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Original Research Paper

Nursing

EFFECTIVENESS OF NURSE LED DISCHARGE INSTRUCTIONS ON KNOWLEDGE REGARDING HOME CARE MANAGEMENT AMONG PARENTS OF CHILDREN BEING DISCHARGED AFTER SURGERY

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ABSTRACT

Introduction: Children are regularly receiving surgical repair for congenital disorder's and other problems which cannot be treated by the medical management. For the parents of those children undergone corrective surgery, more in-depth educational sessions are required to enable them to recognize and anticipate the complications so as to manage their child effectively at home. **Methodology -** A Quasi experimental research design was used among 60 parents of children by purposive sampling technique. A Structured knowledge questionnaire was used to assess knowledge of parents regarding home care management. Analysis was performed in SPSS version 16 using frequency and percentage; mean, SD, an unpaired t-test, chi-square test, and Fisher exact test. **Result –** The study findings revealed that there is significant improvement in knowledge of subjects (-9.343, $p<0.05$) which proves that the nurse led discharge instructions was effective in improving the knowledge of parents regarding home care management. The study findings also reveal that there was no significant association of post-test knowledge with selective socio-demographical variables **Conclusion-** The present study point out the nurse led discharge instructions on knowledge regarding home care management being discharged after surgery was effective in increasing knowledge of parents

KEYWORDS : Knowlegde, Nurse led discharge instructions, Parent, Children, Surgery, Home care management.

INTRODUCTION

Gastrointestinal disease in the pediatric population is one of the most common and highly prevalent disorders. Gastrointestinal diseases include appendicitis, hernia, and intestinal obstructions. Most of the children can't accurately describe the symptoms of gastrointestinal disease, resulting in rapid aggravation of the situation and need immediate treatment and a high risk of mortality rate. Surgery is an effective treatment for this type of disease. However, surgery causes severe trauma and psychological pressure in both children and their parents.[1] Children are regularly receiving surgical repair for congenital disorders and other problems that cannot treated by medical management. Discharge planning in pediatric nursing can improve parent's knowledge and home care practice, confidence before discharge from the hospital, reduce the readmission rate of the children due to post operative complications, and promote the parent's competency.[2] It is seen that some children leave the hospital and return easily to their normal daily routines, but may not get over the effects of being in the hospital for surgical treatment a while. It's common to notice changes in the child's behavior on returning home, even if a child's surgery was minor.

The child may need extra comforting and understanding for a short period of time.[3] initially parents experience a mixture of shock, denial, fear, anger and intense sense of sadness for an instance their child was diagnosed with a disease treatment by surgical procedure. In spite of these emotions, they must learn to be competent in providing care to meet their child's special needs before and after surgery. Care of the wound, nutrition, safe administration of prescribed medications, exercise and activity, detection of early complications remains the aspects that are required to be learned by the parents. Written reference material in the form of an informational booklet, pamphlets, and a family discharge teaching can be provided to the family and care providers at the time of discharge to deliver quality care at home following discharge.[4] It is possible for the children to effectively recover while staying at home provided home care is delivered carefully.[5] Parental stress and anxiety are related to their child's health and welfare, economic hurdles and lack of family support. Parents have many unanswered questions and many doubts related to the care of the child at home after discharge from hospital because of health care professionals do not educate them adequately due to patients workload or some other reason. Parents of children's with surgery require basic information in the later postoperative period about caring for their children at home, after discharge from hospital especially regarding diet; medication, exercise, activity, follow-up, complication, detect early sign of complication, taking care of wounds and measures to reduce the risk of infection. Poudel Pramila et.al[6]

MATERIAL AND METHOD

A quasi-experimental, post-test only control group design was conducted on parents of children being discharge after surgery. Sample size was calculated from effect size($d=0.94$) obtained from pilot study for test power of 80% at 5% level of significance which came to be 30 subjects in each group. A non-probability purposive sampling technique was used to select the subjects. The inclusion criteria included: Parent whose children's underwent gastrointestinal surgeries like appendectomy, hernioplasty, intestinal obstruction surgery, parents who are willing to participate, parent's who can understand and read Hindi, children's scheduled for discharge, children's scheduled for follow-up after (1-2weeks)and age group 2-18 year. The instruments used in this study included a) sociodemographic b) Structured knowledge questionnaires to assess knowledge of parent regarding home care management (diet, exercise, complications, side effect of medication, care of incision site, follow-up etc) of children being discharged after surgery. One mark was given to right answer and zero mark was given to wrong answer. There was no negative marking. Knowledge level were categorized as poor (score <10), fair (10-20) and good (>20). Reliability was assessed using KR 20 and was found to be 0.87 and 0.73. The instruments was validated by 7 experts including 5 child health nurse specialists and 2 pediatric surgeon

The study was conducted in three stages:

A) The stage before intervention: - After obtaining ethical clearance. Out of 60 subjects, first 30 were allocated to the control group and next 30 to the experimental group.

B) The stage of intervention:-In this study nurse led

discharge instructions was used to achieve the objectives of this study.

C) The stage after intervention: - When the subjects came for the follow-up after 1-2 week, post-test data was collected.

D) Data were statistically analysed using SPSS version 16.

RESULT

Table I: - Demographical variables of the subjects in terms of frequency and percentage distribution in experimental and control group (N=60)

	Demographical Characteristic	Experimental group N=30 f (%)	Control group N=30 f (%)	χ^2
1	Age of child 2-5 Year 6-10 Year >11year	13(36.5) 9(30) 8(26.7)	17(56.7) 6(20) 5(16.6)	.21 NS*
2	Gender of child Male Female	22(73.4) 8(26.6)	25(83.4) 5(16.6)	.50 NS*
3	Diagnosis Hernia Appendicitis Intestinal obstruction	19(63.4) 6(20) 5(16.7)	15(50) 8(26.6) 7(23.4)	.19 NS*
4	No. of child 1-2 >3	21(70) 9(30)	29(96.7) 1(3.3)	.50 NS*
5	Gender of parents Male Female	18(60) 12(40)	15(50) 15(50)	.50 NS*
6	Type of family Joint Nuclear	16(53.4) 14(46.7)	17(56.7) 13(43.3)	.50 NS*
7	Education status Illiterate Primary Secondary High secondary Graduate and above	4(13.3) 10(33.3) 7(23.4) 3(10) 6(20)	1(3.4) 13(43.3) 9(30) 2(6.7) 5(16.6)	.22 NS*
8	Occupation Private Government Housewife	18(60) 3(10) 9(30)	19(63.4) 11(36.6) -	.19 NS*
9	Religion Hindu Muslim	28(93.4) 2(6.6)	28(93.4) 2(6.6)	.50 NS*
10	Background Rural Urban	27(90) 3(10)	20(66.7) 10(33.3)	.50 NS*
11	Income Above poor line Below poor line	24(80) 6(20)	28(93.4) 2(6.6)	.50 NS*
12	Type of surgery Emergency Elective	6(20) 24(80)	13(43.4) 17(56.6)	.50 NS*

Note: - NS* = not significant

The data presented in Table I shows that in the experimental group more than one thirds 11 (36.5%) of children were in age group between 2-5year. Out of thirty subjects, most of them 22 (73.4%) were males children. Among the selected subjects more than two half 19(63.4%) children were diagnosed and undergone hernia repair surgeries. The majority of subjects 21 (70%) had 1-2 children. Near two-thirds of participant subjects, 18(60%) were male parents. More than one thirds 10(33.3%) had primary education however, least 3(10%) had high secondary education. More than half of subjects 16(53.4%) were belonging to the joint family. Nearly two thirds 18(60%) parents had a private job. Most of the participants 28(93.4%) were Hindu. Out of thirty, 27(90%) participants were belonging to rural areas while few 3(10%) were residency in urban areas. The highest percentage of participants 24 (80%) had income above the poor line. Out of thirty surgeries, 24(80%) surgeries were elective.

In the control group, more than half 17 (56.7%) of children were in age group between 2-5year. Out of thirty most of 25 (73.4%) were males children. Half of sample 15 (50%) were diagnosed and underwent hernia repair surgeries. The highest percentage of subjects 29 (96.7%) had 1-2 children. Nearly half of 15(50%) participation of parent's male and female were equal. The majority of participants 13(43.3%) had primary education however a few 1(3.4%) were illiterate. More than half of sample 17(56.7%) were belonging to the joint family. Nearly two-thirds of subjects 19(63.40%) had a private job. Most of the participant 28(93.4%) were Hindu. More than two-thirds of 20(66.7%) participants were belonging to rural areas. The highest percentage of participants 28 (93.4%) had income above poverty line however few 2(6.6%) were below the poverty line. Out of thirty more than half of the surgeries, 17(56.6%) were elective.

Table II: Frequency and percentage distribution of subjects showing knowledge score regarding home care management of children being discharge after surgery in control and experimental group

S.No.	Variables	Control group (N=30)			Experiment group (N=30)		
S. N	Knowledge Score	f	%	Mean ± SD	f	%	Mean ± SD
1. 2. 3.	Good > 20 Fair (10-20) Poor (<10)	1 26 3	3.33 86.67 10	13.50±3.22	10 20 00	33.33 66.67 0.00	19.90±1.91

The data presented in table II the mean post-test knowledge score in experimental group (19.90±1.91) was higher than the mean post-test knowledge score in control group (13.50±3.22). This shows that the nurse led discharge instructions were effective in knowledge regarding home care management among parents of children being discharge after surgery.

Table III: -Mean, standard deviation and "t" value of knowledge and express practice score regarding home care management in experimental and control group

Group Variables	Post test		Unpaired T – test	p-value
	Experimental group (N=30)	Control group (N=30)		
Score	Mean ± SD	Mean± SD		
Knowledge	19.90± 1.91	13.50± 3.22	-9.34	<0.00S*

S* = highly statistically significant p<0.05

The data presented in table III shows the comparison of knowledge in experiment and control group. To test the research hypothesis (1) and (2) unpaired t-test was used and test result shows that there is statistically significant difference between the mean post-test knowledge score (t= -9.343, p<0.001) in experiment and control group. So there was no evidence to accept the null hypothesis, hence the researcher reject the null hypothesis and accept the research hypothesis.

Table IV: - To determine the association between level of knowledge of parents with selected socio-demographical variables in control group

		Level of knowledge				
	Demographical Variables	Good	Fair	Poor	Test (DF)	p-value
1	Age of child 2-7 year 6-10 year >10 year	1 - -	16 6 4	2 - 1	34(6)	88 NS*
2	Diagnosis	1	12	2	2.13(4)	71

	Hernia Appendicitis Intestinal obstruction	- -	7 7	1 -		NS*
3	No. of child <2 >3	- 1	25 1	3 -	.159(2)	92 NS*
4	Gender of parents Male Female	- 1	12 14	3 0	4.15(2)	25 NS*
5	Type of family Joint Nuclear	1 -	14 12	2 1	2.97(2)	61 NS*
6	Education status Illiterate Primary Secondary High secondary Graduate and above	- - - - 1	1 12 7 2 4	- 1 2 - -	7.43(8)	49 NS*
7	Occupation Private Government Housewife	1 - -	15 - 11	3 - -	2.67(2)	26 NS*
8	Religion Hindu Muslim	1 -	24 2	3 -	33(2)	84 NS*
9	Background Rural Urban	- 1	17 9	3 -	3.51(2)	17 NS*
10	Income Above poor line Above poor line	1 -	24 3	3 2	33(2)	84 NS*

Table V: - To determine the association between level of knowledge of parents with selected socio-demographical variable in experiment group

		Level of knowledge			
	Demographical Variables	**Good**	**Fair**	**Test (DF)**	**p-value**
1	Age of child 2-5 year 6-10 year >11 year	5 4 2	6 5 6	2.22(3)	52 NS
2	Diagnosis Hernia Appendicitis Intestinal obstruction	6 3 2	13 3 3	69(2)	70 NS
3	No. of child 1-2 >3	9 2	17 2	FET (1)	47 NS
4	Gender of parents Male Female	8 3	10 9	1.17(1)	27 NS
5	Type of family Joint Nuclear	8 3	8 11	2.62(1)	10 NS
6	Education status Illiterate Primary Secondary High secondary Graduate and above	0 5 3 0 3	4 5 3 0 3	5.39(4)	24 NS
7	Occupation Private Government Housewife	7 1 3	11 2 6	09(2)	95 NS
8	Religion Hindu Muslim	10 1	18 1	16(1)	68 NS
9	Background Rural Urban	11 0	16 3	1.93(1)	16 NS
10	Income Above poor line Above poor line	9 2	15 4	03(1)	85 NS

The data presented in the table IV revealed that there was no significant association between post-test knowledge score with selective demographical variables in control group. From above data it can be inferred that the variables stated above didn't influence the knowledge of parents. Statistically there no is evidence to accept the research hypothesis so the null hypothesis was accepted.

The data presented in the table V showed that there no significant association between post-test knowledge score with selective demographical variables in experiment group. From above data it can be inferred that the variables stated above did not influence the knowledge of parents. Statistically there is no evidence to accept the research hypothesis so the null hypothesis was accepted

DISCUSSION

The data present study finding shows that in the control group majority of subjects have fair knowledge (86.67%) and practice (96.67%), while in experimental group majority of subjects have good practice (66.67%) and fair knowledge (10%), result supported by study conducted by Pramila Poudel et.al[9] Present study showed that the mean post-test knowledge score in experimental group 19.90±8.37 was higher than the mean post-test knowledge score in the control group 13.50±3.22 support by the finding done by Ekata Rawat et.al[10] Present study shows that there was no significant association between post-test knowledge and express practice of parents with socio-demographic which was support by the finding done by Ekata Rawat et.al [11]and Deshpande Rupali et.al[12] The study showed that there was no significant association between post-test knowledge of parents with socio-demographic that were supported by the study done by Dr. Sanjay Dvivedi and Dr. Jyoti Dvivedi[13]

LIMITATIONS

- The present study was limited to some selective GI surgeries like appendicitis, intestinal obstructions and hernia
- Small sample size(only 60)
- It is a single-centre study

CONCLUSION

The result of this study indicates that after implementation of nurse led discharge instructions the parents gained knowledge regarding home care management. Therefore, it is recommended that nurse led discharge instructions should be given to all the parents of children being discharged after surgery. Physician and nurses should always pay attention to educate the parents of children being discharged after surgery regarding diet, exercise, sign of complications, medicine side effects, signs of medicine overdose, care of wound and follow-up etc.

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DURATION OF STUDY – The duration of present study was one year.

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