



ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING STRESS-RELATED HAIR FALL AMONG NURSING STUDENTS IN SELECTED NURSING COLLEGES, MANGALURU

KEY WORDS:

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ABSTRACT

Hair fall also known as hair loss is a distressing experience, impacting self-esteem and confidence. It is reversible, managing by meditation, yoga and deep breathing. Stress is a ubiquitous and insidious force that affects individuals from all walks of life. Stress, in psychology, is emotional strain and pressure, considered a form of psychological pain. Chronic stress increases the risk of various health issues, including depression, anxiety, digestive problems, and sleep disturbances. It has also been associated with hair loss for a long time, although the exact reasons were not clearly understood. Major known effects of stress is hair fall. It can be diagnosed and managed. The goal of the study was to assess the knowledge of nursing students in hair fall due to stress. This Cross-Sectional Descriptive Design study aims to assess the knowledge regarding stress related hair fall among nursing students in selected nursing colleges, Mangaluru. The sample consisted of 90 first year BSc nursing students selected by convenient sampling method. Data were collected by structured knowledge questionnaire on hair fall due to stress. Data was analyzed using descriptive and inferential statistics. The result of the study shows that, the mean age of students was 18.24 ± 1.099 . Majority of respondents were 1st years 100% (90). Majority of 75.6% students were below 18 years. 55.6% have previous knowledge about hair falls due to stress. Half of the respondent 64 (71%) had average level of knowledge, 18 (19%) had a poor level of knowledge and 8 (10%) had good level of knowledge regarding hair fall due to stress. There was no significant association between baseline variables and knowledge scores regarding hair fall due to stress at 0.05 level of significance hence research hypothesis H1 was rejected and null hypothesis H01 was accepted that there will be no significant association between knowledge regarding hair fall due to stress and baseline variables. **Interpretation and Conclusion:** The result of this study reveals that among 90 participants (first year BSc nursing students) majority of students have average knowledge regarding hair fall due to stress.

INTRODUCTION

Hair is a protein filament growing from follicles in the dermis, a key characteristic of mammals. The human body is mostly covered with follicles producing thick terminal hair and fine vellus hair, except in areas of smooth (glabrous) skin. Hair primarily consists of the protein alpha-keratin and is valued not only for its growth and types but also as an important biomaterial.¹

Hair loss, or alopecia, involves losing hair from areas of the head or body, often affecting the head. The extent can range from a small patch to widespread loss, usually without inflammation or scarring. It can cause psychological distress in some individuals.²

Stress, in psychology, is emotional strain and pressure, considered a form of psychological pain. While small amounts of stress can boost athletic performance, motivation, and environmental responses, excessive stress increases risks of strokes, heart attacks, ulcers, depression, and worsens existing conditions.³

Chronic stress increases the risk of various health issues, including depression, anxiety, digestive problems, and sleep disturbances. It has also been associated with hair loss for a long time, although the exact reasons were not clearly understood.⁴

Hair care is essential not only for appearance but also for overall hygiene. Healthy hair helps you look your best and keeps both hair and scalp in good condition. Poorly maintained hair can develop split ends, frizz, and dryness, which is unhealthy and can harm self-confidence. Proper hair care offers many benefits, supporting hygiene and boosting self-esteem. Additionally, maintaining hair well can help prevent premature hair loss, promoting hair longevity.⁵

Hair loss has various causes, with heredity being the most common for both men and women. Men experience male pattern hair loss, while women experience female pattern

hair loss. Aging also contributes, as hair growth slows and follicles eventually stop producing hair, leading to scalp thinning.⁶ Acute stress can enhance the immune system, but chronic stress suppresses and over-activates it, causing inflammation. Prolonged stress may inflame hair follicles, disrupting their function through hormones like cortisol and corticotropin-releasing hormone.⁷

A cross-sectional study was conducted to evaluate the prevalence of hair loss in the general population and examine the relationship between stress and hair loss in males and females of all ages from various communities. Out of 456 invited individuals, 424 participated, including 236 males and 188 females. Stress levels were measured using the 14-item Sheldon Cohen Perceived Stress Scale (PSS-14), and hair loss was assessed by the Hair Pull Test. Stress scores were categorized as low (0-18), moderate (19-36), and high (37-56). Results showed 15.8% had low stress, 65.8% moderate, and 18.3% high stress. Excessive hair loss was observed in 9.9% of participants, more common in males (12.7%) than females (6.3%). Among males, hair loss occurred in 7.5% with low stress, 9.8% with moderate stress, and 32% with high stress. In females, hair loss rates were 3.7%, 5.9%, and 9.0% respectively. The study concluded that hair loss is twice as prevalent in males and strongly linked to stress levels.⁸

A global study involving 1382 medical students assessed their knowledge of hair loss. Findings showed that in males, hair loss was mainly linked to aging, while in females, stress was the primary factor. Many participants had experienced hair loss for over a year, and most reported a negative impact on their self-esteem and mental well-being. The study concluded that stress and various health issues were key causes of hair loss among both foreign and local medical students. It highlighted that a significant number of medical students worldwide suffer from hair loss, emphasizing the need for effective prevention methods. The study found hair fall prevalence at 60.3%, dandruff at 17.1%, baldness at 50.45%, and greying in men aged 18-35 at 37.97%.⁹

Problem Statement
 A Descriptive Study to Assess the Knowledge Regarding Stress-Related Hair Fall Among Nursing Students in Selected Nursing Colleges,Mangaluru

Objectives of the Study
 1. To assess the level of knowledge regarding stress-induced hair fall among nursing students.
 2. To determine the association between the level of knowledge and selected demographic variables among nursing students.

Assumption of Study
 Study assumes that, nursing students may have knowledge regarding stress related hair fall.

Hypothesis of Study
H₁: There is a significant association between the knowledge regarding stress-induced hair fall among nursing students and their selected demographic variables.

MATERIALS AND METHODS USED
Research Approach: The researcher employed a non-experimental research design.
Research Design: In This Study, Descriptive Cross Sectional Research Design was
Setting: The study was conducted among nursing students in selected nursing College,Mangaluru
Population: In the present study, the population where 1st year BSc Nursing students who were studying in various colleges of Mangaluru.
Sample Size: The sample in this research study includes 90 first-year BSc Nursing students from a selected nursing college in Mangaluru.
Sampling Technique: In this study the participants which inclusion criteria were selected through the suitable sampling technique.

DESCRIPTION OF TOOL
 The tool in the study consists of 2 parts
 Data collection instrument are;
 Part 1 - A structured knowledge questionnaire
 Part 2 - Demographic Performa

Plan of Data Analysis
 • Data will be analyzed using descriptive and inferential statistics.
 • Descriptive statistics such as frequency and percentage to find the baseline characteristics
 • Mean and mean % would be calculated to find the knowledge on hair fall due to stress
 • The chi square test would be done to determine the relationship between knowledge and readiness and selected baseline variables among nursing students.

Organization Findings
 Section 1: Baseline characteristics of nursing students
 Section 2: Knowledge regarding hair fall due to stress among nursing students
 Section 3: Association between knowledge and baseline variables

Section 1 :Baseline Characteristics of Nursing Students
Table 1 : Distribution of Samples According to Baseline Performa

Sl NO.	BASILINE VARIABLES	F	%
1.	Age (in years)	Mean age=18.24 ± 1.099	
	a. ≤ 18 years	68	75.6
	b. ≥ 19 years	22	24.4
2.	Gender		
	a. Male	15	16.7
	b. Female	75	83.3

3.	Academic year		
	a. First year	90	100
	b. Second year	0	0
	c. Third year	0	0
4.	Previous knowledge on hair fall		
	a. Yes	50	55.6
	b. No	40	44.4
5.	Education of mother		
	a. Primary	4	4.5
	b. Upper primary	3	3.3
	c. High school	37	41.1
	d. Higher secondary	46	51.1
6.	Education of father		
	a. Primary	5	5.6
	b. Upper primary	4	4.4
	c. High school	49	54.4
	d. Higher secondary	32	35.6
7.	Type of water source		
	a. Well	17	18.9
	b. Bore well	14	15.5
	c. Pipe line	53	58.9
	d. Others	6	6.7

Table 1 shows the samples mean age was 18.24 ± 1.099 years. Among 90 respondents, 16.7% (15) were male, and 83.3% (75) were female. All respondents (100%) were first-year students. About 4% (4) reported no prior knowledge of hair fall due to stress, while 55.6% had previous knowledge. For water sources, 18.9% (17) used well water, 15.5% (14) used bore well, 58.9% (53) used pipeline water, and 6.7% (6) used other sources like river or chlorine-treated water.

Section 2: Knowledge Regarding Hair Fall Due To Stress Among Nursing Students N=90

LEVEL OF KNOWLEDGE REGARDING HAIR FALL DUE TO STRESS

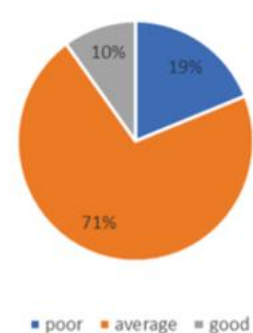


Figure 2: Distribution of Samples According to Knowledge Regarding Hair Fall Due to Stress.

Figure 2 Shows that the majority of respondents, 64 (71%), had an average level of knowledge about hair fall due to stress. Meanwhile, 17 (19%) had poor knowledge, and only 9 (10%) demonstrated a good level of knowledge on the topic.

Section 3: Association Between Knowledge and Baseline Variables

Table 4.1: Association Between Knowledge Scores on Hair Fall Due to Stress and Baseline Variables

Baseline Variables	M≤13	M≤13	Chi- Square	p value
1. Age in years	Mean age =18.24 ± 1.099		1.2419	0.2651
	≤18 years	34	34	
	>18 years	18	8	
2. Gender			2.892	0.088
Female	37	38		
Male	11	4		

3. Previous knowledge on hair fall due to stress			5.805	0.015
Yes	21	29		
No	27	13		
4. Education of Mother			0.3347	0.5629
Primary	2	2		
Upper primary	1	1		
High school	21	16		
High secondary	24	22		
5. Education of Father			1.5703	0.21016
Primary	4	1		
Upper primary	2	2		
High school	28	21		
High secondary	14	18		
6. Source of Water			0.1262	0.72241
Others	3	3		
Well	10	7		
Borewell	34	9		
Pipeline	26	27		

Table 4.1 Indicates no significant association between baseline variables and knowledge scores about hair fall due to stress at the 0.05 significance level. As a result, the research hypothesis (H_1) was rejected, and the null hypothesis (H_{01}) was accepted, meaning there is no significant link between knowledge of hair fall due to stress and baseline variables.

DISCUSSION

Section 1 : Baseline Characteristics of Nursing Students

In this study, the ages of the students ranged from 17 to 24 years, with a mean age of 18.24 ± 1.099 . There were 90 respondents, with 55.6% (50) having prior knowledge about hair fall due to stress. Most respondents were female, representing 83.3% (75), and males made up 16.7% (15).

These findings are consistent with a study from Dow Medical College that evaluated stress prevalence and its connection to hair fall among female medical students aged 18-24. In that study, 375 female students participated; 4.0% (15) had mild stress, 80.8% (303) had moderate stress, and 15.2% (57) had high stress. Both studies share the common age range of 18-24 years¹⁰.

Section 2: Knowledge Regarding Hair Fall Due to Stress Among Nursing Students

In the present study, 71% of first-year B.Sc. Nursing students demonstrated an average level of knowledge about hair fall due to stress, 19% had poor knowledge, and 10% had good knowledge.

These findings align with a community-based study conducted among 151 participants in Mumbai, which also showed that the majority had average knowledge regarding hair fall due to stress¹¹.

Section 3 : Association Between Knowledge and Baseline Variables

In the present study, no significant association was found between knowledge and baseline variables at the 0.05 level of significance, leading to the rejection of the research hypothesis.

This finding aligns with a study conducted in Lahore, Pakistan, which also found an insignificant association between hair loss and stress. Comparing these studies shows a consistent lack of significant association between knowledge and baseline variables¹².

SUMMARY

Stress is common phenomenon in today's fast-paced world and it has far-reaching consequences on our physical and

mental well-being. One of the major known effects of stress is hair fall. The good news is stress-related hair fall is reversible. By managing stress through relaxation techniques like meditation, yoga and deep breathing techniques.

In the present study:

- The mean age of students was 18.24 ± 1.099 years.
- All respondents (100%, 90) were first-year students.
- The majority (75.6%) of students were under 18 years old.
- 55.6% had previous knowledge about hair fall due to stress.
- Most respondents (71%, 64) had an average level of knowledge, 19% (18) had poor knowledge, and 10% (8) had good knowledge about hair fall due to stress.
- There was no significant association between baseline variables and knowledge scores regarding hair fall due to stress at the 0.05 significance level. Therefore, the research hypothesis (H_1) was rejected, and the null hypothesis (H_{01}) was accepted, indicating no significant association between knowledge and baseline variables.

The Conclusions Drawn are

There are several the underlying types of hair loss caused by stress and understanding the underlying cause can help you prevent future occurrences. Although the need for education of hair falls due to stress is relevant for nurses.

In the Present Study:

- The mean age of students was 18.24 ± 1.099 years.
- All respondents (100%, 90) were first-year students.
- The majority (75.6%) of students were under 18 years old.
- 55.6% had previous knowledge about hair fall due to stress.
- Most respondents (71%, 64) had an average level of knowledge, 19% (18) had poor knowledge, and 10% (8) had good knowledge about hair fall due to stress.
- There was no significant association between baseline variables and knowledge scores regarding hair fall due to stress at the 0.05 significance level. Therefore, the research hypothesis (H_1) was rejected, and the null hypothesis (H_{01}) was accepted, indicating no significant association between knowledge and baseline variables.

Limitations of the Study

1. The study was limited to first-year B.Sc. Nursing students studying in selected nursing colleges of Mangalore.
2. The sample size was limited; therefore, the findings may not be generalized to all nursing students.
3. The study was confined to selected colleges only, which may limit the external validity of the findings.
4. The study assessed only the knowledge regarding stress-induced hair fall and did not evaluate actual practices or clinical conditions related to hair fall.
5. Data collection was based on self-reported responses, which may be influenced by response bias or inaccurate reporting.
6. The study was conducted within a limited period of time, restricting extensive observation and follow-up.

SUGGESTION

- This study could be done on general nursing students.
- More research is needed to elicit the knowledge and baseline variables regarding hair fall due to stress.

Recommendation of the Study

- A comparable study may be replicated among General Nursing and Midwifery (GNM) students to obtain more reliable and comprehensive findings.
- Further research is needed to assess the knowledge and selected baseline variables related to stress-induced hair fall among nursing students.
- A comparable study may be conducted with a larger sample size to improve the validity and generalizability of the findings.

- A comparative studies may be carried out among students of different academic disciplines to identify variations in knowledge regarding stress-induced hair fall.
- Studies may be undertaken in different geographical settings and educational institutions to obtain broader perspectives on the issue.
- An interventional studies may be conducted to evaluate the effectiveness of structured teaching programmes on stress management and prevention of hair fall.
- Further research may be conducted to assess the relationship between stress levels and severity of hair fall among students.

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