



Implementation of Integrated Management of Childhood Illness Community Component (IMCI-CC) in Oman: A Situation Analysis

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ABSTRACT

Objective: To identify the baseline data for selected key family practices for implementing the Community Component of IMCI in the Muscat Governorate, Sultanate of Oman. For this purpose, we conducted a situation analysis to assess the adherence to the key family practices. **Methods:** A pre-tested structured qualitative questionnaire was developed. Data were collected from the participants (mothers) with an Anti Natal Card Number (ANC) living in the Muscat Governorate. The data collection started from January 2014 and concluded in December 2014. The 12 key family practices were adopted from World Health Organization (WHO) and modified according to the Omani context. Capacity building to perform the field survey followed this. The capacity building was based on identifying the regional focal points along with the task force that consisted of head of Health Education in each district (Wilayat) and identifying the Community Support Groups (CSGs). The task force was trained to reach out to the participants and get the responses on a voluntary basis. **Results:** Only 9% of the participants were exclusively breast-feeding their infants, 26% reduced feeding when their children had diarrhea while 6% stopped feeding their child completely, 19.1% did not know how to prepare Oral Rehydration Solution (ORS), 61% took their child to a medical facility immediately when there was cough or cold, 22% started complimentary feeding before the age of 6 months, 12.7% did not know about the WHO recommended total calorie intake for their child, 15.5% did not have any idea about the dietary requirements for their children, 39% stated that if their child had diarrhea, they would not change the diet, 12% stated that they had no idea about the general danger signs, 55.8% stated that cough and cold was a direct consequence of exposing the child to cold weather, 23% stated that in a situation where their child was not improving, they would immediately change the doctor. **Conclusion:** The findings indicate that there is an urgent need to implement Community Component of IMCI (IMCI-CC) in the Sultanate of Oman.

Keywords: IMCI, WHO, Family practice, Situation analysis, Qualitative survey

INTRODUCTION

Childhood illness adds significantly to the disease burden globally especially in the low- and middle-income countries [1]. Millions of children under the age of 5, die from common preventable diseases. To overcome this challenge, the Integrated Management of Childhood Illness (IMCI) was developed as an innovative strategy funded by the World Health Organization (WHO) [2]. IMCI focuses on an integrated medical education and training approach in the area of Pediatrics. It aims to contribute to the growth, development, and general well-being of the children. The strategy promotes quick assessment, classification, and efficient management of the preventable diseases through improved nutrition (e.g. breast feeding), vaccination and emergency cases [3]. It has three major components that lead to improved skills of the healthcare professionals through case management training, better healthcare system by strengthening health planning at regional level through the provision of support, and improved referral systems and better family/community practices [4-10].

IMCI is delivered through multidisciplinary group under the umbrella of Primary Health Care (PHC), such as nursing, immunization, pharmacology, quality control, dietitians, health educators, community support groups and doctors. These stakeholders support implementation of IMCI strategy and there has been significant work in their respective fields [10-16]. IMCI Community Component (IMCI-CC) has played a vital role in attaining and sustaining the 4th millennium development goals, and improving the quality of life and health of the children [14,15]. However, this

achievement calls for a partnership between the health systems and families and communities. Therefore, investing in improving child healthcare related practices for community and family would empower them to play an active role in caring for children.

METHODS

We obtained ethical approval through the Ethical Review Committee from the Ministry of Health, Sultanate of Oman. In addition, an Informed Consent was obtained prior to the participation in the survey. A written consent form was read in Arabic (the local dialect) to all the participants prior to receiving their responses. The study was conducted in Muscat Governorate, which is the capital area Oman. The governorate consists of six districts. We chose Muscat Governorate because it comprises of approximately 1/3rd of the total population of the Sultanate. In addition, the population represents a mix of citizens from all the regions of the Sultanate of Oman. Baseline data was essential to plan and implement IMCI-CC, however, we found out that there was almost a complete lack of such data that was fundamental for selecting key messages for implementation.

Hence, the first logical step was to gather baseline data about the key family and community practices through a qualitative survey. The other major objective of the study was to find out the best possible methods to integrate IMCI-CC into Oman and its healthcare system. After the expansion of the first two components of the IMCI in several countries including Oman, we focused on evaluating the situation and scope for the third component i.e., IMCI-CC. This research was designed to understand the socio-economic indicators and, existing knowledge, attitudes and practices of mothers relating with their children's health. This research approach is consistent with the one performed by Agha, et al. [8].

The survey aimed to identify and select effective instructions based on the primary needs in the Muscat Governorate where the IMCI strategy was being implemented. The major objectives of the situation analysis were to:

1. Review the available information as key family care practice on 12 key practices.
2. Review the priority needs of a family.
3. Review the existing instructions for the community.
4. Review the health education situation, communicable material and activities.
5. Review existing (if any) successful approach to involve communities in Oman.
6. Review the data on caretaker satisfaction.
7. Review the information on health providers' satisfaction.
8. Identify existing and potential commuting structures and channels that link the community healthcare system.
9. Identify the information groups.

We communicated with the WHO representatives for the Sultanate of Oman to inform them about the study and requested for their technical and logistical support. A task force comprising of 5 experts from Ministry of Social Development, the Women Association of Oman, Ministry of Health, WHO representative for Oman and an epidemiologist developed the preliminary questionnaire keeping in mind the above said objectives for the situation analysis. The questionnaire was validated by a pre-study filed test by professionals in all the major healthcare centers in the Muscat Governorate. Minor modifications were made after the validation.

For data collection, we first identified the regional focal points that were going to be responsible for the logistical and technical support for the entire research team. In addition to the regional focal points, we identified focal points for each studied district. This was followed by the identification and selection of community support groups (CSGs) in the Muscat Governorate. Each member of the CSG was trained on IMCI-CC for one week. Data collection started from January 2014 and concluded in December 2014. In all, we received 1961 completed questionnaires (N=1961) upon completion of data collection; we performed statistical analyses using SPSS version 19 focusing on frequencies, percentages and cumulative percentages. We opted for these basic statistical approaches because firstly our study is exploratory in its approach and secondly, we wanted to identify how often a given response option occurs.

We split the participants' demographics based on education, marital status, occupations and monthly incomes. From the total participants (N=1961), 18% completed tertiary education, 43% completed secondary school, 18% completed primary school, and 4% could read and write while 8% were illiterate. In terms of marital status, 98% were married, 1% was divorced and 1% was widowed. From the 1961 participants, 74% were housewives, 18% worked for the government sector, and 8% worked on shift basis. Regarding monthly incomes, 33% earned more than 800 RO, 25% earned between 301 - 800 RO, 4% earned between 101 - 300 RO while 2% earned 100 RO per month.

RESULTS

The mean ± standard deviation (SD) age of the children and mothers were 23.5 ± 12.4 months and 30.1 ± 5.2 years respectively. The main findings about knowledge, practices and skills regarding the key IMCI-recommended family practices are as below:

Only 9% of mothers were exclusively breastfeeding their children, 31% were breastfeeding their children for more than 6 months, 5% were breastfeeding their children for less than 40 days, 7% were breastfeeding their children for 40 days, 23% breastfed their children from 4-5 months, 16% breastfed their children for 6 months, 23% gave water to their children before 6 months of age, 18% were breastfeeding their children from 2-3 months, 22% gave biscuits before 6 months of age, 19% gave artificial milk before 6 months of age and, 7% of mothers gave their children tea before 6 months of age (Figures 1 and 2).

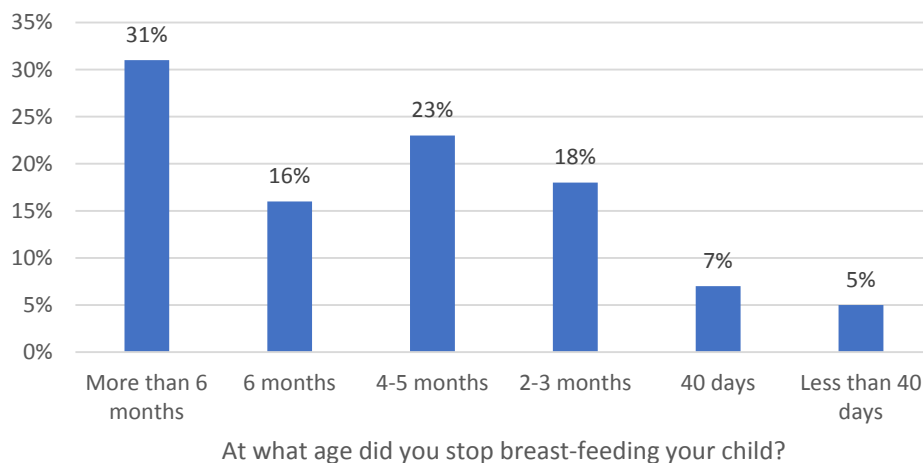


Figure 1 Percentage of responses when asked about the child's age at which mothers stop breast-feeding

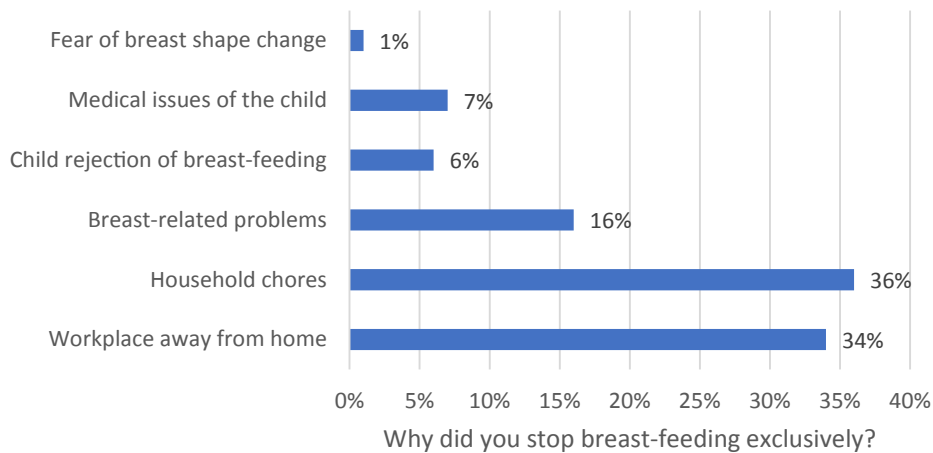


Figure 2 Percentage of responses when asked about the reasons of stopping breast-feeding exclusively

A high majority of mothers (70%) went to health centers immediately when their children had diarrhea, 3% stopped breast-feeding when their child had diarrhea, 12% reduced breast-feeding when their child had diarrhea, 42% did

not change breast feeding routine when their child had diarrhea, 6% stopped feeding their child when the child had diarrhea and 26% reduced giving complementary food when their child had diarrhea (Figures 3 and 4). A significant observation was that 8.2% of mothers did not know about ORS practice, 19.1% did not know how to prepare ORS liquid and a dominant 60% did not know when to give ORS as the first line management of diarrhea-related diseases.

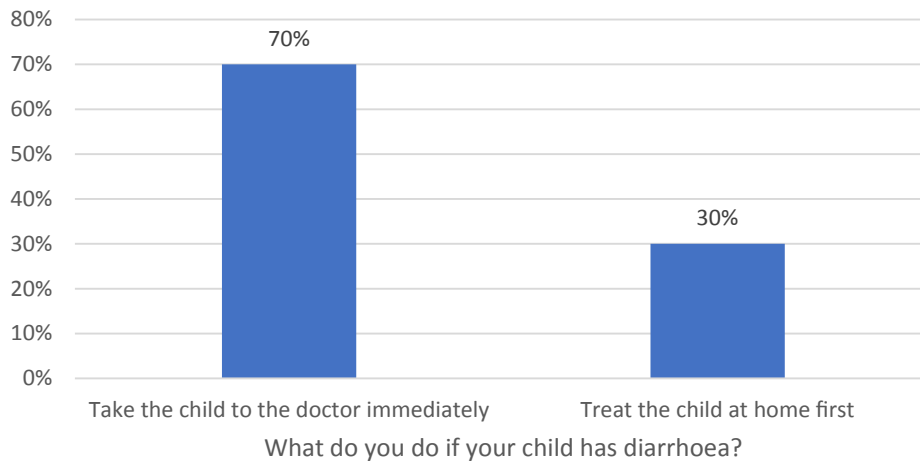


Figure 3 Percentage of responses when asked about mothers' reaction towards diarrhea

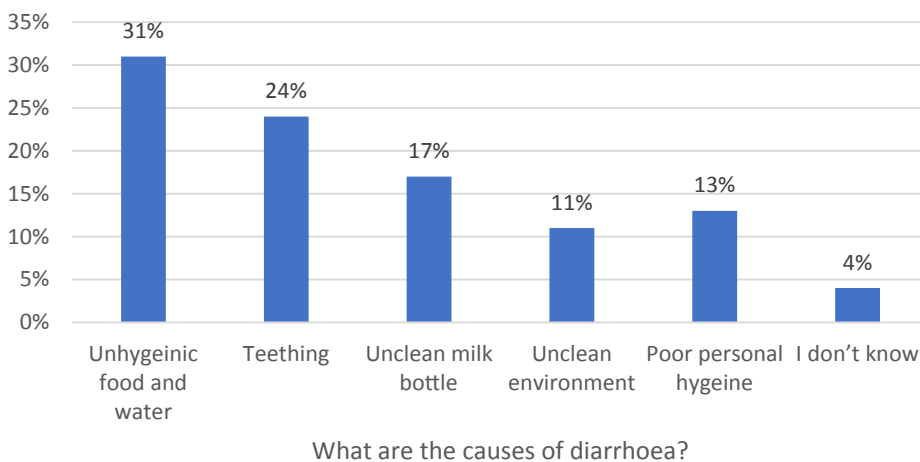


Figure 4 Percentage of responses when asked about causes of diarrhea

The findings highlight that 61% of mothers went to healthcare facility immediately whenever their child had cough or cold, which is not recommended action step as it would be better for a mild ARI to start with a home remedy management rather than exposing the child to possibly infectious environment, 20% reduced breast-feeding and normal feeding their children when they had cough or cold, and 49% kept on breast-feeding and giving complimentary feeding their children the same way, when they had cough or cold. When asked about the common causes for cough and cold, a high majority (32%) stated that it was because of exposure to cold weather while (30%) stated that cough or cold are because of chest problems. Interestingly, 18% of the participants did not know the causes for cough and cold.

DISCUSSION

The IMCI recommended household practices can play a pivotal role for improved childcare health and hence there was a need to analyze the situation of knowledge and family practices in the Sultanate of Oman. There are sixteen family and community practices that are recommended by IMCI-CC experts. Some of the key practices include to breastfeed infants exclusively for no less than 4 months, to make sure that children consume adequate portions micro-nutrients, that the children are immunized as per the schedule, that the sick children should be given appropriate treatment when at home, appropriate actions should be taken in case of injuries, and if the sickness continues, the

child should be taken to the medical professional [8]. In a study, Pariyo, et al.4 investigated the effect of IMCI on the quality of care provided to children under the age of 5 years. The study revealed that IMCI case management training lead to significant improvements in the quality of care. However, the authors argue there are other factors (training, supportive policies etc.) that contribute to the overall effective implementation and desirable outcomes of IMCI [4].

Other studies have indicated that a community at large could benefit from the IMCI-CC. In a study, Ebuehi [5] investigated the effect of the IMCI on growth and development of children under the age of 5 years. Using a cross-sectional comparative study approach, Ebuehi found out that there are evident benefits of IMCI-CC for the community especially in improving child health [4,5]. Literature also indicates that IMCI-trained workers are better in assessing, classifying, counseling and treating the sick children [6]. This supports the assumption that IMCI-CC will improve the Knowledge, Attitudes and Practices of the families and communities.

The results from this study provide strong evidence that IMCI-trained healthcare workers provided significantly higher quality of care to the sick children.6 Nevertheless, gaps remain in the role of families and communities in improving child healthcare using the IMCI-CC approach. In the Omani context, more evidence is needed using various research approaches. Literature provides noteworthy evidence about the impact of IMCI-training on community health workers.7 The family and community, if trained properly, can play a vital role in improving child health standards. There is strong evidence in IMCI-related studies that highlights the importance educating parents [8,9]. The importance of educating young women and the impact on their children's health is strongly advocated [10-12].

Although research indicates that there is a positive correlation between educated women and healthy children [8], however, presented work shows a strong contrast when it comes to the educational and socio-economic background of women and desirable healthcare practices. For example, 61% of the total sample population had secondary or tertiary education; 98% of them were married and 74% were housewives. Despite a decently high level of education, being married and spending most of their time at home, only a 9% of the participants reported that they were breast-feeding their children, 31% stated that they breast-fed their children for more than 6 months, 5% reported that they breast-fed only for 40 days. This is clear evidence that a decent education level and socio-economic stability without appropriate healthcare training would not lead to the desirable family practices as recommended by the IMCI-CC.

There could be various reasons behind the evident disparity in the expected family practices. For example, a majority of the participants stated that they were concerned about their child being too much dependent. In addition, surprisingly, some of the participants were concerned about the shape of their breasts hence avoiding breast-feeding their children. Like any other research, presented work has its limitations. A significant limitation of presented work is that the data was collected in the year 2014. However, it is our argument that the IMCI-CC approach has not been changed since its initiation. In addition, there is no other study that highlights key family practices beyond the year 2013. Another limitation is that we have reported basic statistics limited to percentages. This is because our focus is on highlighting the key family practices without going into details about any possible correlations. However, we will extend the work in future with detailed statistical analyses.

CONCLUSION

It is well-known that if a child is suffering from diarrhea, the mother should increase breast-feeding frequency [13]. However, increased food intake of a child when suffering from diarrhea is also essential for reducing malnutrition as well as any long-term effects of diarrhea [8]. However, presented work shows that 26% of mothers reduce feeding when their child has diarrhea. In addition, 12% reduce the frequency of breast-feeding when their child has diarrhea. It was surprising to note that 70% of the mothers would immediately take their children to a medical facility, which means that they heavily rely on the medical advice and prescriptions but do not pay attention to the importance of feeding their children appropriately. Based on these findings, we argue that the standards of family knowledge, attitude and practice in the Oman are unexpectedly low that makes a strong case for incorporating IMCI-CC component in the Sultanate.

DECLARATIONS

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