

Prevalence and Associated Factors of Traditional Medicine Use Among the Tribal People of Rangamati, Bangladesh

Qufshe Bardar Oias Fazlul Baqui¹, Fatema Johora^{2*}, Hosne Ara Begum³, Mohammad Ali⁴

¹ Department of Pharmacology, Army Medical College Bogura, Bogura, Bangladesh

² Department of Pharmacology, Army Medical College Bogura, Bogura, Bangladesh

³ Shahprotap Institute of Medical Science (SIMS), Narsingdi, Bangladesh

⁴ Department of Anaesthesia, Asgar Ali Hospital Ltd, Dhaka, Bangladesh

Email address: fatemajohora.0801@gmail.com

Abstract - Purpose: The use of traditional medicine has grown in popularity in recent years, particularly, in developing countries. The present study was carried out among the tribal people of Rangamati, southern part of Bangladesh, with the attempt to find out the prevalence of use of traditional medicine, which types of medications are used and to explore the underlying reasons of this type of practice. **Methods:** A cross-sectional, structured questionnaire survey was conducted among 88 tribal people including both male and female in March 2011. **Results:** 47.2% of studied population was Chakma. 77 respondents (87.5%) had taken traditional medicine in the 6-months period preceding the study. Herbal medicine was the most popular (78.4%) form of traditional medicine. 29.3% of respondents sought advice of traditional practitioners and rest of all took medicine by themselves. Common cold is the commonest (49.3%) illness for taking medicine, followed by gastrointestinal problem (26%), musculoskeletal pain (11.7%) and generalised weakness (7.8%). Cultural heritage and belief, availability of herbal and medicinal plants and their presumed safety, poor socioeconomic condition, cost of modern medicine and non-availability of physicians in remote, hilly area were found as reasons for seeking such kind of treatment. **Conclusion:** The study revealed that use of traditional medicine, especially, herbal medicine is common among the tribal population of the Rangamati.

Keywords: Complementary medicine, Herbal medicine, Alternative medicine, Ethnic people, Ethnopharmacology

Background

The history of traditional medicine is quite old and the domain of traditional medicine has been grown in popularity in recent years^[1-2]. It is the sum total of knowledge, skill and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness. This comprises a mass of practices varying from the worthless to highly effective remedies^[3]. According to World Health Organization (WHO), 80% of ailing population in developing countries including Bangladesh depends on traditional healing for their primary healthcare^[4].

Bangladesh is a country of biological, cultural and ethnic diversity. There are 3 millions tribal peoples of 45 different tribes residing in Bangladesh, mostly concentrated in the Chittagong Hill Tract districts (Rangamati, Khagrachari and Bandarban). They have distinctive history, heritage, religions, beliefs, lifestyles, economic and social activities^[5]. As because of living in hilly region, availability of medicinal plants, poor socioeconomic conditions and deep rooted cultural heritage, it is assumed that tribal people of Rangamati approach to traditional healing practice for illness. But there is no available data on this type of practice. Hence, the present study was carried out with the attempt to find out the prevalence of use of traditional medicine among the tribal people of Rangamati, which types of medicines are used and to explore the underlying reasons of this type of practice.

Material & Methods

Place and duration of the study

This was a cross-sectional, structured questionnaire survey, conducted in Rangamati district in March 2011. Before initiating the actual study, ethical clearance was obtained from the Ethical Review Committee of Prime Medical College, Rangpur, and informed consent was taken from the participants of the Structured Questionnaire Survey.

Procedure

The questionnaire survey was conducted among the tribal population of three unions of Rangamati district. The list of individuals from the three unions was obtained and the individuals were selected approached, and nature and purpose of the survey was explained. Then questionnaire was circulated to them who had been agreed to participate. 4th year medical students of Prime Medical College Rangpur who were briefed beforehand carried out the study on 88 respondents. Respondents of <10 years of age were not included in the study because we were not sure that they would be able to comprehend and respond properly to queries. The name, address, age, sex, ethnicity, were noted. Data was taken for the 6-months period preceding the study, and information regarding the type of traditional medication, illness for which the medication was used and reason for taking traditional medicine was collected. The questionnaire was administered in Bangla and the respondents were interviewed in their homes.

Statistical analysis

Data was compiled, presented and analyzed by percentages. All the statistical analysis was done by Microsoft Excel data sheet programme.

Results

Eighty-eight respondents were covered during the study period. The commonest ethnic/caste group encountered in the survey is shown in **Table 1** and was 47.2% Chakma followed by 25.4% Marma, 18.3% Murang, 6.3% Tripura and 2.8% others.

Table 1: Different tribe among the study population

Name of tribe	Frequency	%
Chakma	42	47.8
Marma	22	25.4
Murang	16	18.3
Tripura	06	6.3
Others	02	2.8

The age distribution of the respondents is shown in **Table 2**. Twenty-seven of the 88 respondents (30.7%) were aged between the ages of 20 to 29 years. Seventy-two respondents (81.8%) were male and the rest were females.

Table 2: Age distribution of respondents

Age group	Number of respondents (%)	Male	Female
10-19	12 (13.6%)	10	2
20-29	27 (30.7%)	24	3
30-39	21 (23.9%)	17	4
40-49	12 (13.6%)	08	4
50-59	12 (13.6%)	10	2
> 60	4 (4.6%)	3	1
Total	88	72	16

Table 3 shows that 77 of the 88 respondents (87.5%) had taken some form of traditional medicine during the 6-months period preceding the study. Herbal medicine was the most common practice (89.6%). Most of the tribal people (70.1%) traditional medicine as self-medication, where 23 (29.8%) sought advice from traditional healers. Common cold was the most common reason for seeking traditional medicine, accounting for 49.3% of the illnesses.

Table 3: Frequency of disease conditions for seeking traditional medicine

Drugs/ drug groups	Frequency	%
Common cold	38	49.3
Gastrointestinal problem	20	26
Musculoskeletal pain	09	11.7.
Generalized weakness	06	7.8
Others	04	5.2

Table 4 shows that the disease reasons for using traditional medicine. Cultural heritage and belief was the main reason (100%) for using traditional medicine followed by assumed safety status of herbal medicine, availability of herbal medicinal plants, poor socioeconomic conditions, cost of modern medicine etc.

Table 4: Frequency of reasons for seeking traditional medicine

Reasons	Frequency	%
Cultural heritage and belief	77	100.0
No adverse effects	73	94.6
Availability of herbal medicinal plants	69	89.6
Non-availability of physicians	54	70.2
Poor socioeconomic conditions	71	92.2
Cost of modern medicine	71	92.2
Availability of traditional healers	23	29.8

Discussion

Practices of traditional medicine vary widely from country to country, and from region to region, as they are influenced by several factors like culture, history, personal attitudes and philosophy^[1]. Current study focused on the tribal people of Rangamati because the tribal people belong to different ethno-lingual communities, living in different topography, having diverse faith, unique cultures, as well as they are varied in level of education and economic development^[6].

In this research, 87.5% of respondents had taken some form of traditional medicine during the preceding six months. Our research findings are similar studies conducted in developing countries^[7-10] but higher than studies conducted in other countries^[11-12]. The difference in utilization rate observed with other countries may be partly due to variation in the availability and access to conventional healthcare, socioeconomic conditions and demographic characteristics of the studied populations.

Herbal medicine was the most commonly used class of drugs among the studied population as a variety of herbs and medicinal plants grow in hilly region and tribal people possess knowledge of medicinal plants^[13-16], which is higher than previous literatures^[7, 17]. Higher prevalence of herbal medicine, probably because of the perception of herbal medicine among mass people as safe and devoid of adverse effects. This may not always hold true and there is possibility of drug-drug interactions^[18]. Common cold and gastrointestinal problems were most common cause for taking traditional medicine, similar illness was reported in other studies^[7, 17].

Ethno-medicinal beliefs and practices are influenced by various factors. The relationship between human sickness, treatment, healing and medicine is intimate of a tribal society. This is not a question of scientific efficacy rather a preservation of indigenous cultures. Cultural heritage and belief was the most common reason for seeking traditional medicine. And actually Cultural heritage and belief was the strongest influencing factor for ethnomedicine^[19-21]. Availability of herbal medicinal plants, presumption about safety, less availability of physicians, availability of traditional healers, high cost of modern medicine, low socioeconomic conditions all

were reported as reason for seeking traditional medicine. And these findings are similar to previous studies^[1, 12, 15, 17].

Due to cultural heritage and belief, perceived efficacy and safety, accessibility low cost as well as less availability of physicians, traditional medicine is often the simplest and easiest option for the tribal people living in hilly region. Large scale research is needed to explore the safety and efficacy of those existing practices among the tribal people living in Rangamati.

Conclusion

Practice of traditional medicine is prevalent among the tribal people of Rangamati with 87.5% of respondents using some form of traditional medicine in the six-months period preceding the study. Herbal medicine was the most commonly used form of traditional medicine. Reasons for its popularity among tribal people is attributed to its alignment with their cultural norms, availability of herbal medicinal plants in hilly region along with perceived efficacy and safety as well as low socioeconomic condition, less access to modern healthcare facility.

Authors' contributions

Baqui and Johora designed the questionnaire, analyzed the results and wrote the manuscript. Begum helped in designing the questionnaire, briefed the student volunteers, checked on their progress and helped in writing the manuscript. Ali participated in the design of the study and helped in the statistical analysis.

Acknowledgement (s)

The authors gratefully acknowledge the contributions of 4th year medical students of Prime Medical College, Rangpur for interviewing the respondents and collecting the data under the guidance and supervision.

References

- [1] World Health Organization (WHO). WHO traditional medicine strategy: 2014-2023. World Health Organization, Geneva, Switzerland, 2013. Available at: http://apps.who.int/iris/bitstream/10665/92455/1/9789241506090_eng.pdf?ua= [Accessed on 01/04/2019]
- [2] Winslow L.C, Kroll DJ. Herbs as medicines. Arch Intern Med, 1998; 158: 2192-9
- [3] World Health Organization (WHO). General guidelines for methodologies on research and evaluation of traditional medicine. World Health Organization, Geneva, Switzerland, 2000. Available at: apps.who.int/iris/bitstream/handle/10665/66783/WHO_?sequence= [Accessed on 01/04/2019]
- [4] World Health Organization (WHO). Traditional Medicine. World Health Organization, Geneva, Switzerland, 2014. Available at: http://www.searo.who.int/entity/traditional_medicine/en/ [Accessed on 01/04/2019]
- [5] Bangladesh Bureau of Statistics. National Census. Bangladesh Bureau of Statistics, Dhaka, Bangladesh. 2011.
- [6] Masuma J, Baqui QBOF, Samad MA, Rahman W, Sarker MA, Chowdhury MT. Dietary pattern among the tribal people of Chittagong hill tracts, Bangladesh. Prime Medical Journal. 2011; 1: 6-9.
- [7] Gari A, Yarlagaadda R, Wolde-Mariam M. Knowledge, attitude, practice, and management of traditional medicine among people of Burka Jato Kebele, West Ethiopia. Journal of Pharmacy and Bioallies Science. 2015; 7: 136-44
- [8] Ray J, Chakrabarty D, Paul R, Som K., Prevalence of the use of complementary and alternative medicine in an eastern Indian population with emphasis on tribal/ethnic minority groups. Journal of Taibah University Medical Sciences. 2018; 13: 384-9.
- [9] Albert S, Nongrum M, Webb EL, Porter JDH, Kharkong GC. Medical pluralism among indigenous peoples in northeast India-implications for health policy. Tropical Medicine and International Health. 2015; 20: 952-60.
- [10] World Health Organization (WHO). Fact sheet number 134: Traditional medicine . World Health Organization, Geneva, Switzerland, 1996.
- [11] Eanst E, Terry R, Hung SK, Perry R, Wider B, Coelho HF, Hunt KJ. Complementary and alternative medicine use in England: results from a national survey. International Journal of Clinical Practice. 2010; 64: 1496-1502.
- [12] Lim LYY, Hamid MA, Jaludin NH, Jaini HN, Wint Z, Kafli NPHM. Prevalence and factors affecting the use of traditional medicine in Brunei Darussalam. Alternative and Integrative Medicine. 2013; 2: 10
- [13] Bodeker G. Traditional health knowledge and Public policy. Nature and Resource. 1994; 30: 5-16.
- [14] Singh J, Jain SP. Traditional medicinal practices among the tribal people of Raigarh (Chattishgarh). Indian Journal of Natural Products and Resources. 2010; 1: 115-109.
- [15] Varadarajan YL, Sharma A. Indigenous health practices among Andhra tribals. Health and Population: Perspectives and Issues. 2009; 32: 47-53.
- [16] Khan MA, Chowdhury SK. Traditional medicine in Bangladesh. Traditional Medicine in Asia. World Health Organization, SEARO Regional Publications No. 30, New Delhi. 2002; 275-78.
- [17] Giday M, Asfaw Z, Woldu Z, Teklehaymanot T. Medicinal plant knowledge of the Bench ethnic group of Ethiopia: An ethnobotanical investigation. Journal of Ethnobiology and Ethnomedicine. 2009; 5:34.
- [18] Ernst E. Harmless herbs? A review of the recent literature. American Journal of Medicine. 1998; 104: 170-8.
- [19] Cotton CM. Ethnobotany: Principles and Applications. 1996, John Wiley & Sons.
- [20] Mia MMK, Kadir, MF, Hossain MS, Rahmatullah M. Medicinal plants of the Garo tribe inhabiting the Madhupur forest region of Bangladesh. American Eurasian Journal of Sustainable Agriculture. 2009; 3:165-71
- [21] Tumpa SI, Hossain MI, Tasneema I. Ethnomedicinal uses of herbs by indigenous medicine practitioners of Jhenaidah district, Bangladesh. Journal of Pharmacognosy and Phytochemistry. 2014; 3:23-33.