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The role of mothers in the management of childhood diarrhoea in Nepal

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REVIEW

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Abstract

Diarrhoea is a leading cause of childhood morbidity and mortality in Nepal, a developing country where the larger proportion of the population live in rural areas. Poverty, illiteracy, lack of health care facilities at local level, demographical distribution and traditional beliefs are the major obstacles for getting proper and timely healthcare. There is a necessity to consider the cultural beliefs of different ethnic communities before designing any educational protocol or guideline. Educational protocol or guidelines which respect the local cultural beliefs and stimulate the utilization of their locally available facilities can be easily accepted and would be more suitable to achieve the objectives.

Introduction

Diarrhoea is common in children under five years of the age in Nepal. There may be several reasons for the higher incidence of infant as well as maternal mortality in Nepal and other developing countries, but one of the main causes of child death in Nepal is diarrhoeal disease [1]. Childhood mortality rate is higher in families which are poor, living in rural areas and whose mothers lack basic education [2]. Diarrhoea is about 13% higher in rural children than urban in the age group between 6 to 23 months. Moreover, there is a higher incidence of diarrhoea in children with uneducated mothers as compared to those whose mothers have some primary education. It was further found that knowledge about ORS was less among younger mothers (15 to 19 years) than their older counterparts especially in rural settings [3]. Nepal Demographic and Health Survey (NDHS) 2006 found that about one half of the children with diarrhoea under the age of five are not taken to the health care centers [4].

Childhood morbidity and mortality due to diarrhea

The prevalence of childhood diarrhoea is high especially in rural communities of Nepal. A study by Jha et al. indicated that about 45,000 children less than five years of the age die due to diarrhoea in Nepal annually [5]. Recently, hundreds died in far western districts of Nepal due to a diarrhoea epidemic. According to a news website in Nepal, Jajarkot district has been affected very badly with 150 dying in the month of July, 2009, with around 6,000 severely affected in Jajarkot and surrounding districts like Rukum, Dang, Rolpa and Salyan in the year 2009 [6].

Government action plan for diarrhoea in Nepal

The government of Nepal has a long term health plan (1997-2017) targeted to benefit the most vulnerable populations, namely women, children and those who are poor, under-privileged, marginalized and live in rural areas. It also 'aims at equitable access by extending quality services to remote areas with full community participation and gender sensitivity by technically competent and socially responsible health personnel'. The plans of the government are to increase the use of oral rehydration solution (ORS) & zinc and to increase awareness in the people to achieve the Millennium Development Goal-4 [7].

Research on childhood in Nepal

The NDHS 2006 showed that the point prevalence of diarrhoea is higher in monsoon (April to August) [4]. It also added that about 50% of diarrhoeal cases were treated at home without any medication while only 13% received ORS. A comparison of NDHS 2001 and 2006 showed a decreasing order in the use of ORS for managing childhood diarrhoea. There is a common tendency among the mothers to seek health care only when the case becomes serious [8, 9]. Rehan et al. found an unsatisfactory level of knowledge, attitude and practice of mothers regarding diarrhoea and its management. There was less preference towards fluid consumption during diarrhea [10] and one of the reasons for this is the directive of child's grandparents [8]. A study by Das et al. found that drug sellers are the major site of consultation (80%) for diarrhoeal illnesses and moreover, their knowledge about diarrhoea and its management was very unsatisfactory [11].

Beliefs and barriers about diarrhoea and its management

Several studies have found that there are different traditional beliefs, barriers and practices about childhood illnesses and their management at local level as perceived by different communities. Practices such as reduction in breast feeding, restriction of foods and fluids, use of enema and selected herbs as well as belief on magical

power were observed in caregivers [12-18]. Goldman et al. added that health seeking behavior and the choice of treatment are affected not only by the traditional beliefs, but also by socio-demographic factors, distance of modern health care facilities and the type of health care providers [19]. Stone highlighted that there is a negligence of caregivers' traditional beliefs and practices at primary health care level in Nepal [20]. In rural settings of developing countries, there are many factors like availability of health services/providers, out of pocket expenses, occupation, income, geographical location and transportation facilities which act as barriers for caregivers to have access to the modern biomedical approaches. Therefore, it would be worthwhile to understand the caregivers' traditional beliefs before designing an intervention.

Research based approach to minimize childhood diarrhoea related morbidity and mortality

It has been realized that even knowledge and education (qualification) are not enough for mothers to manage childhood diarrhoea. There is a need to understand the caregivers' belief patterns about a particular health illness followed by interventions to modify their beliefs, practices and their responsibilities. As the design of the study is interventional, the interventional guideline is required to be based on caregivers' traditional beliefs pattern for maximal acceptability of the educational information. The methodological experts should be consulted during the development of the interventional guidelines. The questionnaire for KAP should be pre-tested and chronbach's alpha value should be determined for reliability. Similarly, validity should be determined through sending the questionnaire to a panel of research experts and also through factor analysis. Bentley reported that in rural north India which is socio-economically and culturally similar to the southern Terai region of Nepal, a drastic decline in use of ORS occurred when mothers who thought ORT was a medicine that would cure diarrhoea did not stop the episode [21]. According to her interventional studies at community level should therefore be targeted to the mothers with especial emphasis on explaining the function of ORS in diarrhoea to replace lost fluids, and not curing the condition. The authors hereby propose a model of research (Figure 1). The results of this type of study will help to reduce diarrhoea related child morbidity and mortality significantly.

Importance of educational materials for mothers on childhood diarrhoea management

As mothers are the target population of the study who reside in rural areas and are mostly illiterate, interventions facilitated by educational materials using pictogram or pictograph using posters, photos and other visuals relevant to diarrhoea would be very helpful to them. There is a saying that 'actions or signs speak louder than the words' and the authors realize that this is more suitable in this setting.

Expected outcomes

The intervention given to the mothers may modify their beliefs; upgrade their knowledge about the importance of ORS and other home made foods as well as fluids in the management of diarrhoea. This may prove to be the most feasible and economical method of childhood diarrhoea management in developing countries.

Implications and further research

As the caregivers' traditional belief system is generally neglected in most of the KAP studies, the strong implication of the study is to consider the caregivers' traditional beliefs before designing the questionnaire and interventional protocols. The negligence of local traditional beliefs during the designation of the protocols might be one of the reasons for less effectiveness of Nepal government's strategy to reduce childhood mortality through promotion of ORS. The results of the study may help the government and other concerned organizations to conduct further studies related to cultural beliefs on large scale or at national level to design the protocols as per the need of the different ethnic communities.

Conclusion

It can be concluded that there is a preferential need to consider the cultural beliefs of different ethnic communities before designing any educational protocol or guideline. The results of educational interventions designed as per the local cultural beliefs and which best utilize the local available food items and resources would be very effective in reducing the childhood mortality.

Limitations and strengths

There is diversity in the cultures of Nepal. Therefore, it is a difficult task to determine the cultural beliefs of each ethnic community. On the other hand, the determination of cultural beliefs will be very helpful to design the most effective interventional protocols.

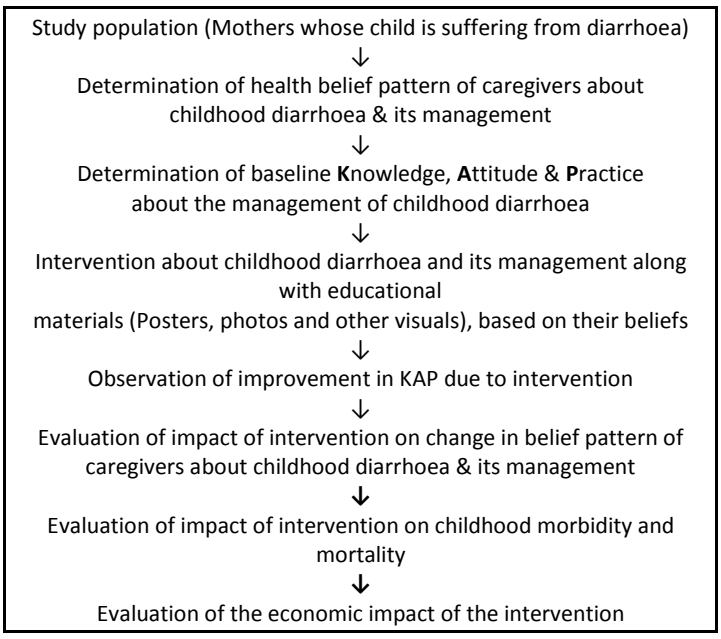

Figure 1. Research approach to minimize diarrhoea related child morbidity and mortality in Nepal

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CONFLICTS OF INTEREST

The authors have no conflict of interest to declare.