



Study of hairfall with hair related problems among males and females in society

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Abstract :-

Hair loss is a common condition seen in all age groups among males and females. There are several types of hair fall, such as Androgenic Alopecia, Telogen Effluvium, Traction Alopecia, Alopecia Areata and soon. There are several factors affecting hair fall such as tight pony tail, comb wet hairs, nutritional deficiencies, such as iron deficiencies and vitamin deficiencies cause hair fall. This study also shows which factors actually causing hair fall.

This study is conducted in urban, rural and metropolitan region. The data were analysed through the statistical method. This study included both males and females in the age group of 18 to 60 years after getting their informed consent. The questionnaire was given to the participants through the online Google form with some questions related to hair fall and hair fall-related problems, in which 151 participants responded. The main aim of this study is to spread awareness and treatment regarding to the hair fall and hair fall related problems. This paper mainly focusing on common acquired causes of hair loss. This study concluded that female experiencing more hair fall and hair related problems than male.

Keywords:- Hair fall, Hair loss, Awareness, Knowledge, Androgenic Alopecia, Telogen Effluvium, Traction Alopecia, Alopecia Areata.

Introduction: -

Hair is an important part of a person's physical appearance. The present cultural emphasis on youthful appearance has further strengthened the value of abundant hair. Hair loss is a common condition experienced by both men and women. From ancient Romans to the current modern generation, having a head full of hair often signifies youth and vitality. Thus, experiencing hair loss can affect one's self-esteem and, in some extreme cases, can be psychologically distressing (1). Hairs are made up of two main structures the hair shaft which is what you see and the hair follicle which is hidden underneath the skin. Hair grows from the hair follicle. Hairs typically grow at the rate of 0.35 mm per day. The scalp sheds of about 100 hairs per day which can increase with the hair care practices like the washing and the brushing. Research shows that several dihydrotestosterone affect overall health and can profoundly impact your hair and everyone's combination of causes is different. Androgenic alopecia is most common type of hair loss in both males and females. Androgenic alopecia is a hereditary condition that is caused by rising levels of dihydrotestosterone (DHT) (2) which is male testosterone hormone. In males thinning hair is observed in teen or their twenties and for women hair thinning starts from at the middle of the edge in their 40s. Androgenic alopecia is not environmental or lifestyle cause factor so it is a gene determining factor. Women are most likely

to experience hair fall than males. As society thinks that hair loss or hair fall is common only in men but it is not true it is also common among both males and females. 82% to 85% of men have thinning hair by the age of 55 and 42% to 50% of women start to lose their hair by the age of 40. Traction alopecia is one type of hair fall or hair loss in which hair follicle damage repeats by pulling hairs. Examples include Ponytails (3). So that's why women are more likely to experience hair fall or hair-related problems than males. Sometimes hair loss is a side effect of a health problem that needs to be addressed and will remedy itself when appropriately treated. When hair loss is due to a condition involving the hair itself, as in the case of alopecia, the hair loss can be permanent. Hair Loss is not bad luck, it can have many causes: stress, excessive cosmetic treatment to the hair, diet, age, hormonal imbalance, autoimmune disease, medication reaction, iron deficiency, and the list goes on. Nutritional deficiency can cause hair fall. Unhealthy diets that are low in specific proteins and some vitamins such as iron deficiency can cause hair loss. Too many vitamins A and vitamin A based medicines can also cause hair loss. Vitamin D is very important for our body, deficiency of vitamin D can cause hair fall as it is connected to alopecia (4). Vitamin D plays a role in forming new hair follicles and nourishing them. This paper explains how diet and other factors can cause hair loss and hair-related problems. Vitamin D plays an important role in hair growth and healthy hair follicles. Zinc and iron deficiency can cause hair loss and hair related problems. Telogen Effluvium (TE) Other Nutrients That May Affect Hair Loss In addition to the above vitamins and minerals, studies have found the following nutrient deficiencies have been associated with hair loss: Copper, Biotin, Vitamin B12, Folic Acid (5). Weight loss also affects the sudden hair loss. If you think you are losing your hair due to nutritional deficiencies, talk to your doctor. They may recommend blood tests to determine micronutrient levels and rule out deficiencies. Hair falls or hair loss is the most common condition among mails and females. In today's busy and stressful life, we do not take care of our hair and eventually it causes or it leads to hair fall.

Materials and methods: -

The present study done over a period of 6 months is a community-based study. This study was conducted in the urban rural and metropolitan areas of vasai virar city and some of the Mumbai region. This study included both males and females in the age group of 18 to 60 years after getting their informed consent. The questionnaire was given to the participants with some questions related to hair fall and hair fall-related problems. This study included a total no of 151 males and females out of which 84 are females and 67 are males. The questionnaire includes Names, Gender, Nutritional information, duration of hair fall, Hair fall experience, illness during hair fall, types of stressors, any kind of treatment to the hairs, dandruff or thinning hairs and types of hair fall etc. The data were analysis through the statistical method.

Observations and results: -

This study included total number of 151 participants. In which the 55% (84 number of individual) is a females and rest 45 % (67 number of individuals) are the males. The present study done over period of 6 month is a community-based study and this study conducted in both urban and rural areas in the age group of 18 to 60 years. The number of participants selected for the study is 151, in which the 50% is a females and rest 45 % are the males. The study shows there are number of things affected for the hair loss which is the common cause in India. In this study it was observed that 39.1% people are experiencing excessive numbers hair loss. 32.5% people have thinning hair, and rest 13.2% and 27.8% people are experiencing hair loss in patches and pattern hair loss respectively. Through this study it was observed that 47% of females give heating treatment to their hair. (E.g., Blow drying, flat ironing, curling etc.) And almost 60% females don't have virgin hair as they regularly or occasionally dye or colour there hairs. Nutrients important to the hair growth as it provides important nutrients which is necessary for hair growth. Through this study it was concluded that 68% females and 53% males don't consume healthy consisting diet which eventually leads to hair fall in them. In males, 52.23% males wash there hair's regularly with soap, and it leads to hair loss This is because hair has a pH level of about 4.5-5.5 and soap have alkaline properties that affects the pH balance of your hair, leaving it frizzy, dry and super dull. This alkaline nature of soaps also has the ability to destroy the keratin in your hair, thereby making it weak and breakable. There are numbers of stressors also affected hair loss as it causes testosterone and estrogen which inhibit hair growth in human's. It was also observed that 59% people which means 89 number of individuals face life stress, 32%

(48 individuals) face job stress. Whereas, Economical and financial stress is about 29.1% (44 individuals) and 23.2% (35 individuals) respectively, 9% individuals face marriage or divorce stress. This study also concludes that other stressors like study, diet, professional career and school stress. Some drugs like amlopain 2.5, maxidin, thyroxin 100mg, R.B. tone and many more drugs can lead to hair loss.

Age groups	Hair loss in each age group by %
18-24	78%
25-32	81.25%
33-40	88.25%
40+	89%

Table 1: Age groups with hair loss in each group by percentage.

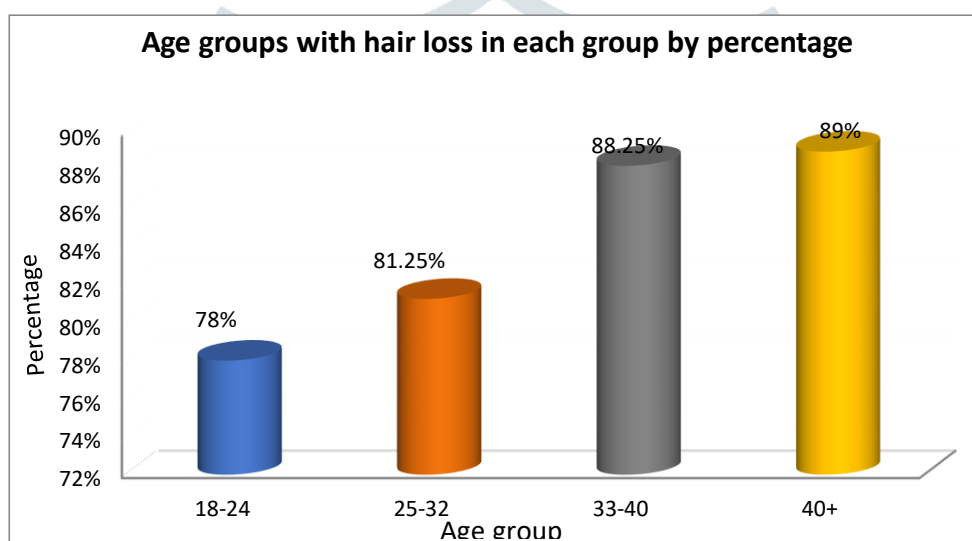


Fig:- 1.1 Age groups with hair loss in each group by percentage

The table shows that the maximum percent (i.e., 89%) of hair loss is observed in age group of 40 and above, followed by the age group of 33-40 which shows 88.25% of hair loss. Whereas, in the age group of 25-32 and 18-24, 81.25% and 78% of hair loss is observed respectively.

Types	Male and female	No. Of individuals
		151
Hair loss	65.67% and 90%	120
Diffuse shedding	39.1%	59
Diffuse thinning	32.5%	49
Hairloss in patches	13.2%	20
Pattern hair loss	27.8%	42

Table 2: Types of hair fall and hair-related problems among males and females

This table shows types of hair falls and hair related problems in both male and females. According to this study it shows 65.67% hair fall is seen in males and 90% hair fall seen in females. This study shows 39.1% excessive no of hair fall in both males and females. 32.5% people experiencing thinning their hairs. 13.2% people lost their hairs in patches and almost 28% people permanently lost there hairs.

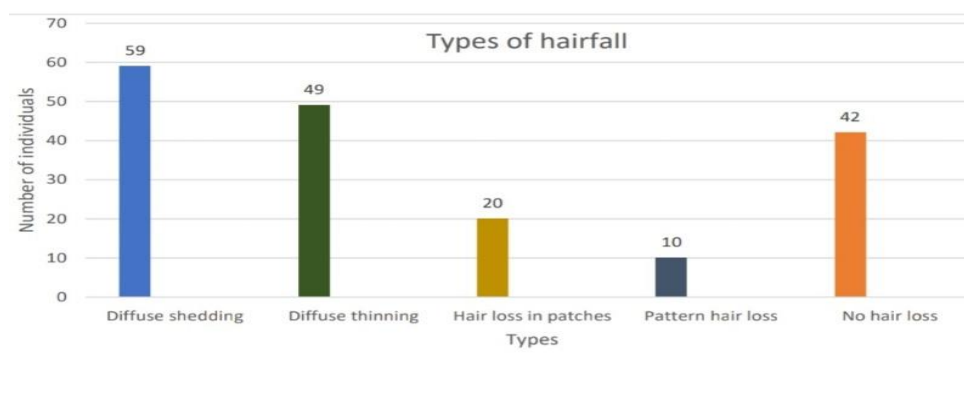


Fig 1.2:- Types of hair fall

- 39.1% of people experience excessive numbers of hair fall which is 59 people.
- 32.5 % which means 49 numbers of individuals experiencing excessive thinning of their hairs.
- 13.2% which means 20 numbers of individuals experiencing hair loss in patches which is affecting particular site on our body, face and scalp.
- 10 no of individuals experiencing permanent hair loss that is pattern hair loss (Androgenic Alopecia).

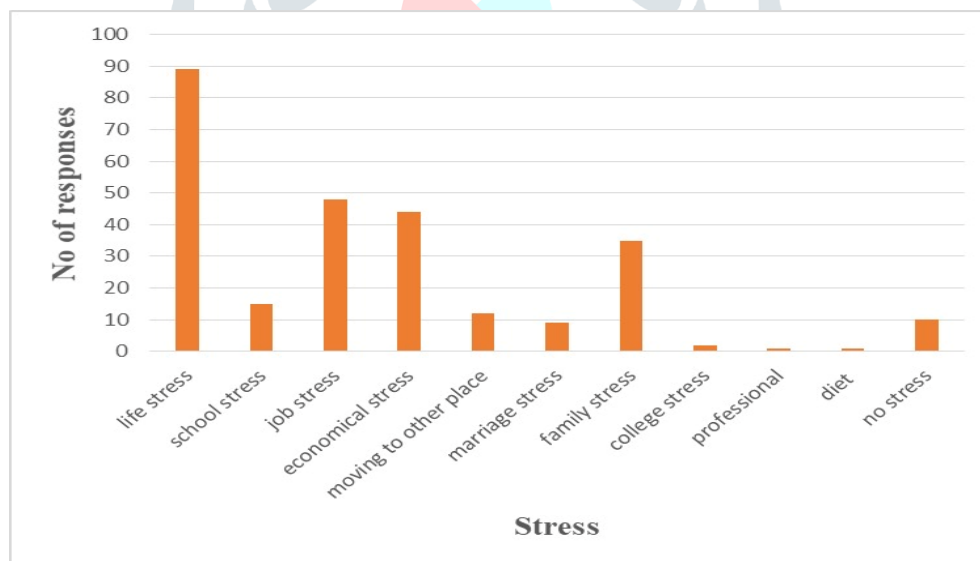
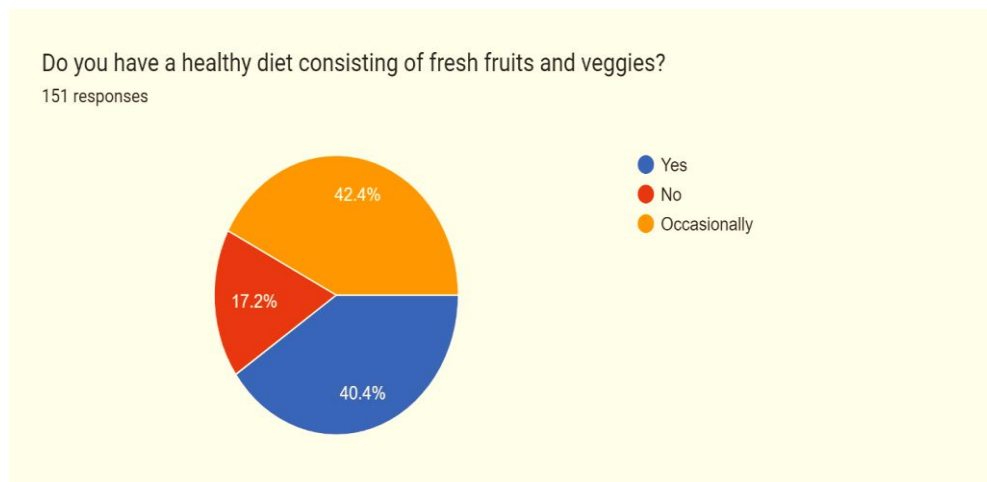


Fig 1.3 Stressors

From the graph, it is analyzed that 59 % (89 individuals) face life stress, 32 % (48 individuals) face job stress. Whereas, Economical and financial stress is about 29.1 % (44 individuals) and 23.2 % (35 individuals) respectively. 9% individuals face marriage or divorce stress. This chart also shows other stressors like study, diet, professional career and school stress.

Stress cause directly or indirectly hair loss due to sudden rises of Dihydrotestosterone (DHT) from hypothalamus which leads to the hair fall.



Diet is very important part of our life, it is directly or indirectly influence our hair growth. Poor diet may affect temporary hair loss due to insufficient minerals and vitamins that are necessary for hair growth.

- This chart shows that 42.4% of people which means 64 numbers of individuals consume healthy diet occasionally in their meal.
- 40.4% people which is almost 61 number of individuals consume healthy diet regularly in their daily meal like veggies and fruits.
- 17.2% people do not consume healthy diet in their regular meal
- Combine almost 59 % of people do not consume healthy diet in their regular meal.

Conclusion: -

Through this study, it was concluded that the hair fall is associated with iron deficiency and deficiencies of Riboflavin, Biotin, folate and Vitamin – B12. However, hair fall can be prevented by applying oils like castor, onion, jojoba, coconut etc., out of which onion oil is highly effective for hair loss. This study also concluded that female experiencing more hair fall and hair related problems than male due to the giving heat treatment to their hairs, and lack of nutrition and several other reasons that eventually leads to the hair loss and hair related problems. This study conclude that most of male have hair fall and hair related problems due to the lack of nutrition and washing their hair with the soap regularly that makes hair fizzy, dry and alkaline and it also destroys the keratin present beneath your hair follicles which it eventually leads to the hair fall and hair related problems among males and females of the age group of 18-60 years.

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