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Research Article

**DIFFERENT HAIR TYPES AND ITS EFFECT ON DAILY ACTIVITIES. A STUDY PERFORMED IN RAWALPINDI.**Abdur Rahman Butt<sup>1</sup>, Muhammad Asad Khan<sup>1</sup>, Zohaib Asghar<sup>1</sup><sup>1</sup>House officer, Fauji Foundation Hospital, Rawalpindi.

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**Abstract:**

*Change in hair colour is an inevitable phenomenon that affects as one ages. It affects all age groups especially during 40 years of age. Premature graying of hair (PGH) refers to loss of hair color before the age of 25 years. The objective of this study was to determine the prevalence of gray hair in the medical respondents studying in FUMC and its effects on various things. The study design was descriptive cross-sectional study. Total time was 5 weeks for data collection and analysis, results were analyzed using statistical software. The results were mixed and showed comparable number of respondents had premature gray hair. No statistically difference was found regarding their opinion how frequently graying of hair is noticed ( $p$ -value=.011), premature graying if hair is a sign of old age and loss of health( $p$ -value=0.215) and premature graying of hair hinders one from participating in social activities ( $p$ -value= 0.115).*

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### INTRODUCTION:

Graying of hair strands is a complex phenomenon occurring with the advancement of life. Hair color is determined by hair pigments which gives color their characteristic color. The occurrence of pigmentation is an important phenotype of human and is a matter of extensive research. Decrease in the production of hair pigment is linked with the decreased activity of tyrosine. Various theories have also been proposed. Premature graying of hair according to well-known dermatologist Jeffrey Benabio is, "Hair goes gray when color producing cells stop producing pigment [1]. Although hair graying or canities is a common process occurring in people as they age, an unknown percentage of individuals experience premature graying from familial inheritance or pathologic conditions [2]

PGH has been found to be associated with a number of autoimmune diseases, which are inherited in autosomal dominant form. Pernicious anemia, vitiligo and thyroid diseases are a few examples. Other factors responsible for PGH include UV radiation, drugs, smoking, deficiencies of trace elements and nutritional deficiencies. Dietary deficiencies often manifest as changes in hair and skin. Lacks of vitamin B12 and iron have been shown to prominently affect hair growth and pigmentation. Calcium and vitamin D3 deficiencies play a less prominent role. Premature graying of hair is also associated with the

disorders of the endocrine system. It is an indicator for either genetic diseases or non-genetic diseases such as myocardial infarction, congestive heart failure, stroke, liver cirrhosis, or cancer [1]. Hair graying is natural phenomenon that occurs with progressing age, and the extent of loss of pigmentation varies from person to person. Some individuals may have a genetic predisposition or a familial background that leads to premature hair graying. (PGH) while others may experience it due to underlying pathologies. Due to increase in its incidence more people are taking medical attention of its psychological effects. Our aim was to see the prevalence of gray hair in our setting and its various effects.

### METHODOLOGY:

It was a descriptive study performed in Foundation University Medical College which is affiliated with Fauji Foundation Hospital, with the total time period of 5 weeks. Medical respondents were enrolled. All respondents who gave their consent were included in study sample. Data was collected and assessed by a preformed & pretested questionnaire administered by investigators to the study subjects after taking their informed verbal consent.

### RESULTS:

A cross-sectional descriptive study was conducted to see the frequency as well as the socio-cultural effect of PGH among respondents.

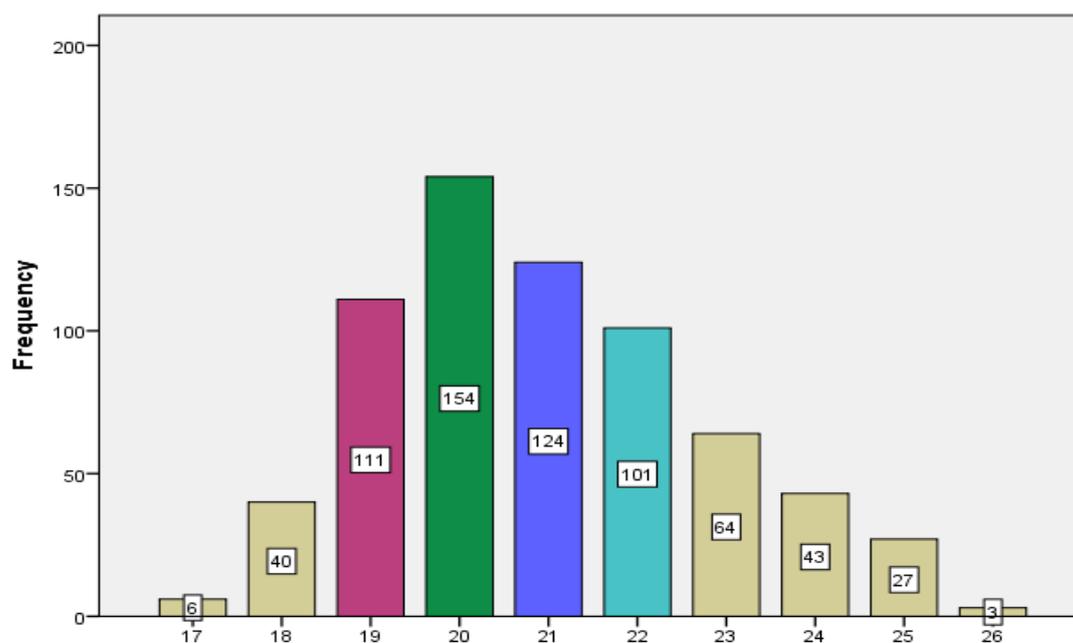
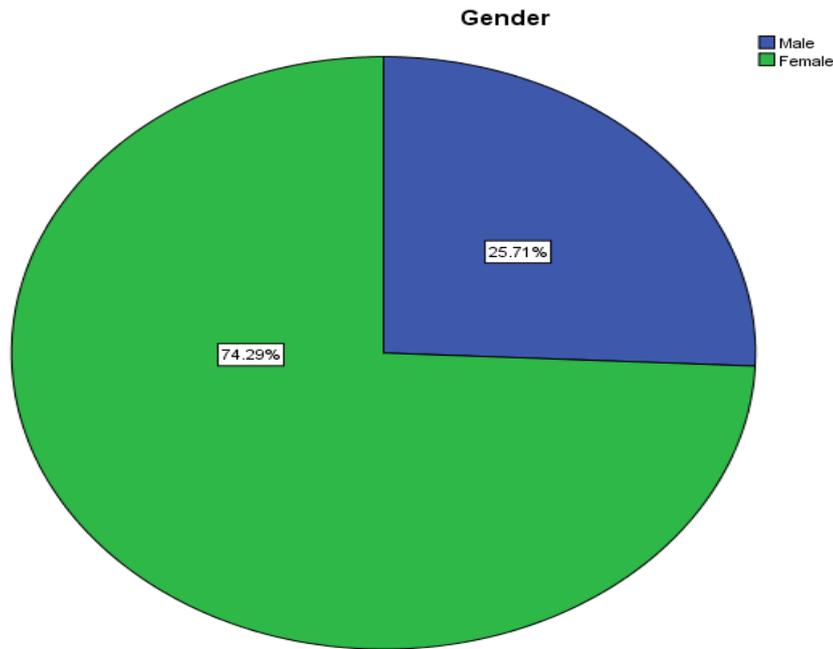


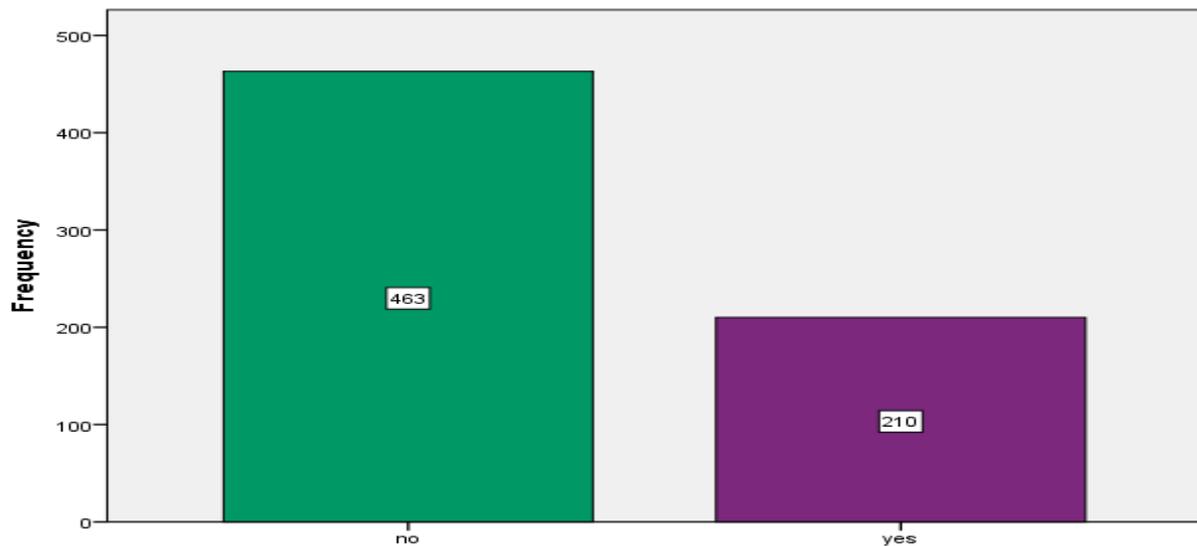
Figure no. 1 : Age of study participants in years

The study sample consisted of 673 respondents from 1st year to 5th year. Mean age of the respondents was 20 years whereas mostly respondents were teenagers.



**Figure no. 2: Gender distribution of the study participants**

Out of 673 respondents, 25.7% of the respondents were male and 74.3% were female.



**Figure no. 3: Prevalence of premature greying of hair in study population.**

When asked if you have experienced premature graying of hair, out of 673 respondents 210 (31.2%) responded that they have experienced premature graying of hair and 463 (68.8%) showed no experience with premature hair graying. 479 (71.2%) respondents believed that those who have PGH are frequently get noticed and commented upon while 194 (28.8%) respondents disagreed. When asked if

the people who have PGH often try to hide their hair or not, 504(74.9%) respondents agreed that the affected individual often tries to hide his/her gray hair whereas 169(25.1%) respondents believed they don't try to hide their gray hair. As many as 591 (87.8%) respondents did not consider PGH as contagious by sharing combs while 81 (12%) respondents believed it to be contagious. When inquired

about if they perceive PGH as a sign of old age or loss of health, 368(54.7%) responded with an answer 'yes' whereas almost 305(45.3%) respondents believed that it is not a sign of old age and loss of health. Moreover, 486 (72.2%) respondents said that gray hair is a hindrance whereas 186 (27.6%) respondents did not consider it to a hindrance for participating in any social activities or events. No statistical difference was found regarding if they feel guilty/anxiety (p-value=0.304), mood fluctuations due to premature graying of hair (p-value=0.0.135), premature graying of hair affects your concentration at work (p-value=0.678), premature graying of hair affects your interpersonal relationship (p-value=0.410) and if you have tried any treatment for premature graying of hair.

### DISCUSSION:

A study was conducted on medical respondents of Foundation University Medical College, aiming to find out the general awareness regarding PGH and their opinion regarding causes of premature graying and its psychological and sociocultural effects. Canities is a natural phenomenon associated with normal human aging. Premature canities are becoming increasingly prevalent leading to issues of self-esteem, Quality of life and poor health. People suffering from PGH think that they are noticed because of their imperfect hair leading to low self-esteem [1].

Less than one third of our respondents reported to have premature hair graying (PGH). It was more common among females but different researches have done with different results, the research conducted in 1998 in New York found that both sexes are equally affected [1]. Many times, the affected respondents have to face challenges such as embracement in facing others or managing public platforms. They are constantly being disrespected by their fellows which leads to decrease in ability to work and productive as well creative work. This not only hurts their self-esteem but hinders them to participate in daily extra-curricular activities. A small portion of respondents believed that it spreads through the use of same combs. Majority of the people thinks that it spreads from one person to another, which is nothing but a mere misconception [9].

### CONCLUSION:

This study revealed that premature graying of hair is mainly seen in teenagers. Females are affected more

than males though the mechanism remains unclear. Further researches are encouraged.

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