# Inter-Rater Judgement analysis for Item Selection in the Development of the Questionnaire to Determine *Mizaij-i-Insani*

Abdul Malik<sup>1</sup>, Wasim Ahmad<sup>2</sup>, Ghulamuddin Sofi<sup>3</sup>

# ABSTRACT

#### **Background and objective**

*Mizaj* is one of the basic concepts of the *Unani* system of medicine upon which diagnosis and line of treatment of disease are based. According to Unani medicine, each person has uniquely *Mizāj* recognized by physiological, psychological, and therapeutic features. *Mizāj* plays an essential role in the diagnosis and treatment of disease as well. Unani scholars describe several parameters for *Mizaj* assessment. Some relate to the structure, and others to the functions. Due to the lack of scientific validation, no standard method or tool is available to determine*Mizāj* in conducting research and in medical practice. The objective of the present study is to develop a practical tool in the form of a questionnaire for the determination of individual *Mizāj* on the human body, so based on a thorough literature scan about *Mizaj*, items of the questionnaire were framed, and the inter-rater judgment analysis was carried out to validate the items.

## **Methods**

Survey of available literature, especially classical Unani books, journals, theses, dissertations, etc.

#### Results

The result was evolved based on the questionnaire for assessing *Mizāj-i-insani*. The questionnaire was evaluated by ten experts in Unani medicine, and their marks were set; the data analysis showed significant agreement in selecting one of the items in respect of the determination of *Mizāj-i-insani*.

#### Conclusion

The questionnaire formulated based on available literature in Unani medicine consists of items for which there was substantial agreement between the experts for item validation.

# **Keywords**

Arkān; Kayfiyat; Mizāj; Mizāj-i-insani, questionnaire.

# INTRODUCTION

The concept of *Mizāj* unique in Unani Tibb and belongs to this system's core concept. If the *Mizāj* is expected, the Humours produced in the body are proportionate, which leads to a healthy state of the body; otherwise, it causes the disease <sup>1,2</sup>. The *Mizāj* of human beings, body organs, diseases, drugs, diets, and places of dwellings is considered vital in devising the line of treatment for a condition. Further, the individual variations in structure, functions, habits, and mentality are also because of the variance of *Mizāj*.

It is essential to know that the  $Miz\bar{a}j$  at an individual level will be readily affected by similar qualities (as that of his  $Miz\bar{a}j$ ), like the seasons, foods and beverages, air and water, and even the condition at the workplace<sup>3</sup>. By applying the knowledge of the  $Miz\bar{a}j$  of a person, we can prevent them from several diseases and advise the precautionary and prophylactic measures for their safeguard. One of the advantages of knowing the  $Miz\bar{a}j$  of a person is that it enables

- 1. Abdul Malik PG Scholar Dept of Kulliyat Tibb, NIUM Bangalore
- 2. Wasim Ahmad Associate Professor Dept of Kulliyat Tibb, NIUM Bangalore
- Ghulamuddin Sofi. Professor Dept of Ilmul Advia, NIUM Bangalore

#### Correspondence

Wasim Ahmad Associate Professor Dept of Kulliyat Tibb, NIUM Bangalore. Email: <u>drwasimkulliyat@gmail.com</u>

the proper use of diets and drugs. Therefore, we first should know the  $\underline{T}aba$  ' $\overline{\tau}Miz\overline{a}j$  of an individual.

Unani scholars describe several parameters for assessing the Mizāj of a human being through various Signs ('Alāmāt). Some parameters are related to the body's structure, and others to the functions. The assessment methods are subjective and depend upon the judgment of an individual who assesses them. Due to these issues, there is no adequate tool for determining*Mizāj* to be used in research and medical practice. A questionnaire by Mujahidi et al for assessing the human *Mizāj* is purely based on the signs ('AlāmātAmzajā') mentioned in Al Qanoon fit Tibb only<sup>4</sup>. Still, this study questionnaire is based on symptoms (AlāmātAmzajā) said in Al Qanoon fit Tibband included other characters as mentioned by various Unani physicians in Kamil us Sana, ZakheeraKhwarazm shahi, Kitab al Kulliyat, Firdaus ul Hikmat, KulliyatNafeesi, Kitab al Mansoori, Kitab al Mukhtarat fit TibbandKitab fil Mizaj, etc. Moreover, cross-cultural factors also show variations, which necessitate framing separate Questionnaires for the assessment of Mizāj-i-Insāni.

It is a well-known fact that  $Miz\bar{a}j$  is a subjective entity; to make it practical, the most appropriate and easiest way is to formulate a questionnaire. This study attempted to develop a tool to assess  $Miz\bar{a}j$  of humans from the observations mentioned in Unani literature. The most important feature of this questionnaire is its easy comprehension and feasibility, making it readily answerable without hesitancy. Several questionnaire items regarding BMI, respiratory rate, pulse rate, etc., along with other items like sleep, appetite, and daily habits, have been included in the questionnaire. Careful observations framed these questionnaire items from the literature of Unani Medicine, and ten experts reviewed it for inter-rater judgment analysis.

#### Methodology

The present study is based on the "preparation of tool for the determination of *Mizāj-i-Insāni*". The methodology framework used for the present study is based on the following steps:

Literature regarding *Mizāj* available in Unani medicine: Content for the item selection was surveyed from Unani classical literature. The collection of material was mainly from primary sources, and classical books; secondary sources were different periodicals, journals, theses, etc. Tertiary sources were authentic digital materials, e.g., online journals, trusted websites, etc., available in other libraries and places. These places were visited to collect relevant materials from time to time.

Volume 23 No. 02 April 2024

Item Analysis through inter-ratter iudament: Items in the questionnaire were selected based on literature mentioned in classical books. After framing the questionnaire with the help of the literature in Unani medicine, the content and face validity of the selected items were assessed by inter-ratter judgment. Ten experts with professional knowledge of Unani medicine were selected. Their indices' descriptions were explained to equalize the expert's conceptions of content validity indices (relevancy, clarity, and appropriateness of the questionnaire). They were asked to rate each item for clarity, relevance, and the appropriateness of the questionnaire from 01 to 04 (1 = unacceptable, 2 = somewhat acceptable, 3 = good, 4= highly OK). The experts scored the individual items. Since 'AlāmātAmzajais a summative assessment, the items that fit in the 'items rate criteria' were selected for each 'Alāmat. The content validity indices were calculated. To determine the inter-ratter judgment for each item's relevancy, clarity, and appropriateness, the number of experts who chose "quite appropriate" or "appropriate" for each item was divided by the total number of experts.

**Ethical approval**: This study was approved by ethics committee of NIUM Bangalore.

#### **Result and Observation:**

Assessment of Mizāj of normal humans is essential to describe the dominant humour, know the behavioral traits, and predict predisposition to diseases. Ibne Sina has mentioned ten signs that are required to be assessed to know the Mizāj of humans. The assessment of the signs is subjective and has to have relied on the accessor's ability to elicit the sign and its severity. Mujahidi et al developed Mizāj questionnaire based on Ibn Sina's observations. The questionnaire so developed measures the Mizaj on individual homour dominance with two domains to be assessed simultaneously. It has validated it on the Iranian population residing in a particular limited geographic region. The present study is in the process of developing Mizaj questionnaire which encompasses a larger region and the items of the questionnaire have been chosen from the vast literature of Unani medicine encompassing information from major sources of Unani medicine. It includes fifteen

	Bangladesh Journal of Medical Science	Volume 23 No. 02 April 2024 ©The Ibn Sina Trust
validation by inter-rater judgment is under consideration using face and content validity methods. The reliability and validity of the questionnaire and norm development are being taken up and the data will be available in the		the individual features or signs mentioned in Unani literature.
		Literature regarding Mizaj available in Unani Medicine: $Miz\bar{a}j$ of a person was searched from the literature. It was seen that Unani scholars interpreted a particular $Miz\bar{a}j$ through the ' $Al\bar{a}m\bar{a}t$ (Signs). There
	Identification of Domains: Domain selection was	were 'Alāmāt for active Kafiyāt, Hārr and Bārid and a

made from the mentioned types of Mizāj-i-Insañi for Hārr, Bārid, Rath, and Yābis characteristics along with the combination of HarrYabis, HarrRath, BaridYabis and BāridRatb [5,6]. The items were selected from

separate list of 'Alāmāt for passive Kafiyāt, i.e., Rațb and YābisMizāj. Also, some authors have mentioned 'Alāmāt for both Kafiyāt together [8]. The 'Alāmāt mentioned in Unani literature is summarised in table 1.

Table 1. Identification of items: Thorough literature scan enabled one to choose items and locate them in various domains.

Characteristics	Signs	Reference	
Nabd(pulse)	<i>nabd</i> will be <i>'azīm</i> - Hot- temperament people: <i>nabd</i> will be <i>saghir</i> - cold- temperament people <sup>1,8,9,10,11,12</sup> .	Kamil Al- sanaʿa, Kulliyat-e-Nafisi, Kitab ul Mansoori.	
Tanaffus(respiration)	<i>tanaffus</i> will be <i>'azīm</i> - Hot- temperament people: <i>Tanaffus</i> will be <i>saghīr</i> - Cold-temperament people <sup>1,9,13</sup> .	Kamil Al- sanaʿa, Kitab ul Mansoori, Kitab ul Kulliyat,	
Daily routine work (responses or walking style).	Respond actively / fast and walk hurriedly- Hot- temperament people: respond slowly / dull and walk slowly- Cold-temperament people <sup>1,3,8,9</sup> .	Kamil Al- sanaʻa, Kulliyat-e-Qanoon,Kitab ul Mansoori, Kulliyat-e-Nafisi.	
Blinking of eyes	Fast blinking of eyes- Hot- temperament people; Slow blinking of eyes-Cold-temperament people <sup>3</sup> .	Kulliyat-e-Qanoon.	
Odour and colour of urine and stool.	Hot- temperament people have a sharp odour and dark colour of urine and stool; Cold-temperament people have Light odour and light yellow colour of urine and stool <sup>8,9,14</sup> .	Kulliyat-e-Nafisi, Kitab ul Mansoori, Kulliyat- e-Qanoon,Sembulingam.	
Season and food	Hot- temperament people: like cold season and cold temperament food; Cold – temperament people: like hot season and hot temperament food <sup>3.8</sup> .	Kulliyat-e-Qanoon,Kulliyat-e-Nafisi.	
Digestion	Hot- temperament people: fast digestion. Cold – temperament people: slow digestion <sup>1,8,9,15</sup> .	Kamil Al- sanaʿa, Kitab ul Mansoori, Kulliyat-e-Nafisi, Kulliyat-e- Qanoon,ZakhiraKhwarizam Shahi,	
Body vessels and their texture	Hot- temperament people: vessels are thick and prominent; Cold – temperament people: Inconspicuous / not visible; Wet-temperament people: vessel texture is Soft; Dry- temperament people: vessel texture is hard <sup>1,8,9</sup> .	Kamil Al- sana'a, Kulliyat-e-Nafisi, Kitab ul Mansoori,	
Age of Menarche	Hot- temperament female: Early onset of menarche. Cold- temperament female: Delayed onset of menarche <sup>16</sup> .	GhinaMuna.	
Build	Moist-temperament people: fatty and loose body or obese. Dry-temperament people: Underweight, lean <sup>1,7,9</sup> .	Kamil Al- sanaʿa,Kitab Fil Mizaj, Kitab al Mansouri.	
Skin texture	Moist-temperament people: skin texture will be soft. Dry-temperament people: skin texture will be dry <sup>3,8,9</sup> .	Kulliyat-e-Qanoon,Kulliyat-e-Nafisi, Kitab al mansoori.	
Rage and anger Hot-temperament people: get angry quickly; Cold-temperament Get less angry; Wet -temperament people have: Quick onset which resolves quickly; Dry -temperament people: delayed irrital lasts for a long time <sup>1,13</sup> .		Kamil Al- sanaʻa, Kitab ul Kulliyat.	

**Bangladesh Journal of Medical Science** 

Volume 23 No. 02 April 2024

Characteristics	Signs	Reference	
Voice	Hot-temperament people: Loud voice; Cold-temperament people: Dull or low-pitched voice. Wet -temperament people: Captured voice; Dry -temperament people: Fine and sharp voice <sup>1</sup> .	Kamil Al- sana'a.	
Menstrual history	Hot-temperament female: menses are regular, menstrual days are normal; Cold-temperament female: overweight, oligomenorrhea or hypomenorrhea; Wet-temperament female: Most of the time cervix is wet; Menstrual bleeding is thin in consistency, menses are regular; Dry-temperament female: Most of the time cervix is dry, less amount of menstrual blood <sup>1,17,18</sup> .	Kamil Al- sanaʿa, , Al Qanoon Fit Tibb. FirdausulHikmat.	
Sleep	Cold and dry temperament people: less sleep; cold and wet temperament people, More sleep; hot and wet temperament people: Moderate sleep; hot and dry temperament people: Less and Disturbed sleep <sup>1,3,8,9,18</sup> .	Kamil Al- sanaʻa, Kulliyat-e-Qanoon, Kulliyat- e-Nafisi, Kitab al mansoori, FirdausulHikmat.	
Male genital function	Hot and wet temperament people: Moderate sexual desire which is controlled, strong penile erection; Cold and wet temperament people: Less sexual desire, weak penile erection; Hot and dry temperament people: More sexual desire which is uncontrolled; Cold and dry temperament people: Very less sexual desire <sup>1,13,18</sup> .	Kamil Al- sanaʿa, Kitab ul Kulliyat, FirdausulHikmat.	
Childhood illness	Hot-temperament people: If fever occurs, it is very high grade; Cold-temperament people: Sinusitis, tonsillitis, rhinitis, in the cold season; Wet-temperament people: Indigestion, loose stool, rhinorrhea, edema on face and eyelid; Dry-temperament people: Dry skin, skin disorders, more in the autumn season <sup>3.9</sup> .	Kulliyat-e-Qanoon, Kitab al Mansouri.	

#### Identification of Domains and items:

Literature provides 'Alāmāt for individual Kafiyāt as well as for Kafiyāt taken together. Therefore, the questionnaire was divided into four domains. Accordingly, the Mizaj-i-Insani Questionnaire was developed with these domains. Since the literature emphasized gender-specific items apart from general items applicable to all gender. Two items were added for the female gender, and one specific for the male. The overall Questionnaire with respective domains is presented in table 2. Domain 1 had eleven items, indicating the Hot-Cold Axis. Domain II consisted of five items, indicating the Moist -Dry Axis. Domain III had five items, and all the items indicated the Hot, Cold, Moist and Dry Axis, and Domain IV consisted of four items, and all items indicated the Hot and moist, Hot and dry, Cold and wet, cold and Dry Axis. The questionnaire is in a closedended format, with an appropriate number of options for each item. In all, there were twenty-five items in the questionnaire. Respondents need to tick the option that describes them the best.

#### Table 2: Item Construction of Questionnaire as a tool to assess the *Mizāj-i-Insani*.

Domain I					
		Hārr (hot)	<i>Mu'tadil</i> (norma)	Bārid(cold)	
Q1	Pulse Rate.	90 – 100 beats/ minute	70-80 beats/ minute	60 – 70 beats/minute	
Q2	When you feel the pulse.	Pulsation feels on 3- 4 fingers	Beating feels on 2 – 3 fingers	The vibration feels on one finger	
Q3	Respiratory Rate.	18 - 20 breaths/minute	14-16 breaths/minute	12 – 14 breaths/minute.	
Q4	How is your walking style?	Hurriedly	Pace moderately	Very slow	

**Bangladesh Journal of Medical Science** 

Volume 23 No. 02 April 2024

	Domain I				
		<i>Hārr</i> (hot)	<i>Mu'tadil</i> (norma)	<i>Bārid</i> (cold)	
Q5	No. of blinking/minute	20 – 22 / minute	18 – 20 / minute	15 – 16 / minute	
Q6	Select the handle of the situation.	Are you facing danger aggressively or bravely?	You avoid risk most of the time.	You get anxious and sweaty during any dangerous situation.	
Q7		Sta	ate of waste from the body	у.	
a)	Colour of Urine, sweat, and stool.	Dark yellow in colour.	Pale yellow in colour.	Light yellow in colour.	
b)	The smell of Urine, sweat, and stool.	Strong odour.	Moderate odour.	Light odour.	
Q8	Blood vessels (veins) are.	Thick and prominent.	Moderate	Inconspicuous / not clearly visible.	
Q9	Your favourite season that suits you.	Winter	Spring	Summer	
Q10		Digestion.			
a)	After how many hours do you feel hungry?	2-3 hours	4 hours	6hours	
b)	Please tick your favourite food and beverages.	Ice cream, cucumber, curd, cold drinks.		Spicy food, tea, coffee, papaya, and honey.	
Q11	Age of Menarche.	9 – 11 years	12 – 13 years	14 – 15 years	
Domain II					
		Ratb (wet)	<i>Mu'tadil</i> (normal)	Yābis (dry)	
Q1	BMI	25.5 – 29.5 / More than 30.0	18.5 – 24.9	Less than 18.5	
Q2	Skin texture	Soft	Not soft, not dry	Rough	
Q3	After scratching the back of your hand.	No changes are seen / no white line is formed.	A whitish line is included but not prominent.	A prominent white scratch is formed.	
Q4	The forehead and tip of the nose are?	Shiny/greasy	Normal, not shiny or Dry	Dry	
Q5	Do they feel on palpation of the vein and the back of the hand?	Soft	Not soft, not hard	Hard	

Bangladesh Journal of Medical Science

Volume 23 No. 02 April 2024

©The Ibn Sina Trust

Domain I					
		<i>Hārr</i> (hot)	<i>Mu'tadil</i> (norma)	<i>Bārid</i> (cold)	
	Domain III				
		Hārr	Bārid	Rațb	Yābis
Q1	How fast are your rage and anger?	Quickly get angry.	Get less angry.	Quickly get mad and quickly get calm.	Get angry late and will last for a long time.
Q2	How do others perceive your voice?	Loud voice	Dull voice	Captured voice	A fine and sharp voice
Q3	Menstrual history?	Menses are regular, and periods last for 3-5 days.	Oligomenorrhea or hypomenorrhea	Menses are regular and on time, and periods last for 5 - 7 days.	Less amount of menstrual blood, periods last for 1-2 days.
Q4	How big are your palm and fingers?	Big palm and long fingers.	Both are small compared to others.	Moderate palm and fingers.	Finger bones are very prominent.
Q5	Any childhood illness?	If fever occurs, it is a very high grade.	Sinusitis, tonsillitis, rhinitis, in cold season.	Indigestion, loose stool, rhinorrhoea, edema on face and eyelids.	Dry skin, skin disorders, more in the autumn season.
			Domain IV		
		Hārrrațb	Hārryābis	Bāridraţb	Bāridyābis
Q1	How many hours do you sleep in 24 hours?	Moderate sleep 6 – 8 hours.	Less and disturbed sleep	More sleep than 8 hours.	Less sleep,4 – 5 hours.
Q2	Decision-making ability.	Moderate decision making	He makes quick decision-making but cannot stand by his own words.	Slow decision- making can be readily moderated.	Complex decision-making, but once the decision is taken. It persists for a long life.
Q3	How do you describe your built since childhood?	Muscular, Strong, and Broad chest.	Light muscular, lean, active, and not fatty.	Fatty and loose body.	Underweight, lean, small / narrow chest, quite short.
Q4	Personal behaviour.	Moderate sexual desire, which is controlled, strong penile erection.	More sexual desire, which is uncontrolled. Strong penile erection.	Less sexual desire, weak penile erection.	Significantly less sexual desire.

# Item Analysis through inter ratter judgment:

According to Jalinoos, Ibn Rushd, Majusi, and Ibn Sina, *Mizāj*is classified in to nine types; *Hārr*, *bārid*, *Raţb*, *Yābis*, *HārrRaţb*, *Hārryābis*, *BāridRaţb*, *BāridYābis*, *Mu'tadil*.

# Table 3: Item Content validity index through expert panel for *Mizaj-i-Insani*Questionnaire.

Characteristics	I-CVIs value
Appropriateness:	Average of I-CVIs = 0.976
Relevancy:	Average of I-CVIs = 0.97
Clarity:	Average of I-CVIs = 0.996

The number of experts in panel=10, I-CVIs- Item Content Validity index.

**Bangladesh Journal of Medical Science** 

# **Content Validation of Developed Questionnaire:**

Inter-ratter judgment analysis showed that the items' average I-CVI for Appropriateness, Relevancy, and Clarity were found to be0.976, 0.97, and 0.996, respectively. All things across the domain for appropriateness of judges were in perfect agreement except Q4 (0.9), Q5 (0.9), Q11 (0.9), and Q21 (0.9). However, for Q24 I-CVI value was 0.8. In the case of relevancy, Q4, Q11, and Q13 showed an I-CVI value of 0.9; in Q12 and Q21, it was 0.8. For Clarity, Q21 had a 0.9 I-CVI value. The judges perfectly rated all other items. The data for inter-ratter judgment and I-CVI values are summarised in Table No.3

# DISCUSSION

Conventional medicine has focused on the biological variations between people in recent decades. Still, emerging scientific fields like epigenomics, genetics, nutrigenomics, and pharmacogenetics are attempting to categorize people according to these differences as the new and exciting field of personalized medicine <sup>19,20</sup>. Similarly, therapeutic interventions like prescription drugs, dietary recommendations, and lifestyle modification in Unani medicine cannot be designed without identifying Mizāj indices. Though, Unani medicine conceptualizes the concept phenomenologically.

One of the fundamental requirements in every system of medicine, including Unani medicine, is the design and validation of standard scales to achieve empirical measures. The most crucial prerequisites for strategic development in this area are having access to a decision support system, physical diagnosis, equipment application, and a questionnaire-based format that a professional or self-administered person can do<sup>21</sup>.

This study aims to develop a questionnaire to determine the Mizāj indices of human beings and test the questionnaire for content validity. A diagnostic consensus among experts is one of the first stages toward achieving this objective <sup>22</sup>. The instrument design process involves identifying the content domain, selecting samples from the content (item creation), and building the instrument<sup>[23</sup>.

The first step is to identify the construct's content domain,

which the instrument is designed to measure. The subject matter associated with the metrics is referred to as the content domain  $[^4$ . A review of the relevant literature, interviews with respondents, and focus groups can all be used to find it. The intended construct's boundaries. size, and constituent parts can be seen by precisely explaining its traits and qualities. Qualitative research techniques can also ascertain the relevant construct's variables and concepts [25]. On account of this. First, we surveyed Unani classical texts to select the domains; then, the items from Unani classical literature in respect of 'Alamāt-i- Amzajawere envisaged. Ultimately questionnaire format was designed in a closed-ended format, with an appropriate number of options for each question. In this questionnaire format, the total number of domains is four, and the number of items is twenty-five. Four questions are related to Mizājof the heart and its functions like Nabd, Tanaffus, and human behaviours: bravery, coward, anger, and calmness. These are essential items because every Unani physician considers that Mizāj of heart affects Mizāj-i- insani<sup>1,8,26</sup>.

Four questions are related to Mizāj of the brain, like how someone reacts to any action, blinking of eyes, sleep, and decision making. Four questions are associated with Mizāj of the liver: vessel texture, digestion quality, secretion of matter, and the formation of waste products. Three questions about physique are asked, one about the proportion of muscle and fat mass and the other about body shapes such as the broad chest, narrow chest, palm, and finger. Three questions are related to the urogenital system irrespective of male or female. For example, in the case of the feminine gender, the age of menarche and menstrual history are considered, whereas, in the masculine gender, sexual desire is felt. Two questions about the seasons are asked; one is compatible with the season other is antagonism with the season. One question is related to lungs, such as the nature of producing voice. Three questions are related to the disposition n of skin texture one is about touch characteristics, and the remaining two are related to the secretion of the skin.

In 2008, Shahabi et al. examined healthy persons of hot and cold nature/Mizājregarding their altered neuroendocrine and immune systems. They claimed they used a prescribed questionnaire for evaluating the temperament and nature of the determination of the subjects. But they failed to cite any references or scientific methods for their claim. Shahab et al <sup>27</sup> and

Volume 23 No. 02 April 2024

mujahidin et al. group criticized the given classification of human beings into nine groups by Shahabi et al<sup>28</sup>. Herewith, Mujahidi et al state that classification deals with the pathological condition of the body. Indeed, it is not justified because such a classification is valid and exists in Unani classical texts and their arguments as described by many Unani scholars in their writings. Because in these groups, a certain Khilt dominates either in singular or compound Mizājof people, but the preponderance of *Khilt* is within the range, and these kinds of person are standard <sup>1</sup>. However, in respect of some indicators of diagnosis where Mujahidi is correct, for instance, a number of the elements used in the questionnaire above, including gastrointestinal issues, skin rashes, epistaxis, etc., are pathological symptoms that show up in sickness and an unbalanced  $Miz\bar{a}j^{28}$ . claimed in 2011 that they divided their chosen volunteers into various groups based on their temperaments. However, they omitted to reveal their measurements or method of selection. Other trials that are available but had similar ways of errors.

It has become a crucial step in creating the instrument due to the significance of content validity in its psychometrics and connection to reliability<sup>29</sup>. The content validity index is the approach for content validity that is most frequently mentioned in instrument development studies <sup>30</sup>. Panel members are asked to rate instrument items on a 4-point ordinal scale (1 [not relevant], 2 [somewhat relevant], 3 [quite relevant], and 4 [highly relevant]) based on their clarity and relevance to the study's underlying construct as defined by theoretic definitions of both the constructs itself and its dimensions <sup>31,32,33</sup>. The I-CVI calculations for the relevancy of each item are as follows. In this category, from all four domains, 20 items had an I-CVI of 1.00, 3 items had a score of 0.9, and 2 items had a score of 0.8. All these items were considered relevant. The I-CVI calculations were for the appropriateness of each item. In this category, from all four domains, 20 items had an I-CVIs of 1.00,4 items had a score of 0.9.1item had a score of 0.8. Most of the items were considered relevant. The I-CVI calculations were considered for the clarity of each item. In all four domains, 24 items had I-CVIs of 1.00, and 1 item had a score of 0.9. Most of the items were considered as clear.

Based on the content validity analysis, the result obtained from I-CVI and S-FVI/Ave, it was observed that the content validity parameters were above 0.90, indicating an excellent inter-ratter judgment. Thus, the content validity of the questionnaire for assessing the *Mizāj* questionnaire format was appropriate to determine further the validity, reliability, and norm development of the questionnaire.

There were some limitations or drawbacks that could be considered for future studies. Still, a quick, valid, and user-friendly self-report scale is proposed for  $Miz\bar{a}j$  identification indices. It is suggested that the questionnaire may be developed further regarding reliability, validity, and norm Standardization.

# CONCLUSION

The tool in the development process showed fair I-CVI and S-FVI/Ave values that suggest that the items are appropriate. The Questionnaire may be developed further regarding reliability, validity, and norm Standardization.

# Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-forprofit sectors.

# **DECLARATION OF COMPETING INTEREST:**

The authors declare that there is no competing financial interest.

# Acknowledgement

The authors thank the library staff of NIUM, Bangalore.

#### Volume 23 No. 02 April 2024

#### Reference

- Majusi AIA. Kamil Al- sana'a (Urdu translation by Hakeem Ghulam Hasnain Kantoori). Vol. 1. New Delhi: Idarakitabusshifa; 2010;61:(30)25,37,39-42.
- Greenbaum M.A. Temperament Astrology's Forgotten Key. England: *The Wessex astroger Ltd*2005;p.8-9.
- Ibn Sina. Kulliyat-e-Qanoon (Urdu translation by Kabiruddin HM). 2<sup>nd</sup>ed. New Delhi:Idara Kitab ul Shifa; 2015. P 231-232, 226-236.
- Mojahedi M, Naseri M, Majdzadeh R, Keshavarz M, Ebadini M, Nazem E, et al. Reliability and validity assessment of Mizaj questionnaire: a novel self-report scale in Iranian traditional medicine. *Iran Red Crescent Med J.* 2014; **16**(3): 1-11.DOI: 10.5812/ircmj.15924.
- Masihi AS. Kitab-ul-Miah (Urdu translation by CCRUM) Vol-1<sup>st</sup>. New Delhi: CCRUM 2008.
- 6. Baghdadi I.H. Kitab-al- Mukhtarat Fit-Tibb. Part 1<sup>st</sup> (Urdu translation by CCRUM) New Delhi; 2005. p.23-26
- alinoos. Kitab Fil Mizaj (Urdu translation by Rahman HSZ). Aligarh: *Ibn Sina Academy* 2008.p.104-106. 137-141
- 8. Nafis B. Kulliyat-e-Nafisi (Urdu translation by HkmKabiruddin) New Delhi: *Idara Kitab us Shifa*; 1954.p.265-280.
- 9. Razi AMBZ. Kitab ul Mansuri (Urdu translation by CCRUM). New Delhi: *CCRUM* YNM.p.59-71.
- Jalinoos. Jawami Kitab al-nabd Al-saghir. (Urdu translation by Hkm Syed Zillur Rahman) Aligarh: *Ibn Sina Academy* 2007.p.71.
- Rehman HHSH. Kulliyat Nabz-o-Bol Baraz. New Delhi: National Council for Promotion of Urdu Language; 1999.p.37-38.
- 12. Khan HA. Kitab un Nabz. New Delhi: Aijaz Publishing House; 2002.p.20-21.
- Ibn Rushd AW. Kitab ul Kulliyat (Urdu translation). Lahore: MaktabaDaniyal; 2017;p.146-156.
- Sembulingam K, Sembuligam P. Essential of Medical Physiology. 6<sup>th</sup> ed. New Delhi: Jaypee Brothers; 2012.P 587-588.
- Jurjani I. ZakhiraKhwarizam Shahi (Urdu Translation by H.H.Khan). Vol.I. New Delhi: IdaraKitabulShifa; 2010.pp 19-24.
- Qamri AMH. Ghana Mana (Urdu translation by CCRUM). New Delhi:CCRUM;2008. p.394.
- Ibn Sina ASAR. Al Qanoon Fit Tibb. (Urdu translation by Hakeem Ghulam Hasnain Kantoori) [ New Delhi: Idara Kitab ul Shifa. p. 133-137.
- Rabban-Al-Tabri. FirdausulHikmat. (Urdu translation by Hakeem MohdAwwal Shah Sambhali) New Delhi. Idara kitab us shifa; 2010.p.88-91.
- Roses AD. Pharmacogenetics and the practice of medicine. *Nature* 2000; 405:857.
- Bates S. Progress towards personalized medicine. *Drug Discov Today*. 2010 Feb;**15**(3-4):115-20. doi: 10.1016/j. drudis.2009.11.001. Epub 2009 Nov 13. PMID: 19914397.

- Mojahedi M, Mozaffarpur SA, Isfahani MM, Naseri M, Kamalinejad M, Khodadoust M, et al. Research Priorities in Traditional Persian Medicine. *Res Hist Med* 2016; 5:99-108.
- Grant JS, Davis LL. Selection and use of content experts for instrument development. Res Nurs Health 1997;20:269-274., [17] Viera AJ, Garrett JM. Understanding interobserver agreement: the kappa statistic. Fam Med. 2005;37:360-3. DOI. Org/co.1002 (SICI) 1098-240X (199706) 20:3.
- 23. Carmines EG, Zeller RA. Reliability and validity assessment. Beverly Hills, CA: Sage Publications; 1979.
- Beck CT, Gable RK. Ensuring content validity: an illustration of the process. *J Nurs Meas*. 2001;9(2):201–15. DOI: 10.1891/ 1061-3749.9.2.201.
- Ahmad W, Sofi G, Alam MA, Zulkifle M, Ahmad B. Understanding Holism in the light of principle underlying practice of Unani Medicine. *Rev Environ Health*. 2021 May 13;**37**(2):189-199. doi: 10.1515/reveh-2021-0009. PMID: 33984879.
- Gazrooni S. Kulliyate sadidi (Urdu translation by Maulvi Sayyed Abid Husain). Lucknow: *Matba Munshi Naval Kishore*;1910,pp12-18
- Shahabi S, Hassan ZM, Mahdavi M, Dezfouli M, Rahvar MT, Naseri M, et al. Hot and Cold natures and some neuroendocrine and immune systems parameters in traditional Iranian medicine: a preliminary study. *J Altern Complement Med.* 2008;**14**(2):147–56.28.
- Mojahedi M, Naseri M, Majdzadeh R, Keshavarz M, Ebadini M, Nazem E, et al. Reliability and validity assessment of Mizaj questionnaire: a novel self-report scale in Iranian traditional medicine. *Iran Red Crescent Med J.* 2014; **16**(3): 1-11.DOI: 10.5812/ircmj.15924.
- Zamanzadeh V, Ghahramanian A, Rassouli M, Abbaszadeh A, Majid HA, Nikanfar AR. Design and implementation Content Validity Study: Development of an instrument for measuring Patient-Centered Communication. *Journal of caring sciences*.2015;**4**(2):165-178.
- Grant JS, Davis LL. Selection and use of content experts for instrument development. Res Nurs Health. 1997;20(3):269– 74. doi: 10.1002/(sici)1098-240x.
- Davis LL. Instrument review: Getting the most from a panel of experts. *Applied Nursing Research*. 1992;5(4):194–7. DOI: 10.1016/S0897-1897(05)80008-4.
- Yusoff MSB. ABC of response process validation and face validity index calculation. *Education in Medical Journal*.2019;**11**(3):55-61. DOI: 10.21315/eimj2019.11.3.6.
- Zakir, M. ., Naushad, M. ., Ahmad, W. ., Ahmad, T. ., Fatima, S. H. ., Alam, M. A. ., & Javed, G. . (). Khamira Banafsha for the symptomatic treatment of Covid-19 Disease. *Bangladesh Journal of Medical Science*, 2022; **21**(4): 883–892. <u>https://doi.org/10.3329/bjms.v21i4.60262</u>