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Study of Hairfall through Cohen hair loss index with reference to different Mizaj

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Abstract

Every person aspires to beauty to admire themselves. Not only is beauty a source of joy, but it can also inspire pride and confidence to some extent. Since hair reveals a person's outward look, it is the most crucial factor in determining beauty. Mizaj (Temperament) is one of the basic concepts of the Unani system of medicine. Every individual has a unique temperament. The aim of this study is conducted to assess the correlation between Mizaj-dependent quality with hair loss patterns. If a meaningful relationship is found, shaar (hair) loss can be introduced as one of the practical indices for designing and validating the diagnostic scales of Mizaj and the clinical applications of Mizaj identification. The need of the study is to validate the determination of mizaj of a person with the help of scalp hair conditions and the clinical significance of mizaj assessment in the treatment of hair fall problems. The sample of the present study was drawn from Ayurvedic and Unani tibbia Skin O.P.D., both gender. In the present study, mizaj was assessed by using a mizaj assessment questionnaire based on ten classical parameters described in the Unani classical literature category, and the Hair loss pattern was assessed by the Cohen hair loss classification system. Analysis of data in the current study was done by calculating the median and IQR (Interquartile Range), as data did not follow a normal distribution. The difference among mizaj was established by Kruskal-Wallis after that an additional post hoc test Dunn's test to compare each group and determine which are significantly different from each other. The alpha value was analyzed at the significance of less than 0.05 to minimize type I error. It is observed that Cohen Index (C.I), the Median CI score was highest in the damvi group (Md=79.00) followed by safravi Mizaj (Md=78.00) in comparison to balghami (Md=70.00) and lowest in saudavi (Md=48.00) group and it is in concordance with the experimental hypothesis of this research work. From this study, it is clear that a possible correlation between hair loss patterns and Mizaj certainly does exist. After that, hair loss patterns could be considered one of the diagnostic indices of temperament.

Keywords: Cohen index, mizaj, Cohen hair loss classification, damvi, baghami, safravi, saudavi

1. Introduction

Unani medicine, tracing its roots back to ancient Greece, stands as one of the world's most ancient treatment methodologies. Within this system, there exists a delineation of seven fundamental constituents of the human body, collectively termed as Umoor-E-tabiya. These constituents encompass the Arkan or elemental entities, encompassing earth, water, air, and fire, delineated as diverse states of matter and the foundational constituents of all entities within the cosmos. Accompanying these are the Mizaj (Temperament), Akhlat (Humors), Aza (Organs), Arwaah (Life, spirit, or vital breath), Quwa (Energy), and Afaal (action). Central to this framework lies the concept of Mizaj (Temperament) and Akhlat (Humors). Through the Unani system, profound insights into human personalities emerge, categorized into four distinct mizaj (Temperaments), influenced by the dominance of bodily fluid humours^[1]. Hippocrates (460-370BC) established the foundational principles of the theory of four elements, which outlines the origin of life as arising from the amalgamation of the four elemental components: Air, soil, fire, and water^[2-3]. As per Unani medicine, the intricate balance between actions and reactions of opposing attributes within these four elements, coupled with their interactions, facilitated by their inherent powers (Qualities) in varying proportions, gives rise to the distinct Mizaj (Temperament) of each individual^[4]. Each person possesses a unique Mizaj rooted in the interplay of the warmth of fire, the coldness of soil, the moisture of water, and the aridity of air^[5-6]. The configurations of these elements are generally classified into categories such as Sanguine Mizaj (Warm and moist), Choleric (Warm and dry), Phlegmatic (Cold and moist), Sanguine Mizaj, and Melancholic Mizaj (Cold and dry)^[5-10].

Furthermore, Mizaj is stratified into two types: Innate and acquired. The innate Mizaj is inherent from birth, while the acquired type often emerges due to living conditions and lifestyle choices [5-6].

1.1 Determination of human Mizaj (Temperament)

The indices for identifying Mizaj exhibit considerable diversity and are structured into ten distinct categories (Comprising ten criteria) for the sake of convenience in application. These criteria encompass the condition of the skin (Sensations through touch), hair attributes, characteristics of soft tissues, skin pigmentation, bodily proportions (Physique), physiological and physical functionalities, characteristics of waste materials (Such as stool, urine, and sweat), patterns of sleep and wakefulness, the swiftness of metabolic processes, and cognitive functions [11].

1.2 The modern concept of hair growth and distribution.

As per the guidelines of the American Academy of Dermatology/Association, shedding of hair is a natural occurrence and is a regular phenomenon for everyone, typically ranging between 50 to 100 hairs per day [12]. However, when this range exceeds, it is medically termed as Telogen Effluvium, also known in Unani as 'S' and commonly referred to as hair fall or hair shedding. The term Telogen Effluvium was initially introduced by Kligman in 1961, classifying it as a disorder of the hair follicles [13]. In brief, the natural process of hair growth comprises three phases: Anagen (Growth), catagen (Regression) and telogen (Resting). Among adults, approximately 80-90% of the scalp hair remains in the anagen phase, which typically persists for 2-8 years and is characterized by active hair growth. Subsequently, the hair enters the catagen or regression phase, constituting only 1 to 2% of the hair. This phase lasts around 2-3 weeks and marks a pause in all hair growth activities. Following the regression phase, clubbing hair is formed, signalling the onset of the telogen or resting phase. During this stage, hair growth remains dormant, and hair is primed to shed. About 10-20% of hair resides in this phase, and after shedding, new hair begins to grow in the anagen phase [14-15]. Research suggests that recurrent temporal hair regression is observed in approximately 98.6% of men and 64.4% of women. Interestingly, even though about 2/3 of women and 4/3 of men experience hair loss in the mid-anterior part of the head after the age of 80, the significance of hair transcends its physical function. It holds immeasurable importance in both the physical and psychological domains, serving as a protective element for the head and contributing to an individual's confidence, attractiveness, charm, and self-esteem, not just for females but also for males [17].

1.3 Unani concept of hair growth and distribution in relation of mizaj

Shar (Hair) is categorized as a bodily waste product resulting from a specific bodily waste material expelled onto the skin through tabiat, carrying a dry temperament [11]. Unani Medicine outlines the subsequent parameters for diagnosing temperament through the examination of hair: Growth Rate: Hair growth is classified as rapid or slow, Hair Color: The color of hair is described as blackish, white, brown, or black, Texture: Hair texture is categorized as curly, straight, or lusty, Distribution: Hair distribution is

characterized as profuse, average, or scanty, Density: Hair density is identified as dense or sparse. A swift growth rate signifies a hot and dry temperament, while a slower growth rate indicates cold temperament. Hair that is dark black in color signifies hotness and dryness, similar to safari mizaj, while vivacious color is indicative of a cold temperament. Red hair color corresponds to Mizaj-e-mutual, and white hair color indicates cold and moist temperament. Coarse hair is typically found in individuals with a hot temperament. Straight and coarse hair suggests a hot and moist pattern, whereas coarse and curly hair implies a hot and dry temperament. Cold and moist temperament is reflected in straight and fine hair, while curly, fine, and scanty hair is indicative of a cold and dry temperament [17].

1.4 Unani concept of Hair fall is about the imbalance of mizaj

Saudavi khilt typically provides nourishment to specific organs such as bones, retinas, skin, hair, and sclera. Therefore, hair type in saudavi mizaj individuals tends to have thin, straight hair with higher porosity. Sauda has a tendency to dehydrate both the scalp and hair tissues, resulting in hair that is typically dry, thin, and sometimes slightly rough and curly [4, 7, 18]. An imbalance in Saudavi khilt can cause excessive dryness and coldness, resulting in poor blood circulation, flaky dandruff, frizzy and brittle hair, as well as issues like hair thinning and split ends due to insufficient nourishment. In individuals with dominant safravi khilt, the hair is observed to be smooth and silky as safra is responsible for metabolism in your scalp tissues. When metabolism is healthy, the follicles produce healthy hair strands with integrated cuticle layers. This hair type is slightly wavy with moderate thickness and density, medium strength, and length [7, 19-20]. Excessive Safravi khilt, however, can lead to heightened heat within hair follicles, which may be damaging and cause a greasy scalp texture, prone to boils and itchy dandruff. This, in turn, can lead to thinning and premature greying. Khilt-e-Dam (Sanguine) contributes to bodily nourishment and energy production, promoting growth and replacement of wear and tear. Ibn-e-Sina says; it promotes growth. Damvi hair type is thick, smooth, lustrous, well-hydrated, straight, and rapid growth rate [18-20]. Balghami is raw blood that has not been completely transformed into sanguine humor (Blood). Ibn-e-Nafis (1210-1288 AD) describes that in instances of food deficiency in the body, Balgham is transformed into blood through metabolism, becoming mobilized within the bloodstream and assuming blood-related functions. In damvi and baghami mizaj, the hair texture remains lustrous as governs the oil and sebum production in your scalp tissues. Balghami individuals have thin, scanty hair with a slower growth rate and lighter color and tend to be white [17-21]. An imbalance in Damvi and Balghami mizaj can result in an excess of oil secretion, which can lead to blockage of scalp follicles, resulting in wet and sticky flakes due to heightened humidity [21-26]. Every person aspires to beauty to admire themselves. Not only is beauty a source of joy, but it can also inspire pride and confidence to some extent. Since hair reveals a person's outward look, it is the most crucial factor in determining beauty. The objective of this study is to evaluate the correlation between Mizaj-dependent attributes and patterns of hair loss. Should a meaningful relationship be discovered, hair loss (Shaar) could potentially serve as a practical marker for the design and validation of Mizaj

diagnostic scales and the clinical applications of Mizaj identification. Furthermore, this study seeks to establish a connection between the theory of Mizaj and modern concepts, paving the way for future research endeavours.

2. Methods and Materials

2.1 General data

This cross-sectional descriptive study encompassed 105 (One hundred and five) participants, ranging in age from 20 to 60 years, and encompassing both genders. The study was conducted at the Outpatient Department (O.P.D) at A and U Tibbia College and Hospital in Karol Bagh, New Delhi, India, spanning from the year 2020 to 2021. All subjects provided informed consent before undergoing the study procedures.

2.2 Inclusion criteria

Participants were screened based on the following inclusion criteria: 1) Age between 20 and 60 years. 2) Either gender 3). Clinically healthy individuals 4) Absence of any apparent morbidity and no history of any disease.

2.3 Exclusion criteria

Individuals meeting any of the following criteria were excluded from this study: 1.) Age below 20 years, 2.) Age above 60 years, 3.) Alcoholics, 4.) Smokers and tobacco users, 5.) Pregnant or lactating individuals, 6.) Those with a history of trauma, 7.) Volunteers who had used dyes or colors on their scalp hair, 8.) Individuals with skin diseases, hair diseases, or a history of medication.

2.4 Research methods

2.4.1 Questionnaire design

The questionnaire utilized in this study aimed to assess Mizaj (body type), namely Damvi (Sanguineous), Safravi (Bilious), Balghami (Phlegmatic), and Saudavi (Melancholic). The basis for this questionnaire was Ajnas e Ashra, which encompasses ten classical parameters. These parameters include.

1. Malmas (Tactus): Sense of touch
2. Lahm-was-Shahm (Flesh and fats): Physical attributes related to flesh and fats
3. Ashaar (Hair rate of growth, color, distribution): Characteristics of hair, such as growth rate, color, and distribution
4. Laun-e-Badan (Body Complexion): Overall complexion of the body
5. Hayyat-e-Aza (Physique): General physique and body structure
6. Kaifiyat-e-Infaal (Responsiveness of organs): How organs respond to external stimuli
7. Afal-E-Aza (State of functions): Functioning state of bodily organs
8. Fuzlaat-E-Badan (Body waste): Disposal of body waste

9. Nom-Wa-Yaqza (Sleep and wakefulness): Patterns of sleep and wakefulness
10. Infalat-E-Nafsaniya (Psychic Reactions): Psychological reactions and responses

These parameters were derived from Unani classical literature and formulated by the Central Council for Research in Unani Medicine (CCRUM), under the Ministry of AYUSH, New Delhi. Participants responded to the questionnaire based on their individual characteristics, and scores were computed. The Mizaj that obtained the highest score was considered the dominant Mizaj, influencing their anatomical, physiological, and psychological aspects [27].

2.5 Assessment of hair loss pattern by Cohen hair loss classification system

This simplified version of the Hair Loss Index, Profile, and Severity Scale, introduced by Cohen in 2003 [28-30].

2.5.1 Components of the System [28-30]

2.5.1. A Topographic MAP: A topographic map with three distinct regions delineates the specific scalp areas affected by androgenetic alopecia. These illustrations can serve as visual aids for recording graft placement, identifying donor scars, documenting scalp tumors, traumatic scars, and areas impacted by alopecia areata, among other uses.

2.5.1. B Display Chart: The chart comprises 100 empty cells, which are categorized into three primary regions and further divided into eight numbered zones: Frontal (Zones 1, 2, 3); Crown (Zones 4, 5, 6); Fringe (Zones 7, 8). These 100 cells are proportionally distributed among the eight zones, reflecting their relative anatomical sizes. Zone 8, the largest among them, encompasses 25 cells and thus represents 25% of the topographic map and chart.

2.5.1. C Severity Scale: The severity scale involves an assessment that gauges the observable amount of hair in relation to visible skin, and it necessitates the evaluator to assign this ratio to one of six predefined categories. Comprehensive definitions and illustrative photographs are furnished to establish clear criteria for classifying hair loss as minimal, mild, moderate, or severe.

2.5.1. D Procedure

Hair loss severity was visually assessed in each numbered zone. To assess the severity of each zone, a line was drawn across all columns of the respective zone on the blank display chart. The cells beneath this irregular line were then counted to determine the extent of severity. The number of cells beneath the irregular line became the hair loss Index. The completed bar graph was the hair loss Profile.

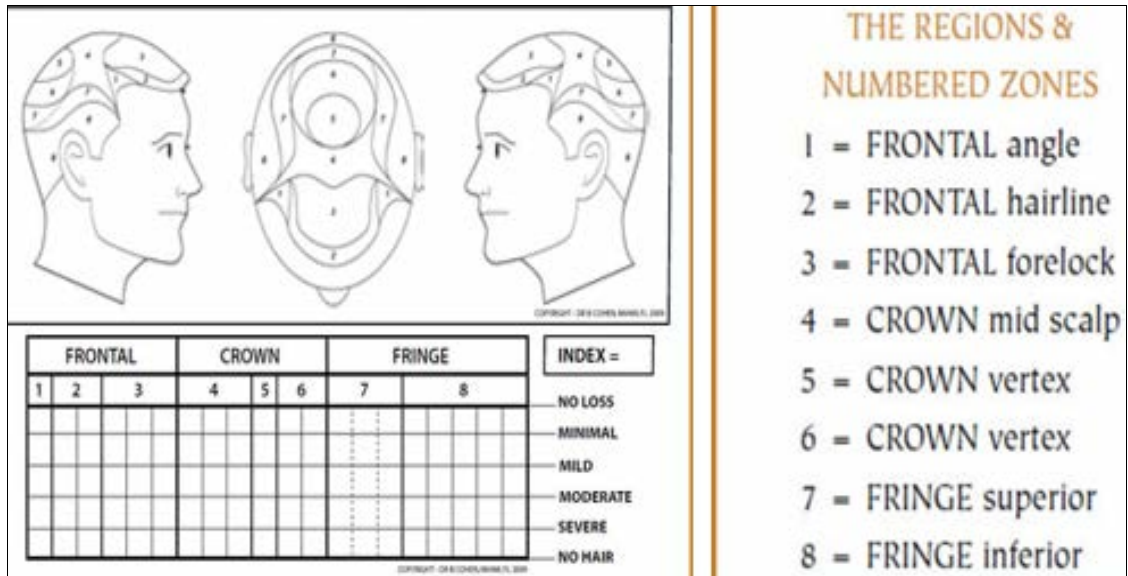


Fig 1: Eight zones and three regions are utilized to pinpoint the specific areas on the scalp that are frequently impacted by male pattern baldness.

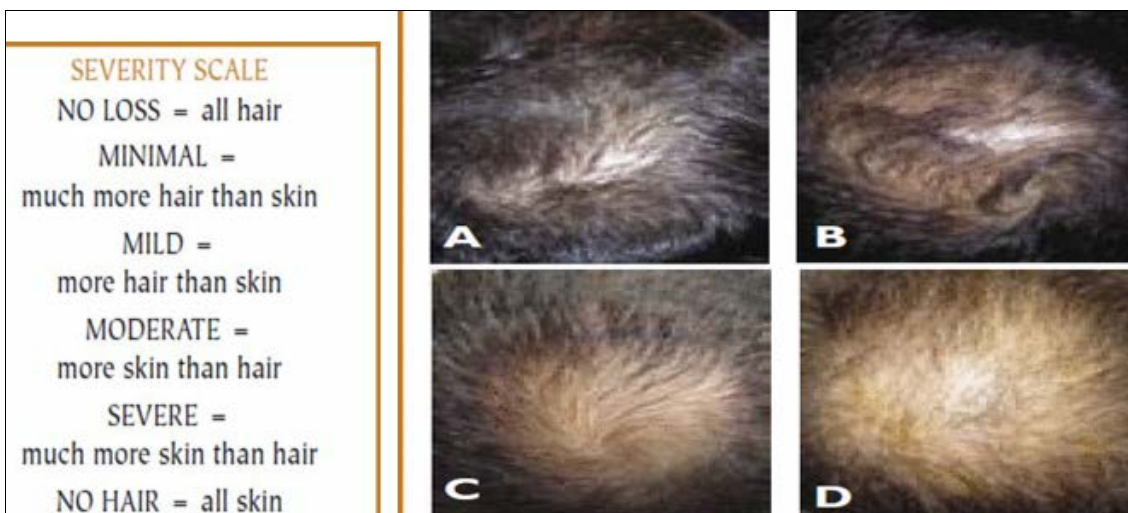


Fig 2: The Severity Scale, along with corresponding photographic examples, is categorized as follows: A: Minimal - Significantly more hair than skin is visible, B: Mild - There is more hair visible compared to the amount of skin, C: Moderate - More skin is visible in relation to hair, D: Severe - There is a significant amount of skin visible compared to hair.

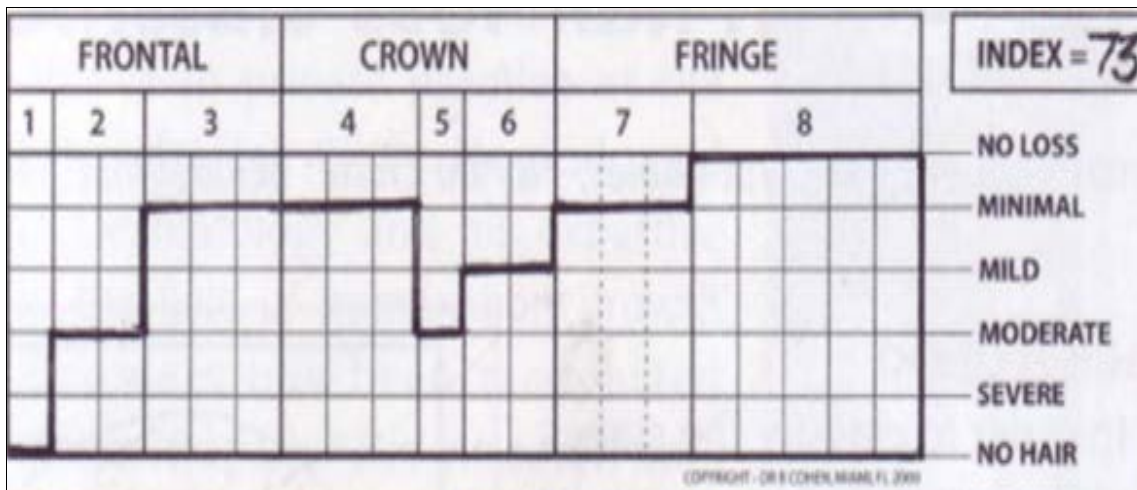


Fig 3: For common hair loss patterns, extend a line across all columns within each zone to assess and document the extent of hair loss in that particular area.

2.6 Sampling method

In Delhi, India, a total of 105 participants were chosen using

a simple random sampling method based on specific inclusion and exclusion criteria. They were then invited to

complete the questionnaire. Data collection commenced on November 2, 2021, and concluded on December 17, 2021. Participants were provided with comprehensive information about the survey, including its purpose and the interview process. It's important to note that all participants willingly and voluntarily took part in the study, and their involvement was kept anonymous.

2.7 Investigation methods

The study was conducted through one-on-one inquiries where participants were individually presented with the questionnaire in a face-to-face manner. To guarantee the authenticity and reliability of the results, each participant received only one Mizaj proforma along with an informed consent form. Participants had the option to respond to the questionnaire in a face-to-face setting. Any queries raised by the participants were addressed by the investigator without influencing their choices or responses.

2.8 Statistical methods

Data were analyzed by SPSS version 22.0 (SPSS Inc., Chicago, IL, USA). Tests of normal distribution and homogeneity (Kolmogorov-Smirnov) were conducted on all data before analysis as the sample size of this study is greater than 50. Descriptive statistics were presented in terms of the median and Interquartile Range (IQR) due to the non-normal distribution of the data. The reference value of the Cohen Index also follows the above situation. Significant difference among mizaj was established by Kruskal-Wallis after that an additional post hoc test Dunn's test to compare each group and determine which are significantly different from each other. The alpha value was set at a significance level of less than 0.05 to minimize the risk of Type I error.

2.9 Consent of participants

All participants provided their informed consent to participate in the study. They were collectively provided with comprehensive information regarding research ethics and, after being fully informed about the study's objectives, the benefits of participation, and their right to withdraw from the study, they signed a consent form. During the transcription process, any personally identifiable information was intentionally removed, and participant details were solely represented on the questionnaire transcripts through unique ID numbers.

3. Results

Among the 105 participants, there were 52 females and 53 males. The distribution of Mizaj types was as follows: Safravi Mizaj was the most common among 29 participants, followed by Balghami Mizaj with 30 participants, Damvi Mizaj with 37 participants, and Saudavi Mizaj with 9 participants. A significant portion of the sample consisted of undergraduate students, and the majority of participants were unmarried.

Table 1: Mean rank of Cohen index in different mizaj group

Mizaj	N	Mean Rank
Balghami	30	52.18
Damvi	37	56.62
Safravi	29	59.97
Saudavi	9	18.39
Total	105	

Table 2: Median and interquartile range of Cohen index for different mizaj

Mizaj	Median	Interquartile Range
Balghami	70.00	33.75
Damvi	79.00	29.00
Safravi	78.00	28.00
Saudavi	48.00	13.00

Table 3: Test Statistics^{a,b}

	Cohen
Chi-Square	13.710
DF	3
Asymp. Sig.	.003
a. Kruskal Wallis Test	
b. Grouping Variable: mizaj	

Table 4: Dunn`s test pair wise comparison of Mizaj

Mizaj 1-Mizaj 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.
Saudavi-balghami	33.784	11.564	2.922	.003
Saudavi-damvi	38.233	11.309	3.381	.001
Saudavi-safravi	41.577	11.610	3.581	.002
Balghami-damvi	-4.438	7.476	-.594	.553
Balghami-safravi	-7.782	7.924	-.982	.326
Damvi-safravi	-3.344	7.547	-.443	.658

4. Statistical Decision

H (Degree of Freedom) = Chi-square test statistic, p-value =0.05

H (3) = 13.710, p=0.03

The Kruskal-Wallis test yielded a statistically significant difference in Mizaj groups across four conditions, as indicated by a chi-square statistic of 13.710 with a p-value less than 0.03. Consequently, the null hypothesis (H0) is rejected. This leads to the conclusion that the four Mizaj groups do not exhibit the same Cohen Index (CI), and there is at least one pair of groups with a significant difference in CI.

Referring to Table 2, it is observed that the median CI score was highest in the Damvi group (Md=79.00), followed by the Safravi Mizaj group (Md=78.00), and in comparison, lower in the Balghami group (Md=70.00) and lowest in the Saudavi group (Md=48.00). The interquartile range (IQR) was widest in the Balghami group (IQR=33.75), followed by the Damvi Mizaj group (IQR=29.00), whereas it was narrower in the Safravi (IQR=28.00) and Saudavi (IQR=13.00) groups.

The Dunn's test, a post hoc test, was employed to identify significant differences between two groups, and the outcomes of this test are presented in Table 4 As shown in the table safravi vs saudavi and safravi vs balghami showed the highest significant mean rank difference (M1 M2) at $p<0.05$ with 95% confidence.

5. Discussion

According to *Ibn Sina* in his famous book *Al Qanoon Fil Tibb*, Hair growth tends to occur more rapidly in individuals with a hot and dry temperament, while in those with a cold Mizaj, hair growth tends to be slower [32]. According to *Ismail Jorjani and Razi*, People with barid (cold) Mizaj i.e. Balghami and Saudavi individuals have scanty hair with a slower growth rate and the lighter color tends to be white and yellow while warmness with wetness or dryness of Mizaj i.e. damvi and safravi mizaj leads to thick hair with rapid growth, high-density of hair, in addition to these

qualities curly hair is also a sign of dryness of Mizaj and straight hair indicates wetness of mizaj [7, 26]. According to Ibn Nafis, Coarse hairs are typically observed in individuals with a hot temperament. Specifically, straight and coarse hairs are characteristic of a hot and moist temperament, whereas coarse and curly hairs suggest a hot and dry temperament. On the other hand, individuals with a cold and moist temperament often have straight and fine hair, while those with a cold and dry temperament tend to have curly, fine, and sparse hair [30]. The characteristics of hair in individuals with Damvi Mizaj (Sanguine temperament) are black, lustrous, thick, and exhibit rapid growth. In contrast, people with Safravi Mizaj (Bilious temperament) tend to have brown hair that is of medium thickness, rough in texture, and abundant with rapid growth. Similarly, individuals with Balghami Mizaj (Phlegmatic temperament) typically have hair that is brownish or whitish, thin, and grows slowly. Finally, those with Saudavi Mizaj (Melancholic temperament) often have brown hair that is thin and exhibits slow growth [31-36]. The present study reveals that safravi and damvi individuals have a higher score for the Cohen index and minimum hair loss while balghami have the lowest Cohen index with more hair loss followed by saudavi individuals. These are in line with our results as Safravi mizaj is composed of hot & dry qualities and has dense hair, also damvi mizaj individuals have thick hair than balghami and saudavi mizaj composed of cold & wet and cold & dry qualities. Our results also indicate that there is a significant relationship between hair growth and hair fall pattern.

In addition, balghami mizaj individuals have sluggish movements and activities. Their functions like sleep are excessive and memory is bad. This leads to increased Sukoon-E-Nafsani [36]. Ibne Nafis posited that an excessive Sukoon-E-Nafsani, or tranquility of the psyche, can result in a state of coldness within the body. This coldness, in turn, might lead to an increase in bodily fluids, including wetness. It's possible that this heightened wetness could be attributed to the secretion of the cortisol hormone, which is known to have effects on hair loss [30]. One of the famous Unani Zakariya Razi asserted that the root cause of hair loss or baldness is attributed to Ratubat, which refers to wetness or excessive moisture in the body. According to Razi, this condition is generally not observed in children and is a rare occurrence among females and transgender individuals. Instead, it predominantly affects males and is more commonly associated with older age groups [6]. These statements are significant with the results of the present study balghami individuals have a low Cohen index followed by saudavi. Moreover, saudavi individuals experience an excess of evil thoughts and anxieties [32-39]. In one study it has been observed that individuals with Mizaj-E-Saudavi (Melancholic temperament) are believed to be more prone to experiencing this disharmony, referring to hair loss or baldness [40]. A study on stress proposed the idea that mechanical stress could be a contributing factor to androgenetic alopecia (Commonly referred to as male pattern baldness) and hair loss [41]. This could be a possible explanation for findings in the current study of the lowest Cohen index.

Two major limitations of this study could be addressed in future research. First, the study had limited ability to gain access to the geographic scope of participants. The second is that the sample size is small. Thus, it is important to note

that the generalization of these findings to the entire population may not be appropriate. For future investigations, it is recommended to design studies with a sufficiently large sample size and to take into account the additional variables mentioned earlier. This approach will help address the limitations identified in the current study.

6. Conclusion

Hair is an essential component to enhance confidence and greatly contributes to the enhancement of beauty. Hair problems are becoming more common very suddenly. Faulty Dietary practices, a hectic lifestyle, poor nutrition, or aggravating conditions all contribute to the hair root's ability to function. The present study confirms that the Cohen index is at its minimum among individuals with Saudavi and Safravi mizaj, while it is highest among those exhibiting Balghami and Damvi mizaj. This observation aligns with the experimental hypothesis of the research, further substantiating the potential link between hair loss and Mizaj. This study validated the diagnosis or determination of mizaj in a person with the help of scalp hair conditions and the clinical significance of mizaj assessment in the treatment of hair fall problems.

7. Limitations

This study considered only those participants who were easily accessible and may not represent the entire population.

8. Acknowledgment

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9. Declaration of Conflicting Interests

The authors affirm the absence of any conflicts of interest.

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11. References

1. Hashmi I, Jamal Y, Siddiqui S. Depression symptomatology correlation with mizaj in young college students during the lockdown. *Int Ayurvedic Med J* [Internet]; c2022 [Cited February 2022]; Available from: http://www.iamj.in/posts/images/upload/361_365.pdf.
2. Gordon BL, Neuburger M. *Medicine throughout Antiquity*. South Lyon, MI, USA: FA Davis Company; c1949. <https://doi.org/10.1001/jama.1949.02910110059028>.
3. Jabin F. A guiding tool in unani Tibb for maintenance and preservation of health: A review study. *Afr J Tradit Complement Altern Med*. 2011;8(5):140-143. <https://doi.org/10.4314/ajtcam.v8i5S.7>.
4. Ibn Sina Hussein bin Abdullah. *Law in medicine (Al Ghanoonfi Teb): Scientific-research/the composition of Sheikh-al-Raees AbuAli Sina*; Researched and translated by Javad Rajabi. Tolo Gharb Elvand, 2015, 13. ISBN: 978-600-94819-9-6.
5. Jorjani SI. *Khwarazmshahi reserve book (Zakhireye Khawrazmshahi)* Publications of Farhang Iran Foundation. 2011;2:423. ISBN: 978-622-7503-81-4.
6. Rhazes MZ. *Al Hawi Book (Al-Kitab al Hawi)*. New

- Dehli, India: CCRU Medicine & Govt. of India, Ministry of Health & Family Welfare; c2007.
7. Jorjani A. Medical purposes and higher studies (Al-GharzAl-Tabi'ah, va Mabaheese Al-Ala'iyah). Tehran, Iran: Tehran University Press & Publication, 2009, 2.
 8. Malekolatebba MT. A new and fluent description and writing of Hafez al-Ilah and the treatise of Hafez al-Saha (Sharhva Negaresha No VA Ravan AZ Tashilo Alalaj VA Resale Hafezo Sehat). Qom, Iran: Jalaluddin Publications; c2008. ISBN: 978-964-8410-68-6.
 9. Majoosi Ahwazi A. Complete medical industry (Kamel al-Insanaal-Tabiyyah). Tehran: Safir Ardahal: Institute of Islamic Studies, University of Tehran - McGill University; Montreal: McGill University; c2021.
 10. Dehlavi Arzani AM, Baghbani M. (2012) Happy Hearts (Mafrahal Qulub). Tehran, Iran: Al-Mai Publications; c2012; ISBN: 9786007463086.
 11. Tabri R, Sahal AB. Firdaus-ul-Hikmat Fil Tibb. Urdu translation by Rasheed RA. Hamdard Foundation Press, Karachi; c1981. p. 153-154.
 12. Cheng AS, Bayliss SJ. The genetics of hair shaft disorders. *J Am Acad Dermatol.* 2008;59:1-22.
 13. Malkud S. Telogen Effluvium: A Review. *J Clin Diagn Res.* 2015;9:WE01-WE03.
 14. Paus R, Cotsarelis G. The biology of hair follicles. *N Engl J Med.* 1999;341:491-497.
 15. Rile N, Liu Z, Gao L, Qi J, Zhao M, Xie Y, *et al.* Expression of Vimentin in hair follicle growth cycle of inner mongolian cashmere goats. *BMC genomics.* 2018;19:38.
 16. Sinclair R, Torkamani N, Jones L. Androgenetic alopecia: new insights into the pathogenesis and mechanism of hair loss, 2015, 4(585).
 17. Yesudian P. Human Hair - An Evolutionary Relic? *Int J Trichology.* 2011;3:69.
 18. Zaidi IH, Zulkifile M. In *Temperament ology - A Scientific Appraisal of Human Temperament*; I.H Zaidi (editor) Aligarh; c1999. p. 13, 18-23, 34, 64-65.
 19. Masihi AS. *Kitab Al-Miya*. New Delhi: Central Council for research in Unani medicine New Delhi. Ministry of Health & Family Welfare, Govt. of India; c2008. p. 101-21.
 20. Rushd I. *Kitab Al-Kulliyat* (Urdu Translation). New Delhi: Central Council for Research in Unani Medicine New Delhi. Ministry of Health & Family Welfare, Govt. of India; c1987. p. 30-99.
 21. Zakaria AMB. *Kitab-Al-Hawi* (Urdu Translation). New Delhi: Central Council for Research in Unani Medicine; Ministry of Health & Family Welfare, Govt. of India; 2001;9:71-120.
 22. Kabeeruddin M. *Kulliyat-E-Qanoon*. Part-I. New Delhi: Aijaz Publishing House; c2006. p. 26-57.
 23. Majoosi AIA. *Kamil Al-Sant*. Part-I. New Delhi: Central Council for Research in Unani Medicine; Ministry of Health & Family Welfare, Govt. of India; c2010. p. 109-16, 50-59.
 24. Sina SI. *Al-Qanoon Fil-Tib*. Part-I. New Delhi: Idara Kitab US Shifa; c2010. p. 26-35.
 25. Baghdadi IH. *Kitab Al-Mukhtarat Fit-Tib*. Part-I. New Delhi: Central Council for Research in Unani Medicine; Ministry of Health & Family Welfare, Govt. of India; c2005. p. 22-30.
 26. Jurjani I. *Zakheera Khvarzm Shahi*. New Delhi: Idara Kitabus Shifa; c2010. p. 17-29.
 27. Cohen BH. Hair loss profile, index, and severity scale. In: Haber R, Stough D, editors. *Hair Transplantation*. Philadelphia: Elsevier; c2006.
 28. Cohen BH. The hair loss profile and index: A classification system for pattern balding. In: Unger W, Shapiro R, editors. *Hair Transplantation*. New York, Basel: Marcel Dekker; c2004. p. 887.
 29. Cohen BH. The hair loss profile and index. In: Unger W, Shapiro R, Editors. *Hair Transplantation*. New York, Basel: Marcel Dekker; c2004. p. 925.
 30. Nafis IB. *Kulliyat-E-Nafisi* (Urdu Translation by Kabeeruddin HM). Part-I. New Delhi: Idara Kitab-us-Shifa; c1954; p. 13-77.
 31. Christofer F. Monte. *Beneath the mask, an introduction to theories of personality*. 2nd Edition. Published by Ray Ashton; c1980. p. 334-339.
 32. Ibn Sina. *Al Qanoon fil Tibb*, Book-I, English translation of the critical Arabic Text, Jamia Hamdard, New Delhi; c1993. p. 7-13, 65, 190-197.
 33. Ahmer SM. A Study of Total Serum Protein in Bilious & Phlegmatic Temperaments, Thesis submitted in the Department of Kulliyat, AKTC, AMU, Aligarh; c2013.
 34. Kabiruddin M. *Tarjuma WA Sharah Kulliyat-E-Qanoon*, Part-I. Maktaba Daftarul Masih, Karol Bagh, Delhi; c1930. p. 40, 433-456.
 35. Ibn-E-Rushad M. *Kitab-A1-Kulliyat*, Urdu Translation. CCRUM, New Delhi; c1980. p. 35, 156, 157, 159.
 36. Ahmed Y, Jamil SS, Jahangir U, Ahmad FJ. Alteration in Asbabe-Sitta-Zaruriyah (Six essential pre-requisite for maintaining health) to prevent -S (Telogen Effluvium): An Insight. *Journal of Drug Delivery and Therapeutics.* 2019;9(1):318-322. DOI: <http://dx.doi.org/10.22270/jddt.v9i1.2325>.
 37. Thomas A, Chess S. *Temperament and Development*. Oxford, England: Brunner/Mazel; c1977.
 38. Narain R. *Health Care of Temperament and Constitutional Defects*. 2nd Edition. Delhi: Sir Satguru Publishers; c1996. p. 30-31, 45-47, 62-65.
 39. Bie U, Ansari MA, Faiz A. Temperament (Peerless Key Factor of Umoor-E-Badan) Definitions, Chemistry and Biochemistry. 2018;5(3):881-84.
 40. Hashmi I, Jamal Y. An assessment of the relationship between mizaj and happiness in college students during and after complete lockdown. *Psychosomatic Medicine Research.* 2021;3(4):183. DOI: 10.53388/psmr2021-1220-058.
 41. Segura RT. Involvement of Mechanical Stress in Androgenetic Alopecia. *Int J Trichology.* 2015;7:95-99.

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