

ORIGINAL ARTICLE

Use of Alternative Medicine Among Women in an Urban And Rural Area of Bangladesh

Nadia Haque¹, Mohammad Abdul Aleem², Musarrat Haque³**Abstract :**

Alternative medicine (AM) has been widely practiced to manage health in many parts of the world for long. Pattern of use of AM differs by geographical locations and culture. Previous study findings suggest clear urban-rural divide on the frequency and pattern of use of AM. This study was conducted to focus on this area for which little evidence exists within Bangladeshi context. Total of 230 women (115 from both rural and urban areas) of >18 years of age were enrolled to collect information on frequency and pattern of use of AM in Bangladesh using structured questionnaire. The information was compared between the rural and urban areas to infer statistically significant differences. Proportion of participants using AM was greater among rural compared to urban women (67% vs 42%; $p < 0.001$). The most commonly used modality of AM by urban was Homeopathy as opposed to Kaviraji and spiritual healing by rural users (75% vs 63% and 42% respectively; $p < 0.05$). Relatively more among the urban were past users as opposed to greater proportion among rural respondents being current users of AM. Simultaneous usage of both alternative and conventional method were more common among urban women. Most of urban had AM on daily basis in contrast to majority among rural users using it only once in a while. The most frequently treated conditions by AM were stiff or painful joints and arthritis among both groups and there were no significant statistical differences in this regard. Rural women used AM more often compared to women in urban setting. Homeopathy was the most commonly used modality of AM among urban in contrast to Kaviraji or spiritual healing among rural women. There were statistically significant differences for certain pattern of use of AM between women in urban and rural areas. Issues related to availability of conventional health care facilities, health care behavior and socio-demographic factors may play crucial role for these differences. Study with greater number of samples along with qualitative research methods to better characterize AM usage in both rural and urban settings are recommended.

Introduction:

Complementary and alternative medicine (CAM)

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is any of the healing practices which do not fall within the realm of conventional medicine that has not been shown consistently to be effective. It is usually based more on historical or cultural traditions than scientific evidences. The claims made by alternative medicine practitioners are generally not accepted by the conventional medical community because of these lacking in evidence-based assessment of safety and efficacy.

However, before the existence of modern medicine, CAM was the only health care available. It was based on belief and experience but little scientific evidence¹. Since several decades interests for alternative medicine increased globally². In a cross-sectional study on pregnant women in hospital 57% on the women reported use of AM³. In one study which was conducted in year 2002, about 42% of health plan members reported the use of at least one CAM therapy, the most common being relaxation techniques, massage, herbal medicine and megavitamin therapy where perceived efficacy was reported by more than 70% of the users⁴. Another study mentioned about 58% of participants using some form of CAM and the CAM users more commonly had thyroid disease and arthritis⁵. Among breast cancer patients, the most commonly used CAM was prayer and spiritual healing⁶. A retrospective analysis on insurance claimants in US revealed the use of chiropractors as higher among rural compared to urban residents⁷. The prevalence of consultation with CAM practitioner was 28% and 32% for urban and rural residents respectively. Differences between rural and urban CAM users in clinical symptoms were for severe tiredness, night sweats, depression and anxiety. Hypertension and skin cancer were statistically significantly higher for rural and remote compared to urban female users⁷. Higher rate of CAM use in rural and remote areas may be linked to limited access to health services and/or patient dissatisfaction with conventional health care services, closer working ties between regional general practice and CAM provision and stronger informal community networks in rural settings⁷.

Almost six percent of Israelis reported using CAM⁸. In a study two of the most commonly used modalities were chiropractic and herbs⁹. In US the most commonly used CAM modalities in 2002 were herbal therapy¹⁰. Maintaining health and treating a health condition were the primary reasons for CAM use where the most common conditions treated were arthritis and chronic pain. Overall satisfaction with CAM use was 80% and only half of users disclosed CAM use to their primary care providers¹¹. Another work found the three most commonly used therapies as spiritual healing/prayer, herbal medicine and chiropractic therapies. Use of CAM was most prevalent among women and CAM users were more likely to use conventional medical services¹². In Bangladesh, the mostly available alternative systems of medicine are homeopathy, Ayurvediy, Unani, Herbal and Acupuncture¹³.

Many studies have been conducted in the developed parts of the world in this regard but in Bangladesh so far the number of modern epidemiological studies are inadequate. The present study would contribute to the knowledge on utilization of alternative medicine in Bangladesh. The information gained through this work can be used to implement studies on larger scale to gain more knowledge on this issue. Keeping these in mind this observational study was done in one rural and one urban area to find out the pattern of use of CAM and the differences between the two settings.

Materials and method:

Study fields were chosen from one rural and one urban area of Bangladesh. For the rural site we selected a remote village situated at district of Chadpur which is part of the Chittagong division. Chadpur is an area measuring around 1,700 km² and a total population of 2.4 millions (population density 1,400/km²). Most of the residents were of low socio-economic conditions. The urban participants were enrolled from one urban site situated at old part of district of Dhaka, part of Dhaka division. The area of Dhaka district measured about 1,464 Km² with a total population of about 18 millions.

This observational study was conducted for six months (January 2011 to June 2011). The participants were women selected from one rural and one urban communities. Eligible participant was ? 18 years old, not very sick and who provided consent. We conveniently selected and visited the households at each community to interview the female members. The responses were recorded in a semi-structured questionnaire. Assuming a precision of 5%, at 95% confidence interval (CI) and a true prevalence of 80% for rural and 50% for urban settings, sample size estimates were 246 and 385 women respectively. Hence total estimate was 631. But for time and budget constraints a total 230 participants (115 rural and 115 urban) were interviewed to collect information on the pattern or trend of use of alternative medicine (AM). Data were first organized and then analyzed with statistical software SPSS 17 for windows. Univariate analysis was carried out initially to generate some summery statistics. Chi-(x²)-test or Fisher's exact test were used to compare the binary AM use status between

urban and rural women against categorical variables. All the tests were two tailed and p-value < 0.05 was set as the level of statistical significance.

Results:

Altogether 230 participants were enrolled including 115 subjects for each of urban and rural settings. Table -I shows proportions of urban and rural respondents using alternative medicine. Alternative medicine was used more frequently by rural compared to urban respondents (86/115 or 75% vs 48/115 or 42%; p<0.001).

Figure-1, explains the types of alternative medicine used by urban or rural respondents. Homeopathy was the most commonly used alternative treatment by urban (75%) while Kaviraji and religious/spiritual healing were most popular among the rural participants (63% and 42% respectively).

Table-II shows that, majority of both urban and rural respondents were current users of alternative medicine (92% and 78%). However, frequency of past users were relatively greater among urban compared to rural participants (22% vs 8%; p<0.005). Most of the urban users had both alternative and conventional medicine in parallel compared to majority of rural using alternative medicine as the only method of treatment (78% and 60% respectively). Majority of urban used alternative medicine on daily basis while most of rural respondents used it for once in a while (61% and 72%). Only about 1/3 rd of both urban and rural users consulted an alternative medicine practitioner for their treatment. However, there was no statistically significant difference between the two groups. Majority of urban users utilized only one

type of alternative medicine as opposed to most rural users having more than one type (92% and 78% respectively). Rural users disclosed the usage of alternative medicine to their primary care giver more frequently than urban users (77% vs 38%; $p < 0.05$). Most of the times alternative medicines were used for both acute and chronic illness (81% for urban and 75% for rural). However, use for only acute illness was more frequent for rural individuals compared to urban (13% vs 7%; $p > 0.05$).

Table-III compares the frequencies of health conditions and the clinical symptoms alternative medicine used for between urban and rural respondents. Arthritis was the most common health condition treated by alternative medicine in about 40% of both urban and rural users. However there was no statistically significant

difference in frequencies of health conditions treated for between the two groups. Back pain, stiff/painful joints and allergies were the three most common symptoms treated for among the users in both urban and rural settings. Again, the differences were statistically not significant.

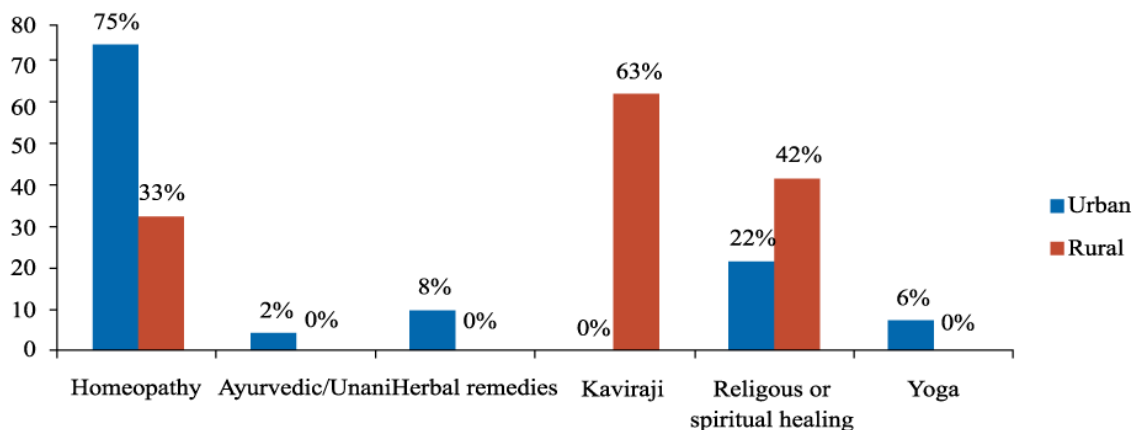
Table-IV shows the overall impressions on alternative medicine system revealed by the users. More than 80% of the rural alternative medicine users were moderately satisfied for their choice of treatment which was almost double to that among rural users. But, proportion of users who were highly satisfied using alternative medicine was significantly higher among urban compared to rural respondents (40% vs 8%; $p < 0.05$). Half of the urban users were doubtful of the efficacy while 60% of the rural users said it was moderately effective ($p > 0.05$).

Table 1: Proportions of usage of alternative medicine

Proportions of usage of alternative medicine	Total Respondents	Urban respondents	Rural respondents	<i>p</i>
Users of alternative medicine	134 (67)	48 (42)	86(75)	$< 0.001^{ss}$
Non-users of alternative medicine	96(33)	67 (58)	29(25)	

^{ss}Statistically significant

Figure 1: Comparisons for modalities of alternative medicine utilized between urban and rural settings



^{ss}Statistically significant ($p < 0.05$)

Table-II: Trend of usage of alternative medicine

Usage of alternative medicine	Urban users N=48	Rural users N=86	<i>p</i>
Duration of usage of alternative medicine			
Past user	10(22)	7(8)	<0.05 ^{ss}
Current user	38(78)	79(92)	
Usage of only one or both of alternative and conventional medicine			
Users of only alternative medicine	10(22)	52(60)	<0.005 ^{ss}
Users of both alternative and conventional medicine	38(78)	34(40)	
Frequency of use			
Once in while	5(10)	62(72)	<0.05 ^{ss}
Monthly	5(10)	19(22)	
Weekly	9(19)	3(3)	
Daily	29(61)	1(1)	
Visiting a alternative medicine practitioner			
Individuals visiting a alternative medicine practitioner	13(28)	27(32)	>0.05 ^{ns}
Individuals not visiting alternative medicine practitioner	35(72)	59(68)	
Number of modalities of alternative medicine used			
Only 1	44(92)	19(22)	<0.05 ^{ss}
> 1	4(8)	67(78)	
Disclosure of use of alternative medicine to primary caregiver			
Disclosed	18(38)	66(77)	<0.05 ^{ss}
Did not disclose	30(62)	20(23)	
Alternative medication utilized for acute or chronic illness			
Acute illness only	3(7)	11(13)	>0.05 ^{ns}
Chronic illness only	6(12)	10(12)	
Both acute and chronic illness	39(81)	65(75)	

^{ss}Statistically significant^{ns}Statistically not significant

Table-III: Health conditions/symptoms treated by alternative medicine

Usage of alternative medicine	Urban users N=48	Rural users N=86	<i>p</i>
Health conditions*			
Peptic ulcer diseases	11 (23)	16(19)	>0.05 ^{ns}
Migraine	8 (16)	9(11)	
Arthritis	19 (40)	35(41)	
Diabetes	12 (26)	22(26)	
Hypertension	16 (34)	28(32)	
Heart diseases	3(6)	6(7)	
Asthma/COPD	10(21)	18(21)	
Cancer	5(11)	9(11)	
Clinical symptoms*			
Allergies	9(19)	14(16)	>0.05 ^{ns}
Breathing difficulties	4(9)	8(9)	
Indigestion or heartburn	6 (13)	11(13)	
Headaches or migraines	4 (9)	9(10)	
Tiredness	4(8)	8(9)	
Stiff or painful joints	12(26)	22(25)	
Back pain	15(31)	25(29)	
Burning sensation of urine	3(7)	6(7)	
Hot flushes	5(10)	9(10)	

*Any respondent may provide more than one response

^{ss} Statistically significant

^{ns} Statistically not significant

Table-IV: Overall impressions on alternative medicine treatment

Efficacy of alternative medicine	Urban users N=48	Rural users N= 86	<i>p</i>
Overall satisfaction with use of alternative medicine			
Highly satisfied	19(40)	7(8)	<0.05 ^{ss}
Moderately satisfied	20(42)	72(84)	
Not satisfied	9(19)	7(8)	
Opinion on efficacy of alternative medicine			
Fully Effective	0(0)	2(2)	>0.05 ^{ns}
Moderately effective	19(40)	52(60)	
Doubtful	24 (50)	25(30)	
Not effective	0(0)	0(0)	
Do not know	5(10)	7(8)	

^{ss} Statistically significant

^{ns} Statistically not significant

Discussion :

This was an observational study which was conducted to know and compare the frequency and pattern of use of alternative medicine (AM) by women between an urban and rural area of Bangladesh. In total two hundred and thirty participants were enrolled which was short of the number of samples that was originally calculated. Nonetheless, enquiries were formulated based on the observations for which marked statistical differences were noted in previous studies. Although, the researchers conducted this study as a pilot work, its findings should contribute to fill up the knowledge gap on use of AM in Bangladesh and future work based on this may be designed with better representative sample size.

In this study, almost 70% of the participants ever used some form of AM where the frequency was significantly greater for participants from rural as opposed to urban setting. This is higher than a US national survey finding where 62% of adults used some form of AM¹⁴ but lower than findings in a study in Singapore where 76% used AM¹⁵. The current study finding is similar to statement by one article about 70-75% of population of Bangladesh using AM. The article also mentioned about rural people using AM more commonly due to limited access to conventional health care facilities¹⁶. Study in Australia showed rural women consulting AM practitioner significantly more frequently compared to urban women¹⁷. These findings suggest for significant role of AM to play in health care system in Bangladesh specially within rural settings.

For years four types of AM have been primarily practiced in Bangladesh namely herbal, homeopathy, religious and magical methods. Homeopathy and Kaviraji have long history of existence in Bangladesh. Kaviraji has traditionally been more popular in rural Bangladesh for long¹⁶. In the present study greater proportion of rural women were current AM users which might be due to suffering from current illness and lack of access to conventional care.

In the present study, majority of urban users of AM also used CM as opposed to rural respondents. This is in accordance to a study finding in urban Singapore¹⁵. Urban adults do value both AM and CM. They feel the combination to be more effective¹⁹. Difficulty to access modern medicine and better availability of AM practitioners might be attributed for rural health care practice be different from that in urban areas. In this study, urban women were more consistent users of AM. Better education among urban users may explain this behavior.

Rural women in the current study visited AM practitioner more frequently than their urban counterparts which supports the finding by Jon Adams et al¹⁷. This might be because of greater number of AM practitioners working in rural settings. Also use of only a single type of AM was more frequent among urban in contrast to rural respondents. Better availability of conventional care but lesser options for alternative care might influence this urban pattern of AM use. Majority among urban users did not disclose AM use to their primary caregiver. In a national telephone survey in US almost 60-70% did not disclose use of AM to their consultant medical doctors¹⁹.

Use of AM for acute as opposed to chronic illness was more common among rural participants in this study. Better access to alternative than conventional care might influence the rural residents to probably first utilize AM for any acute problems.

This study did not find any significant differences between urban and rural settings for prevalence of health conditions or clinical symptoms among AM users which is supported by the work done by Jon Adams et al¹⁷. Similar to our study, AM was found to be utilized most commonly for problems related to arthritis and back pain in a 2002 US national survey¹⁴. Same was reported for AM users in Singapore¹⁵. National telephone survey in US reported users choosing AM for treating headache and neck/back pain over CM¹⁹. In contrast, survey of news papers in Bangladesh showed the three top most advertisements promoting AM were for treating manifestations related to sex and sexuality, psychological problems and cancer¹⁶.

Most of the rural users were moderately satisfied with AM. However, proportions of respondents who were either highly satisfied or not satisfied were greater among urban users. Interestingly, in the urban Singapore 60-80% of users of AM agreed upon it's national promotion and recommending it to friends¹⁵.

Conclusion:

Frequency of utilization of AM was significantly higher among rural than urban women in the current study. There were statistically significant differences between urban and rural settings for some patterns of AM use e.g. modalities of AM, using only one or both of AM or CM etc. This suggests for differences in availability of/accessibility to conventional health care providers, health care

behavior of the residents and socio-demographic factors to play important role for the variations. Future study with greater number of enrollments is recommended for better interpretation. Also, qualitative research methods might contribute to reveal novel characteristics of AM usage in both rural and urban populations. Particularly, future works may be enhanced to better focus on the factors influencing the use of AM. In addition, more information on limitations of CM failing to provide adequate health care is required. Policy makers may benefit by utilizing the information generated from this study to scale up the efforts to better understand the role of AM in addressing the health related issues in both urban and rural Bangladesh.

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