

# Overview on Integration of Complementary and Alternative Medicine in a Major Pediatric Disease

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## ABSTRACT

**Introduction:** Complementary and alternative medicine very popular in Iraq, it's used from many age group but a little data is available about uses of traditional medicine especially in pediatric.

**Methods:** The aim of this study to measure the prevalence of Complementary and Alternative Medicine CAM (one type of CAM called saqua) use in acutely sick children (complaining from gastro intestinal symptom) and factors associated with it. This is a cross-sectional study, hospital-based study in a tertiary center of Baghdad City- Iraq from the first January 2018 to January 2019. Children admitted to a pediatric unit during the study period were assessed using a specially designed questionnaire, interview with one of child's family almost the mother or grandmother, face to face interview. Data were analyzed using SPSS (statistical software version 20) using Chi-square test for association between using CAM and not using. P-value of 0.05 was considered significant.

**Results:** Among the total 415 admitted children one year's olds or less complaining from gastro-intestinal symptom, 36 (8.6%) were using complementary and alternate medicine. The age distribution of the children using CAM ranged from 1 day to 1 year, children were using CAM, age group less than one month 11(30.6%), 1 to 6 months 22 (61.1%) and from 6 months to 1 year 3 (8.3%), male 22 (61.1%), female 14 (38.9), about region urban 23 (63.9%) and rural 13 (36.1%), parent with low education state. During period of hospitalization, observation and fallow up was done, complication more in the children which use CAM (saqua), 9 (25%) out of 36 using saqua complaining from complication compare with non-using 12(3.2%).Death increasing in the children which using saqua 21 (58.3%) comper with non-using 8 (2.11%).

**Conclusion:** The usage of CAM concerning on value and believes, in this study was founded complication more in children using CAM camper not using CAM (saqua), also number of death more in pediatric using CAM (saqua), so need awareness about it and more study about ( saqua) one type of CAM.

**Keywords:** Complementary and Alternative Medicine (CAM); Saqua; Pediatric; Therapeutic; Complementary Health Approaches (CHA)

## INTRODUCTION

### Traditional medicine

Traditional medicine has a long history. It is the sum total of the 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 [1]. Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual

techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being [2].

### Complementary medicine

The terms "complementary medicine" or "alternative medicine" refer to a broad set of health care practices that are not part of that country's own tradition or conventional medicine and are not fully integrated into the dominant health-care system. They are used interchangeably with traditional medicines in some countries [1]. The high cost of drugs and increase in drug resistance to common diseases like malaria, bacterial infections and other

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sexually transmitted diseases has caused the therapeutic approach to alternative traditional medicine as an option for concerted search for new chemical entities [2].

The strategy aims to support member states in developing proactive policies and implementing action plans that will strengthen the role traditional medicine plays in keeping populations healthy [3]. The most successful regimen may come through integrated therapies including combining current and novel western drugs with acupuncture and botanical therapies or their derivatives [3].

Herbal medicines include herbs, herbal materials, herbal preparations and finished herbal products that contain, as active ingredients, parts of plants, other plant materials or combinations. In some countries herbal medicines may contain, by tradition, natural organic or inorganic active ingredients that are not of plant origin (e.g. animal and mineral materials). Conventional pharmaceuticals are medicinal drugs used in conventional systems of medicine with the intention to treat [4]. Natural products and traditional medicines are of great importance. Such forms of medicine as traditional Chinese medicine, Ayurveda, Kampo, traditional Korean medicine, and Unani have been practiced in some areas of the world and have blossomed into orderly-regulated systems of medicine [5].

The use of medicinal plants as a fundamental component of the African traditional healthcare system is perhaps the oldest and the most assorted of all therapeutic systems. In many parts of rural Africa, traditional healers prescribing medicinal plants are the most easily accessible and affordable health resource available to the local community and at times the only therapy that subsists [6]. African traditional medicine is a form of holistic health care system organized into three levels of specialty, namely divination, spiritualism, and herbalism. The traditional healer provides health care services based on culture, religious background, knowledge, attitudes, and beliefs that are prevalent in his community [7]. Greater use could be made of these medicinal plants at the primary health care level so that all persons could have recourse to herbal medicine—particularly those living in areas without any allopathic health care coverage [8]. Traditional Chinese medicine is a traditional health practice originated from Chinese philosophy and religion, holding the belief of holism and balance in the body [9]. The traditional Indian medicine, remains the most ancient yet living traditions India is known for its traditional medicinal systems—Ayurveda, Siddha, and Unani. Medical systems are found mentioned even in the ancient vedas and other scriptures. The Ayurvedic concept appeared and developed between 2500 and 500 BC in India's [10].

Written history allows tracing back Mediterranean and European medical traditions to Greek antiquity [11]. Europe there is a very long history of traditional medicine that has a respectable historical and scientific dignity and many European citizens still rely and trust in it for resolution of many minor and sometimes severe diseases. For all these reasons we decided to organize a congress based on the concept of European Traditional Medicine [12].

The study of herbs dates back 5,000 years to the ancient Sumerians, who described well-established medicinal uses for plants. In Ancient Egyptian medicine, the Ebers papyrus from

1552 BC records a list of folk remedies and magical medical practices. In Iraq it is popular to use traditional and sells remedies in different age groups for several indications [13]. Saqua is consider one of these remedies in Iraq its widely used among the low socioeconomic classes to treat neonates, infants and children with abdominal pain and diarrhoea [14] many countries are still failing to implement the policy and program changes needed to improve access to affordable medicines. It inappropriate use of traditional medicines or practices can have negative or dangerous effects and that further research is needed to ascertain the efficacy and safety of several of the practices and medicinal plants used by traditional medicine systems [15]. Ultimately, the World Health Organization has implemented a nine-year strategy to support Member States in developing proactive policies and implementing action plans that will strengthen the role traditional medicine plays in keeping populations healthy [16]. Herbal remedies have traditionally been used to treat both adults and children. Herbal remedies may offer a milder alternative to some conventional medicines, although the suitability of an herbal remedy needs to be considered with respect to quality, safety and efficacy Herbal remedies should be used with caution in children and medical advice should be sought if in doubt [17].

## MATERIALS AND METHODS

### Study design

This is a cross-sectional observational study done in a tertiary hospital called centre of pediatric teaching hospital in Baghdad city of Iraq, from January 2018 to January 2019. There are many types of traditional medicine used in Iraq but in this study it was highlighted on substance used to treated gastro-intestinal symptom especially diarrhoea and vomiting, its type of CTM called saqua this is common name used in some region and karfaa in other, content of this saqua (herbal, parts of plant and animal, mineral material).

### Data gathering form

In this study used questionnaires administrated to the parents or to one member of the family via face-to-face interview, using closed-ended and open-ended questions. The questionnaire includes: Age of the child, gender, address urban or rural region, education state of the mother and the father, types quantities duration of using CAM, causes of taken, what squealy occurs after taken CAM.

### Inclusion and exclusion criteria

Inclusion criteria which include all children admitted in the hospital aged one year's old or less, complaining from gastro-intestinal symptom, used of traditional medicine (saqua).

### Exclusion criteria

Children more than one years of age complain from symptom other than GIT symptom, if using other types of CAM. Data were analysed using SPSS (statistical software version 20), using Chi-square test for association between using and not using. P-value of 0.05 was considered significant.

## RESULTS

Sociodemographic and patient characteristics were out of the total 415 admitted children one year's olds or less, 36 (8.6%)

were using complementary and alternate medicine (saqua). The age distribution of the children ranged from one year or less, children was using CAM age group less than one month 11 (30.6%), 1 to 6 months 22 (61.1%) and from 6 months to 1 year 3(8.3%), male 22(61.1%), female 14 (38.9), about region urban 23 (63.9) and rural 13(36.1). The age group, gender and region of children using and not using CAM (Table 1).

Parents with low education state, education state of child's family using CAM (Table 2). During period of hospitalization, observation and follow up the patient for final state of condition was found complication more in the children which use CAM (saqua), 9 (25%) out of 36 complaining from complication in the children using saqua compare with non-using 12 (3.2%).

Death increasing in the children which using saqua 21 (58.3) compare with non-using 8 (2.11). Final state of hospitalized

pediatric inpatient (Table 3); and the association between gender of using and not using (Table 4). The chi-square statistic is 3.8526 and p-value is 0.049669 and significant value is  $p < 0.05$ . More using of saqua in the age group 1-6 months, and the association of age group between children was using CAM and not using (Table 5).

The chi-square statistic is 23.6617 and p-value is  $< 0.00001$ . The result is significant value at  $p < 0.05$  and the association between urban and rural region of using CAM and not using (Table 6).

The chi-square statistic is 7.2694 and p-value is 0.007014 and the significant value at  $p < 0.05$  and the association between the final state of pediatrics inpatient of using CAM and not using (Table 7). This is shown children complaining from complication significant compare not using CAM (saqua), also number of death more in pediatric using CAM (saqua). The chi-square statistic is 202.4663 and p-value is  $< 0.00001$ . The result is significant at  $p < 0.05$ .

**Table 1:** Age, gender and region of children using and not using CAM.

	Using CAM		Not using CAM	
	Frequency	Percentage	Frequency	Percentage
<b>Age</b>				
Less than 1 month	11	30.60%	64	16.90%
1 to 6 months	22	61.10%	123	32.45%
6 months to 1 year	3	8.30%	192	50.65%
<b>Gender</b>				
Male	22	61.10%	167	44%
Female	14	38.90%	212	56%
<b>Region</b>				
Urban	23	63.90%	154	41%
Rural	13	36.10%	225	59%

**Table 2:** Age, gender and region of children using and not using CAM.

	Education state of mother		Education state of father	
	Frequency	Percentage	Frequency	Percentage
No primary school	24	66.70%	22	61.10%
Has primary school	12	33.30%	13	36.10%
Has secondary school			1	2.80%
	36	100%	36	100%

**Table 3:** Final state of patient alive and well, dead or alive with complication.

	Alive and well		Death		Alive with complication		Total
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Using CAM	6	16.70%	21	58.30%	9	25%	36
Not using CAM	359	94.72%	8	2.11%	12	3.20%	379
Total	365	-	29	-	21	-	415

**Table 4:** Association between gender of using CAM and not using CAM.

	Male	Female	Total
Using traditional medicine	22	14	36
Not using traditional medicine	167	212	379
Grand Total	189	226	415

**Table 5:** The association between age group in using CAM with not using CAM.

	Less than 1 month	1-6 months	More than 6 months	Total
Using traditional medicine	11	22	3	36
Not using traditional medicine	64	123	192	379
Grand Total	75	145	195	415

**Table 6:** The association between urban & rural region of using CAM and not using CAM.

	Urban region	Rural region	Total
Using traditional medicine	23	13	36
Not using traditional medicine	154	225	379
Grand Total	177	238	415

**Table 7:** Final state of inpatient pediatrics between using CAM and not using CAM.

	Alive and well	Dead	Complication	Total
Using traditional medicine	6	21	9	36
Not using traditional medicine	359	8	12	379
Grand Total	365	29	21	415

## DISCUSSION

The use of complementary and alternative medicine is not only common but increasing among children [17]. In total 415 admitted children one year's olds or less, 36 (8.6%) were using complementary and alternate medicine (saqua) for treatment GIT problem, prevalence was low and more in low educational state of child's family but found complication and death significant. Complication more in the children which use CAM (saqua), 9 (25%) out of 36 complaining from complication compering to children not using saqua 12 (3.2%). Death increasing in the children which using saqua 21 (58.3) compere with non-using.

In India Among the included children, 161 (18.1% to 95%; CI: 12-24) were using complementary and alternative medicine of these, 113 (70.2%) were using complementary and alternative medicine for the current illness directly leading to admission whereas the rest were using at some point in past for other concerns [18].

Complementary and Alternative Medicine (CAM) use among U.S. adults and children whose parent used CAM were almost five times as likely (23.9%) to use CAM as children whose parent did not use CAM (5.1%) for both adults and children in 2007. When worry about cost delayed receipt of conventional care, individuals were more likely to use CAM than when the cost of conventional care was not a worry between 2002 and 2007 increased use was seen among adults for acupuncture, deep breathing exercises, massage therapy, meditation, naturopathy, and yoga. CAM use for head or chest colds showed a marked decrease from 2002 to 2007 (9.5% to 2.0%) [19].

A frequency of CAM use was 87% in Turkish pediatric patients, CAM is extensively used in Turkish pediatric patients. This might be due to Turkey's status as a developing country in which

a traditional medical system still dominates in comparison to developed countries [20]. Parents of pediatric patients with chronic conditions such as epilepsy increasingly opt for complementary and alternative medicine CAM [21].

CAM plays a substantial role among parents of children referred to pediatric otolaryngology consultation [22]. We included 28 studies with survey data (collected from 1975 to 2005) from 3526 children. In 20 studies with 2871 participants, the prevalence of any CAM use since cancer diagnosis ranged from 6% to 91% [23].

Traditional medicine used in childbirth and for childhood diarrhea in Nigeria's cross river state, 11.3% (615/5425) of young children with diarrhea were taken to traditional medical practitioners [24].

Up to 1/2 of children may use Complementary Health Approaches (CHA). However, current prevalence in North America, variables associated with CHA use and caregiver perceptions of effectiveness are unclear [25]. Complementary or Alternative Medicine (CAM) use has greatly increased in the developed world, with paediatric prevalence figures between 1.8% and 80%, depending on population and study design [26].

## CONCLUSION

We define Traditional Arabic and Islamic Medicine (TAIM) as a system of healing practiced since antiquity in the Arab world within the context of religious influences of Islam and comprised of medicinal herbs, dietary practices, mind-body therapy, spiritual healing and applied therapy whereby many of these elements reflect an enduring interconnectivity between Islamic medical and prophetic influences as well as regional healing practices emerging from specific geographical and cultural origins. Our definition and conceptual model represents a novel addition to

the literature on Arab and Muslim health practices, and presents an opportunity to address a global health concern.

CAM plays a substantial role among parents of children referred to pediatric otolaryngology consultation. Complementary or Alternative Medicine (CAM) use has greatly increased in the developed world, with paediatric prevalence figures between 1.8% and 80%, depending on population and study design. The usage of CAM concerning on value and believes, in this study was founded complication more in children using CAM camper not using CAM (saqua), also number of death more in pediatric using CAM (saqua), so need awareness about it and more study about saqua one type of CAM.

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## CONFLICT OF INTEREST

The authors declared that there is no conflict of interest

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