

Original Research Article

Evaluation of Mizāj in the students of KTCHRC and its association with their academic performances and BMI: a cross sectional study

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ABSTRACT

Background: *Mizāj* (Temperament) is the elementary fundamentals of Unani system of Medicine. Each person is born with innate *Mizāj* which is susceptible to variation through several influences. Upon this *Mizāj*, health and disease, diagnosis and treatment are based. This study aimed to assess the *Mizāj* of students at KTC-Hospital and Research Centre, examine its relationship with their academic performance, and explore the association between *Mizāj* and students' BMI.

Methods: Data was collected using a schedule and was analysed using statistical software namely Microsoft excel and SPSS Software.

Results: Highest percentage was of *Mizāj Hārr Raṭab* with 22 (21.4%), followed by 21(20.4%) *Moatadil Yābis*, 15(14.6%) *Moatadil Raṭab*. Out of 103 students, 70 were having BMI of 18.5-25 in which 14 have *Mizāj Hārr Raṭab* while 14 have *Moatadil Wa Yābis*. Most of students had secured 80-90% marks in their last exam out of which 9 have *Moatadil Ratab*, 8 have *Hārr Yābis* and 6 have *Hārr Ratab Mizāj*.

Conclusions: This study concludes that most students exhibited a *Hārr Ratab Mizāj*, aligning with descriptions in Unani literature for this age group. Furthermore, a notable correlation was observed between *Hārr Ratab Mizāj* and exceptional academic performance. Moreover, the findings support the Unani view on *Rutubat's* influence on weight, contrasting with the belief that obesity is mainly due to *Burudat* (coldness).

Keywords: B.M.I, *Mizāj*, Temperament

INTRODUCTION

The term *Mizāj* (Temperament) originates from Arabic and translates to *Āmezish*, *Ikhtilāf*, or *Ṭabī'at*. In English, the word "temperament" derives from the Latin *Tempero*, meaning "to mix." *Mizāj* is a fundamental concept in the Unani System of Medicine, referring to the unique quality (*Kayfiyat*) formed in a *Murakkab* (compound) by the

mixing and interaction of the *Ustuqussāt Arba'a* (four elements) in varying proportions.¹⁻³ Human beings are also considered *Murakkab*, and they acquire their *Mizāj* in the uterus through the formation of *Nutfa* (zygote) after the blending of *Mādda Manwīya*. This *Mādda Manwīya* originates from the four elements-*Juz' Nārī* (fiery), *Mā'ī* (watery), *Hawā'ī* (airy), and *Juz' Arḍī* (earthy). The *Mizāj* provided to the foetus enables its survival and

development both during foetal life and after birth in the external environment.^{2,4-6}

Every individual possesses a unique temperament, which influences how they respond to various internal and external stimuli, such as drugs, climate, food, emotions, and bodily reactions.^{6,7}

Hippocrates (460-370 BC) was the first to introduce the concept of *Mizāj*. According to the theory of *Mizāj*, every individual possesses an inherent temperament shaped by inborn strengths and weaknesses across various faculties, though it may experience temporary changes.⁸⁻¹² An individual's *Mizāj* not only determines their unique traits but also directly affects their health and susceptibility to illness. Based on this, Unani physicians classify personalities into four types: *Damwī* (sanguine), *Balghamī* (phlegmatic), *Ṣafrāwī* (bilious), and *Sawdāwī* (melancholic).¹³⁻¹⁹

This *Mizāj* is directly linked to the weight of the individual and to his academic performances. As far as the weight is concerned it is the *Hararat* which promotes the growth of *lahem* by acting upon *Rutubat* and *Burudat* acts as *sabab-e-fail* for *shahem*.^{4,6,10} This is the reason for more muscle mass in case of *Ḥārr Mizāj* and more fat content in the *Barid Mizāj* people.

Similarly, the academic performance governed by the efficiency in the functioning of brain is also attributed to the *Mizāj* of the individual. *Ḥārr Mizāj* people are usually more intelligent and quicker in learning process whereas the *Barid Mizāj* people are comparatively dull and slow in learning process.^{4,6,10}

METHODS

This observational, college-based cross-sectional study targeted first- and second-year medical students over 18 years old attending the OPD of *Tahaffuzi wa Samaji Tib*. Conducted from May 1, 2023, to May 30, 2023, the study utilized a convenience sample of 110 students, with 103 completing the study after 7 participants dropped out. Students other than first- and second-year were excluded. Data collection was facilitated through a structured,

pretested questionnaire, which included questions on demographic information and the *Mojahedi Mizāj Questionnaire (MMQ)*. Participants were informed during the interview that the study aimed to raise awareness among them.

All narrative data were categorized into two main sections: demographic data and *Mizāj*. To ensure data quality, each completed questionnaire was manually reviewed prior to tabulation in Microsoft Excel. Data analysis was performed using Microsoft Excel and SPSS, with graphs and tables generated in Microsoft Word and Excel.

RESULTS

Out of the 110 students, 7 dropped out. Among 103 students, highest percentage was of *Mizāj Ḥārr Raṭab* with 22 (21.4%), followed by 21 (20.4%) *Moatadil Yābis*, 15 (14.6%) *Moatadil Raṭab*, 14 (13.6%) *Ḥārr Yābis*, 12 (11.7%), 8(7.8%) *Bārid Yābis*, 5 (4.9%) *Bārid Raṭab* and 5 (4.9%) *Moatadil* (Table 1).

Table 1: Distribution of students according to Mizāj (n=110).

<i>Mizāj</i>	No. of students	Percentage (%)
<i>Bārid Raṭab</i> (cold-wet)	5	(4.9)
<i>Bārid Yābis</i> (cold-dry)	8	(7.8)
<i>Ḥārr Raṭab</i> (hot-wet)	22	(21.4)
<i>Ḥārr Yābis</i> (hot-dry)	14	(13.6)
<i>Moatadil Wa Yābis</i> (temperance-dry)	21	(20.4)
<i>Moatadil Wa Raṭab</i> (temperance-wet)	15	(14.6)
<i>Ḥārr Wa Moatadil</i> (warm-temperance)	12	(11.7)
<i>Moatadil</i> (temperance)	5	(4.9)
Total	103	100.0

Out of 103 students, highest percentage 70 were having BMI of 18.5-25 in which 14 have *Mizāj Ḥārr Raṭab* and 14 have *Moatadil Wa Yābis* (Table 2).

Table 2: Distribution of students according to association between Mizāj and B.M. I (n=110).

<i>Mizāj</i>										
BMI	<i>Bārid Yābis</i> (cold-dry)	<i>Bārid</i> (cold-temperance)	<i>Bārid Raṭab</i> (cold-wet)	<i>Moatadil Wa Yābis</i> (temperance-dry)	<i>Moatadil</i> (temperance)	<i>Moatadil Wa Raṭab</i> (temperance-wet)	<i>Ḥārr Yābis</i> (hot-dry)	<i>Ḥārr Wa Moatadil</i> (hot-temperance)	<i>Ḥārr Raṭab</i> (hot-wet)	Total
18.5-25	4	1	4	14	5	8	9	11	14	70
%	5.7	1.4	5.7	20.0	7.1	11.4	12.9	15.7	20.0	100
25-30	0	0	1	0	0	6	3	1	8	19
%	0.0	0.0	5.3	0.0	0.0	31.6	15.8	5.3	42.1	100
Less than 18.5	4	0	0	7	0	1	2	0	0	14

Continued.

<i>Mizāj</i>										
BMI	<i>Bārid Yābis</i> (cold-dry)	<i>Bārid</i> (cold-temperance)	<i>Bārid Raṭab</i> (cold-wet)	<i>Moatadil Wa Yābis</i> (temperance-dry)	<i>Moatadil</i> (temperance)	<i>Moatadil Wa Raṭab</i> (temperance-wet)	<i>Ḥārr Yābis</i> (hot-dry)	<i>Ḥārr Wa Moatadil</i> (hot-temperance)	<i>Ḥārr Raṭab</i> (hot-wet)	Total
%	28.6	0.0	0.0	50.0	0.0	7.1	14.3	0.0	0.0	100
Total	8	1	5	21	5	15	14	12	22	103
%	7.8	1.0	4.9	20.4	4.9	14.6	13.6	11.7	21.4	100

Table 3: Distribution of students according to association between Mizāj and academic performance (n=110).

Academic performance (% of marks last secured)	<i>Bārid Yābis</i> (cold-dry)	<i>Bārid Raṭab</i> (cold-wet)	<i>Moatadil Wa Yābis</i> (temperance-dry)	<i>Moatadil</i> (temperance)	<i>Moatadil Wa Raṭab</i> (temperance-wet)	<i>Ḥārr Yābis</i> (hot-dry)	<i>Ḥārr Wa Moatadil</i> (hot-temperance)	<i>Ḥārr Raṭab</i> (hot-wet)
<70	2	1	6	1	0	0	3	3
%	12.5	6.3	37.5	6.3	0.0	0.0	18.8	18.8
70-80	1	2	7	0	5	1	2	12
%	3.3	6.7	23.3	0.0	16.7	3.3	6.7	40.0
80-90	3	3	7	3	9	8	4	6
%	7.0	7.0	16.3	7.0	20.9	18.6	9.3	14.0
>90	2	0	1	1	1	5	3	1
%	14.3	0.0	7.1	7.1	7.1	35.7	21.4	7.1
Total	8	6	21	5	15	14	12	22
%	7.8	5.8	20.4	4.9	14.6	13.6	11.7	21.4

Out of 103 students, highest number of students have 80-90% marks in the last exam out of which 9 have *Moatadil Raṭab*, 8 have *Ḥārr Yābis* and 6 have *Ḥārr Raṭab Mizāj* (Table 3).

DISCUSSION

According to Unani literature, human beings are classified into four age groups based on *Mizāj*. The first group, known as *Sinn Nimu*, typically has a *Ḥārr Raṭab Mizāj* and includes individuals aged 0-30 years. This study, conducted on first- and second-year students, mostly under 30, found that the majority had a *Ḥārr Raṭab Mizāj*, thus supporting the Unani physicians' assertion that this age group generally exhibits a *Ḥārr Raṭab Mizāj*. Out of 103 students, 70 had a BMI between 18.5 and 25, including 14 with *Ḥārr Raṭab Mizāj* and 14 with *Moatadil Wa Yābis Mizāj*. According to Unani literature, *Ḥārr Raṭab Mizāj* suggests greater muscle mass, as *Rutubat* (moistness) contributes to muscle and fat formation. When *Ḥararat* (warmth) is balanced with *Rutubat*, normal body weight is maintained, supporting the Unani view that individuals with *Ḥārr Raṭab Mizāj* typically have more *Lahem* (muscle).^{4,6,10} Nineteen students had a BMI of 25-30, classifying them as overweight or obese, including 8 with *Ḥārr Raṭab Mizāj* and 6 with *Moatadil Raṭab Mizāj*. This aligns with the Unani understanding regarding *Rutubat's* role in weight, though it diverges from the belief that obesity is primarily caused by *Burudat* (coldness). Additionally, 7 students with *Moatadil Yubusat Mizāj* had a BMI below 18.5, indicating underweight, which correlates with Unani

literature attributing underweight conditions to a dominance of *Yubusat* (dryness).^{4,6,10} In this study, majority of students scored between 80-90% on their last exam, including 9 with *Moatadil Raṭab*, 8 with *Ḥārr Yābis*, and 6 with *Ḥārr Raṭab Mizāj*. This supports the Unani belief that individuals with *Ḥārr Mizāj* tend to be more intelligent and quicker in the learning process.^{4,6,10}

Despite being conducted with commendable rigor, this study has certain limitations. The lack of prior research in this area confined correlations to classical literature. Moreover, some pertinent literature was inaccessible due to language barriers, as translation was not feasible, thereby posing an additional limitation.

CONCLUSION

The study concludes that most students exhibited a *Ḥārr Raṭab Mizāj*, aligning with Unani literature for their age group. It also highlights an association between excellent academic performance and a *Ḥārr Raṭab Mizāj*. Additionally, the findings support the Unani view on *Rutubat's* influence on weight, contrasting with the belief that obesity is mainly due to *Burudat* (coldness).

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REFERENCES

1. Tabri AI. Firdous-ul Hikmat (Urdu Translation). Faisal Publication, Deoband. 2002;52:86-101.
2. Majoosi A. Kamilus Sana'ah (Urdu Translation by Kantoori GH). Volume 1. Lucknow: Munshi Nawal Kishore; 1889.
3. Kabeeruddin M. Kulliyate Qanoon (Urdu Translation) Volume 1. New Delhi: Aijaz Publishing House; 2007.
4. Ibn Rushd AWM. Kitabul Kulliyat (Urdu translation by CCRUM). 2nd ed. New Delhi: CCRUM; 1987.
5. Kauser C. Moojizal Qanoon. 3rd edi. New Delhi: Qaumi Council Barae Farogh Urdu Zaban; 1998.
6. Sina I. Alqanoon Fit Tib. Vol.1 (Urdu Translation by Kantoori GH) New Delhi: Idara Kitabul Shifa; 2007.
7. Jalinoos. Kitab fi Firaq Al Tib (Urdu Trans. By Zillur Rehman SH) Aligarh: Ibn Sina Academy; 2000.
8. Kirmani NBA. Kulliate Nafeesi (Urdu translation by Kabeeruddin M). Vol. 1. New Delhi: Idara Kitabul Shifa; 1935.
9. Ghulam J. Makhzanul Jawahar. New Delhi: Aijaz Publishing House; 1998.
10. Jurjani SI. Zakhira Khwarzm Shahi (Urdu Translation by Hadi Hasan Khan). Vol. 1. Lucknow: Munshi Nawal Kishore; 1996.
11. Sina I. Al Qanoon fit Tib (Urdu Translation by Kantoori GH). Vol. 4. New Delhi: Idara Kitabus Shifa; 2007.
12. Razi AMBZ. Al Hawi fit Tib. Vol. 1. 1st edi. New Delhi: CCRUM; 2005:10-26.
13. Kabeeruddin M. Moalijat Sharhe Asbab. Vol. 1. Hyderabad: Himat book depot; 1916.
14. Zaidi IH, Zulkifle M, Ahmad SN. Temperamentology-A scientific appraisal of human temperament. 1st ed. Aligarh: AMU; 1999.
15. Ahmed SI. Introduction to AL UMUR AL TABIAH. 1st ed. New Delhi: Saini Printers; 1980.
16. Majoosi A. Kamilus Sana'ah (Urdu Translation by Kintoori GH). Vol. 2. Lucknow: Munshi Nawal Kishore; 1889.
17. Razi AMBZ. Kitabul Mansoori (Urdu Translation by CCRUM). New Delhi: CCRUM; 1991.

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