

Role of Health Education Material on Maternal Knowledge and Practice - A KAP study

Mishra BN*, Sinha ND**, Salam A***, Soodan KS****

Abstract

A prospective, interventional study was carried out to evaluate the outcome of printed health education (H.E.) material in bringing about changes in the knowledge, attitude and practices (KAP) in 850 literate mothers whose infants were hospitalized for various ailments. It was observed that there was a significant improvement in the knowledge and practices of mothers under study group regarding various aspects of child care, like, personal hygiene, causation of diarrhea, acute respiratory infections, importance of immunization, breastfeeding and weaning. No such changes were observed in the control group. It was also observed that this changed knowledge and practices in the study group, was retained on subsequent follow-ups. Therefore we are of the opinion that not only should printed health educational material be distributed from the reception counters, nursing stations in hospitals and different health care providing centers, but a proactive effort should be made to see that they are read and understood by the patients, their attendants and visitors; in order to have the desired lasting effect.

Key Words: *Printed health education material, proactive approach, knowledge and practice, childcare.*

Introduction

Provision of health education is one of the most important components of patient care, but unfortunately, it is most neglected[1,2]. At each contact with the patient and their attendants, an effort should be made to impart health-related information so that they become aware about health related matters. One of the important periods for imparting health education is when the child is sick for any reason. It is found that the mother is much more receptive to advice at that time[2,3]. Modalities for imparting health education are many. In this study, the tools used to impart health related information was in the form of pamphlets, posters and leaflets. These materials were designed differently, keeping in mind the different aspects of child-care under study.

Materials and methods

The present study was carried out in two different settings. The study groups were evaluated in the Pediatric ward of a Medical College and Hospital and also in their homes after the infants were discharged. The control group was studied in their homes after two weeks of hospital discharge from their wards. Period of the study was from 1st of January 2006 to 30th June 2006. at a Medical College, Hospital, is one of the two medical college hospitals providing tertiary health care in North West Karnataka. This region is also one amongst the most under-developed regions in Karnataka; with very low literacy rates and high poverty[4]. In this study a mother who could read and write the local script was considered literate. Mothers of critically ill children and uncooperative mothers were excluded from the study. Out of the selected 850 whose children were admitted to the hospital, the first 400 mothers were enrolled as control group and the subsequent 450 mothers as study group. A standardized questionnaire, drafted in local language was used for the purpose of both pre-test and post-test evaluation, for both study and control groups. The questions were framed on factors responsible for causation of diarrhea, acute upper respiratory tract

* Associate Professor, Dept. of PSM, RMC, Loni.

**Associate Professor, Rural Dental College, Loni

*** Professor, Al-Ameen Medical College, Bijapur

**** Principal, RMC, Loni.

Corresponding Author :

Dr. B.N. Mishra,
Associate Professor, Dept. of Preventive and Social Medicine,
Rural Medical College, Loni, Pin - 413736

infection, role of hygiene and immunization in disease occurrence and prevention and importance of breast feeding and weaning, in prevention of pediatric malnutrition. Responses were recorded, grouped and coded, and the total score was calculated out of 100.

Study group

Mothers in this group were pre-tested with the questionnaire in the hospital as soon as the condition of their child was stable. After this, the health education material in the form of pamphlets, posters and leaflets, designed separately for conditions under study, were handed over. After routine ward rounds, the mothers and attendants of this group were made to sit in a hall and their queries arising out of the health education material were clarified. One such session was for a period of 45 minutes.

Control group

The mothers in this group were pretested at their home within two-weeks of discharge of their children from the hospital, using the same questionnaire. This was done to eliminate the influence of hospitalization/contact with medical personnel. The health education material was distributed only after all the mothers were pre-tested, but no effort was made to clarify queries or discuss information provided through the distributed health education material.

The mothers of both the groups were post-tested as follows:

For the study group as specified above, post-test 1 was carried out in the hospital between 24 hrs and 48 hrs of distribution of health education material. Care was taken to ensure that the respondent mothers attended at least one of the routine post ward round discussions before taking post-test 1. Post-test 2 in this group was carried out after two weeks of Post-test 1.

Only one post-test was done for the control group after 2 weeks of distribution of health education material. The average scores of the study group in pre test, post-test 1 and post-test 2 are shown in table I. It was observed that there was a significant difference of average scores between pre test and post-test 1 but no significant difference was observed between post-test 1 and post-test 2. The average scores of control group on pre-test and post-test is shown on table II. It was seen that there

were no significant differences between the scores in pre and post-tests. In table HI, the results of post test 2 in study group and post-test in the control group was analyzed. It was observed that there was a significant difference between the average scores of both the groups in their knowledge, attitude and practice for different conditions under the present study.

Discussion

In the present study an attempt has been made to evaluate the efficacy of health education material in improving the knowledge and practice regarding various aspects of childcare. In the first part of the study, involving the study group, it was observed that the differences in response of the pretest and post-test 1 were significant. This suggests that the health education material was able to convey the message to mothers regarding various aspects of improving childcare. The changed and retained knowledge and practice was evaluated by asking them relevant questions and to demonstrate procedures like preparing and feeding weaning food, checking the entries in the immunization card and observing breastfeeding, food processing and cooking practices. It is also worth mentioning that responses at post-test 1 and 2 were similar, indicating there-by, that the changed knowledge and practice gained by the mother was retained. All mothers in the study group, irrespective of their educational status, benefited from the health education material. Similar results were obtained from studies conducted in rural India and in U.S.A.[5]. In the second part of the study an effort was made to exclude the effect of hospitalization, contact with health care providers and an immediate post test as the causative factor in bring about changes in the knowledge and practice among the control group. It was observed that the difference in response of the control group at pretest and post-test was statistically not significant. This implied that hospitalization as such, and only distribution of EC materials, without ensuring that they are actually read, understood and clarified; had no effect on the knowledge of the mother. While comparing results of the post-test 2 of the study group and the post-test of the control group, highly significant differences were observed. This again highlights the importance of the active effort required to ensure that whatever health education material is distributed is actually read and understood by the target group.

Table I : Average scores for various aspects of childcare among study group (n=450)

Condition	Pre-test Avg score (SD)	Post-test 1 Avg score (SD)	Post-test 2 Avg score (SD)	P - value Pre-test & post test 1	P-value Pre-test & Post test 2
Causation of A.R.I.	62.3 (7.8)	86.7 (9.6)	90.4(8.9)	0.0012	0.024
Causation of Diarrhea	43.5 (9.4)	82.9 (6.8)	81.4(5.2)	0.0170	0.380
Immunization	74.6 (6.9)	91.2(7.4)	90.4 (8.9)	0.0015	0.190
Personal hygiene	71.1(5.8)	93.2 (8.2)	89.1 (7.8)	0.0260	0.160
Breasting feeding	62.1 (5.3)	79.6 (8.2)	80.3 (7.2)	0.0070	0.470
Weaning	29.9(11.5)	58.4 (8.7)	57.6(6.1)	0.0040	0.530

Table II : Average score for various aspects of childcare among control group (n=400)

Condition	Pre-test Average Average Score (SD)	Post-test Average score (SD)	P- value
Causation of A.R.I.	60.0 (3.9) 41.3(5.4)	70.4(4.1) 44.3 (5.2) 77.7	0.051 0.130 0.160
Causation of Diarrhea	75.2(5.1) 70.2 (4.3) 56.2	(4.8) 78.1 (3.8) 63.5	0.057 0.071 0.120
Immunization Personal Hygiene Breasting feeding Weaning	(3.6) 36.4 (6.5)	(3.3) 40.7 (6.3)	

Table III : Average score of various aspects of childcare in post-test of both the groups.

Conditions	Control group Post-test Average score (SD)	Study group Post-test 2 Average scores (SD)	P value
A.R.I.	70.4(4.1)	90.4 (8.9)	0.0013
Diarrhea	44.3 (5.2)	81.4(5.2)	0.0030
Immunization	77.4 (4.8)	90.4 (8.9)	0.0071
Personal Hygiene	78.1 (3.8)	89.1 (7.8)	0.0062
Breasting feeding	63.5 (3.3)	80.3 (7.2)	0.0039
Weaning	40.7 (6.3)	57.6(6.1)	0.0078

Conclusion

When the child is hospitalized, the mother is more likely to be receptive to health educational advice, especially about factors that can prevent the occurrence of the illness[1,2]. However, not many physicians and health care providers use this opportunity because of pressure of work or busy schedules. In such a scenario, printed health education material can provide an important and easy alternative medium for imparting health education[2,3]. Our results suggest that mothers do read and benefit from such material, when they are requested to carry it out, especially so, in a receptive environment, where they can brush up available information and have

their doubts clarified by competent authorities.

There is also an indirect advantage which can accrue from such an intervention. It is common practice that most hospitalized patients are visited by large numbers of relatives and friends. If printed educational material is made easily available and accessible for distribution and proactive effort is made to ensure that they are actually read and understood by the beneficiaries in the hospital, then the message is likely to reach a much wider audience.

Certain points need to be kept in mind while designing the material. Study of Johnson et al and Cathy et. al have demonstrated that health information should be compatible with reading ability of the target readers[4,5].

Illustrations and diagrams further enhance readability. For people of low reading ability, additional motivation through “proactive health education”, by the physician and other health care providers may be required. In spite of some limitations, printed health educational material can become a useful supplement to verbal health education provided by the physician. It also has a lasting effect. It can be stored and referred to time and again, to refresh knowledge, and thereby, help in developing a healthy attitude, which can finally be put to practice.

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