

Prevalence of Stress and its Relation to Hairfall Among Dental Students

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Abstract: **BACKGROUND:** Our study makes an effort to achieve interrelation between stress and hairfall among dental students. This study has not been done before on dental students, Telangana.

METHODS: A cross sectional study was conducted on dental students. The study group includes all the students who are willing and are given consent. Students were instructed not to shampoo for 24 hrs before the hair pull test, and asked to fill questionnaire on perceived stress scale (PSS). Considering the scores of PSS, students were graded as mild, moderate & high stress subjects.

RESULTS: A total of 204 students took part in this study, the results of stress test showed that 74.5% has low stress, 25.5% has moderate stress and 0% high stress among dental students.

CONCLUSION: High stress is not significant among dental students, but hairfall was seen in ample number of students. No significant correlation is found between stress and hairloss among dental students.

Keywords: stress, hairfall

1. Introduction

Hair is one of the salient characteristic of humans and has an invincible importance in personality. People have variable amount of hair on their head ranging from 100,000 to 150,000. On an average 50-100 strands of hair are normally lost in a day [2]. If this limit is exceeded, it is considered as alopecia or balding [2], [3]. Several factors effect hair loss like stress (telogen effluvium), female pattern hair loss (FPHL is a scarring diffuse hair loss and hair thinning in a pattern fashion), Alopecia areata (spot baldness), skin disorders(lupus), hormonal changes, excessive hair styling [2], [4].

Stress is the primary cause of hair loss and it also leads to various other disturbances like loss of sleep, loss of appetite and hormonal imbalances. High stress initiates telogen (fall out) phase this pertains to hair loss. Severe stressful events like child birth, major surgery, severe emotional stress lead to hair loss [2]-[5].

High level stress and its relation to hair fall, is bound to affect students [6]. As no research was conducted on dental students, our aim is to determine the relationship between stress and hairloss and its prevalence among dental students.

2. Materials and methods

This is a cross-sectional study whereby a standard perceived stress scale (pss-14) is used to assess,

1. level of stress and all the participants were subjected to hair pull test(HPT) were instructed not to shampoo 1 day prior to the study. The study was conducted on 204 students including undergraduates (3rd and 4th year BDS students) ,house surgeons aged between 20-24 years. The questionnaire includes 15 questions of which 10 questions are related to stressful feelings and situations in last month based on PSS a classic stress assessment instrument. And 5 questions related to Hair Pull Test. All regular students aged 20-24 years at the time of data collection who volunteered to participate in the study were included. Non-regular students and who did not volunteer to participate in the study were excluded.

3. Statistical analysis

Statistical analysis was done by using spss 25. Descriptive were performed chi-square test was used to find the association among categorical variables. Level of significance was $p < 0.05$. Participants with greater than or equal to 6 are considered to have high hair fall.

4. Results

A total of 204 individuals were invited of them 19.6% were males, 80.4% were female dental students belonging to various academic positions and the response rate is 100%.

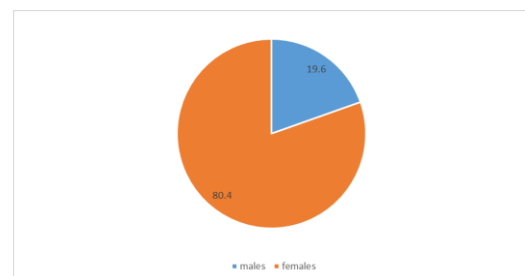


Fig. 1. Chart 1: Sex wise distribution of study participants

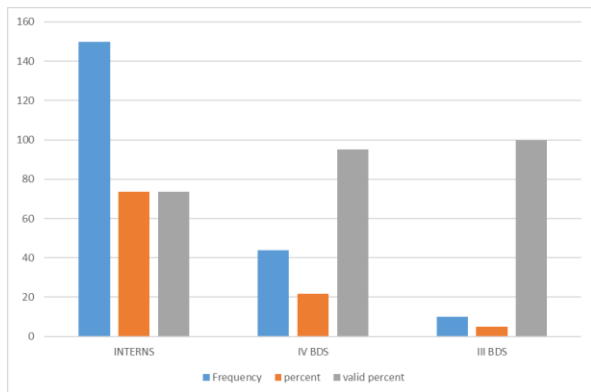


Fig. 2. Chart 2: Distributive chart on academic portions

Table 1
Frequency of stress level

Low stress	152	74.5%
Moderate stress	52	25.5%
Total	204	100%

Table 2
Frequency of HPT

6 or more	60	29.4%
6 or less	104	51.0%
none	40	19.6%

Table 3
Hair loss vs. stress cross tabulation

	No hair fall	Normal hair fall	Hair fall present	Total
Low Stress	28	76	48	152
Moderate stress	12	28	12	52
High stress	0	0	0	0

The results obtained from PSS showed that 152 (74.5%) have low stress, 52(25.5%) has moderate stress, and no results of high stress. And the results for hair fall obtained from HPT are given in table 2. Cross tabulation of stress level and its relation to hair fall is mentioned in table 3.

Chi-square test the value of $P = 0.474$, hence there is no significant relation between hair fall and level of stress.

5. Discussion

In this study, prevalence of high stress is negligible among dental students, about 25.5% members are under moderate stress and 74.5% under low stress. Excessive hairloss being significant i.e. 60 (29.4%), 104 (51.0%) has normal hairfall.

However, there is no appropriate relation between level of stress and hair loss among dental students.

Most of the dental students are confident about their ability to handle personal problems and are also able to control irritation in life. This is determined by the standard “Sheldon cohen perceived stress scale” (PSS) to determine stress level in the population. Hair loss is significant among 60 students which is determined by Hair Pull Test (HPT) this can be due to the hormonal imbalance or use of styling products and poor maintenance. 104 students have normal hair fall which is common in all people. 40 students have zero hairfall may be due to strong genes and proper nutrition.

From the study there is no remarkable relation between stress and hairfall, may be the situations faced by the students in the past one month were under control as they are not under stress. However, to state the association between stress and hairfall ample number of students having hairloss must participate. More over the time in which the survey was conducted there were no exams and stress related factors for the students.

6. Conclusion

High stress is not significant among dental students, but hairfall was seen in adequate number of students. No significant correlation was found between stress and hairfall among dental students.

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