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EFFECTIVENESS OF VIDEOTAPED VIGNETTES ON CHILD SAFETY AT HOME AMONG MOTHERS OF TODDLERS

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ABSTRACT

Objectives of the study: To assess the level knowledge of mothers regarding child safety at home. To assess the practice of mothers regarding child safety at home. To evaluate the effectiveness of videotaped vignettes among mothers on child safety at home. To associate the post test knowledge with selected socio demographic variables. Hypothesis: H1 There is statistically significant difference in knowledge and practice of mothers on child safety at home after videotaped vignettes. H2 There is statistically significant association between knowledge and practice of mothers on child safety at home with selected socio demographic variables. Research Design: The Research design for this study is Quasi experimental research design; one group pre test and post test design. Setting: This study was conducted in Paravai at Madurai. It is situated 10-15 kilometers away from college of nursing, Madurai medical college Madurai. Sample size: The sample size was 60. Sampling Technique: systematic random sampling method. Statistical analysis: Both descriptive and inferential statistical methods were used to analyse the collected data. Data analysis and interpretation: It shows the posttest values of Knowledge, and practice with selected variables are positively correlated with the knowledge scores in the primary prevention level, and practice aspect are statistically significant, moderate positively correlated. r = 0.51 (P=0.001) It means When knowledge increases their practice also increases moderately. Conclusion: Thus, in assessing home injury risk for toddlers, one must consider the risk-taking tendencies of the individual child within the specific context of their parents' protectiveness beliefs and practice.

INTRODUCTION

The causes of child mortality have changed over the last few decades. While deaths due to common childhood diseases such as diarrhoea, pneumonia, vaccine-preventable diseases and infectious diseases continue to decline, injuries and non communicable diseases are emerging as the leading causes of childhood death.

However, injuries in children have been neglected for many years. In the India, trauma is the leading cause of death in children after the first year of life, accounting for 50% of mortality, with an injury occurring every 4 minutes and death every 6 minutes. Home accidents are among the most common adverse events in their lives. It is vital to focus on child injury prevention at all ages in order to prevent injury deaths in children who have been saved from other diseases earlier on in life. 'Child Protection' is about protecting children from or against any perceived or real danger/risk to their life. Child protection is integrally linked to every other right of the child. It is evident that injuries constitute a major proportion of childhood deaths and hospitalization in the Asia-Pacific Region. Since injury is the leading cause of childhood mortality it is evident that the Millennium Development Goals (Goal 4 – reduce under-

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five mortality rate) cannot be met without addressing the issue of child injuries.

NEED FOR THE STUDY

As per NCRB report of 2006, there were 22,766 deaths (<5 years) due to injuries among children. However, a recent national review on burden of injuries in India revealed that, nearly 8.2% of deaths and 20-25% of hospitalizations occur among children, based on few hospital and population based studies. In the same year, there were deaths among 1,133 children in Tamilnadu. As child injuries are not examined separately in Tamilnadu, the problem is unclear. several types of injuries like road traffic injuries, falls, burns, drowning, poisoning, fall of objects,(burns ,17%, falls 13%, drowning and poisoning ,6% and 5%).

In contrast to other health risks, home accidents have during the last three centuries played a continuous and important role as a cause of child mortality (WHO, 2009; Mölsted et al, 1999 However, injuries are the main cause of child mortality in India among children between 1 and3 years old (WHO, 2009).

Falls were the second leading cause for injury hospitalization among children, Burns were common 90% of the burn injuries occurred at home. Poison and animal bites are commonly occurring injuries. Most accidents to children between 0-3 years old occur in the home.

In a survey made in India, scalding was found to be the most common cause of accidents among young children (Freccero et al, 2000). In a descriptive study by Carlsson et al (2006a) it was shown that boys aged 1-2 years were those who most frequently suffered from burn and scald injuries. Recent research findings confirm that risk factors for injury to young children include not only child behavioral attributes but also caregiver supervisory patterns. Building on these findings, the aim of the present study was to explore the notion that injury risk arises from an interaction of child attributes and parent supervision.

Hypotheses

H1.There is significant difference in knowledge and practice of mothers on child safety at home after videotaped vignettes.

H2.There is significant association between knowledge and practice of mothers on child safety at home with selected socio demographic variables.

RESEARCH METHODOLOGY

Setting of research

This study was conducted in selected streets in Paravai at Madurai. It is situated 10-15 kilometers away from college of nursing, Madurai medical college, Madurai.

Research Design

The Research design for this study was Quasi experimental - One group pre test and post test design.

Dependent Variable

Knowledge and Practice of child safety

Independent variable

Videotaped vignettes

Target Population

All mothers with the children in the age group of below five years Accessible

Population

The mothers of children those who in 1 - 3 years of age group residing at Paravai.

Sample size

The sample size was 60.

Sampling Technique

Systematic Random Sampling
K = N/n
Where N = population size
n = sample size

Criteria for sample selection

Inclusion criteria

Mothers of children in the age group of 1-3 years.
Mothers of children who are resident of paravai.
Mothers of Children of both sexes
Mothers who are willing to participate in the study.
Mothers who understand and speak in Tamil

Exclusion Criteria

Mothers who are working in the day time
Mothers who have previous attended programmes on child safety

Data Collection procedure

Prior to the data collection the necessary permission was obtained from the Govt Rajaji hospital ethical committee, block medical officer of Paravai, samayanallur PHC, Madurai.

The data collection was done for four weeks from 01.09.2011 to 30.09.2011 in selected streets in Paravai village at Madurai. Before conducting the study, written consent was obtained from the subject after self introduction and explanation regarding the nature of the procedure. Semi structured questionnaire and modified parental supervision attribute profile questionnaire was used to assess the knowledge and practice among mothers of toddlers. First week pre test was conducted to assess

the level of child safety knowledge and practices at home. Every day 5-7 subjects were assessed with Semi structured questionnaire and modified parental supervision attribute profile questionnaire and selected 5-7 mothers with toddlers. Study subject were divided into group-I, group-II, group-III, group-IV respectively. Video vignette was provided to the group morning and evening for 20 minutes. Each group was receiving the intervention alternative days. Fourth week, Post test was conducted by using the Semi structured questionnaire and modified parental supervision attribute profile questionnaire used to reassess the knowledge and practice individually. Each day seven to eight subjects were reassessed.

Protection of human subjects

The investigator obtained approval from the dissertation committee, the Govt. Rajaji hospital ethical committee, and from the block medical officer,PHC, Samayanallur. Both verbal and written consent was obtained from all the study samples and the data collected was kept confidential. Anonymity was maintained throughout the study.

Section A Distribution of mothers of paravai, Madurai with their selected demographic variables

Table 1: Frequency and percentage of demographic variables of mothers N = 60.

Demographic variables		No. of mothers	%
Age	31 -40 yrs	11	18.3%
	21 -30 yrs	44	73.3%
	< 20 yrs	5	8.3%
Literacy status	Primary education	12	20.0%
	High school	14	23.3%
	HSc	22	36.7%
	Collegiate education	8	13.3%
	No formal education	4	6.7%
Occupation	Cooly	19	31.7%
	Business	4	6.7%
	Private employee	17	28.3%
	House wife	20	33.3%
Type of family	Nuclear family	28	46.7%
	Joint family	32	53.3%
Religion	Hindu	40	66.7%
	Muslim	20	33.3%
Family income	> Rs.5000	52	86.7%
	Rs.4001 -5000	8	13.3%
No. of Children	One	52	86.7%
	Two	8	13.3%

Table 2: comparison of pretest and post test on level of knowledge of mothers

	Level of knowledge	Primary		Secondary		Overall	
		n	**%**	N	**%**	**n**	**%**
Pretest	Poor knowledge	32	53.3%	10	16.70%	18	30.0%
	Moderate knowledge	28	46.7%	50	83.3%	42	70.0%
	Good knowledge	0	0.0%	0	0.0%	0	0.0%
	Total	**60**	**100%**	**60**	**100%**	**60**	**100%**
posttest	Poor knowledge	0	0.0%	0	0.0%	0	0.0%
	Moderate knowledge	12	20.0%	11	18.3%	11	18.3%
	Good knowledge	48	80.0%	49	81.7%	49	81.7%
	Total	**60**	**100%**	**60**	**100%**	**60**	**100%**

Table 3: comparison of pretest and post test mean and standard deviation on practice of mothers

Practice	No. of questions	Min –Max score	Pretest		Posttest	
			Mean±SD	%	Mean±SD	%
Overall score	20	0 -40	17.53±0.51	43.8%	32.63±1.29	81.6%

Table 4: Comparison of pretest and post test level of practice of mothers

Level of practice	Pretest		Posttest	
	n	%	n	%
Poor practice	27	45.0%	0	0.0%
Moderate practice	33	55.0%	10	16.7%
Good practice	0	0.0%	50	83.3%
Total	**60**	**100%**	**60**	**100%**

Table 5: Correlation between pretest knowledge and practice with post test knowledge and practice

	Correlation between	mean score Mean±SD	Karl Pearson correlation coefficient	Interpretation
Pretest	Knowledge score	46.57 ± 4.82	r = 0.15 P=0.22	Not significant , poor, positive Correlation It means When knowledge increases their practice also increases poorly
	Practice score	17.53 ± 0.50		
Posttest	Knowledge score	96.67± 3.21	r = 0.51 P=0.001***	Significant, moderate, positive Correlation. It means When knowledge increases their practice also increases moderately
	Practice score	32.63 ± 1.29		

Table 6: Association between post test level of knowledge with their demographic variables.

Demographic variables		Moderate		Good		Total	Chi square test
		n	%	n	%		
Age	<20 yrs	3	60.0%	2	40.0%	5	**χ^2=6.59 P=0.03* DF= 2 significant**
	21 -30 yrs	7	15.9%	37	84.1%	44	
	31 -40 yrs	1	9.1%	10	90.9%	11	
Literacy status	No formal education	3	25.0%	1	75.0%	4	**χ^2=15.06P=0.01** DF= 4 significant**
	Primary education	4	33.3%	8	66.7%	12	
	High school	3	21.4%	11	78.6%	14	
	HSc	1	4.5%	21	95.5%	22	
	Collegiate education	0	0.0%	8	100.0%	8	
Occupation	Cooly	2	10.5%	17	89.5%	19	χ^2=2.43P=0.49 DF= 3 not significant
	Business	1	25.0%	3	75.0%	4	
	Private employee	5	29.4%	12	70.6%	17	
	House wife	3	15.0%	17	85.0%	20	
Type of family	Nuclear family	2	7.1%	26	92.9%	28	**χ^2=4.39 P=0.04* DF= 1 significant**
	Joint family	9	28.1%	23	71.9%	32	
Religion	Hindu	10	25.0%	30	75.0%	40	χ^2=3.56P=0.06 DF= 1 not significant
	Muslim	1	5.0%	19	95.0%	20	
Family income	> Rs.5000	10	19.2%	42	80.8%	52	χ^2=0.21P=0.64 DF= 1 not significant
	Rs.4001 -5000	1	12.5%	7	87.5%	8	
No.of Children	One	10	19.2%	42	80.8%	52	χ^2=0.21P=0.64 DF=1 not significant
	Two	1	12.5%	7	87.5%	8	

Table 7: Association between post test level of practice with their demographic variables.

Demographic variables		Moderate		Good		Total	Chi square test
		n	%	n	%		
Age	<20 yrs	4	80.0%	1	20.0%	5	**χ^2=16.93 P=0.01* DF= 2 significant**
	21 -30 yrs	6	13.6%	38	86.4%	44	
	31 -40 yrs	0	0.0%	11	100.0%	11	

Literacy status	No formal education	3	75.0%	1	25.0%	4	**χ2=18.42P=0.01** DF= 4 significant**
	Primary education	4	33.3%	8	66.7%	12	
	High school	3	21.4%	11	78.6%	14	
	HSc	0	0.0%	22	100.0%	22	
	Collegiate education	0	0.0%	8	100.0%	8	
Occupation	Cooly	1	5.3%	18	94.7%	19	χ2=2.43P=0.49 DF= 3 not significant
	Business			4	100.0%	4	
	Private employee	7	41.2%	10	58.8%	17	
	House wife	2	10.0%	18	90.0%	20	
Type of family	Nuclear family	1	3.6%	27	96.4%	28	**χ2=6.48 P=0.01* DF= 1 significant**
	Joint family	9	28.1%	23	71.9%	32	
Religion	Hindu	8	20.0%	32	80.0%	40	χ2=3.56P=0.06 DF= 1 not significant
	Muslim	2	10.0%	18	90.0%	20	
Family income	> Rs.5000	9	17.3%	43	82.7%	52	χ2=0.21P=0.64 DF= 1 not significant
	Rs.4001 -5000	1	12.5%	7	87.5%	8	
No.of Children	One	8	15.4%	44	84.6%	52	χ2=0.21P=0.64 DF=1 not significant
	Two	2	25.0%	6	75.0%	8	

DISCUSSION

Sharma et al (2007) performed a study of 'At Risk' toddlers in rural area (Pachhad block of District Sirmour, H.P.) found that majority of 'at risk' children were found in the age group of 25-36 months. Higher prevalence of 'at risk' children in this age group may be due to the fact that in India, pregnancies occur too close and by the time, the child is 2 year old, mother has another sibling in her lap. So the elder sibling is neglected and left in the care of some substitute. The illiterate mothers did not take precaution from household chemicals in rural slum because two third toddlers (64.5%) were within its reach. It was also observed that the toddlers whose mothers were either illiterate or educate up to primary standard were more at risk of different type of home accidents as compare to educated mother in rural slum. This supports the present study.

The discussion of this present study focused on the shifts that would be needed in future in order to save the life of children. One major comment made by the researcher was that in future the domestic accident problem should be investigated more from the hazard side and less from the health side. Information about the various types of injuries and the outcomes are available, while the exact information on the causes of the domestic accidents, When the location of the accident is registered very often information is given about the room where the accident occurred, but not what element in the room caused the accident.

CONCLUSION

The present study used multi-method strategies to study in-home injuries experienced by toddlers over a 3-month period. The findings provide numerous insights into toddlers' in-home injuries and reveal a number of factors that relate to such injuries. Parental factors relevant to child injury included parents' beliefs about control over their child's health, protectiveness, and beliefs about child supervision. The significant finding of the study proclaims that video taped vignettes were effective and extremely safe home environment, Indian scenario has to be modified. It is the responsibility of the Nurse to inculcate the essential knowledge to the mothers of toddler.

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