

The Pattern of Utilization and Outcome of Complementary and Alternative Medicine among Primary Health Care Attendees in Tabuk, KSA

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ABSTRACT

Background: Despite all the marvelous advancements in modern medicine, traditional medicine (TM) has always been practiced.

Aim of the work: We aimed to assess Patterns of utilization and outcome of complementary and alternative medicine among primary health care attendees in Tabuk, KSA.

Subjects and Methods: This cross-sectional study conducted among 345 patients attending the primary health care centers (PHC) in Tabuk, Saudi Arabia during the period from January 2015 to January 2016. Participants were selected from 29 centers by a stratified selection method. A structured questionnaire was used to collect socio-demographic data, going to a non-medical practitioner (TH) for advice about a health problem within the last year, the reason for that, type of TH provided prescription/advice, outcome, and personal satisfaction. The Statistical Package for Social Sciences (SPSS) was used for data analysis. The Chi-square and Fischer exact tests were used to examine the associations and differences between two categorical variables.

Results: Participants (57.1% males), 62.9% had a history of visiting a Traditional Healer, Visiting a traditional healer was commoner among females (72.3% versus 55.8%, $p=0.002$) No significant statistical differences were found regarding other characteristics. Ineffective medical management was the reason in 55.3%, while the firm belief in TH that it was the reason behind 36.9%. Medical treatment was the most frequent (50.7%) followed by Zikr (25.8%), 87.6% said the visits were affordable, and 70% of visitors improved.

Conclusion: Traditional medicine practice was prevalent in Tabuk, Saudi Arabia and was most prevalent among females. No significant differences were found between traditional medicine visitors and their counterparts regarding other characteristics.

Keywords: Complementary medicine, Pattern, Tabuk, Saudi Arabia.

INTRODUCTION

For centuries, people have been using traditional means for treating ailments and continued to use them alongside modern medicine. Despite all the marvelous advancements in modern medicine, traditional medicine (TM) has always been practiced. Traditional medicine refers to health practices, approaches, knowledge, and beliefs incorporating plant-, animal- and mineral- based medications, spiritual therapies, manual techniques, and exercises, applied singly or in combination to treat, diagnose and prevent illnesses or maintain well-being⁽¹⁾.

This domain has taken the new name "complementary and alternative medicine" (CAM). CAM refers to those therapeutic and diagnostic disciplines that exist mostly outside the institutions where conventional health care is provided⁽²⁾. TM/CAM constitutes any treatment or therapy that is not routinely and universally available to patients via the national health care system. These definitions are often blurred, and the list of what is considered to be CAM changes as therapies that are

proven to be safe and effective are adopted into conventional medicine⁽³⁾.

More than 80% of the developing world's population still depends on the complementary and alternative systems of medicine, while about half of the people in industrialized countries use CAM⁽⁴⁾. The World Health Organization noted that there had been an unprecedented increasing interest in these systems of therapeutics on the global level⁽⁵⁾.

Most users of alternative medicine also use conventional medical treatments, since alternative medicine is used as a complementary treatment to traditional health care rather than as a substitute⁽⁶⁾. The use of multiple forms of health care (e.g., conventional or complementary medicine beside that of the national health care system) is called "Medical pluralism." Most consumers all-over the world practices multiple forms of health care, irrespective of whether integration between types of health care is officially present⁽⁷⁾.

The reasons for medical pluralism were explained by Kale⁽⁸⁾, who noted that traditional

healers (THs) are very caring people, and extraordinarily skilled in communication, psychotherapy, and counseling. In spite of the fact that certain horrible ones poison their patients at every turn, THs are usually respected within their communities, and they are often their opinion leaders. Elgaili et al. ⁽⁹⁾ added that the public generally views this as problem-solvers of individual health and social problems, such as marriage and social conflicts. Visitors also perceive them as community leaders with a range of abilities and skills.

A traditional healer (TH) is a person who claims specific ability or healing power to cure ailments, or a particular skill to treat specific types of complaints or afflictions and who might have gained a reputation in his community or elsewhere. He may base his/her powers or practice on religion, the supernatural, experience, apprenticeship or family heritage ⁽¹⁰⁾.

More than 80% of the developing world's population still depends on the complementary and alternative systems of medicine ⁽⁴⁾. Studies from the kingdom of Saudi Arabia ^(11,12) that patients visited traditional healers were more likely females with poor socio-economic background suffering both from the evil eye and magic, who also present with an array of somatic symptoms, interpersonal conflicts, and alleged misfortunes.

To our best of knowledge, no researchers have studied CAM in Tabuk, Saudi Arabia, and surveys conducted in other regions may not apply to Tabuk. Thus we did this research to investigate the patterns, magnitude, determinants, and outcome of using CAM among attendants of primary health care centers in Tabuk city, Saudi Arabia.

SUBJECTS AND METHODS

This cross-sectional study conducted among patients attending the primary healthcare centers in Tabuk, Saudi Arabia during the period from January 2015 to January 2016. Tabuk is located in Northwest Saudi Arabia with total populations of 550000 according to 2010 Census ⁽¹³⁾. Three hundred and forty-five patients above 18 years were randomly selected from 29 primary healthcare centers (PHC) using a stratified sampling technique: First three centers were randomly selected, then the patients were approached in a ratio of 1: 2 ratio to collect a representative sample. The online Roasoft sample calculator ⁽¹⁴⁾ was used to obtain the sample size according to: (margin error of 5%; confidence level=95%, the prevalence was considered 50% to get a maximum sample size). A structured Arabic questionnaire was used

to interview the participants; the survey had been previously constructed based on literature review and a pilot study with the addition and omission of questions ⁽¹²⁾. A further pilot study was conducted among thirty patients for the current study, and two Family Medicine Consultants approved the final version. The following data were collected: Age, sex, residence, nationality, level of education, marital status, and occupation, a non-medical practitioner (TH) consultation during the last year, the reason for that, type of TH advice, outcome, and personal satisfaction. Trained data collectors were also present during the interview to explain and solve any difficulties that raised during the meeting.

Data analysis

The Statistical Package for Social Sciences IBM© SPSS© version 20 (IBM© Corp, Armonk, NY, USA) was used for data analysis; the data were presented as percentages or mean± SD unless otherwise specified. The Chi-square test and Fischer exact tests were used to test the associations and differences between two categorical variables. A P-value of <0.05 was considered significant.

Ethical consideration

All the participants signed a written informed consent. Ethical approval was obtained from the relevant institutes.

RESULTS

There were 345 patients, 42.9% females, their ages ranged from 18-62 with a mean of 32.4±8.3 years, the majority (95.4%) were Urban, a small minority were non-Saudi (2.9%). In the present study, more than two thirds (64.7%) were married, 30.1% were single, while 2.6% were divorced and widowed. Their occupation was as follows: 16.8% were military, 35.7% were civil workers, 6.7% were health employees, 2% were retired, and 38.8% were not working. In the current study, 55.4% had University education, 35.9% received secondary school, and 6.1% and 2.1% with secondary and primary school respectively. Table 1. The current data showed that 68.7% of the patients visited the traditional healer for themselves versus 31.3% for another person, it is interesting to note that more than half (55.3%) of the patients went to the traditional healer because of the ineffectiveness of medical therapy, and 36.9% because of a firm belief in the conventional healer, while 7.8% were unsatisfied with the physician advice, 50.7% of the patients received a medicine, 25.8% received Zikr, and 2% received advice only when visiting the traditional healers. In the present study, 81.6% of

the conventional visitors were satisfied with the treatment, and 87.6% said that it is cost effective. The details of the traditional visit were depicted in table 2.

In the present study, 72.3% of females visited the traditional healer vs. 55.8% with significant statistical difference, P-value=0.002, no significant differences between rural and urban areas was found (62.5% vs. 62.9%, P-value=0.937), 63.7% of Saudi visited the traditional healer vs. 40% non-Saudi with no significant statistical difference, P[p-value= 0.119). Other associations of personal factors and the traditional healer's visits were illustrated in table 3.

The current data showed no significant differences between participants who were satisfied with the traditional medicine and their counterparts regarding sex (80% vs. 20% for men and 82.3% vs. 16.8% for women, P-value=0.546), residence (70% vs. 30% for rural and 81.1% vs. 18.9% for urban, P-value=0.334), and , nationality (81.7% vs. 18.3% for Saudi and 75.0% vs. 25.0% for non-Saudi, P-value=0.334).Table 3 depicted other Personal factors relationship with satisfaction with traditional medicine.

As seen in Table 5, the majority of patients who firmly believe in traditional medicine (87.5%) and those reported ineffective medical management (85.8%) compared to only 23.5% of those who reported feeling unsatisfied with physicians' advice were satisfied with the outcome of traditional medicine. The difference was statistically significant, $p < 0.001$. Other studied factors (types of a traditional healer, type of treatment, the frequency of visits, duration of treatment and having an additional medical treatment) were not significantly associated with patient's satisfaction of traditional medicine outcome. The commonest traditional healer visited by the participants was faithful healers (44.2%) followed by herbalist (35%), and chiropractor (4.6%), figure 1. In our survey, 70.1% of the participants were improved by the traditional healers, 2.3% deteriorated, while no change was observed in 27.6%. Figure 2.

Table 1. Essential characteristics of the study group

Character	No%
Sex	
Males	197 (57.1%)
Females	148 (42.9%)
Residence	
Rural	16 (4.6%)
Urban	329 (95.4%)
Nationality	
Saudi	335 (97.1%)
Non-Saudi	10 (2.9%)
Marital status	
Single	104 (30.1%)
Married	223 (64.7%)
Divorced	9 (2.6%)
Widowed	9 (2.6%)
Occupation	
Military	58 (16.8%)
Civilian	123 (35.7%)
Health employee	23 (6.7%)
Retired	7 (2.0%)
Not working	134 (38.8%)
Level of education	
Primary	9 (2.6%)
Intermediate	21 (6.1%)
Secondary	124 (35.9%)
University	191 (55.4%)
History of visiting a traditional healer last during the year	217 (62.9%)
Age	
Range	18-62
mean± SD	32.4±8.3

Table 2. Details of traditional healers visits among the participants (n=217)

For whom did you visit the traditional healer	149 (68.7%)
Your self	68 (31.3%)
Another relation	
The reason for visiting the traditional healer	17 (7.8%)
Feeling unsatisfied with the physician's advice	120 (55.3%)
Ineffectiveness of medical management	80 (36.9%)
A firm belief in the healer	
Type of treatment received	
Medicine	110 (50.7%)
Zikr	56 (25.8%)
Advice only	26 (12.0%)
Other	25 (11.5%)
How many times did you visit the traditional healer	112 (51.6%)
One	30 (13.8%)
Two	36 (16.6%)
Three	39 (18.0%)
More than three	
For how long did you take the treatment	53 (24.5%)
≤3 days	55 (25.3%)
4-10 days	74 (34.1%)
11-30 days	35 (16.1%)
>30 days	
History of additional medical treatment	93 (42.9%)
Satisfaction of the patients with the medical treatment	177 (81.6%)
Cost-effectiveness of the traditional medicine	190 (87.6%)
Affordable	27 (12.4%)
Not affordable	

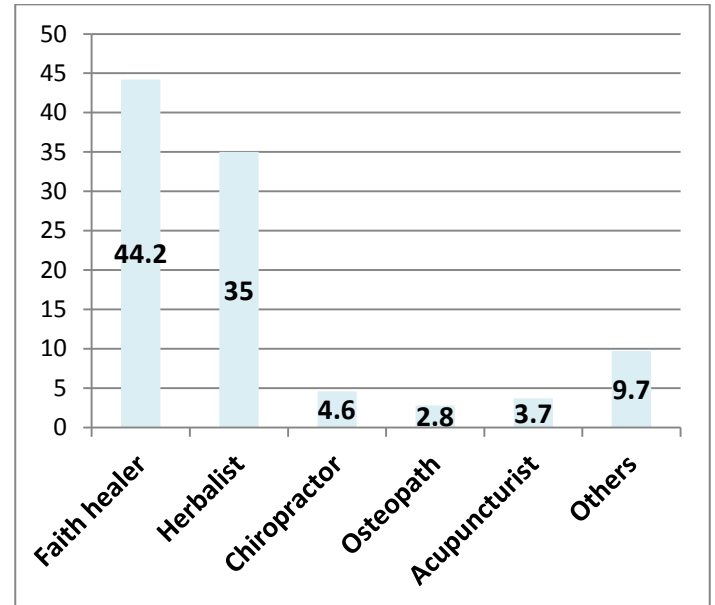


Figure (1): Types of traditional healer visited by the participants

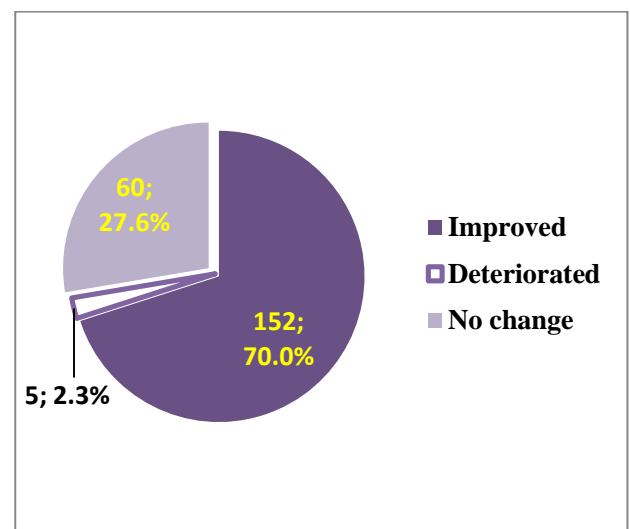


Figure (2): Outcome of traditional healer visit among participants.

Table 3: Personal factors associated with traditional medicine utilization among participants

	Traditional healer		χ^2 -value (p-value)
	Yes N=217 N (%)	No N=128 N (%)	
Age (in years)			
18-35 (n=240)	158 (65.8)	82 (34.2)	3.07 (0.215)
36-45 (n=84)	48 (57.1)	36 (42.9)	
>45 (n=21)	11 (52.4)	10 (47.6)	
Gender			
Male (n=197)	110 (55.8)	87 (44.2)	9.81 (0.002)
Female (n=148)	107 (72.3)	41 (27.7)	
Residence			
Rural (n=16)	10 (62.5)	6 (37.5)	0.001 (0.973)
Urban (n=329)	207 (62.9)	122 (37.1)	
Nationality			
Saudi (n=335)	213 (63.6)	122 (36.4)	0.119*
Non-Saudi (n=10)	4 (40.0)	6 (60.0)	
Marital status			
Single (n=104)	70 (67.3)	34 (32.7)	4.54 (0.209)
Married (n=223)	133 (59.6)	90 (40.4)	
Divorced (n=9)	6 (66.7)	3 (33.3)	
Widowed (n=9)	8 (88.9)	1 (11.1)	
Occupation			
Military (n=58)	32 (55.2)	26 (44.8)	2.67 (0.614)
Civilian (n=123)	77 (62.6)	46 (37.4)	
Health employee(n=23)	14 (60.9)	9 (39.1)	
Retired (n=7)	4 (57.1)	3 (42.9)	
Not working (n=134)	90 (67.2)	44 (32.8)	
Educational level			
Primary (n=9)	7 (77.8)	2 (22.2)	2.06 (0.560)
Intermediate (n=21)	13 (61.9)	8 (38.1)	
Secondary (n=124)	73 (58.9)	51 (41.1)	
University (n=191)	124 (64.9)	67 (35.1)	

* Fischer exact test

Table 4: Personal factors associated with satisfaction with traditional medicine among participants

	Traditional medicine satisfaction		χ^2 -value (p-value)
	Satisfied N=177 N (%)	Dissatisfied N=40 N (%)	
Age (in years)			
18-35 (n=158)	128 (81.0)	30 (19.0)	0.13 (0.936)
36-45 (n=48)	40 (83.3)	8 (16.7)	
>45 (n=11)	9 (81.8)	2 (18.2)	
Gender			
Male (n=110)	88 (80.0)	22 (20.0)	0.36 (0.546)
Female (n=107)	89 (83.2)	18 (16.8)	
Residence			
Rural (n=10)	7 (70.0)	3 (30.0)	0.93 (0.334)
Urban (n=207)	170 (82.1)	37(17.9)	
Nationality			
Saudi (n=213)	174 (81.7)	39 (18.3)	0.560*
Non-Saudi (n=4)	3 (75.0)	1 (25.0)	
Marital status			
Single (n=70)	56 (80.0)	14 (20.0)	0.17 (0.644)
Married (n=133)	108 (81.2)	25 (18.8)	
Divorced (n=6)	6 (100)	0 (0.0)	
Widowed (n=8)	7 (87.5)	1 (12.5)	
Occupation			
Military (n=32)	28 (87.5)	4 (12.5)	3.89 (0.422)
Civilian (n=77)	65 (84.4)	12 (15.6)	
Health employee(n=14)	10 (71.4)	4 (28.6)	
Retired (n=4)	4 (100)	0 (0.0)	
Not working (n=90)	70 (77.8)	20 (22.2)	
Educational level			
Primary (n=7)	6 (85.7)	1 (14.3)	4.91 (0.179)
Intermediate (n=13)	10 (76.9)	3 (23.1)	
Secondary (n=73)	54 (74.0)	19 (26.0)	
University (n=124)	107 (86.3)	17 (13.7)	

* Fischer exact test

Table 5: Practice-related factors associated with satisfaction with traditional medicine among participants

	Traditional medicine satisfaction		χ^2 -value (<i>p</i> -value)
	Satisfied N=177 N (%)	Dissatisfied N=40 N (%)	
Types of traditional healer			
Faith healer (n=96)			
Herbalist (n=76)	83 (86.5)	13 (13.5)	
Chiropractor (n=10)	63 (82.9)	13 (17.1)	
Osteopath (n=6)	5 (50.0)	5 (50.0)	
Acupuncturist (n=8)	4 (66.7)	2 (33.3)	
Others (n=21)	6 (75.0)	2 (25.0)	9.76
	16 (76.2)	5 (23.8)	(0.082)
Type of treatment			
Medicine (n=110)	91 (82.7)	19 (17.3)	
Zikr (n=56)	49 (87.5)	7 (12.5)	
Advice (n=26)	19 (73.1)	7 (26.9)	4.18
Others (n=25)	18 (72.0)	7 (28.0)	(0.243)
Frequency of visits			
One (n=112)	88 (78.6)	24 (21.4)	
Two (n=30)	26 (86.7)	4(13.3)	
Three (n=36)	30 (83.3)	6 (16.7)	1.50
>three (n=39)	33 (84.6)	6 (15.4)	(0.682)
Duration of treatment			
≤3 days (n=53)	42 (79.2)	11 (20.8)	
4-11 days (n=55)	43 (78.2)	12 (21.8)	
11-30 days (n=74)	63 (85.1)	11 (14.9)	12.28
>30 days (n=35)	29 (82.9)	6 (17.1)	(0.735)
Reason for therapy			
Feeling unsatisfied with physicians' advice (n=17)	4 (23.5)	13 (76.5)	
Ineffective medical management (n=120)	103 (85.8)	17 (14.2)	
Strong belief in the traditional healer (n=80)	70 (87.5)	10 (12.5)	41.41
			(<0.001)
Additional medical treatment			
Yes (n=93)			
No (n=124)	75 (80.6)	18 (19.4)	0.09
	102 (82.3)	22 (17.7)	(0.762)

DISCUSSION

The increasing trend of traditional medicine use is likely to continue as patients search for new therapies to improve quality of life or identify alternative and less-toxic forms of treatment⁽¹⁵⁾.

In the present study, almost two-thirds of the participants visited traditional healers either personally or in relatives. Seventy percent of them reported improvement after practicing TM. In agreement with that, Kaleemet al, there was the statistically significant difference between the levels of pain, well-being, and range of motion for patients with anterior knee pain pre and post Cupping⁽¹⁶⁾.

In the present study, females were more likely to use TM than men. This finding was consistent with other local studies^(2,17) as well as internationally⁽¹⁸⁻²⁰⁾. Further research is warranted to identify the factors that lead to this documented difference.

Al-Faris et al.⁽¹⁷⁾ showed in their study more TM use among the older population. In the present study, this finding was not confirmed. Also, our results disagreed with those reported by **Foltz et al.**⁽¹⁹⁾ and **Peleg et al.**⁽¹⁸⁾ who showed that widowed and divorced people were more likely to use TM. This could be attributed to emotional instability of such group of patients.

The present survey revealed that the main for visiting traditional healers among patients was ineffective medical management, followed by firm belief in the traditional healer. Furthermore, satisfaction with the outcome of conventional therapy was more likely to be reported by those who firmly believed in conventional medicine. Moreover, more than 42% of our study population who visited traditional healer had additional medical therapy. It is known, that only a minority of patients report TM use to their physicians⁽²⁰⁾. Thus, there is an increasing need to improve efforts and communication between physicians and complementary therapists⁽²¹⁾.

Many people believe that from fire, the Almighty Allah created the 'jinn' who invisibly live with and share human activities. Like jinn, the evil eye and magic have disastrous effects on human health and behavior. The study of these forces has epidemiological, etiological, diagnostic, and psycho-therapeutic and health promotion implications⁽²²⁾. To the faith healers (FH) the possessed patients often report that they had perceived jinn is entering their bodies and moving in different organs. This is followed by bizarre and odd movements that may imply psychotic and non-psychotic disorders⁽¹²⁾. In Sudan, TM is closely related to religion and other powerful beliefs.

Islamic mystics (Sufi) aimed to spread and strengthen the principles of Islamic beliefs by advising Muslims to follow certain moral and psychological methods in simple ways, such as repeating the Lord's name (zikr) in combination with the five prescribed prayers. Followers visit the religious leader (sheik), who becomes a FH, for religious education, advice, and treatment. The degree of influence of the FH depends on their religious morals and piety (wara'), asceticism (zuhd), miracle-working (karamat) and spiritual power. They believe that the FH, whether dead or alive, is capable of rescuing them and pleading on their behalf for help and release from illness. Thus FHs, in the people's eyes, are true representatives of spiritual power and a source of good for the poor and downtrodden⁽¹⁰⁾.

In agreement with that, more than 44% of patients who visited traditional healers in the present study visited faith healers seeking for treatment, and in almost one-third of them, the treatment was zikr (supplication).

Although TM is well known in the Islamic history, up to our knowledge, no medical school in the Islamic world provides TM courses whereas some US and Japanese medical schools offer classes related to CAM^(23,24).

In the present study, the majority of the patients have mentioned that the cost of THs is affordable and was satisfied with their outcome. In agreement with that, Stekelenburg et al. in Zambia⁽²⁵⁾ and Al-Shehri in Saudi Arabia⁽¹¹⁾ reported that the cost of treatment from a TH is affordable, but paid only if the patient is cured.

Among essential limitations of the present study, the inclusion of patients from one city in Saudi Arabia that may affect the generalizability of results over the whole Kingdom. Also, the cross-sectional design of the study affects the cause-and-effect relationships. Despite these limitations, the study has a significant public health implication.

CONCLUSION

Almost two-thirds of patients attending primary health care centers in Tabuk city visited a traditional healer during the last year, mainly faith healers and herbalist. Female patients were more likely to visit traditional healers compared to male patients.

The most common reasons for visiting traditional healers were ineffective medical management and firm belief in the traditional healer. The cost of conventional medicine was described as affordable by the majority of them as well as most of those visited THs were satisfied with visits.

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