An Assessment of the Correlation between Happiness and Mizaj (Temperament) of University Students in Persian Medicine

Hossein Salmannezhad,¹ Morteza Mojahedi,²* Abbas Ebadi,³ Ali Montazeri,⁴ Seyyed Ali Mozaffarpur,²
Roshanak Saghebi,² Davood Gheisari,³ and Sajad Goudarzi⁵

¹Department of Traditional Medicine, School of Iranian Traditional Medicine, Babol University of Medical Sciences, Babol, Iran
²Traditional Medicine and History of Medical Sciences Research Center, Babol University of Medical Sciences, Babol, Iran
³Behavioral Sciences Research Center, Nursing Faculty, Raayyatallah University of Medical Sciences, Tehran, Iran
⁴Mental Health Research Group, Health Metrics Research Center, Iranian Institute for Health Sciences Research, ACECR, Tehran, Iran
⁵Student Research Center, Nursing Faculty, Raayyatallah University of Medical Sciences, Tehran, Iran

Abstract

Background: Mizaj (Temperament) is one of the fundamental concepts of Persian Medicine (PM) and identifying this concept is crucial for providing various healthcare recommendations and for the treatment of patients. In PM, various indices can indicate a person’s Mizaj, one of them is the happiness of people. From this perspective, people with warm Mizaj are happier than people with cold Mizaj.

Objectives: The aim of this study was to assess the correlation between happiness and Mizaj.

Methods: In order to conduct this Cross Sectional (descriptive-correlational) study based on convenience sampling method, 610 participants completed the 29-item Oxford Happiness Questionnaire (OHQ) and the 10-item Mojahedi Mizaj questionnaire (MMQ). The study started since September, 2016 and ended in November, 2016 in Tehran, Iran. The collected data were compared by chi-squared test.

Results: The frequency of happy individuals in warm, temperate, and cold Mizaj groups was 85.2%, 79% and 58.2%, respectively. According to the results of chi-squared test, individuals with cold Mizaj were significantly less happy than people with warm and temperate Mizaj. However, there was no significant difference between warm and temperate Mizaj groups. Moreover, the level of happiness in people with wet Mizaj was not significantly different from people with dry Mizaj.

Conclusions: There is a significant correlation between happiness and an individual’s Mizaj. Accordingly, one of the hypotheses regarding indices of Mizaj identification in PM is strengthened. This index can be used in researches associated with designing and validating Mizaj evaluative scales in PM to differentiate cold and warm Mizaj.

Keywords: Temperament, Happiness, Traditional Medicine

1. Background

Mizaj (temperament) is one of the fundamental concepts of Persian medicine (PM) that plays a key role in providing various preventive healthcare recommendations (1, 2). From this perspective, each individual has certain signs and symptoms according to the qualities of warmness-coldness and wetness-dryness, called “Mizaj” (3, 4). By studying these properties, that individual’s Mizaj is identified according to the dominance of each of the four qualities (5, 6). PM scholars have defined nine Mizaj groups according to various combinations of the possibilities of the mentioned qualities and each individual is categorized into one of these nine groups based on his specific Mizaj properties (7). These nine Mizaj groups include four singular Mizajes (warm, cold, wet, and dry) and four compound Mizajes (warm and wet, warm and dry, cold and wet, cold and dry) and one temperate Mizaj (4). According to the theory of Mizaj, each organ has its particular Mizaj (organ Mizaj) and the resultant of the Mizaj of various organs constitutes the Mizaj of the whole body (general Mizaj). However, the Mizaj of some certain organs such as brain, heart, and liver has more weight (8-10). Mizaj identification indices are very diverse and are divided into ten groups (ten criteria) for the ease of use. These criteria include the state of the skin (touch), hair, soft tissue, skin color, body dimensions (physique), physical and physiological functions, quality of waste matter (stool, urine, sweat), sleep and wakefulness, impressibility speed and psychic function (11, 12). Since the correlation between these indices and people’s Mizaj and their weight has not been proved, we are confronted with lack of unity among PM experts in Mizaj diagnosis (1, 13). Assessment of the exact correlation
between any of the indices introduced in PM references and people's Mizaj is a fundamental approach to standardize the methods of Mizaj identification (14). Among the mentioned indices, psychic function is one of the key indices in Mizaj identification. This index is particularly focused on brain Mizaj as one of the contributing organs in general Mizaj and this makes it one of the main indices of general Mizaj, in addition to its usability in brain Mizaj identification (8). One of the factors present in the index of "psychic function" is happiness and most PM references have mentioned it as an important Mizaj diagnosis index (7). According to the argumentations of the PM references, the level of happiness is expected to decrease based on the level of coldness and is expected to increase based on the level of warmness of Mizaj and is moderate in temperate Mizaj. However, in cases of abnormal warmness, the level of happiness will decrease (4). In psychology, the term happiness is widely used to express positive mental and emotional experiences (15). It is also mentioned as a kind of excitement and positive feelings (16). It seems that happiness cannot be considered as the opposite of depression, but lack of depression is a prerequisite for achieving happiness (17). Previous survey showed the correlation between happiness and some of the human characteristics. For instance Marinic's study confirmed that economic status, health condition, social relationships, and life achievements account for about 30% of the variance in happiness (18). Veenhoven emphasized that happiness as well as living (external) conditions depend on individual (internal) characteristics (19). Some surveys examined the relationship between religiosity and the level of happiness (20, 21). Recent studies have paid special attention to the relationship between happiness and its molecular fingerprints as an important aspect of personalized health (22). Although the initial edition of validated questionnaires for Mizaj identification has been introduced in recent years (1), people's happiness and its relationship with Mizaj based on Persian Medicine viewpoints were not reflected.

2. Objectives

The aim of this study is to assess the correlation between Mizaj-dependent qualities and happiness. If a meaningful relationship is found, happiness 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.

3. Methods

3.1. Study Population and Sampling

This study was a cross-sectional (descriptive-correlational) study and the target population were the students of both sexes and different ethnicities with an age range of 20 to 30 years old, residing in various university dormitories in Tehran, the capital of Iran. The study started since September, 2016 and ended in November, 2016.

The sample size was extracted from the following formula

\[ n = \frac{\frac{\chi^2_{1-\alpha}}{d^2}}{1 + \frac{d^2}{\chi^2_{1-\alpha}}} \]

The sampling was convenience sampling and was conducted by poster advertisement in university dormitories in Tehran. As well as visiting students in their room and explaining the goals and method of the study, the researchers asked them to participate in the project. Inclusion criteria included all students residing in various university dormitories in Tehran, aged from 20 to 30. Exclusion criteria included history of any chronic diseases, frequent use of medications, a new disease, pregnancy, and menstruation.

3.2. Measurements and Statistical Analysis

Mojahedi's Mizaj questionnaire (MMQ) and Oxford happiness questionnaire (OHQ) were completed by the volunteers. MMQ included 10 questions, designed and validated by Mojahedi et al. in 2014. Total scores of the first 8 questions measured warmness-coldness (> 18 = warm, 15 - 18 is temperate in warmness-coldness and < 15 = cold) and total scores of the last 2 questions measured wetness-dryness (> 4 = dry, 4 is temperate in wetness-dryness and < 4 = wet). Validity and reliability of this questionnaire was assessed by Mojahedi et al. The sensitivity and specificity of the questionnaire based on selected cutoff points were 65% and 93% for warm group, 52% and 97% cold group, 53% and 67% dry group and finally 53% and 76% wet group (1).

OHQ was designed by Michael Argyle and Peter Hills in 1989 and has been validated in Iran. Cronbach's \( \alpha \) of this questionnaire was 0.93 and the consistency between each item and the total score was in the range of 0.40 - 0.73. For reliability assessment, test-retest method was conducted and \( r = 0.79 \) (23). This questionnaire included 29 items, designed in a 6-point Likert scale (1 to 6), the total score was specified according to the distribution of scores for each item from 1 to 6 and calculating the mean score determined the level of happiness for each participant as follows: not happy (1 - 1.99), somewhat unhappy (2 - 2.99), not particularly happy or unhappy (3 - 3.99), somewhat happy
or moderately happy (4), rather happy; pretty happy (4 - 4.99), very happy (5 - 5.99), too happy (6). In this study, happiness scores lower than 3.5 were considered “not happy” and scores equal to or higher than 3.5 were considered “happy” and their correlation with the Mizaj identified in terms of warmness-coldness and wetness-dryness was assessed independently and in terms of 9 Mizaj conditions. The collected data were analyzed by SPSS V.22 and the chi-squared ($\chi^2$) test was run. The $P$ value <0.05 was considered as significant difference in this study.

3.3. Ethical Considerations

Ethical approval was received from Babol University of Medical Sciences (ID: MUBABOL.REC.1394.99, Date: Aug 2, 2015). The aims and the method of the study were explained to the participants. The anonymity and confidentiality of the study were assured and the participants then signed informed written consent. In addition, all volunteers were assured that their test result would be confidentially kept by the researcher and the results of the study would be reported generally. However, if someone was willing to know their test result, they were free to know.

4. Results

Out of the 675 invited individuals, 625 students met the inclusion criteria and accepted to participate in the study. Among them, 15 students were excluded according to the exclusion criteria (8 students had chronic disease, 7 women were in menstruation period). Ultimately, 610 students, including 413 (67.7%) women and 197 (32.3%) men, completed both questionnaires after being qualified and completing an informed written consent. All participants were university students and their age was 20 to 30 with Mean $\pm$ SD (21.99 $\pm$ 2.57). The number and percentage of individuals in both sexes and various Mizaj groups are presented in Table 1.

The frequency of individuals with warm or cold Mizaj in the two groups of “happy” and “not happy” is presented in Table 2. According to the chi-squared test ($P = 0.000, \chi^2 = 25.35$), the difference in the level of happiness in the cold group on one side and warm group and temperate group on the other side were significant. Accordingly, individuals with cold Mizaj were less happy compared with individuals with warm and temperate Mizaj. There was no significant difference between individuals with warm and temperate Mizaj in terms of happiness.

The frequency of individuals with wet or dry Mizaj in terms of the level of happiness. Frequency of “happy” and “not happy” individuals in various Mizaj groups is presented in Figure 1.

In the next step, happiness of participants was calcu-
lated according to all nine Mizaj groups.

According to the chi-squared test ($P = 0.000, \chi^2 = 33.55$), regarding the frequency of participants in each of the nine Mizaj groups among happy and not happy individuals, there was a significant difference between the groups in terms of happiness (Table 3). According to the results reported in this table, the highest percentage of happiness was observed in warm-temperate and warm-wet groups and the lowest percentage was observed in various groups of cold Mizaj.

Table 3. Frequency of Happy Individuals in Nine Mizaj Groups

<table>
<thead>
<tr>
<th>Mizaj</th>
<th>Happy</th>
<th>Not Happy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-wet</td>
<td>47 (88.7)</td>
<td>6 (11.3)</td>
</tr>
<tr>
<td>Warm-temperate</td>
<td>56 (93.3)</td>
<td>4 (6.7)</td>
</tr>
<tr>
<td>Warm-dry</td>
<td>41 (73.2)</td>
<td>15 (26.8)</td>
</tr>
<tr>
<td>Temperate-wet</td>
<td>102 (82.9)</td>
<td>21 (17.1)</td>
</tr>
<tr>
<td>Temperate-temperate</td>
<td>114 (77)</td>
<td>34 (23)</td>
</tr>
<tr>
<td>Temperate-dry</td>
<td>70 (76.9)</td>
<td>21 (23.1)</td>
</tr>
<tr>
<td>Cold-wet</td>
<td>12 (57)</td>
<td>9 (43)</td>
</tr>
<tr>
<td>Cold-temperate</td>
<td>25 (62.5)</td>
<td>15 (37.5)</td>
</tr>
<tr>
<td>Cold-dry</td>
<td>9 (50)</td>
<td>9 (50)</td>
</tr>
<tr>
<td>Total (n)</td>
<td>476 (80)</td>
<td>134 (20)</td>
</tr>
</tbody>
</table>

*Values are expressed as No. (%).

5. Discussion

Although the term “Mizaj” in PM is mostly translated as “Temperament” in English, Temperament is commonly used in psychology to introduce nature, mood and personality traits and it seems that psychological references have borrowed this term and similar terms such as sanguine, phlegmatic, choleric, and melancholic Mizaj from primary references of ancient Greece, which is convergent with PM (24). However, the meaning of “Temperament” in psychology and social sciences is part of the broad meaning of Mizaj in PM. During the last decades, various schools of psychology have categorized people based on their individual and social traits under the title of “Temperament” and standardized their diagnostic criteria (25). These traits have different meanings in various psychological schools without considering physical characteristics and physiological functions (26-28). Therefore, there seem to be considerable differences between Mizaj in PM and Temperament in psychology.

Our findings are consistent with the theoretical principles of PM regarding the correlation between happiness and Mizaj; cold Mizaj indicates less happiness while warm Mizaj indicates more happiness. However, it was expected that the level of happiness in individuals with temperate (in warmness and coldness) Mizaj be somewhere in the middle of cold and warm Mizaj. But the results of this study did not reveal a significant difference between the level of happiness in individuals with temperate Mizaj and those with warm Mizaj. This result may be because of not differentiating various levels of warmness of Mizaj in this study. According to PM references, if warmness of Mizaj...
increases more than usual, an individual may suffer from anxiety and restlessness and his happiness may decrease, a phenomenon that is not expected in individuals with temperate Mizaj (4). Since all participants with warm Mizaj are divided into one group in this study and no particular categorization has been made for differentiating them regarding the degree of warmness, it is suggested that future researches assess the level of happiness according to various degrees of Mizaj warmness and coldness.

Several studies have been dedicated to assessing the correlation between happiness and personal characteristics. For instance Mark and Holder assessed the correlation between temperament and happiness in 311 children aged 9 to 12 years old and showed that being physically and socially active, less shy, and excited are mentioned as indices that increase happiness among participants (29), which is in accordance with PM perspectives. In the viewpoint of PM, high physical and social mobility and energy indicate warmness of Mizaj. As the conclusion, the results of this study revealed that there is positive correlation between happiness and warmness and negative correlation between happiness and coldness of Mizaj. If the correlation between happiness and Mizaj is finally proved, this criterion can be used as one of the key indices of Mizaj identification in PM.

On the other hand, according to several studies, there is positive correlation between happiness and various peculiarities of Mizaj identification in PM such as activity, self-esteem, self-confidence, etc. The correlation between the mentioned characteristics and Mizaj in PM is suggested to be assessed in future studies. It is also suggested that in the studies conducted to design and validate Mizaj identification questionnaires, researchers pay particular attention to the items that correspond to happiness.

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### Footnote

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