

Research Article

# Utilisation of the Unani System of Medicine Among Two Selected Localities of Bengaluru: A Comparative Study

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## I N F O

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## A B S T R A C T

**Introduction:** The Unani system of medicine, a component of AYUSH, has a history of being practised even before formal healthcare took shape in the form of modern medicine. Though people relied for acute illness, surgeries and other emergencies on modern medicine, it still did not lose its importance in the healthcare delivery system due to its preventive, promotive and curative outlook. The purpose of this study is to assess the utilisation of the Unani system of medicine among the dwellers of two selected localities of Bengaluru and its association with demographic variables and comparisons between two selected localities.

**Method:** A systematic randomised cross-sectional study was conducted with the inclusion of 427 (207 from locality A and 220 from locality B) participants from two selected localities of Bengaluru using a questionnaire/ schedule. Data were analysed using SPSS version 20.

**Results:** The overall aggregate results of both localities in terms of utilisation indices were found as High utilisation index (HUI): 3, 0.7%, Medium utilisation index (MUI): 34, 7.96% and Low utilisation index (LUI): 390, 91.33%. Each individually studied population showed the results as HUI: 2 (1%), MUI: 11 (5.3%), and LUI: 194 (93.7%) for population A and the values being 1 (0.5%), 23 (10.5%) and 96 (89.0%) as HUI, MUI and LUI, respectively for population B.

**Conclusion:** The utilisation of the Unani system of medicine as revealed by this study was found to be low in both studied localities in terms of indices, and thus the data from the study can be helpful for making interventions and interpretations at various levels to make the visions and objectives of National AYUSH Mission successful in popularising and practising Unani system of medicine and other AYUSH systems.

**Keywords:** Utilisation, National AYUSH Mission, Unani System of Medicine, AYUSH

## Introduction

Historical and cultural background about the roots of traditional medicine is a clear indication that like other forms of traditional medicine, the Unani system of medicine (USM) has a history of being practised before modern medicine took root and shape as formal healthcare. Indian traditional medicine dates from before 5000 years<sup>1</sup> and was practised with various beliefs and social causes associated with it. It includes the Unani system as one of the major such systems.<sup>2</sup> With different influencing factors like culture, history, attitudes and philosophy,<sup>3</sup> the practices of traditional or Complimentary and Alternative Medicine (CAM) vary greatly from inter or intra-country, from region to region and from kitchen to kitchen and so do those of USM. Though popular in South Asian countries, its rapid growth in other parts of the world is at pace with other forms of Traditional Medicine (TM)/CAM and its international mobility implicates that this practice is not limited to the countries of origin only.<sup>4</sup> WHO Traditional Medicine Strategy 2002–2005 urged through its objective to support countries to integrate traditional medicine into their own health systems as per their relevant national situations and from a few member states to many more member states, the strategy 2002–2005 found headway.<sup>5</sup> The objective of the WHO Traditional Medicine Strategy 2014–2023 was the same.<sup>6</sup> In India, USM was revived through the great efforts of Hakim Ajmal Khan who gave scientific and research ideation to it and it found its position among the healthcare delivery system in India through a number of Unani dispensaries, hospitals, educational and research institutions.<sup>7</sup> It was in March 1995 that the Department of Indian Systems of Medicine and Homoeopathy (ISM&H), which includes USM as one of the components, was established in the Ministry of Health & Family Welfare<sup>8</sup> and then in November 2003, it was named as AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) and later Sowa-Rigpa was also added to it. The “Health for All” slogan of WHO, in the goal of which India was also the signatory,<sup>9</sup> did not meet the needs of people fully in terms of uniform health distribution, and it was in 2005 that the National Rural Health Mission (NRHM) and later National Urban Health Mission (NUHM) were launched, which are now together known as National Health Mission (NHM) where AYUSH also found its due position in the form of placement of AYUSH facilities in the collocated health facilities like district hospitals, Community Health Centers and Primary Health Centers<sup>10</sup> and accordingly Unani practices were likely to be adopted at such places to provide the public the choice of their treatment under one roof. In India, the formation of a separate AYUSH Ministry along with the launching of the National AYUSH Mission (NAM) in 2014 was another move to flourish and boost

the AYUSH system.<sup>11–13</sup> NAM with its components, visions and objectives has many prospects for the promotion of AYUSH systems of medicine that includes Unani as well. The establishment of Ayush Health and Wellness Centers in India under Ayushman Bharat and the efforts of the ministry to integrate the different systems of AYUSH with modern medicine described as a type of “cross-pathway” is also advocated by the National Health Policy (NHP) 2017 where the possibilities of mainstreaming the potential of AYUSH within a pluralistic system of integrative healthcare are explored that uses a new language of ‘medical pluralism’.<sup>14</sup> These possibilities can thus be achieved through the Unani system which has a holistic approach to treatment based on its temperament (*Mizaj*) and humors (*Akhlaat*) concept. The USM concept involves adapting six essentials of life (*Asbabi Sitta Zarurya*) for the prevention of disease and promotion of existing health and its different modes of treatment, i.e. dietotherapy (*ilaj bil Giza*), regimenal therapy (*ilaj b tadbeer*), pharmacotherapy (*ilaj bil dawa*), and surgical (*ilaj bil yad*) intervention.<sup>15</sup> Thus to explore the modes of success, it is important to assess the utilisation status of the community about this particular system of medicine, and its preferred use in some particular type of ailments. Such studies can be used to assess the utilisation status of USM so that stakeholders can intervene and interpret accordingly to make the visions and objectives of NAM successful in the context of popularising and practising USM and other AYUSH systems.

## Method

This cross-sectional community-based study was conducted in two different localities of Bengaluru and was aimed at determining the prevalence of utilisation of USM in addition to knowledge and attitude using a questionnaire. Before embarking on the project, a comprehensive study protocol was prepared and presented before the ethics committee of the National Institute of Unani Medicine (NIUM), Bengaluru. The study was started after getting the ethical clearance vide IEC No: NIUM/IEC/2015-16/021/TST/06. The duration of the study was from January 2017 to December 2017. The sample size for this study was calculated as 427 which was distributed among the two localities as 207 for Kottigepalya (Locality A) and 220 for Hegganahalli (Locality B).

**Inclusion Criteria:** The respondents who were included in the study were of both genders with ages between 18 and 65 years and living in these localities for more than 6 months.

**Exclusion Criteria:** Those below 18 years of age, above 65 years of age, immigrants living in these localities for less than 6 months and those who did not cooperate were excluded from the study.

## Collection of Data

A 15-minute response questionnaire/ schedule developed in simple language was used for the collection of data after obtaining written consent from the participants. The questions pertained to socio-demography, knowledge, attitude and utilisation in separate four sections of the questionnaire. However, the participants were directed to the utilisation questions section only on the basis of positive replies to some specific knowledge and attitude questions. The demographic questions were about variables like name, age, gender, religion, marital status, and residential address of the participants. The socio-economic status was obtained from the occupation, education and monthly income using the revised Kuppaswamy scale 2016<sup>16</sup> and finally, the utilisation index was calculated as per the response of the participants to the questions asked in the utilisation section of the questionnaire comprising 10 related questions, and the scoring was done accordingly. Indices of high, medium and low utilisation were framed on the basis of scoring as follows:

1. Those who couldn't reply to any question: 0 score: No response
2. Those who could answer 1 to 3 questions: 1–3 score: Low utilisation index (LUI)
3. Those who could answer 4 to 6 questions: 4–6 score: Medium utilisation Index (MUI)
4. Those who could answer 7 to 10 questions: 7–10 score: High utilisation Index (HUI)

## Data Analysis

Data were checked for completeness and consistency and were properly entered. Data were analysed using SPSS version 20. Chi-square/ Fischer's test was used to calculate the p value which if < 0.05 meant statistically significant and if > 0.05 meant non-significant. Results

were compiled and then presented in frequency and percentage.

## Results

### Sociodemography of the Respondents

The overall average age of the respondents was 32.46 ± 11.77 years. The majority of participants in the study were female (237, 55.5%). The majority of the respondents in both localities together belonged to the upper lower class group (240, 56.2%) with 95 (43.9%) and 145 (65.9%) participants respectively from A and B localities and education-wise, the majority (266, 62.3%) of participants together in both populations were educated up to the intermediate level with 126 (60.9%) and 140 (43.6%) participants in localities A and B, respectively (Table 1).

### Utilisation Profile

The LUI has been kept at the lower side of results and given less weightage while making conclusions and comparisons in the study even if LUI was found in a large distribution compared to HUI and MUI. A few respondents even having some knowledge or attitude towards USM either of low, medium or high index could find themselves only in LUI based on their scores in the utilisation index like utilisation of USM in terms of use of kitchen medicine, medicinal plant, any particular Unani drug, any utilisation through USM availed for antenatal care, availing of USM through Regimenal procedures either by themselves or any of their relatives for any specific disease and the response of treatment. The overall aggregate results of both locations in terms of utilisation were found as HUI: 3 (0.7%), MUI: 34 (7.96%), and LUI: 390 (91.33%). Each individually studied population showed the results as HUI: 2 (1.0%), MUI: 11 (5.3%), and LUI: 194 (93.7%) for population A and the values being 1 (0.5%), 23 (10.5%) and 196 (89.0%) as HUI, MUI and LUI, respectively for population B (Table 2).

**Table 1. Sociodemographic Distribution of the Participants**

| Demographic Variables |           | Kottigepalya (n = 207) | Hegganahalli (n = 220) | Total      | p Value |
|-----------------------|-----------|------------------------|------------------------|------------|---------|
| Marital status        | Unmarried | 77 (37.2)              | 31 (14.1)              | 108 (25.3) | < 0.001 |
|                       | Married   | 130 (62.8)             | 189 (85.9)             | 319 (74.7) |         |
| Age (years)           | 18–27     | 86 (41.5)              | 97 (44.1)              | 183 (42.9) | 0.452   |
|                       | 28–37     | 65 (31.4)              | 61 (27.7)              | 126 (29.5) |         |
|                       | 38–47     | 30 (14.5)              | 33 (15.0)              | 63 (14.8)  |         |
|                       | 48–57     | 11 (5.3)               | 19 (8.6)               | 30 (7.0)   |         |
|                       | ≥ 58      | 15 (7.2)               | 10 (4.5)               | 25 (5.9)   |         |
| Gender                | Female    | 100 (48.3)             | 137 (62.3)             | 237 (55.5) | 0.004   |
|                       | Male      | 107 (51.7)             | 83 (37.7)              | 190 (44.5) |         |

|                          |                               |            |            |            |         |
|--------------------------|-------------------------------|------------|------------|------------|---------|
| Religion                 | Christian                     | 5 (2.4)    | 0 (0.0)    | 5 (1.2)    | < 0.001 |
|                          | Hindu                         | 173 (83.6) | 96 (43.6)  | 269 (63.0) |         |
|                          | Muslim                        | 29 (14.0)  | 124 (56.4) | 153 (35.8) |         |
| Education                | Illiterate                    | 1 (0.5)    | 0 (0.0)    | 1 (0.2)    | < 0.001 |
|                          | Primary                       | 18 (8.7)   | 40 (18.2)  | 58 (13.6)  |         |
|                          | Middle                        | 4 (1.9)    | 18 (8.2)   | 22 (5.2)   |         |
|                          | Intermediate                  | 126 (60.9) | 140 (63.6) | 266 (62.3) |         |
|                          | Graduation                    | 52 (25.1)  | 16 (7.3)   | 68 (15.9)  |         |
|                          | Postgraduate/<br>professional | 6 (2.9)    | 6 (2.7)    | 12 (2.8)   |         |
| Occupation               | Unskilled                     | 6 (2.9)    | 8 (3.6)    | 14 (3.3)   | < 0.001 |
|                          | Semi-skilled                  | 47 (22.7)  | 38 (17.3)  | 85 (19.9)  |         |
|                          | Skilled                       | 74 (35.7)  | 52 (23.6)  | 126 (29.5) |         |
|                          | Professional                  | 8 (3.9)    | 0 (0.0)    | 8 (1.9)    |         |
|                          | Unemployed                    | 72 (34.8)  | 122 (55.5) | 194 (45.4) |         |
| Socio-economic<br>status | LM III                        | 65 (31.4)  | 48 (21.8)  | 113 (26.5) | < 0.001 |
|                          | L V                           | 3 (1.4)    | 1 (0.5)    | 4 (0.9)    |         |
|                          | UL IV                         | 95 (45.9)  | 145 (65.9) | 240 (56.2) |         |
|                          | UM II                         | 44 (21.3)  | 26 (11.8)  | 70 (16.4)  |         |

LM: Lower-middle

L: Lower

UM: Upper-middle

**Table 2. Utilisation Index of the Two Selected Populations**

| Utilisation Index        | Kottegepalya (A)<br>n (%) | Hegannahali (B)<br>n (%) | Total for both A & B<br>n (%) | p Value |
|--------------------------|---------------------------|--------------------------|-------------------------------|---------|
| Low utilisation index    | 194 (93.7)                | 196 (89.1)               | 390 (91.3)                    | 0.123   |
| Medium utilisation index | 11 (5.3)                  | 23 (10.5)                | 34 (8.0)                      |         |
| High utilisation index   | 2 (1.0)                   | 1 (0.5)                  | 3 (0.7)                       |         |

Chi-square/ Fisher Exact Test

## Discussion

Irrespective of the dominance of modern medicine during the decades together, the USM has not lost its importance but has been running as a parallel system of medicine. It has passed through some transient phases also but people like Hakim Ajmal Khan have always made efforts for its revival and accordingly, different studies have tried to find out the association, if any, of certain variables that influence its utilisation. The results according to the age variable show significant p values of 0.0003 and 0.0002 in populations A and B, respectively. The prevalence of MUI is more in

advanced age groups and that of the highest LUI in lower age groups in both localities, which implied that in this study there may be some association between age and the utilisation of USM and that youngsters are not interested in or approve of USM. This study accords with another previous study,<sup>17</sup> which across age groups had found the use of USM care as relatively high among elderly patients and also in that study, the prevalence of utilisation was overall low (6.7%). The high prevalence among the elderly in the study might be due to the fact that the older people had an experience with various systems of medicine due to their use when they lost hope in other systems and



showed their inclination towards the Unani system. Also, the present study has some similarities with the study carried out by Ohemu et al.<sup>18</sup> as both the studies have a high number of respondents from the almost same age group, but it observed contrast with the present study for having an overall high prevalence of TM use (79.2%). According to gender, it was found non-significant for both populations (p values 0.133 and 0.622 for A and B populations, respectively). However, this study accords with another study carried out by McFadden et al.<sup>19</sup> which shows a high prevalence of utilisation of TM among females but has no association with gender statistically. According to marital status, the study observed non-significant associations in both populations, however, the prevalence of the use of USM measured in terms of indices was more among married participants than the unmarried ones, which is in accordance with the study carried out by Siddika et al.<sup>20</sup> Although nowhere in that study, an association has been made with regard to marital status, overall 66.4% of the total respondents were married in that study and 73.8% of the respondents showed utilisation of Unani medicine for diseases showing some accordance with our study in terms of prevalence among married people, though it differs from this study in terms of overall use of USM. In another study carried out by Mohammed et al. in 2016,<sup>21</sup> 76.4% of the respondents were married with the overall utilisation as 73.8% determining indirectly more prevalence among married people though a direct association has not been made in our study or in that study with marital status. There seems to be some similarity in terms of marital status with this study as the utilisation index is higher among the married respondents in both localities compared to unmarried respondents. The reason for utilisation among the married respondents may probably be due to new cultural adaptation and health-seeking behaviour after marriage. The findings of the present study in Locality A showed some association with religion (significant p value < 0.001) in comparison to Locality B, in which the study observed a non-significant association (p value = 0.471). This study differs from a similar study carried out by Siddika et al., where the prevalence of utilisation was 73.8%.<sup>20</sup> The probable reason for this may be that most of the respondents in that study were Muslims (89.7%) which indirectly showed a high prevalence of utilisation among Muslims. Also, the study conducted by Wassie et al.<sup>22</sup> showed that 70.9% experienced the utilisation of traditional medicine. Though any association has not been mentioned in the study between religion and the utilisation of traditional medicine, the majority of the participants in that study being Christians (73%) implied that Christians have also an inclination towards the utilisation of traditional medicine. In this study, the utilisation index showed different results for both populations like some

predominance in prevalence of utilisation among Hindus in population A and vice versa in population B; the probable reason being the majority of participants in A population as Hindus and vice versa in B population. According to the education level of respondents, the study observed a non-significant association for population A (p value = 0.997) and a significant association for population B (p value = 0.01) showing comparatively good utilisation among graduates/postgraduates.

The study showed no association with the socioeconomic status of the respondents in both localities. However, the study is in accordance with a study by Singh et al.<sup>23</sup> which had found a prevalence of higher utilisation in the higher-income groups. This study overall is not in accordance with the study conducted by Imran et al.<sup>24</sup> in north India which showed that the prevalence of utilisation of Unani medicine was 74% which was even more than that of Ayurveda as revealed by that study and showed acceptability among youngsters and thus was again contradictory to this study. The probable reason for higher utilisation in that study might be that all respondents in that study were literate with their education level above the 12th standard. Regional variation (north India and south India) and cultural acceptability might be among other reasons.

### Limitations

The overreporting may have resulted from self-reporting by the respondents in this study and may have had some effects on the results. There was no uniformity in terms of the size (numbers) of variables in the sample within the same studied population or the comparative studied populations in terms of gender, marital status, religion etc, and thus comparing the results between two populations may have affected the actual results.

### Conclusion

A very low prevalence of utilisation was observed in the study, hence in order to popularise USM among the masses, there is a need to adopt some strategies. The important among them is to explore the opportunities from the visions, components and objectives of NAM and the policies framed by the government to propagate USM. However, the National Commission for Indian System of Medicine (NCISM) Act 20, though having representation from USM needs to have an individual separate board for its proper promotion and propagation. Similarly, the AYUSH health and wellness centres, a component of Ayushman Bharat, a great concept for comprehensive primary healthcare, must safeguard the Unani concepts and principles for preventive, curative, promotive or rehabilitative care. The PSM (Tahaffuzi wa Samaji Tib speciality) Department of USM must be actively involved and mobilised to take care of the Information Education and Communication

(IEC) part of USM and implement all the national and international health programmes. Surveys or cross-sectional studies and research in other Unani-related fields must be encouraged and disseminated through publications. The use of social media like creating pages on social sites such as Facebook, Instagram etc. and conducting and organising plays and dramas among the masses should be increased. The success stories and other related articles regarding USM must be published in print media. Similarly, the conducting of seminars in universities, colleges, schools etc. and conducting various health awareness camps in light of USM, advocating to the public about self-care through the cultivation of medicinal plants and involvement of the community, especially the public representatives in various health-related matters can have a role in the popularisation of this system of medicine. Quackery in the name of Unani medicine must be discouraged and AYUSH drug regulatory authority and AYUSH clinical establishment authority must be established throughout. The herbal tourism and establishment of AYUSH wellness centres at tourist spots with facilities of regimenal procedures like *dalak* (massage), *Hijamah* (cupping), *Hamam* and detoxification regimes can attract more and more foreign tourists to this country and thus can popularise this system of medicine globally as well.

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