

Traditional and complementary/alternative medicine use in a South-Asian population

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ABSTRACT

Traditional, complementary/alternative medicine (CAM/T) is popular in South-Asian countries, where accessibility and cost of conventional medicine is an issue. This survey explores CAM/T use in a sub-urban population in Pakistan. A validated questionnaire was used to survey 355 participants, selected by systematic sampling. Among them 63% believed in the potential of CAM/T to heal while 58% preferred CAM/T over conventional medicine, mainly because of cost-effectiveness. Around 82% had either been to a CAM/T healthcare provider or used self-help practices in the last one year for health and 85% said that they do not inform their physicians about CAM/T use. Females were more likely to consult a CAM/T provider for symptoms like back pain, leucorrhoea and body aches. This popularity of CAM/T in our region promotes to gain an insight into the use of CAM/T in communities for integration of CAM/T with conventional healthcare leading to cost-effective and efficient primary healthcare.

Keywords: Traditional medicine, complementary medicine, alternative medicine, Complementary health provider, self help practices, South-Asian population.

Introduction

Complementary and alternative medicine is defined as "Diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frame works of medicine" [1]. Complementary/alternative and traditional medicine (denotes the indigenous health traditions of the world) [2] is an ancient method of healthcare which is again gaining popularity and it is expected to gradually become widely integrated into the modern medical system. Despite popularity of traditional and complementary/alternative medicines (CAM/T) in the developing world, where 80 % of the population depends on CAM/T, it is interesting to know that almost half of the population in the developed world also uses CAM/T therapies [2].

Trends in the use of CAM/T in USA show that the use of therapies such as chiropractic care, massage, and acupuncture, have increased significantly.

In recent studies it is observed there are unmet needs in medical care or healthcare is delayed due to cost [3]. The dilemma of cost of health and access to health in developing countries such as in South-Asia is not new and therefore, the popularity of CAM/T in this region rises. Despite the perception about the efficacy of emerging allopathic medicines, traditional medicine continues to be practiced [4]. In Muslim dominating population, Greco-Arab (Unani-Tibb) is the traditionally practiced CAM. It was founded by Avicenna (980-1037), a renowned scholar, physician and a philosopher [5,6] and thus, these medicines are widely recognized in the Muslim culture [4,7,8]. For example, in an urban population in Iran, the use of at least one method of CAM/T was 62.5% and mostly people used CAM/T for digestive problems, obesity, hyperlipidemia and psychological disorders like anxiety and depression. Among the CAM/T therapies, herbs and bless therapy were the most popularly used

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methods [9]. Pakistan is one of the countries where people have strong faith in CAM/T. Seeking help from spiritual healers, herbalists (hakims) and homeopaths is common amongst other CAM/T practices. In a hospital based study in Karachi almost 60 % used complementary and alternative medicine. Herbal medicines followed by homeopathic medicine were the most commonly used therapies. Fever and cough were the most common diseases for which patients used the options [10]. Studies in 4 provinces of Pakistan from 2002 to 2004 show that more than half of the population used CAM/T. Among these, half used herbs, homeopathy or Unani medicine, 2.1% chose spiritual healing, 0.9% used home remedies, diet and nutrition and the rest used Reiki, traditional Chinese medicine and aromatherapy [11]. In another study on patients who had hepatitis C showed that 77 % of the patients had used CAM/T for their illness which included Quranic verses (spiritual healing), hakim and homeopathic medicines. Most of the CAM/T users chose to use CAM/T due to high cost of allopathic medicines [12]. This is more common in sub-urban and rural population where there is paucity of qualified allopathic doctors, less accessibility to healthcare and traditional beliefs of the community against allopathic medicines [13]. In rural areas, cultural beliefs and practices often lead to self-care, home remedies or consultation with traditional healers. Yet, there is little research to assess the adoption of CAM/T therapies in remote settings [14]. In the last few decades, there is a growing interest in CAM/T [15], yet we are unaware to what extent it is popular in our general population, especially in populations living in remote areas where access to healthcare is limited and hence there could be an increasing trend among communities to incline towards the use of CAM/T. Therefore, this study aims to determine the frequency CAM/T use in an urban slum of Karachi, the common ailments and reason behind its use and to know whether people disclose its use to their practitioners.

Methodology

This is a cross sectional survey conducted in Hijrat colony (August 2013-January 2014), which is an urban slum with a length of 4.82 km, located at south of Karachi, Pakistan. There are approximately 4000 households in this area with a total population of more than 25,000. The population comprises of mostly immigrants from other parts of Pakistan [16]. The study was approved by the ethical review committee of the Aga Khan University (2513-BBS-ERC-13). Assuming a prevalence of 52%, based on an earlier study, a sample size of 355 was calculated to determine

the prevalence of CAM/T use with a confidence interval of 95% and a relative precision of 10 % [11]. All adults 18 years and above who were residents of Hijrat colony and who consented to participate were included in the study. Mentally disabled patients were excluded. Systematic sampling was done and every 10th household was selected for participation. In case of non-consent, the next house hold was visited. Only one family member was selected for participation/household. Data were collected by research officers through a validated International Complementary and Alternative Medicine Questionnaire, I-CAM-Q [17,18], translated in Urdu. Socio-demographic factors were determined by using a questionnaire as well. Both the questionnaire were piloted on 30 participants. Data were entered and analyzed on SPSS version 20. Mean and standard deviation was calculated for quantitative variables like age. For categorical variables, percentages and frequencies were calculated and uni-variable logistic regression and chi-square was used to determine the association between the use of complementary medications and socio-demographic variables like gender, occupation, literacy level and ethnicity. A p-value of less than 0.05 was considered significant.

Results

Among the 355 participants, 59% were males and 41% were females. Mean age was 42 ± 13.1 . Mean age of males was 44 years and the mean age of females was 40 years. Majority (89 %) were married; analysis of ethnic background revealed that 54 % of the participants were Push to speaking, 28 % were Punjabi speaking and the rest were either Sindhi (3%), Urdu speaking (6%) or from northern areas (9%). Among males, 40 % were laborers and the remaining were office workers, teachers or self-employed. Among females, 72 % were home makers and the rest were teachers, cooks or house maids. 46% were literate and had either attended primary (17%) or secondary (25%) schools, whereas 5% had not attended school but could read and write Urdu. Among participants, 63 % believed in the potential of complementary medicines to heal whereas 6 % were not sure. Occupation had no association with believing in the potential of complementary medicines to cure diseases. Females were more likely to believe that herbs are effective in various diseases. Other socio-demographic factors associated with this belief were, being married, low income group, Push to speaking and being uneducated (Table 1). In the last one year, 60 % of the participants had seen a physician (medical doctor) at least once and 21.9 % were dissatisfied with the physician. Among

CAM/T users, 85 % said that they do not inform their physician about the use of CAM/T. Among participants, 58 % said that they would prefer complementary therapy over conventional medicine and more than half (59%) gave the reason for their preference, a high cost of allopathic medicine. More than a quarter (26%) thought that CAM/T therapy was more effective than conventional medicines and the rest gave reasons like inaccessibility to the physician and ill behaviour of the physician. Among those who had visited a physician 17.2% had received a CAM/T treatment like manipulation, herbal supplements, acupuncture and spiritual healing from the conventional healthcare physician. Almost a quarter (24.7%) of the participants had been to a traditional/complementary healthcare provider in the last one year (Table 2) while only 2.1 % were currently using a vitamin, homeopathic or herbal remedy. More than three quarters (76.3%) of the participants had used self-help practices like meditation, yoga, visualization,

relaxation and attended traditional ceremonies and prayed for health (Table 3). In all, 293/355 participants (82%) had either been to a CAM/T provider or used self-help practices in the last one year for health. Uni-variable logistic regression revealed that low income group and Punjabi, Push to or Urdu speaking were more likely to use complementary therapies than participants from northern areas (Table 4). Females were more likely to be dissatisfied with physicians and consult a CAM/T providers or use self-help practice for chronic conditions like back pain, body aches and pain and leucorrhea (vaginal discharge), while males were more likely to use CAM/T for acute symptoms like fever and indigestion. As compared to 57 % of the males, 64% of the females had seen a physician in the last one year (p 0.18) and females were also more likely to visit complementary healthcare providers than males (p <0.001). There was no significant difference in the use of self-help practices among males and females (p 0.21) (Figure 1).

Table 1: Association of socio-demographic factors with the belief that herbs are effective in various diseases

Variable	Herbs improve	Herbs donot improve	Don't know	P-Value
	n (%)			
Gender				<0.001*
Male	97 (27.3)	98 (27.6)	16 (4.5)	
Female	125 (35.2)	13 (3.6)	6 (1.6)	
Mother tongue				0.07*
Pushto	122 (34.3)	55 (15.4)	16 (4.5)	
Punjabi	66 (18.5)	32 (9)	1 (0.2)	
Northern areas	13 (3.6)	15 (4.2)	3 (0.8)	
Urdu speaking	16 (4.5)	5 (1.4)	2 (0.5)	
Sindhi	5 (1.4)	4 (1.1)	0	
Income				<0.001*
< 15000	293 (82.5)	98 (27.6)	10 (2.8)	
>15000	37 (10.4)	13 (3.6)	12 (3.3)	
Marital status				0.026*
Married	205 (57.7)	91 (25.6)	18 (5)	
Single	14 (3.9)	19 (5.3)	4 (1.1)	
Widow	3 (0.8)	1 (0.2)	0	
Education				<0.001*
None	138 (38.8)	40 (11.2)	12 (3.3)	
Primary	30 (8.4)	23 (6.4)	6 (1.6)	
Secondary	47 (13.2)	39 (6.4)	3 (0.8)	
Graduation	8 (2.2)	7 (1.9)	1 (0.2)	

*p value less than 0.05, determined by chi-square

Table 2: Frequency, reason and satisfaction after visiting a conventional healthcare provider (physician) or a CAM/T provider in the last one year

Healthcare provider	Number (%) of subjects visiting in the last one year				
	Visited	For acute condition	For chronic condition	For well being	Dissatisfied
Physician	214 (60.3)	125 (58.4)	47 (21.9)	63 (29.4)	47 (21.9)
Chiropractor	17 (4.7)	8 (47)	9 (52.9)	0	3 (17.6)
Homeopath/herbalist/Hakim	74 (20.8)	46 (62)	18 (24.3)	16 (21.6)	13 (17.5)
Acupuncture	2 (0.5)	1 (50)	1 (50)	0	0
Spiritual healer	33 (9.2)	18 (54.5)	12 (36.3)	3 (9)	6 (18.1)

Table 3: Frequency, reason and satisfaction after use of self-help practices in the last one year

Self-help practices	Number (%) of subjects using self-help practices in the last one year				
	Practice used	For acute condition	For chronic condition	For well being	Dissatisfied
Meditation	201 (56.6)	27 (13.4)	40 (19.9)	143 (70)	8 (3.9)
Yoga	21 (5.9)	2 (9.5)	3 (14.2)	15 (71.4)	1 (4.7)
Relaxation/visualization	10 (2.8)	0	5 (50)	5 (50)	0
Traditional ceremony	132 (37.1)	18 (13.6)	8 (6)	108 (81.8)	4 (3)
Prayers	254 (71.5)	26 (10.2)	22 (8.6)	222 (87.4)	6 (2.3)

Table 4: Association of socio-demographic factors with use of CAM/T use

Variable	Using CAM/T	Not using CAM/T	P-value	CI
	n	n		
Gender				
Male	175	36	0.56	0.67, 2.02
Female	116	28	1.00	
Mother tongue			0.001*	
Pushto	42	151	0.04*	1.02, 5.05
Punjabi	6	93	<0.001*	3.26, 29.3
Northern areas	19	12	1.00	1.00
Urdu speaking	21	2	0.02*	1.31, 33.5
Sindhi	7	2	0.36	0.39, 12.4
Income				
< 15000	247	46	0.01*	1.16, 4.13
>15000	44	18		
Education			0.91	
None	156	34	1.00	
Primary	47	12	0.67	0.41, 1.77
Secondary	74	15	0.83	0.55, 2.09
Graduation	14	3	0.65	0.30, 6.57

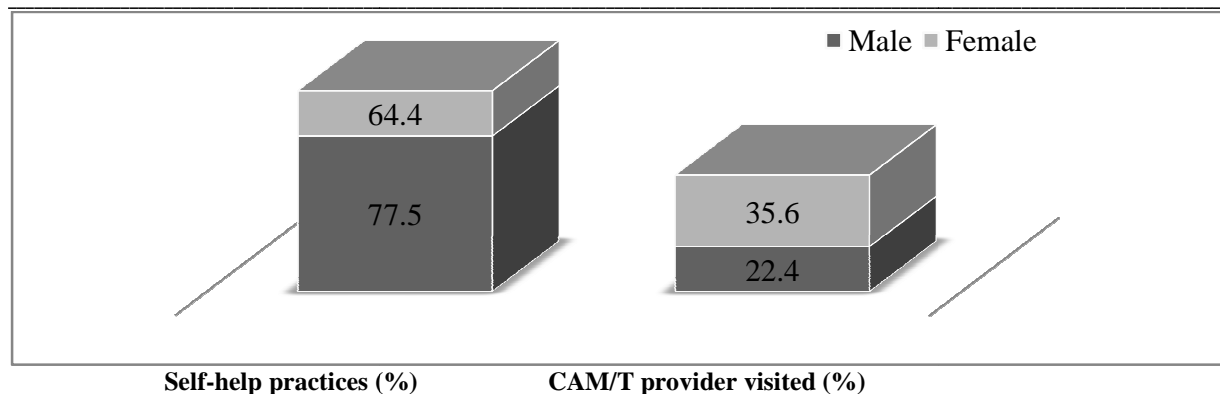


Figure 1: Frequency of use of self-help practice and CAM/T provider visited among males and females. Self-help practices (p 0.21), CAM/T provider visited (p <0.001*)

*p <0.05 considered significant(*p value less than 0.05, determined by logistic regression)

Discussion

Our study showed that over 80% of the participants reported using some form of CAM/T in the last one year, the most frequent being spiritual practices either for cure of an acute or a chronic illness or even for general well-being and 98% reported satisfaction after use. This is in line with previous studies identifying prayers as the most commonly used CAM/T practice [19]. In contrast, although 60% of the participants had also visited a physician but the dissatisfaction with the consultation was quite high (22%). Meditation to maintain health was also very popular among the self-help practices followed by traditional ceremonies, yoga and relaxation techniques. Among the CAM/T provider visited, homeopaths or herbalists followed by spiritual healers were the most commonly consulted after the physicians. Following the pilot study we had to merge the option of hakim (herbalist) and homeopath as there was a general confusion among the participants about the distinction. Homeopathy is frequently confused with holistic medicine and with herbal products because a significant number of homeopathic medicines are derived from herbs [20]. The increased frequency of female dissatisfaction with the physician and their frequent consultation with CAM/T provider might be due to presence of chronic conditions like non-specific musculoskeletal pain, fibromyalgia and depression among the females which are not only prevalent in our part of the world but are often under-diagnosed and hence not treated effectively by conventional medicine and physicians [21]. Previous studies have also shown a significant role of CAM/T providers when conventional medicine failed to provide relief [22]. It would be interesting to explore if the CAM/T providers are able to effectively deal with

these disorders as these emerge as a result of somatic and psychosocial factors [23]. More females than males visited a physician although the difference was insignificant, so accessibility to the conventional healthcare provider differentially for males and females is not a possibility.

CAM/T therapies are generally considered cost-effective even in developed countries [24] and more than half of the participants in this study preferred complementary therapy over conventional medicine due to high cost of allopathic medicine. This is consistent with previous studies from developing countries [13], although results from developed countries show that majority people use alternative therapies because they find it to be more congruent with their own beliefs toward health and life [25].

In this study, interestingly 17% of the conventional healthcare physicians themselves practiced CAM/T, although none of the patients were referred by them to a CAM/T practitioner. It is unlikely that these physicians were professionally trained to provide CAM/T because there are already few trained CAM/T providers available in our region. Interestingly, a study shows that around 9% of the physicians do refer their patients to CAM/T practitioners [26] and patients whose GP has additional CAM/T training have lower healthcare costs and mortality rates [27].

A finding of concern was that 85% of the study participants did not feel the need to inform their physicians about the use of complementary therapy. A previous study in a developed country reported 36% of patients not informing their physician about the use of CAM/T therapy as high [28], whereas another study reported a rate of 64% [29]. This behaviour can lead to diagnostic confusion, abnormal test results and

unexpected concentration of therapeutic drug in the body due to herb-drug interaction. Besides, it can also cause adverse effects contrary to the general belief that the use of complementary therapies and herbs are always safe [30]. Moreover, a cause of concern in developing countries is also lack of availability of guidelines, scientific basis and validity of a therapy, and political consensus [31].

Conclusion and recommendations

CAM/T was found to be very popular among less privileged population and a large part of the population depends on it. There is a need to create awareness among population about valid use of these therapies and that conventional healthcare physician should be informed about its use so that the physicians are vigilant as well in prescribing medications to patients taking CAM/T. The role of traditional medicines and therapies in different acute and especially chronic illnesses needs to be determined through basic and clinical research so CAM/T can be recommended as adjuvant therapy or for prevention of chronic illnesses. There is also a need to strengthen the healthcare system and integrate CAM/T with conventional medicine according to the beliefs of the communities for more cost effective and efficient primary healthcare.

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