helps in peaceful sleeping and regular periods.

Based on the study's conclusion, which highlights the impact of career and family pressures on young adult girls' stress levels and its subsequent effects on their health, the following recommendations are proposed:

- Address Career and Family Pressures
- Promote Regular Sleep Patterns
- Encourage Healthy Eating Habits
- Support Academic and Personal Goal Achievement
- Increase Physical Activity
- Enhance Emotional Support
- Integrate Stress Management into Daily Routines
- Monitor and Evaluate Stress Reduction Strategies

By addressing career and family pressures, promoting healthy lifestyle choices, and providing comprehensive support, we can help young adult

girls manage stress more effectively, leading to better overall health, including improved sleep patterns and regular menstrual cycles.

### DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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*Peer-review history:*  
The peer review history for this paper can be accessed here:  
<https://www.sdiarticle5.com/review-history/123676>