Perception and attitude of religious leaders and outpatients in Dhaka, Bangladesh with regard to Ayurvedic medicine

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Abstract

Objectives: Because of limited medical and financial resources, the use of complementary and alternative medicine (CAM) should be markedly expanded in Bangladesh. From the viewpoint of increasing the use of Ayurvedic medicine (AM) including herbal medicine (HM) more vigorously, new and important recommendations need to be obtained through data comparison among Muslim religious leaders (MRLs), AM outpatients (AMOPTs), and orthodox medicine outpatients (OMOPTs). Therefore, the aim of this study was to confirm the perception and attitude of MRLs, AMOPTs, and OMOPTs toward AM in Dhaka, Bangladesh.

Method: This study was conducted from February to June 2015 by trained staff members using a structured questionnaire. The interview respondents were 150 MRLs, 202 AMOPTs, and 150 OMOPTs in Dhaka, Bangladesh.

Results: More than 85% AMOPTs and MRLs had a person who helped him/her to use AM; however, only 10.3% OMOPTs had such a person. OMOPTs were skeptical but had no one to help them use AM and suggests that OMOPTs were not familiar with using AM. In terms of attitudes, OMOPTs harbored more skepticism than the other two groups.

Conclusions: If OMOPTs had more chances of becoming familiar with AM through someone helping them with its use, then they would use AM more. In addition, to increase the use of AM, appropriate information on its efficacy and safety should be provided to the general public to avoid skepticism.

Introduction

To enact the concept of the Declaration of Alma-Ata in 1978 [1] the World Health Organization (WHO) prepared the WHO Traditional Medicine Strategy 2014-2023 [2]. The main purpose of this strategy is to help member states promote the safe and effective use of traditional medicine (TM).

In Japan, herbal medicine (HM) is used as Kampo, which is covered by universal health insurance [3-5]. Furthermore, to provide evidence-based medicine to patients, a lot of rigorous studies have been conducted on the efficacy and safety of Kampo [6-13].

In Bangladesh, economic growth has remarkably progressed; however, the central government is struggling with difficulties related to public health issues [14-21]. In terms of the resource limitations of healthcare and economical activities, the use of complementary and alternative medicine (CAM) needs to be considerably increased in Bangladesh.

In Bangladesh, a national policy on TM and CAM was issued in 1995. However, national laws and regulations are currently in the development stage. Although a national program was introduced in 1998, national research institutes on TM, CAM, or Ayurvedic medicine (AM) including HM have not yet been established. Whereas HMs are regulated as prescription and over-the-counter drugs, national herbal monographs have not yet been developed. The Drug Administration is in charge of ensuring the implementation of pharmacopoeias and monographs, good manufacturing practice (GMP) rules for conventional pharmaceuticals, and special GMP rules; however, no detailed information about specific mechanisms is available. A registration system for HMs exists; however, the number of registered products is unavailable. A post-marketing surveillance system is currently under development. The Ministry of Health and Family Welfare of Bangladesh adopts various countermeasures to promote the health and welfare of the country.

Therefore, in 2011, a study on the perceptions of Muslim religious leaders (MRLs) and citizens in Bangladesh regarding AM was performed by a team involving two of the current authors [22,23]. We chose not only citizens but also MRLs as respondents because MRLs influence the lives of citizens, including the use of AM. The results showed that MRLs had an adequate perception, satisfaction, and a very positive attitude toward AM and regarded the mass media as having a significant contribution toward its promotion. However, the citizens believed that scientifically sound information on AM should be promptly collected to eliminate the skepticism of younger citizens.

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in Dhaka. Because of limited medical and financial resources, the use of CAM needs to markedly increase in Bangladesh. The latter studies were conducted in Bangladesh in 2011; however, at that time, we did not collect data from AM outpatients (AMOPTs) or orthodox medicine outpatients (OMOPTs). From the viewpoint of further increasing the use of AM, other important and new recommendations might be obtained through data comparison among MRLs, AMOPTs, and OMOPTs.

Therefore, the aim of this study was to confirm the perception and attitude of MRLs, AMOPTs, and OMOPTs to AM in Dhaka, Bangladesh.

Materials and methods

This study was conducted in Dhaka, Bangladesh from February to June 2015 by face-to-face interviews with trained staff members using a structured questionnaire. The four data-collecting staff members had been trained in collecting data from the respondents. Their interviewing skills were also assessed prior to conducting the interviews.

The interview respondents included 150 MRLs, 202 AMOPTs, and 150 OMOPTs who were randomly selected and recruited by the trained staff members of the Bangladeshi research team. In terms of recruit of AMOPTs and OMOPTs, the trained staff members of the Bangladeshi research team visited a hospital or an office of practitioner and randomly picked up 202 AMOPTs, and 150 OMOPTs who visited that place. There were no exclusion criteria in this study. The subjects were informed that they were free not to respond to any question that they were not comfortable answering. Their anonymity was preserved. Verbal informed consent was obtained from every participant prior to the interview.

The questionnaire was translated from English into Bengali and was modified for the respondents’ understanding before data collection in the field. It was then back-translated to English. The respondents responded to situations and perceptions regarding AM use and satisfaction from AM use. For questions on attitudes toward AM use, a 5-point Likert scale ranging from 1 = “Strongly disagree” to 5 = “Strongly agree” was applied.

Raw data were sent to Nagoya University and analyzed using SPSS version 2.0. χ²-test and Kruskal-Wallis test were applied.

Prior to data collection, the study protocol was approved on October 23, 2014 by the Ethics Committee of the Graduate School of Medicine, Nagoya University (approval number: 2014-0208).

Results

Table 1 shows the demographics of the respondents. We obtained responses from 150 MRLs, 202 AMOPTs, and 150 OMOPTs. In terms of age, 52.7% MRLs were 35-54 years old, 48.5% AMOPTs were 15-54 years old, and 54.7% OMOPTs were 35-54 years old. With regard to gender, 95.3% MRLs, 58.6% AMOPTs, and 78.0% OMOPTs were male. In terms of marital status, 80.0% MRLs, 75.1% AMOPTs, and 78.0% OMOPTs were married. With regard to the amount of use of AM per year, 47.9% MRLs marked 5 to 6 times, 49.5% AMOPTs marked 3 to 4 times, and 45.0% OMOPTs marked 0 times. In terms of the amount of use of OM per year, 38.7% MRLs marked 5 to 6 times, 49.2% AMOPTs marked 1 to 2 times, and 57.9% OMOPTs marked 5 to 6 times. These five items had statistically significant differences. Thus, fraction of young respondents was greater for AMOPTs relative to MRLs and OMOPTs. It was noted that the frequency of the use of AM was higher for MRLs than AMOPTs which was in turn higher than OMOPTs.

With regard to education, 31.3% AMOPTs and 55.0% OMOPTs had 11 or more years of education. In terms of occupation, 30.7% AMOPTs worked in business, and 34.5% OMOPTs worked in service. These two items had statistically significant differences. With regard to monthly income, 45.1% AMOPTs earned 7000 Taka or less, and 41.0% earned 7000-150000 Taka. On the other hand, 47.5% OMOPTs earned 7000-150000 Taka, and 42.6% earned 7000 Taka or less. There was no statistical significance, but there seemed to be some trend that higher income for OMOPTs relative to AMOPTs. In terms of religion, 95.3% AMOPTs were Muslim, and 4.2% were Hindu. On the other hand, 88.4% OMOPTs were Muslim, and 9.5% were Hindu. There was a statistically significant difference.

Table 2 shows the perception toward AM use in Dhaka, Bangladesh. In terms of the mode of the effect of AM, 62.1% MRLs believed that it was for the prevention of disease. On the other hand, 37.9% AMOPTs believed that it was for the treatment of disease, and 37.4% believed that it was for health promotion. Furthermore, 58.5% OMOPTs believed that it was for health promotion. Moreover, 64.8% MRLs believed that AM worked via disease eradication, and 26.2% believed that AM worked through relaxation. On the other hand, 72.8% AMOPTs believed that AM worked via disease eradication, and 25.2% believed that AM improved the body’s defenses. In addition, 30.9% OMOPTs believed that AM worked through improving the body’s defenses, and 38.3% believed that AM worked via disease eradication. There were statistically significant differences. Regarding the effectiveness of AM in males and females, 95.9% MRLs, 97.4% AMOPTs, and 96.6% OMOPTs believed that AM was effective in both males and females. There was a statistically significant difference. Thus, these results demonstrate a marked difference in perception of significance of AM along the three groups.

With regard to satisfaction of AM use, as shown in Table 3, 89.9% MRLs, 99.5% AMOPTs, and 60.0% OMOPTs reported benefit from AM. In contrast, 4.1% MRLs, 62.2% AMOPTs, and 0.0% OMOPTs reported harm from AM. Furthermore, 4.1% MRLs, 36.7% AMOPTs, and 8.9% OMOPTs were very satisfied with AM, and 93.2% MRLs, 62.7% AMOPTs, and 88.4% OMOPTs were satisfied with AM. Moreover, 93.9% MRLs, 99.0% AMOPTs, and 57.5% OMOPTs said that they would recommend AM to others. Of note, 88.6% MRLs, 85.6% AMOPTs, and 10.3% OMOPTs had a person who helped them use AM, whereas, 70.9% MRLs, 100.0% AMOPTs, and 78.5% OMOPTs believed that the government should take more initiative in promoting AM. Furthermore, 87.4% MRLs, 98.9% AMOPTs, and 6.4% OMOPTs believed that if the treatment cost was the same, they would choose AM. These differences were statistically significant. Overall, this section represents greater degrees of satisfaction of the MRLs and AMOPTs compared to OMOPTs.

Regarding the attitudes toward AM, as shown in Table 4, 73.5% MRLs agreed, and 17.7% had not decided whether the AM provider gave good information on maintaining a healthy lifestyle. Furthermore, 70.1% AMOPTs strongly agreed, and 27.9% agreed that the AM provider gave good information on maintaining a healthy lifestyle. Moreover, 56.0% OMOPTs had not decided, and 42.7% agreed that the AM provider gave good information on maintaining a healthy lifestyle. In addition, 74.5% MRLs agreed that HM had fewer side effects. Moreover, 71.7% AMOPTs strongly agreed that HM had fewer side effects. Regarding side effects, 69.3% OMOPTs agreed that HM had fewer side effects. Furthermore, 77.2% MRLs agreed, and 13.4%...
Table 1. Demographic data of respondents in Dhaka, Bangladesh.

|                          | Sex                  | Religious leaders | Outpatients of Ayurvedic medicine | Outpatients of Orthodox medicine | Total | Testa |
|--------------------------|----------------------|-------------------|----------------------------------|---------------------------------|-------|-------|
|                          | n  %                | n  %              | n  %                            | n  %                            |       |       |
| **Age**                  |                     |                   |                                  |                                 |       |       |
| 15-34                    | 52 34.7%            | 98 48.5%          | 40 26.7%                        | 190 37.8%                       |       | **    |
| 35-54                    | 79 52.7%            | 73 36.1%          | 82 54.7%                        | 234 46.6%                       |       |       |
| 55 or more               | 19 12.7%            | 31 15.3%          | 28 18.7%                        | 78 15.5%                        |       |       |
| **Total**                | 150 100.0%          | 202 100.0%        | 150 100.0%                      | 502 100.0%                      |       |       |
| **Gender**               |                     |                   |                                  |                                 |       |       |
| **Male**                 | 143 95.3%           | 116 58.6%         | 117 78.0%                       | 376 78.0%                       |       | **    |
| **Female**               | 7 4.7%              | 82 41.4%          | 33 22.0%                        | 122 22.0%                       |       |       |
| **Total**                | 150 100.0%          | 198 100.0%        | 150 100.0%                      | 498 100.0%                      |       |       |
| **Marital status**       |                     |                   |                                  |                                 |       |       |
| **Married**              | 120 80.0%           | 136 75.1%         | 111 74.0%                       | 367 76.3%                       |       | **    |
| **Unmarried**            | 30 20.0%            | 38 21.0%          | 25 16.7%                        | 93 19.3%                        |       |       |
| **Widow**                | 0 0.0%              | 7 3.9%            | 11 7.3%                         | 18 3.7%                         |       |       |
| **Divorced/separated**   | 0 0.0%              | 0 0.0%            | 3 2.0%                          | 3 0.6%                          |       |       |
| **Total**                | 150 100.0%          | 181 100.0%        | 150 100.0%                      | 481 100.0%                      |       |       |
| **Education**            |                     |                   |                                  |                                 |       |       |
| Dakhil                   | 6 4.0%              |                  |                                 |                                 |       |       |
| Alim                     | 30 20.1%            |                  |                                 |                                 |       |       |
| Fajil                    | 14 9.4%             |                  |                                 |                                 |       |       |
| Kamil                    | 99 66.4%            |                  |                                 |                                 |       |       |
| **Total**                | 149 100.0%          |                  |                                 |                                 |       |       |
| **Occupation**           |                     |                   |                                  |                                 |       |       |
| Madrasa teacher          | 82 55.8%            |                  |                                 |                                 |       |       |
| Imam                     | 33 22.4%            |                  |                                 |                                 |       |       |
| Muazzin                  | 4 2.7%              |                  |                                 |                                 |       |       |
| **Total**                | 147 100.0%          |                  |                                 |                                 |       |       |
| Service                  | 43 24.0%            | 51 34.5%          | 94 28.7%                        |                                 |       | **    |
| Business                 | 55 30.7%            | 42 28.4%          | 97 29.7%                        |                                 |       |       |
| Housewife                | 49 27.4%            | 24 16.2%          | 73 22.3%                        |                                 |       |       |
| Jobless                  | 4 2.2%              | 13 8.8%           | 17 5.2%                         |                                 |       |       |
| **Total**                | 176 100.0%          | 149 100.0%        | 325 100.0%                      |                                 |       |       |
| **Monthly income (in Taka)** |               |                   |                                  |                                 |       |       |
| <10000                   | 51 34.7%            |                  |                                 |                                 |       |       |
| 10000-20000              | 84 57.1%            |                  |                                 |                                 |       |       |
| >20000                   | 12 8.2%             |                  |                                 |                                 |       |       |
| **Total**                | 147 100.0%          |                  |                                 |                                 |       |       |
| <70000                   | 55 45.1%            | 60 42.6%          | 115 43.7%                       |                                 | n.s. |       |
| 7000-15000               | 50 41.0%            | 67 47.5%          | 117 44.5%                       |                                 |       |       |
| >150000                  | 17 13.9%            | 14 9.9%           | 31 11.8%                        |                                 |       |       |
| **Total**                | 122 100.0%          | 141 100.0%        | 263 100.0%                      |                                 |       |       |
| **Religion**             |                     |                   |                                  |                                 |       |       |
| Islam                    | 150 100.0%          |                  |                                 |                                 |       |       |
| Sikh                     | 181 95.3%           | 130 88.4%         | 311 92.3%                       |                                 |       | **    |
| Hindu                    | 8 4.2%              | 14 9.5%           | 22 6.5%                         |                                 |       |       |
| Buddhism                 | 0 0.0%              | 2 1.4%            | 2 0.6%                          |                                 |       |       |
| Christian                | 0 0.0%              | 1 0.7%            | 1 0.3%                          |                                 |       |       |
| Others                   | 1 0.5%              | 0 0.0%            | 1 0.3%                          |                                 |       |       |
| **Total**                | 190 100.0%          | 147 100.0%        | 337 100.0%                      |                                 |       |       |
| **No of use of Ayurvedic medicine a year** | |                   |                                  |                                 |       |       |
| 0                        | 15 10.0%            | 1 0.5%            | 67 45.0%                        | 83 16.8%                        |       | **    |
| 1-2                      | 27 19.0%            | 45 22.3%          | 51 34.2%                        | 123 24.9%                       |       |       |
| 3-4                      | 26 18.3%            | 100 49.5%         | 23 15.4%                        | 149 30.2%                       |       |       |
| 5-6                      | 68 47.9%            | 46 22.8%          | 8 5.4%                          | 122 24.7%                       |       |       |
| 6 or more                | 6 4.2%              | 10 5.0%           | 0 0.0%                          | 16 3.2%                         |       |       |
| **Total**                | 142 100.0%          | 202 100.0%        | 149 100.0%                      | 493 100.0%                      |       |       |
had not decided whether AM involved natural plant formulas, which were healthier than taking drugs given by medical doctors. Moreover, 71.7% AMOPTs strongly agreed, and 26.3% agreed that AM involved natural plant formulas healthier than such drugs. On the other hand, 88.0% OMOPTs agreed on such plant formulas healthier than such drugs. In addition, 80.5% MRLs agreed, and 10.7% strongly agreed that people would be more likely to use AM if there were more AM clinics. On the other hand, 84.7% OMOPTs agreed, and 13.3% had not decided whether people would be more likely to use AM if there were more AM clinics. Moreover, 79.01% MRLs agreed, and 10.1% strongly agreed that AM built up the body’s own defenses. Furthermore, 76.6% AMOPTs strongly agreed, and 21.3% agreed that AM built up the body’s own defenses. These responses consistently reflected the positive attitudes of AMOPTs toward AM compared to MRLs and OMOPTs. Next we addressed the questions regarding the potential factors influencing such attitudes. 82.6% MRLs agreed, and 11.4% strongly agreed that the more knowledge a person had on AM, the more likely he/she would use it. Furthermore, 70.7% AMOPTs strongly agreed, and 26.8% agreed on the potential effect of the knowledge. On the other hand, 72.7% OMOPTs agreed, and 26.0% had not decided about the potential effect of the knowledge. Moreover, 73.2% MRLs agreed, and 16.1% strongly agreed that parents could influence youths to use AM by exposing them to it. Furthermore, 65.3% AMOPTs strongly agreed, and 30.1% agreed on the potential effect of the knowledge. On the other hand, 82.7% OMOPTs agreed, and 17.3% had not decided whether parents could influence youths to use AM by exposing them to it. In addition, 73.8% MRLs agreed, and 15.4% strongly agreed that people could be influenced to use AM if friends were using it. Furthermore, 65.3% AMOPTs strongly agreed, and 27.0% agreed that people could be influenced to use AM if friends were using it. On the other hand, 78.0% OMOPTs agreed, and 20.0% had not decided about the potential influence from friends. Moreover, 72.5% MRLs agreed, and 12.8% strongly agreed that teachers could influence youths to use AM by exposing them to it. Furthermore, 56.6%
AMOPTs strongly agreed, and 32.7% agreed on the teachers’ influence about the exposure. On the other hand, 73.2% OMOPTs agreed, and 24.2% had not decided whether teachers could have such an influence. In addition, 73.6% MRLs agreed, and 14.9% strongly agreed that people who believed in the physical, mental, and spiritual aspects of health were more likely to use AM. Furthermore, 46.1% AMOPTs agreed, and 32.6% had not decided whether people who believed in them were more likely to use AM. On the other hand, 54.7% OMOPTs had not decided, and 32.6% had not decided whether people who believed in them were more likely to use AM. More than 85% AMOPTs and MRLs trusted the efficacy of AM more. More than one third of AMOPTs believed that it was for disease treatment and health promotion. On the other hand, the majority of OMOPTs believed that AM was for health promotion. Furthermore, whereas the majority of MRLs and AMOPTs believed that AM works via disease eradication, 38.0% AMOPTs believed that AM works through improving the body’s defenses, followed by disease eradication (30.9%). This demonstrates that there was a large gap in the perception of AM among OMOPTs and the other two groups. The purpose of this study was not only to confirm differences among MRLs, AMOPTs, and OMOPTs but also to confirm that the differences in demographic characteristics were large; this is one of the limitations of this study. However, we think that the difference in the demographic characteristics between the three groups has a meaning.

The results of this study also showed that more than 50% AMOPTs perceived harm from AM; however, the scores regarding satisfaction were higher than for MRLs and OMOPTs. Moreover, 98.9% and 87.4% AMOPTs and MRLs, respectively, would have used AM as the first choice if the cost of treatment was the same. This means that AMOPTs and MRLs trusted the efficacy of AM more. More than 85% AMOPTs and MRLs had a person who helped him/her use AM; however, only 10.3% OMOPTs had such a person. This suggested that OMOPTs had more skepticism than not having a person who helped in using AM and were not familiar with using AM. If they had more chance to be

**Discussion**

The results of this study show that the cost of AM seems to be cheaper than the cost of OM. However, with regard to monthly income, there were no statistically significant differences among AMOPTs and OMOPTs. In addition, approximately 50% AMOPTs were 15-34 years old; on the other hand, the majority of OMOPTs were 35-54 years old. In terms of education, OMOPTs had a higher level of education compared to AMOPTs. From the viewpoint of the perception of AM use in Dhaka, the majority of MRLs believed that AM’s mode of effect was prevention of disease. More than one third of AMOPTs believed that it was for disease treatment and health promotion. On the other hand, the majority of OMOPTs believed that AM was for health promotion. Furthermore, whereas the majority of MRLs and AMOPTs believed that AM works via disease eradication, 38.0% AMOPTs believed that AM works through improving the body’s defenses, followed by disease eradication (30.9%). This demonstrates that there was a large gap in the perception of AM among OMOPTs and the other two groups. The purpose of this study was not only to confirm differences among MRLs, AMOPTs, and OMOPTs but also to confirm that the differences in demographic characteristics were large; this is one of the limitations of this study. However, we think that the difference in the demographic characteristics between the three groups has a meaning.

The results of this study also showed that more than 50% AMOPTs perceived harm from AM; however, the scores regarding satisfaction were higher than for MRLs and OMOPTs. Moreover, 98.9% and 87.4% AMOPTs and MRLs, respectively, would have used AM as the first choice if the cost of treatment was the same. This means that AMOPTs and MRLs trusted the efficacy of AM more. More than 85% AMOPTs and MRLs had a person who helped him/her use AM; however, only 10.3% OMOPTs had such a person. This suggested that OMOPTs had more skepticism than not having a person who helped in using AM and were not familiar with using AM. If they had more chance to be

| Table 3. Satisfaction on Ayurvedic medicine (AM) use in Dhaka, Bangladesh. |
|---|---|---|---|---|
| Religious leaders | Outpatients of Ayurvedic medicine | Outpatients of Orthodox medicine | Total | Test |
| n % | n % | n % | n % | n % |
| Did you get benefit from AM? | Yes | 133 | 89.9% | 200 | 99.5% | 90 | 60.0% | 423 | 84.8% ** |
| No | 15 | 10.1% | 1 | 0.5% | 60 | 40.0% | 76 | 15.2% |
| Total | 148 | 100.0% | 201 | 100.0% | 150 | 100.0% | 499 | 100.0% |
| Did you get harm from AM? | Yes | 6 | 4.1% | 139 | 62.2% | 0 | 0.0% | 145 | 29.2% ** |
| No | 142 | 95.9% | 62 | 30.8% | 148 | 100.0% | 352 | 70.8% |
| Total | 148 | 100.0% | 201 | 100.0% | 148 | 100.0% | 497 | 100.0% |
| Were you satisfied with AM? | Very satisfied | 6 | 4.1% | 65 | 36.7% | 10 | 8.9% | 81 | 16.8% ** |
| Satisfied | 137 | 93.2% | 111 | 62.7% | 99 | 88.4% | 347 | 79.6% |
| Dissatisfied | 4 | 2.7% | 1 | 0.6% | 3 | 2.7% | 8 | 1.8% |
| Total | 147 | 100.0% | 177 | 100.0% | 112 | 100.0% | 436 | 100.0% |
| Did you recommend AM to others? | Yes | 138 | 93.9% | 198 | 99.0% | 84 | 57.5% | 420 | 85.2% ** |
| No | 9 | 6.1% | 2 | 1.0% | 62 | 42.5% | 73 | 14.8% |
| Total | 147 | 100.0% | 200 | 100.0% | 146 | 100.0% | 493 | 100.0% |
| Does anybody help you using AM? | Yes | 124 | 88.6% | 161 | 85.6% | 15 | 10.3% | 300 | 63.3% ** |
| No | 16 | 11.4% | 27 | 14.4% | 131 | 89.7% | 174 | 36.7% |
| Total | 140 | 100.0% | 188 | 100.0% | 146 | 100.0% | 474 | 100.0% |
| Government should take more initiatives to promote AM | Yes | 105 | 70.9% | 196 | 100.0% | 117 | 78.5% | 418 | 84.8% ** |
| No | 1 | 0.7% | 0 | 0.0% | 8 | 5.4% | 9 | 1.8% |
| Total | 146 | 100.0% | 196 | 100.0% | 115 | 78.0% | 431 | 100.0% |
| If treatment cost is same, which will you choose? | AM | 125 | 87.4% | 180 | 98.9% | 9 | 6.4% | 314 | 67.5% ** |
| Orthodox medicine | 18 | 12.6% | 2 | 1.1% | 131 | 93.6% | 151 | 32.5% |
| Total | 143 | 100.0% | 182 | 100.0% | 149 | 100.0% | 465 | 100.0% |

χ²-test was used  
**p < 0.01

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| Table 4. Attitudes of the citizens on Ayurvedic medicine (AM) in Dhaka, Bangladesh. |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Respondents | Religious leaders | Outpatients of Ayurvedic medicine | Outpatients of Orthodox medicine | Total | test |
| AM provider gives good information on maintaining a healthy lifestyle |
| Strongly disagree | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 2 | 0.4% | ** |
| Disagree | 2 | 1.4% | 0 | 1.0% | 2 | 1.3% | 6 | 1.2% | |
| Haven't decided | 26 | 17.7% | 2 | 1.0% | 84 | 56.0% | 112 | 22.7% | |
| Agree | 108 | 73.5% | 55 | 27.9% | 64 | 42.7% | 227 | 46.0% | |
| Strongly agree | 9 | 6.1% | 138 | 70.1% | 0 | 0.0% | 147 | 29.8% | |
| Total | 147 | 100.0% | 197 | 100.0% | 150 | 100.0% | 494 | 100.0% | |
| Herbal medicine has less side effects |
| Strongly disagree | 1 | 0.7% | 0 | 0.0% | 1 | 0.7% | 2 | 0.4% | ** |
| Disagree | 2 | 1.3% | 0 | 0.0% | 1 | 0.7% | 3 | 0.6% | |
| Haven't decided | 23 | 15.4% | 2 | 1.0% | 42 | 28.0% | 67 | 13.5% | |
| Agree | 111 | 74.5% | 54 | 27.3% | 104 | 69.3% | 269 | 54.1% | |
| Strongly agree | 12 | 8.1% | 142 | 71.7% | 2 | 1.3% | 156 | 31.4% | |
| Total | 149 | 100.0% | 198 | 100.0% | 150 | 100.0% | 497 | 100.0% | |
| AM involves natural plant formulas which are healthier than taking drugs given by the medical doctors |
| Strongly disagree | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | ** |
| Disagree | 2 | 1.3% | 0 | 0.0% | 1 | 0.7% | 3 | 0.6% | |
| Haven't decided | 20 | 13.4% | 4 | 2.0% | 12 | 8.0% | 36 | 7.2% | |
| Agree | 115 | 77.2% | 52 | 26.3% | 132 | 88.0% | 299 | 60.2% | |
| Strongly agree | 12 | 8.1% | 142 | 71.7% | 5 | 3.3% | 159 | 32.0% | |
| Total | 149 | 100.0% | 198 | 100.0% | 150 | 100.0% | 497 | 100.0% | |
| People would be more likely to use AM if there were more AM clinics |
| Strongly disagree | 1 | 0.7% | 0 | 0.0% | 1 | 0.7% | 2 | 0.4% | ** |
| Disagree | 2 | 1.3% | 0 | 0.0% | 1 | 0.7% | 5 | 1.0% | |
| Haven't decided | 10 | 6.7% | 3 | 1.5% | 20 | 13.3% | 33 | 6.6% | |
| Agree | 120 | 80.5% | 40 | 20.2% | 127 | 84.7% | 287 | 57.7% | |
| Strongly agree | 16 | 10.7% | 154 | 77.8% | 0 | 0.0% | 170 | 34.2% | |
| Total | 149 | 100.0% | 198 | 100.0% | 150 | 100.0% | 497 | 100.0% | |
| AM build up the body’s own defenses |
| Strongly disagree | 0 | 0.0% | 0 | 0.0% | 2 | 1.3% | 2 | 0.4% | ** |
| Disagree | 3 | 2.0% | 0 | 0.0% | 2 | 1.3% | 5 | 1.0% | |
| Haven't decided | 13 | 8.8% | 4 | 2.0% | 43 | 28.7% | 60 | 12.1% | |
| Agree | 117 | 79.1% | 42 | 21.3% | 100 | 66.7% | 259 | 52.3% | |
| Strongly agree | 15 | 10.1% | 151 | 76.6% | 3 | 2.0% | 169 | 34.1% | |
| Total | 148 | 100.0% | 197 | 100.0% | 150 | 100.0% | 495 | 100.0% | |
| The more knowledge a person has on AM, the more likely he/she use it |
| Strongly disagree | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 1 | 0.2% | ** |
| Disagree | 1 | 0.7% | 0 | 0.5% | 1 | 0.7% | 3 | 0.6% | |
| Haven't decided | 7 | 4.7% | 4 | 2.0% | 39 | 26.0% | 50 | 10.1% | |
| Agree | 123 | 82.6% | 53 | 26.8% | 109 | 72.7% | 285 | 57.3% | |
| Strongly agree | 17 | 11.4% | 140 | 70.7% | 1 | 0.7% | 158 | 31.8% | |
| Total | 149 | 100.0% | 198 | 100.0% | 150 | 100.0% | 497 | 100.0% | |
| Parent(s) can influence youth’s AM use by exposing them to it |
| Strongly disagree | 2 | 1.3% | 0 | 0.0% | 0 | 0.0% | 2 | 0.4% | ** |
| Disagree | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 1 | 0.2% | |
| Haven't decided | 13 | 8.7% | 5 | 2.6% | 26 | 17.3% | 44 | 8.9% | |
| Agree | 109 | 73.2% | 59 | 30.1% | 124 | 82.7% | 292 | 59.0% | |
| Strongly agree | 24 | 16.1% | 132 | 67.3% | 0 | 0.0% | 156 | 31.5% | |
| Total | 149 | 100.0% | 196 | 100.0% | 150 | 100.0% | 495 | 100.0% | |
| People can be influenced to use AM if friends are using it |
| Strongly disagree | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | ** |
| Disagree | 0 | 0.0% | 0 | 0.0% | 2 | 1.3% | 2 | 0.4% | |
| Haven't decided | 4 | 2.7% | 0 | 0.0% | 3 | 2.0% | 7 | 1.4% | |
| Agree | 110 | 73.8% | 53 | 27.0% | 117 | 78.0% | 280 | 56.6% | |
| Strongly agree | 23 | 15.4% | 128 | 65.3% | 0 | 0.0% | 151 | 30.5% | |
| Total | 149 | 100.0% | 196 | 100.0% | 150 | 100.0% | 495 | 100.0% | |
| Teacher can influence youth’s AM use by exposing them to it |
| Strongly disagree | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | ** |
| Disagree | 4 | 2.7% | 0 | 0.0% | 2 | 1.3% | 6 | 1.2% | |
| Haven't decided | 18 | 12.1% | 21 | 10.7% | 36 | 24.2% | 75 | 15.2% | |
| Agree | 108 | 72.5% | 64 | 32.7% | 109 | 73.2% | 281 | 56.9% | |
| Strongly agree | 19 | 12.8% | 111 | 56.6% | 1 | 0.7% | 131 | 26.5% | |
| Total | 149 | 100.0% | 196 | 100.0% | 149 | 100.0% | 494 | 100.0% | |
The authors declare that they have no conflicts of interest.

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