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Knowledge, Attitude, and Practice towards Complementary Medicine of Healthcare Staff in Gonabad, 2014

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Abstract

Background: Complementary and alternative medicine (CAM) is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine and its efficacy is different from that of conventional medicine.

Objectives: Owing to the growing use of CAM in our country, the aim of this study was to evaluate the level of awareness, attitude, and performance of employees in Gonabad, 2014.

Methods: This was a cross-sectional study in 2014 conducted in Gonabad healthcare center with 237 workers (122 male and 115 female) and with a mean age of 31.57±8.34. A questionnaire was used for data collection. Data was analysed using SPSS software.

Results: The results were considered significant when P value was less than 0.05. The level of staff knowledge was low (21.08 ± 6.61) , but 94.1% of the staff had positive attitude and more than 60% of them had a good performance level. As many as 5.1% had experience of traditional medicine courses, while 53.2% had experience of using a CAM for treatment. As many as 56.11% said that traditional medicine had been useful in their treatment. The most used method was the use of herbal medicine (48.3%), while the least used methods were meditation, hypnosis, traditional bath, and aromatherapy. As many as 65% of employees would recommend to others different methods of traditional medicine, and 90.7% knew the necessity of allocating traditional medicine course.

Conclusion: According to the findings, Gonabadhealth carestaff have a low level of knowledge, but a good attitude and practice of CAM are necessary through workshops to raise awareness of the CAM.

Keywords: Attitude, Complementary and alternative medicine, Knowledge, Practice, Staff

1. Background

Complementary and alternative medicine (CAM) is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. (1). Today, these methods alongside conventional medicine are most widely used to treat and restore the health of patients and prevent diseases in healthy people (1-3). Traditional medicine is found in different cultures and regions.For this reason, standards and evaluation methods at both national and international levels have not seen enough development. Traditional medicine had been part of health system and canbe easilyused along with global modern medicine (2,3). CAM was defined in 1978 declaration of the World Health Organization; it is a theoretical and practical science in medical diagnosis to prevent and treat physical, mental, and or social malformation, which is transferred from generation to generation by speaking or writing. It is difficult to define complementary or alternative therapies because they encompass a wide range of methods and beliefs. However, one might ask why some of these methods are known and some unknown and some are also dangerous. From a sociological view,

anon-conventional treatment refers to those medical practices that are not consistent with the medical community standards and not taught in medical schools and are usually not available in hospitals (4). More conventional methods of alternative medicine include acupuncture, homeopathy, and traditional medicine (including Iranian, Chinese, Indian, and Greek medicine) (5-7). Studies show that treatment with this medicine in general population worldwide has grown increasingly in the past two decades. The prevalence of using at least one method in America is 38%, in Australia 48%, in Canada 17%, in England 26%, and in France 68.9% (5). Its prevalence was

76% in Japan, 55.6% in Malaysia, 67.8% in Saudi Arabia, 74.8% in South Korea, and 44.6% in Singapore (5). In a study in Kashan, most healthcare staff had poor knowledge of CAM. As many as 88.4% of healthcare staff had no experience of any traditional method courses, while 77.8% were interested to CAM (8). In another study of knowledge and attitude conducted among dermatologists, 46.7% of them recommended CAM alongside the main treatment. As many as 26.7% of specialists had used CAM for their own treatment. More than 70% believed that CAM may have harmful effects. As many as 50% had a positive attitude (9). Also in Turkey,

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58.9% midwives advised CAM to pregnant women (10). Another study reported that knowledge and attitude level of women workers is higher than men workers at cancer treatment centres. Positive attitude was found in about 4% of doctors, 32% of nurses, and 55% of other employees of these centres (11).

2. Objectives

Owing to the growing trend of customers using this method, as well as the absence of accurate and reliable statistics for planning to improve knowledge and attitude towards CAM, this study aimed to evaluate the knowledge, attitude, and practice of health care staff in Gonabad in 2014.

3. Methods

This cross-sectional study was conducted after approval by the Ethics Committee of Gonabad University of Medical Sciences in 2014 on 250 healthcare staff in Gonabad. The inclusion criterion was at least six months working experience, and the exclusion criterion was the unwillingness to fill in the questionnaire. Ultimately, 237 staffs completed the questionnaire. The data collection tool was a questionnaire. To determine the reliability of the tool, Cronbach's alpha test method was used and the questionnaires were distributed and completed among 70 study subjects with the same properties. By using the results of the questionnaires, errors were resolved and Cronbach's alpha was obtained for knowledge (0.84), attitude (0.89), and performance (0.75). To determine the validity of the instrument, the expert committee, including two traditional medicine specialists, two health education specialists, and one expert in health promotion was established in health centres, and after exploring and resolving errors, the validity of the tool was confirmed. The questionnaire had two parts. The first part was demographic questions, while the second part of questions was about staff knowledge, attitude and application of CAM. Demographic questions included age, gender, job, academic education, and place of employment. The second part consisted of 12 questions, and six of them could be answered with 'yes' or 'no'. There were also four open questions, whether the participants had the experience of using one of the methods of CAM and if yes, it is recommended to write the name of the method and diseases. Two of the questions focused on knowledge and attitudes about CAM. Each of these questions included 11 CAM methods that were scored based on Liker scale where 1 = none, 2 = low, 3 = moderate, 4

= high, 5 = very high. So, that maximum score was 55 and the least was 11. Knowledge and awareness scores were considered as weak (0-27), moderate (28-41), and good (42-55). Also, those whose scores were rated equal or higher than 50% were considered as a positive attitude. A blind person to the study collected the questionnaires. Besides, the person who analyzed the data was blind.

SPSS software version 20 and descriptive statistics including number, mean, percentage, and frequency were used. In addition, chi-square test was used to compare the two sexes.

4. Results

A total of 250 questionnaires were distributed and 237 workers (122 men and 115 women) with a mean age of 31.57±8.34 and ranging 20 to 62 years completed them (Table 1). Only 5.1% had experience of traditional medicine courses, out of which five (2.12%) were nurses, two (0.85%) physicians, two (0.85%) academic workers and 3 (1.27%) other staff (Table 2). Overall, the employees believed that the efficiency and effectiveness of CAM are moderate (29.40 ± 8.13) so that the most beliefs about the effectiveness of CAM were related to nurses and staff with master's degrees (1.11 ± 5.59) . The score for effectiveness of CAM was 28.60 ± 8.09 in male employees and 30.24 ± 8.13 in female employees, which was not a significant difference (P = 0.68). Table 3 shows the level of staff knowledge and awareness about traditional medicine. Total score of knowledge and awareness of staff was 21.08 ± 6.61 , which showed poor knowledge and awareness. Scores range was between 11 and 37. Total score of staff awareness was 21.70 ± 6.21 in male employees and 20.42 ± 6.07 in female employees which was not a significant difference (P> 0.05). 223 employees (94.1%) had a positive attitude and performance score of 60% of staffs (n=142) were satisfactory.

Figure 1 shows the methods used in traditional medicine by the staff. The most used method was herbs (48.3%) and the least used were hypnosis, traditional bathroom, meditation, and aroma therapy. As many as 65% of workers recommended traditional medicine to others. As many as 126

Table 1. Demographic characteristics of the participants in Gonabadcity (N = 250)

	N7 1	B ((0/))
	Number	Percent (%)
Gender		
Male	122	51.5
Female	115	48.5
Age (Mean years)	31.57	
Education		
BSc.	173	73
MSc.	26	11
PhD	3	1.3
General Medicine	29	12.2
Specialist	6	2.5
Job		
Physician	34	14.76
Nurse	117	49.4
Faculty member	7	2.95
Midwife	28	11.81
Other care centers personnel	50	21.09

Table 2. Personal characteristics of the health care staffs in Gonabad

Variable	Female	Male	P value
Passing complementary medicine courses			
Yes	4 (33.3%)	8 (66.6%)	0.95
No	113 (50.22%)	112 (49.7%)	
Having personal experience of using complementary medicine			
Yes	67 (53.1%)	59 (46.8%)	0.12
No	48 (43.2%)	63 (56.7%)	
Opinion of efficiency of CAM			
Yes	63(47.3%)	70(52.6%)	0.68
No	52(50%)	52(50%)	
Recommending CAM to others			
Yes	72(46.7%)	82(53.2%)	0.46
No	43(51.8%)	40(48.19%)	
Being agree with designating courses for training CAM			
Yes	113 (25.5%)	102 (47.4%)	0.000
No	2 (9.09%)	20 (90.9%)	
Being interested in learning traditional medicine			
Yes	109 (51.1%)	104 (48.8%)	0.004
No	6 (25%)	18 (75%)	

Table 3. Knowledge of health care staffs about CAM in Gonabad city

Methods	No knowledge	Low	Moderate	High	Very High
Cupping	27(11.4%)	62(26.2%)	117(49.4%)	25(10.5%)	6(2.5%)
Phlebotomy	110(46.4%)	53(22.4%)	50(21.1%)	15(6.3%)	9(3.8%)
Massage therapy	64(27%)	80(33.8%)	82(34.6%)	11(4.6%)	-
Acupuncture	77(32.5%)	101(42.6%)	51(21.5%)	6(2.5%)	2(0.8%)
Herbal Medicine	20(8.4%)	85(35.9%)	80(33.8%)	42(17.7%)	10(4.2%)
Meditation	143(60.3%)	65(27.4%)	18(7.6%)	3(1.3%)	8(3.4%)
Hypnosis	108(45.6%)	117(49.4%)	9(3.8%)	3(1.3%)	-
Traditional Bathroom	123(51.9%)	85(35.9%)	23(9.7%)	-	6(2.5%)
Acupressure	143(60.3%)	67(28.3%)	21(8.9%)	2(0.8%)	4(1.7%)
Touch therapy	142(69.9%)	57(24.1%)	18(7.6%)	7(3%)	6(2.5%)
Aromatherapy	152(64.1%)	55(23.2%)	18(7.6%)	5(2.1%)	7(3%)



workers (53.2%) have used the methods of traditional medicine so far. As many as 133 persons (56.11%) believed that traditional medicine has been useful in their treatment. 90.7% knew the necessary courses for training traditional medicine out of which 106 persons were nurses (Figure 1).

89.87% were interested in traditional medicine out of which 103 persons were nurses. Figure 2 shows diseases treated with traditional medicine methods and amount their recommendation by staff. Most diseases treated with traditional medicine by the staff were colds 21.42%, gastritis 15.87% and pain



Figure 2. Diseases treated with traditional medicine methods and recommending traditional medicine for treatment of diseases by health care staffs

joint 11.90%, respectively (Figure 2). Most staff recommendation for using CAM was treatment of cold (16.88%), muscle pain (12.33%), blood pressure (12.33%), and gastritis 12.33% (Figure 2).

5. Discussion

The results of this study showed that healthcare staff in Gonabad had low awareness level, but positive attitude towards CAM. Adib Haj Bagheri et al. in Kasha reported that many staff had poor knowledge about complementary and traditional medicine and had no experience so far. As many as 77.8% were interested in CAM. More than 50% of them had experience of using CAM and they recommend it to others. The most used methods were herbs, cupping and traditional bathrooms. CAM was used for the treatment of gastritis, colds, migraines, headaches, skin irritations, weight loss, and diabetes (8). Similarly, most of the use of CAM in the present study was herbs. Most illnesses treated with traditional medicine by the staff were colds, gastritis, and joint pain. In another study, knowledge and attitudes level was investigated among dermatologists in Italy, 46.7% of them recommended CAM along with the main treatment. 26.7% of practitioners had used CAM treatment for themselves. 78.3% believed that CAM may have harmful effects. 50% had a positive attitude and 50.8% were interested in CAM methods (9). Our results also showed that 90% of people were interested in traditional medicine and 94.1% had a positive attitude towards CAM. In another study conducted among midwives in Turkey, 58.9% recommended CAM methods to pregnant women. Most of them recommended herbs and the least used

ones were acupuncture and meditation. As many as 61.2% considered CAM as useful (10).In the present study, 56.11% said that traditional medicine has been useful in their treatment. Most recommendations were herbal therapy and the least ones were meditation, hypnosis, traditional bathroom, and aromatherapy. Physicians of Malaysia knew acupuncture as 73.5% harmful, homeopathy as 59% and herbs as 59%. Most of them (79%) have used meditation techniques. 59% of them have experience of using CAM methods so far. There was no difference in age, gender, in the use of CAM. As many as 67% would recommend CAM to their patients and only 6% had experience of passing CAM training courses (11). In the present study, 5.1% of them had experience of passing traditional medicine courses. There was no difference between sexes in terms of awareness and attitudes towards CAM. Evaluating the level of knowledge and attitude of staff including oncologists, employees, radiation therapist, and nurses in cancer treatment centres showed that the level of knowledge and attitude of women is higher than men. The positive attitude was observed about 4% in physicians, 32% in nurses, and 55% in other employees (12).Widespread use of CAM worldwide is the inevitable need for accurate knowledge of the fundamentals, principles, and its correct application by physicians. The results of this study showed that Gonabad healthcare knowledge of CAM was at low levels, but attitude and performance level was high.

6. Conclusion

According to the findings,Gonabadhealth carestaff have a low level of knowledge, but a good attitude and practice of CAM are necessary through workshops to raise awareness of the CAM.

Acknowledgments

This study was approved by the Research Committee of Gonabad University of Medical Sciences (code 93/20) that hereby we will thank their assistance.

Authors' Contribution

Shabnam Mohammadi was responsible for study concept and design and drafting of the manuscript; Hossein Talebzadeh, Vahid Arabvazife, Raheleh Baradaran and Mahbobeh Rahmaniwere responsible for collecting data and drafting of the manuscript; Fatemeh Mohammad Zadeh, Ali Delshad and Maryam Mohammadi were responsible for interpretation of data and drafting of the manuscript.

Conflicts of interest

None.

Footnotes

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References

- 1. National Center for Complementary and Alternative Medicine. What is complementary and alternative medicine? Available at: URL: http://nccam.nih.gov/health/whatiscam; 2012
- Moradi LM, Gousheh GS, Amini M, Traditional and complementary/alternative medicine (TCAM) in medical theses (1991-2006). *Payesh.* 2008;7(4):337-44. [Persian]

- Farahmand SK, Gang LZ, Saghebi SA, Mohammadi M, Mohammadi S, Mohammadi G, et al. The effects of wet cupping on coronary risk factors in patients with metabolic syndrome: a randomized controlled trial. *Am J Chin Med.* 2012;40(3):269-77. doi: 10.1142/S0192415X12500218. [PubMed: 22419422].
- Naseri M. Necessity of resuscitate of traditional medicine. J Darmangar. 2004;1(2):7-140. [Persian]
- Harris PE, Cooper KL, Relton C, Thomas KJ. Prevalence of complementary and alternative medicine (CAM) use by the general population: a systematic review and update. *Int J Clin Pract.* 2012;66(10):915-6. doi: 10.1111/j.1742-1241.2012. 02945.x. [PubMed: 22994327].
- Taghavi R, Tabasi KT, Mogharabian N, Asadpour A, Golchian A, Mohammadi S, et al, The effect of acupuncture on relieving pain after inguinal surgeries. *Korean J Pain*. 2013;26(1):46-50. doi: 10.3344/kjp.2013.26.1.46. [PubMed: 23342207].
- Tabassi KT, Amini P, Mohammadi S, Taghavi R, Golchian A. The effect of acupuncture on pain score after open kidney surgery. J Complement Integr Med. 2015;12(3):241-4. doi: 10.1515/jcim-2014-0071. [PubMed: 25924232].
- Adib-Hajbaghery M, Hoseinian M, Knowledge, attitude and practice toward complementary and traditional medicine among Kashan health care staff. *Complement Ther Med.* 2014;22(1):126-32. doi: 10.1016/j.ctim.2013.11.009. [PubMed: 24559827].
- Renzi Č, Mastroeni S, Paradisi M, Mazzotti E, Pasquini P. Complementary and alternative medicine: knowledge and attitudes among dermatologists. *Acta Derm Venereol.* 2009;89(6):642-4. doi: 10.2340/00015555-0708. [PubMed: 19997701].
- Koc Z, Topatan S, Saglam Z. Use of and attitudes toward complementary and alternative medicine among midwives in Turkey. *Eur J Obstet Gynecol Reprod Biol.* 2012;**160**(2):131-6. doi: 10.1016/j.ejogrb.2011.10.006.
- Ismail IA, Chan SC. Knowledge and practice of complementary medicine amongst public primary care clinic doctors in Kinta district, Perak. *Med J Malaysia*. 2004;**59**(1):4-10. [PubMed: 15535328].
- Risberg T, Kolstad A, Bremnes Y, Holte H, Wist EA, Mella O, et al. Knowledge of and attitudes toward complementary and alternative therapies: a national multicentre study of oncology professionals in Norway. *Eur J Cancer*. 2004;**40**(4):529-35. doi: 10.1016/j.ejca.2003.11.011. [PubMed: 14962719].