

# Evaluation of Hair Loss among Young Females of Age Group (18-25) Years

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**Abstract:-** The term hair fall describes the loss of scalp hair. Hair loss in some peoples causes psychological distress. This study was conducted to assess hair loss among young females of age group (18 - 25 years) at sree ramakrishna medical college of naturopathy and yogic sciences hospital, kulasekharam, Tamil Nadu, India. The verbal agreement was obtained by outlining the study's objectives.. The total number of participants was 30. The questionnaire contains 30 questions. The parameters of the questionnaire included hair loss spots, any infections, stress, gastrointestinal discomfort, skin infection, and medications. This study shows and concluded that most of the females have disturbed sleep, lack of interest, tiredness, depression and irritability during work. Their daily routine habits are unsatisfactory. Therefore, females need more awareness about the importance of their health, nutrition, hair care, personal hygiene and sleep.

**Keywords:-** Personal Hygiene, Hair Fall, Women, Sleep.

## I. INTRODUCTION

Hair fall refers to the loss of hair from part of the scalp .but in some people, that causes psychological stress. Common types of hair fall includes male or female pattern hair loss, Alopecia areata and thinning of hair known as telogen effluvium. The cause of male hair loss is a combination of genetics and male hormones. The cause of alopecia areata is auto-immune and the cause of telogen effluvium is a physically or psychologically a stressful event.

## II. PATHOPHYSIOLOGY

In males, hair loss is due to male sex hormones, dihydro testosterone plays a vital role. The enzyme 5-Alpha Reductase (5-AR) transforms testosterone into the considerably more potent androgen, DHT. Increased 5-AR levels will cause more testosterone to be converted to DHT, which will lead to increased hair loss. The keratinocytes in hair follicles are damaged by severe pollution, which also causes gradual hair thinning. This shows not only genetic factors play a role in hair fall but also environmental factors

are major causes of this. Fungal infection, Lupus erythematosus, when there is scarring or inflammation, illness like sarcoidosis and radiation therapy can cause hair loss.. The areas that are impacted play a role in the diagnosis of hair loss. Cycles govern the growth of hair follicles. An extended growing phase (anagen), a quick transitional phase (catagen), and a quick resting phase (telogen) make up each cycle. The cycle is restarted when the hair falls out (exogen) at the conclusion of the resting phase and new hairs begin to develop in the follicle. Each day, approximately 40 hairs (0 to 70 in men) exit the resting phase and fall out. Clinical hair loss (telogen effluvium), defined as the loss of more than 100 hairs per day, may occur. Small patches of hair are lost in alopecia areata and tinea infections, and telogen effluvium and pharmaceutical side effects typically cause hair loss to occur all over the head.

The pattern of hair damage caused by heating hair straightening or crimping instruments, braiding, or chemical treatments. In male pattern baldness, the hair line starts to thin at the top of the head before receding towards the temples. A key aspect of hair loss with age is aging of hair follicles. Collagen proteolysis results in the elimination of damaged cells and, as a result, in the shrinkage of the terminal hair follicle. Increased secretion of corticosterone causes dermal papilla to suppress the secretion of the GAS6 molecule which is involved in hair growth. This prolonged stress alters the hormonal action in our body and this leads to loss of hair. In addition to this, excess consumption of selenium and thallium causes toxic effects on our body, leading to hair fall changes. Lecythis ollaria nuts, which has a high concentration of selenium in the form of selenocystathionine, when taken, showed the symptoms of hair fall after 12 to 14 days of consumption. High fat diet and excess consumption of carbohydrates also reduced the thickness of hair gradually by reducing the hair follicle stem cells causing loss of hair. According to recent studies, 9/10 Indians face genetic hair fall at least once in their life time due to underlying health conditions. Without systemic corticosterone, HFSC undergo significantly more cycles of the regeneration cycle during the course of their lifetime. On the other hand, increasing levels of corticosterone during prolonged stress prolong HFSC quiescence and keep hair follicles in an extended resting phase. Corticosterone blocks

GAS6 expression via acting on dermal papillae, according to the mechanism. Thus, The stress-induced suppression of HFSC (Hair Follicle Stem Cells) activation and hair development is alleviated by restoring GAS6 expression. Chemotherapy, targeted therapy, radiation therapy, and stem cell transplants can all cause hair loss as a side effect. The cells that support hair growth may be harmed by certain cancer therapy techniques. The hair on the head, face, arms, legs, pubis, and beneath the arms can all be affected.

### III. MATERIALS AND METHOD

The study, which is being conducted among females of 18 to 25 age group at sree ramakrishna medical college of naturopathy and yogic Sciences and hospital, Kulasekharam, Tamil Nadu, India, The verbal consent was obtained after informing the study's goal. There were 30 participants for this study. There are 30 questions in the questionnaire. The parameters of the questionnaire included hair loss spots, any infection, stress, gastrointestinal discomfort, skin infection, and medications. Those females who did not cooperate and non-willing participants were excluded from the study.

### IV. RESULT

The female respondents were among the age group of 18 - 25. The total number of females is 30. Table 1.1 shows, any hair loss spots are 50%, 86.66% sudden loss of hair and 13.33% not having sudden loss of hair. Have any infection 36.66% and 63.33% did not have any infection. Alterations in body weight 56.66% and 43.33% are not have alterations in body weight. Any weakness or tiredness 70% and 30% do not have weakness or tiredness. 80% have sudden mood changes and irritability and 20% are not having sudden mood changes and irritability. 43.33 % having dryness, tanning and coarseness observed in the skin and 56.66% did not have dryness, tanning and coarseness observed in the skin. Regular menstruation is 70%. Any sleep disturbance 40% and 60% did not have any sleep disturbance. Any joint pain or stiffness 46.66% and 53.33% not having any joint pain or stiffness. 70% having stress and 30% did not have stress. 26.66% rapid palpitation observed and 73.33% do not have rapid palpitation. 33.33% having gastrointestinal discomfort and 66.66% not having gastrointestinal discomfort.

Table 1: shows the percentage of hair loss in young females of age group (18-25) years.

S. No	Content	Yes (%)	No (%)
1	Do you have any hair loss spots	50	50
2	Does this loss of hair is sudden	86.66	13.33
3	Do you have any infection before	36.66	63.33
4	Do you ever notice any thinning of hair	86.66	13.33
5	Do you feel any alteration in body weight	56.66	43.33
6	Is there any weakness or tiredness	70	30
7	Sudden mood changes and irritability without any appropriate reason	80	20
8	Is there any pain in bone or muscle in body	63.33	36.66
9	If there is dryness, tanning and coarseness observed in the skin	43.33	56.66
10	Whether the menstruation is regular	70	30
11	Is there any loss of hair in central or scalp region	33.33	66.66
12	Do you feel any sleep disturbance or does it take so long to enter deep sleep	40	60
13	Is there any sleepiness	43.33	56.66
14	Whether there is head ache	53.33	46.66
15	If the loss of hair is from all over the scalp	80	20
16	Do you have any paleness in the skin	10	90
17	Cold feet and hand	13.33	86.66
18	Is there any facial hair growth	26.66	73.33
19	Is there any joint pain or stiffness	46.66	53.33
20	Do you have Prolonged stress	70	30
21	Whether any chills observed during normal room temperature	10	90
22	If there any rapid palpitation observed	26.66	73.33
23	Do you observe any change in vision	23.33	76.66
24	Any GIT problem	33.33	66.66
25	Prone to any medicine for long time	Nil	100
26	If there is hair loss only from the scalp	46.66	53.33
27	Any thyroid complaint	Nil	100
28	Do you have Constipation	10	90
29	Known complaint of Anemia	40	60
30	Is there any fading of hair color	23.33	76.66

## V. DISCUSSION

Fewer females have hair loss spots 50%, and 86.66% having sudden loss of hair. Fewer have infection, 36.66%, Most of them have weakness or tiredness 70% , and 80% have sudden mood changes and irritability. Fewer females having dryness, tanning and coarseness were observed in the skin 43.33 %. Most females have regular menstruation 70%, sleep disturbance 40%, More females have joint pain or stiffness 46.66%, and most of them 70% have stress. Fewer females 33.33%, have gastrointestinal discomfort. A few females have 26.66% rapid palpitation. Fewer females have Anaemia 40%.

## VI. CONCLUSION

It is concluded that most of the females have disturbed sleep, lack of interest, tiredness, depression and irritability during work. Their daily routine habits are unsatisfactory. Therefore, females need more awareness about the importance of their nutrition, hair care, personal hygiene ,menstrual hygiene and sleep. Future treatments should concentrate on these areas to improve the young females general health and wellbeing.

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