

Original Article

Trend of complementary therapies in paediatric age group

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Abstract

Objective: To assess the knowledge of mothers regarding commonly used Complimentary alternative medicines, their usage and various therapeutic choices for common ailments.

Methods: A cross-sectional Survey on a predesigned proforma was done from July 2007- August 2007 in the out patient department of a tertiary care hospital. Consent was taken from the participants and 375 complete proformas were included in the study out of 500 interviewed.

Results: Of the 375 mothers who were interviewed, 237 (63.2%) believed in alternative medicine whereas 138 (36.8%) did not believe in it. Complimentary alternative medicines (CAM) was used most often in children with respiratory tract and gastro intestinal symptoms, the most frequently used therapy was Honey 58.9% and Joshanda 31.2%, followed by Heeng 11.3% and brandy being used in 2.8% for respiratory complaints. Gastrointestinal symptoms were treated with Saunf water 28.4%, mint 20.6% and ajwain 17.7%. Higher education level was associated with more complementary medicine use. Majority of mothers used it for gastrointestinal problems and respiratory problems 24% and 22.2% respectively.

Conclusions: Mothers are aware of various available CAM and are using them for different ailments like honey for respiratory illnesses, Saunf and Ajwain for gastrointestinal problems as they have been found to have linctus and antispasmodic effects respectively. It has also been observed that the CAM was used in combination with other therapeutic modalities and not alone (JPMA 60:1015; 2010).

Introduction

For thousands of years, man has sought healing powers from the natural world. Practices of traditional medicine vary greatly in different region. Practices are influenced by culture, history, personal attitudes, education level and philosophy. Herbal and plant-derived remedies have been estimated by the World Health Organization (WHO) to be the most frequently used therapies worldwide.¹

In developing countries, due to high cost of medicines and access to allopathic physicians, the provision of safe and effective traditional or alternative therapies are gaining popularity. Various countries like China, South Korea and Vietnam have fully integrated traditional medicine into their health systems.² In Africa about 85% of the population uses CAM for different diseases.³ Traditional medicine is also practiced to varying degrees in the industrialized world.

According to WHO, over 50% of population in Europe, Latin America and other industrialized countries have used CAM once in their life.⁴ In USA the total market for medicinal botanicals was worth US\$ 3.87 billion in 1998.⁵ Looking at South Asia, it appears that there is an increase in trend of CAM use. It has been estimated that more than 70% of India's population uses CAM.⁶

A high prevalence of CAM use has been documented worldwide in children and adolescent. To determine the prevalence and reasons for CAM use among children various studies have been done. Prevalence of CAM use in children ranges from 63%⁷ and 18.0 % in Australia.⁸ The most frequent users of CAM were patients with asthma, eczema or allergy and patients suffering from diarrhea. CAM in our part of the world for children are used mostly because of word-of-mouth, personal experience or on recommendation by a senior family member, whereas in other countries there are CAM specialist recommending such therapy, therefore, making it a more controlled and monitored therapy. Some countries like China and Far eastern countries have herbalism or phytomedicine incorporated in the medical practice. People opting for alternative treatment do it because of dissatisfaction with conventional medicine and due to side effects. Research is required to find the efficacy and safety of the agents used as CAM. The aim of the present study was to assess the frequency, belief and trend of use of CAM by families. Herbal choices have been found to vary among different cultures and races. Familiarity with local medications is needed to access the efficacy and usefulness of such therapies.

Subjects and Methods

A cross-sectional Survey was carried out from July 2007 to August 2007 in the Pediatric outpatient department of Liaquat National Hospital, which is located in the centre of Karachi and receives patients belonging to all socioeconomic classes. Data was collected by a trained lady health visitor by direct interviewing. The data was collected on a structured questionnaire which was given to the mothers visiting the paediatric out patient department (OPD). About 500 forms were distributed out of which, three hundred and seventy five (375) were completed and incomplete forms were discarded. They were asked about their socio-demographic variables like age, education, and professional status, the type of CAM modalities used and the illness or purpose for using it. Also combination of various therapies, (like homeopathic and allopathic) was also inquired to find the trend of medical attention. Data were analyzed using the Statistical package for social sciences (SPSS version 15.0).

Results

Of 375 mothers who were interviewed, 237 (63.2%)

Table-1: Frequency of commonly used CAM.

Therapy	Frequency	Percentage
Honey	83	58.9
Joshanda (Herbal Tea)	44	31.2
Fennel (Saunf) Water	40	28.4
Mint (Mentha)	29	20.6
Ajwain (Caraway)	25	17.7
Khewa (Green Tea)	23	16.3
Heeng (Asafoetida)	16	11.3
Zeera (Cumin) Water	15	10.6
Khash Khash (Poppy Seeds)	8	5.7
Brandy (Alcohol Beverage)	4	2.8

Table-2: Frequency of therapeutic choices for common ailments.

Combinations	Frequency	Percentage
Home Remedy + Allopathy	175	46.7
Allopathy Alone	56	14.9
Homeopathy + Home Remedy	43	11.5
Homeopathy + Allopathy	24	6.4
Homeopathy + Home Remedy + Allopathy	11	2.9
Hakeem + Home Remedy	6	1.6
Hakeem + Home Remedy + Allopathy	3	0.8

believed in alternative medicine whereas 138 (36.8%) did not believe in it. Majority of the mothers 287 (76.5 %) were housewives and a small proportion 88 (23.5 %) were working mothers in fields. The percentage of mothers who believed in CAM was the same among the working and non working mothers 64.7% and 62.7% respectively. Out of 209 mothers, with ages less than 30 years, 140 (66.9%) believed that the use is beneficial to the child, whereas 166 mothers who were more than 30 years in age, 97(58.4%) believed in CAM. Similarly, the mothers who had 3 or less than 3 children 61.6% believed in CAM whereas the mothers who had more than 3 children, 70% believed in its beneficial affects. The use of CAM was found to be high in mothers with educational level of graduate or above (70.5%) as compared to the mothers who were with basic education ranging from primary school level (37.5%), matric (66.6%), intermediate (47.3%) or were illiterate (40%).

Out of 138 mothers who did not believe in the efficacy of complementary therapies, (n=38) still used them for various reasons. Of all the complementary therapies used by mothers (n=275), home remedies were used maximally (n=184) (49.1%) followed by homeopathic (n=73) (19.5%) and Hakeem drugs (n=15) (4.0%).

CAM was used most often in children with respiratory tract symptoms like cough and flu. Most frequently used therapy was Honey 58.9% and Joshanda (Herbal Tea) 31.2% for respiratory complaints, followed by Heeng (Asafoetida) 11.3% and brandy in 2.8% only. Gastrointestinal symptoms

were treated with Saunf water (Fennel) 28.4%, mint 20.6% and Ajwain (Caraway) 17.7% (Table-1).

The most frequently cited reasons for CAM use were: "free of side effects", a preference for a 'more natural' therapy, are "easy to give" and "provides quick cure". The use of CAM by mothers was mainly on the advice of various family members like Mother-in-law (n=146), Grand mother (maternal) of kids (n=98), Husband (n=27), other in-laws (n=30) and Neighbour (n=3) only (n=62) mothers used them on their own decision and experience.

It was seen that majority of the CAM were used in combination with allopathic over the counter medications and only 14.9% mothers used allopathy drugs alone (Table-2).

Discussion

CAM is an expanding domain of health care options. They are considered safe, easily available and free of side effects. Treatment with CAM is common and is frequently undertaken by parents without the knowledge or advice of their paediatrician.⁹ Different regions in the world have different range of herbal remedies available according to their environment and cultural background. In this survey common herbal remedies used by the mothers for common ailments like cough, cold and diarrhea were looked into and the logic behind their use was sought.

The trend of CAM use was found to be more among educated women 70.5% and families with more than 3 children. Awareness about potential side effects of the allopathic medications was due to information literature, available. Hence CAM was preferred. Maternal confidence and past experience in larger families might have lead to increase comfort level in their use in families with more children.

Common remedies found in use were honey, Joshanda (Herbal tea), fennel (Saunf), mint (Mentha), Ajwain (Caraway), Kehwa (Green tea), Heeng (Asafetida), Zeera (Cumin), Khash Khash (Poppy seeds), and brandy (Alcohol beverage).

Honey was found to have the highest preference 58.9% for respiratory symptoms. As suggested by the data, honey has antibacterial property due to the presence of inhibin which prevents bacterial growth.¹⁰ Other ingredients in honey are proteins, enzymes, amino acids, minerals, trace elements, vitamins, aroma compounds and polyphenols.¹¹ Role of honey has been described not only as antibacterial but has linctus affect in soothing irritated airway. A survey done by Paul, I. M. et al shows, honey as a preferable choice by parents for nocturnal cough and sleep difficulty.¹² For children the use of herbal medicinal drugs for treatment of acute respiratory diseases is wide spread.¹³ In a study by Mishra S, et al honey and ginger were the most common home remedies used for relief of cough.¹⁴

However, the use of honey is controversial under one year of age due to its potential for causing infantile botulism.¹⁵

Joshanda (Herbal tea) which was preferred by 31.4% consists of herbs such as Viola Odorata (Gulebanafsha), Onosma bracteatum (Gaozaban), Zizyphus Sativa (Unab) and Glycyrrhizia glabra (Aslassoos), cordial latifolia (Sapistan) and Althaea (Khatmi). All the these herbs are found to have beneficial affect in common cold. A local study done by Chaudhry AJ et al, documents highest use of Joshanda, vicks and honey as a remedy for respiratory ailments.¹⁶

Fennel (saunf, aniseeds, foeniculum vulgare) boiled in water was preferred as an alternative treatment for diarrhoea and colic symptoms in 28.4% of the group. Active ingredients in fennel seeds are terpenoid anethole; it inhibits spasms in smooth muscles and has some antibacterial properties as well.¹⁷ A commercial preparation Coli Mil was studied which has foeniculum vulgare, Matricariae recutita, Melissa officinalis all herbal in origin for infantile colic and was found to be affective in infantile colic as the total crying time was significantly reduced in the group on the preparation ColiMil as compared to the group on placebo.¹⁸ Another use of Fennel (saunf) is as a lactagogue for lactating mothers.¹⁹

Ajwain (Carum copticum, caraway, Trachyspermum copticum) another seed which was used for gastrointestinal symptoms by 17.7% mothers, contains thymol as active ingredient which has carminative properties.

Zeera (cumin, cumin cyminum) is a stimulant carminative and antimicrobial used by mothers 10.6% for gastrointestinal problems which has protease activity by virtue of which it helps in the digestive process in stomach and intestine both.²⁰

Heeng (Asafoetida) is a resinous gum which has nerve stimulating, digestive and sedative actions and is used for respiratory and gastrointestinal symptoms. Heeng was used by a significant proportion of survey population 11.3%. There is no supporting data regarding its safety in children or adults. Its use was seen for respiratory symptom.

Khash Khash (poppy seeds, papaver somniferum) has anodyne narcotic and expectorant properties and is used as antidiarrhoeal and cough remedy. For common problems, it was used by 5.7% mothers.

Khewa is a green tea with at times ginger and cinnamon added to it. It is considered to help in cold and GI symptoms and was used by 16.3% of mothers in our survey.

Mint (mentha) is a common folk remedy used for dyspepsia intestinal colic; it has been identified as having anti tumor, antiallergenic antiviral, and antifungal and anti bacterial properties. In Germany, Peppermint leaf is licensed for use as a standard medicinal tea to treat dyspepsia.²¹ Our

survey group 20.6% mother found it to be useful for gastrointestinal ailments.

The above mentioned herbal remedies were found mostly at home. Some of the parents use homeopathic and Hikmat Medicines as well, the nature and content of which was beyond the scope of our survey. However, the trend of believing in CAM was seen almost in half of the group which is close to the western trend these days.²²

With CAM use in combination with allopathic medicine by majority of the mothers, (n=175) 46.7%, the concern for medical practitioners should be, not knowing the safety profile of medications marketed as herbal in our set up and their interaction with allopathic medicine prescribed. Family physicians and paediatricians should have the knowledge of CAM used in their community and should ask about the use of them while evaluating their patients.²² The use of such medications can mask parental judgment for early potential danger signs in infants and delay medical attention. Parents should be educated about danger signs for dehydration, respiratory problems and when to consult a medical practitioner. CAM use in infants should be discouraged as there is limited data available about their side effects. However, the list of CAM commonly used in our survey group supported safety for Honey over one year of age, fennel (saunf), cumin, ajwain and mint by literature survey and showed effectiveness in common ailments. Heeng, khash khash have very little authentic data available for use in children. Joshanda has multiple ingredients in it and is available in different forms. Its efficacy and use has to be looked into in detail. Use of brandy should be discouraged for respiratory complaints, as it has intoxicating effects and over dose may put a child into respiratory and central depression compromising cough reflex therefore increasing risk of aspiration in infants.

It is important to take a detailed history about CAM use and to check if there are any possible interactions with allopathic medications in treatment of chronic conditions like asthma, arthritis, epilepsy as CAM use in older children have been associated more with chronic conditions.

Conclusion

The use of CAM is based on tradition, availability and experience of individual. There should be awareness about other classes of alternate medicine (homeopathic, hikmat, home remedies). At times the patients may use allopathic medicines in combination with CAM and drug interaction

can become a potential problem.

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