Utilization of complementary and alternative medicine by parents for their children: A cross sectional study in Ajman, UAE

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ABSTRACT

Objective: The study aimed to determine the utilization pattern of Complementary and Alternative Medicine (CAM) by parents for their children in Ajman, UAE.

Materials and Methods: This cross sectional study was carried out among parents attending Parent-Teachers meeting at schools in Ajman, UAE. Self-administered questionnaires were distributed among the parents after obtaining consent. The questionnaire included demographic characteristics of parent (Age, gender, educational qualification, nationality) and child (age, gender) and details of utilization pattern (type of CAM, route of therapy, indication). Descriptive and inferential statistics performed using SPSS-20; p value<0.05 considered significant.

Results: Total of 136 parents participated (Fathers 32.6%; Mothers 67.6%). Their age ranged between 20-55 years. Asians constituted 30.4% and Arab ethnicity 53.6% of total. About 57.2% of the parents were graduates. About 31.2% parents had one child, 30.4%- two children and 38.4% had three or more children. CAM use among their children was reported by 73(53.6%) parents. It was noted that parent who used CAM for the first child 73(53.6%), also reported to use CAM in their subsequent children (2nd, 3rd child-71(52.2%) each). Indications for use were gastrointestinal disorders, respiratory disorders, fever, and dermatological conditions. CAM therapies used in descending frequency were herbal medicine, dietary supplements, prayer, homeopathy and massage therapy. Based on ethnic groups, utilization frequency was similar among Asians, Arabs and other groups (50%, 53%, and 59% respectively). Similarly, utilization frequency was similar among parents with school education, graduation and post-graduation (50%, 54.4%, and 53.8% respectively). CAM was recommended by family members in 48% of the responders. About 47% parents reported good results and 30% excellent results with CAM in their children.

Conclusion: In accordance to previous reports from the Middle East, herbal medicine was the common CAM therapies in the study. Utilization of CAM by parents for their children was similar in different ethnic groups and parents with different levels of education.

Keywords: complementary medicine, alternative medicine, Ajman, UAE

INTRODUCTION

Complementary and alternative medicine (CAM) has been defined as “diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, satisfying a demand not met by orthodoxy, or diversifying the conceptual frameworks of medicine”⁷. The prevalence of CAM utilization varies from 6% to 84% in a National survey conducted in Canada⁸. The popularity and the use of CAM has significantly increased in all modern societies over the past two decades⁹. The acceptability of CAM among patients depends on several factors related to patients, disease or illness and medications. The utilization of CAM therapies are increasing among children and adolescents. Previous studies in pediatric clinics reported utilization rate varying from 20-40% and CAM was utilized in a majority of the children for chronic recurrent clinical illness⁴,⁵. Studies have documented the utilization of CAM for the conditions in children for conditions such as asthma¹³, attention-
deficit/hyperactivity disorder, autism, cancer, inflammatory bowel disease, and juvenile rheumatoid arthritis. CAM is culturally acceptable and widely utilized in the Eastern Mediterranean Region for a wide spectrum of clinical illnesses. The commonly practiced traditional and Complementary medicine practices in the Middle East include folk medicine comprising of self-medication and simple herbal remedies, traditional therapies such as Unani medicine, Ayurveda medicine, bone setting, massage, circumcision, etc. Herbal Medicine has now been incorporated in the National Health Services alongside the conventional medicine especially in countries such as Egypt, Jordan, Kuwait, Saudi Arabia and the UAE. With the increased utilization of CAM has created a growing interest among the general population towards CAM. CAM therapies such as traditional Chinese medicine, chiropractic and homeopathy are being officially recognized in these countries.

Shalaby et al from Egypt and Al Sudairy et al from Saudi Arabia have documented utilization of CAM therapies among children from the Middle East. The use of complementary and alternative medicine (CAM) is becoming more common, but studies-based on the acceptability of CAM use among children are limited. The utilization patterns of CAM among children can provide useful insight into the current trends in use of CAM in the society. The health care providers need to be aware of the concurrent utilization of CAM by their patients. Hence, the study aimed to determine the utilization pattern of Complementary and alternative medicine (CAM) by parents for their children in Ajman, UAE.

**MATERIALS AND METHODS**

This cross sectional study was carried out among parents attending Parent–Teachers meeting at schools in Ajman, UAE. The study was approved by the GMU ethics Committee before start of the study.

Data collection was based on a self-administered structured questionnaire that was distributed among the parents after obtaining their written informed consent. The questionnaire included questions about demographic characteristics of parents (Age, gender, educational qualification, nationality) and child (age, gender) and details of utilization pattern (diseases treated with CAM, type of CAM, route of therapy, indication).

The collected data was analyzed using SPSS, version 20. For cross-tabulation and computation, statistical significance using 95% confidence interval (CI) was calculated. The chi-squared test was used for the comparison of different categorical groups with a P-value < 0.05 considered to be statistically significant.

**RESULTS**

A total of 136 parents participated in the survey. Of the total 138 parents, mothers constituted the majority (67.6%) and fathers (32.6%). The parent’s age ranged between 20-55 years. Based on the ethnic groups, Asian parents were 30.4% of the total and parents of Arab ethnicity 53.6%. About 57.2% of the parents were graduates. About 31.2% parents had one child, 30.4% had two children and 38.4% had three or more children. The outline of the socio-demographic details of the parents interviewed have been presented in table-1.

Utilization of CAM among their children was reported by 73 (53.6%) parents. It was noted that parent who had used CAM for the first child 73 (53.6%), also reported to use CAM in their subsequent children (2nd child-71 (52.2%) and 3rd child-71 (52.2%).

The common clinical indications reported by the parents for the use of CAM therapy were gastrointestinal disorders and respiratory disorders followed by fever, and dermatological conditions. The CAM therapies reportedly used in children in the descending frequency were herbal medicine, dietary supplements, prayer, homeopathy and massage therapy.
Table 1: Demographic variable of parents included in the study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub group</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>45</td>
<td>32.6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>93</td>
<td>67.4</td>
</tr>
<tr>
<td>Age group</td>
<td>&lt;=35 years</td>
<td>42</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>36-50</td>
<td>72</td>
<td>52.2</td>
</tr>
<tr>
<td></td>
<td>50+</td>
<td>24</td>
<td>17.4</td>
</tr>
<tr>
<td>Nationality</td>
<td>Asian</td>
<td>42</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>Arab</td>
<td>74</td>
<td>53.6</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>22</td>
<td>15.9</td>
</tr>
<tr>
<td>Education</td>
<td>Below Graduation</td>
<td>46</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>Graduation</td>
<td>79</td>
<td>57.2</td>
</tr>
<tr>
<td></td>
<td>Above Graduation</td>
<td>13</td>
<td>9.4</td>
</tr>
<tr>
<td>Number of children</td>
<td>1</td>
<td>43</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>42</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>20</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>&gt;3</td>
<td>33</td>
<td>23.9</td>
</tr>
</tbody>
</table>

Table 2: Association between ethnic groups and parents educational level.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Subgroup</th>
<th>CAM use</th>
<th>Percentage</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nationality</td>
<td>Asian</td>
<td>21</td>
<td>50.0%</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Arab</td>
<td>39</td>
<td>52.7%</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>13</td>
<td>59.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Below Graduation</td>
<td>23</td>
<td>50.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduation</td>
<td>43</td>
<td>54.4%</td>
<td>NS</td>
</tr>
<tr>
<td>Education</td>
<td>Above Graduation</td>
<td>7</td>
<td>53.8%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: CAM therapies used by parents for their children
In contrast, other therapies including acupuncture and meditation were uncommon. The details of the types of CAM used by parents for their children had been illustrated in figure-1.

Internal route of administration of CAM therapy was used by 56.6%, external routes 22.9% and both routes by 22.9%.

Based on ethnic groups, utilization frequency of CAM therapy was similar among Asians, Arabs and other groups (50%, 53%, and 59% respectively). Similarly, the utilization frequency of CAM therapy was similar among parents with school education, graduation and post-graduation (50%, 54.4%, and 53.8% respectively). CAM was recommended by family members in 48% of parents. About 47% parents reported good results and 30% excellent results with CAM in their children. Of the people who used these therapies, 76% reported either family or friends as their primary source of information regarding CAM.

DISCUSSION
In this study we investigated the utilization pattern of CAM in children through a questionnaire filled in by the parents. About 73(53.6%) parents reported to have used CAM among their children in the present study. In a multicenter survey on the CAM use among children in Italy, utilization rate of 38% was reported by the parents15. Shalby et al from Egypt the overall use of complementary/alternative medicine among rural children of about 44%13. Since CAM is culturally acceptable in the Middle East and Herbal Medicine has now been incorporated in the National Health Services alongside the conventional medicine especially in countries such as the UAE, this finding of utilization rate of 53.6% observed in the study could be expected12.

It was noted that parent who used CAM for their first child 73(53.6%), also reported to have used CAM in their subsequent children (2nd, 3rd child-71(52.2%) each). This finding suggests that the benefits observed with CAM therapy in the first child could have motivated them to use the therapy in the subsequent children as well.

Nearly 80% of the parents reported giving their child herbal medicine among the various forms of CAM therapies. This was followed by dietary supplements, prayer, and homeopathy and massage therapy. A similar finding was also reported from another study from Egypt among children 13. Al Sudairy reported prayer, spiritual therapy and dietary supplementation were the most frequent CAM used for children with cancer14. Because herbal products are a rapidly growing market, especially in the Middle East would document higher rates of use 16.

The educational profile of parents who used CAM for their children revealed that they were slightly higher among those with higher education (graduation and postgraduation). This finding is in accordance to Dolceamore et al reports from Italy15. A more qualified level of education corresponds to an economically best-paid profession and this is to influence the therapeutic choices made by parents.

In the present study, gastrointestinal disorders, respiratory disorders, fever, and dermatological conditions were the frequent clinical conditions in children that necessitates use of CAM by parents. This finding is at par with several previous studies reported from across the world where in gastrointestinal disorders and respiratory disorders were the most frequent reasons for use of CAM in children (Dolceamore TR et al, Barnes PM et al, Davis MP et al, Birdee GS et al, Vlieger AM et al, Madsen H et al)15,17-21. In contrast, numerous other studies have highlighted the use of CAM therapies among pediatric patients with chronic illness3-11. Since the study setting was not among the pediatric patients visiting a pediatric clinic, this observation was not noted in the present study.

The limitations of this present research include the subjective nature of the data
influenced by recall bias common to questionnaire based studies. However, questionnaires have frequently been used in research due to the feasibility with regards to cost and time expenditure. The observations of the study cannot be generalized to the entire nation as the sample size included in the present research was relatively small. The questionnaire was kept very simple and all the CAM systems were enlisted to provide a clearer definition of the CAM therapies to the respondents for more specific data.

CONCLUSION

A wide variety of CAM therapies were reportedly given to pediatric population, in accordance to previous reports from the Middle East. Herbal medicine was the common CAM therapies in the study. Utilization of CAM by parents for their children was similar in different ethnic groups and parents with different level of education. It is therefore important for health care providers to have knowledge about herbal medications, to inquire about their use and to educate families about the risk/benefit of these products.

REFERENCES


