

A Study to Assess the Knowledge of Mothers of under Five Children Regarding Burn and its Prevention in Selected Rural Area

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Abstract: Burns are common and serious childhood injuries causing prolonged effect on growing child with various complication and fatal prognosis. Approximately one fourth of burn cases are below 10 years of age and about 65 % of burnt children are below 5 years of age. 80 % burns occurs in the child's own home. It is very important to look into safety and security of children at homes. This will promote sound psychosocial development of children. Safety and security can be ensured by providing clean safe and comfortable physical environment.

Keywords: Knowledge, Mothers, Under five Children, Burn, Prevention, Rural

1. Introduction

Children are the future of every country and all societies strive to ensure their health and safety. Since India independence, continuous efforts have been made to improve the status of children. The large burden of communicable, infectious and nutritional disorders is gradually on the decline due to massive effort and investment by successive Indian government, even though it is unfinished agenda. Parallel to these changes, it is also becoming apparent that children saved from disease of yesterday are becoming victim of injury on road, at home, in public and recreational places. Children are naturally curious. As soon as they mobile begin to explore their surroundings and play with new objects, at the same time though, they come into contact with object that can cause severe injuries playing with fire or touching hot objects can result in burn

A burn is defined as injury to skin and other organic tissue caused by thermal trauma, it occurs when some or all the cells in the skin or other tissues are destroyed by hot liquids (scalds), hot solids (contact burn), or flames (flam burns).

Risk factor of burn include, according to data collection from the national burn information exchange reveal that 75% of all burn injuries results from actions of victim, with many of these injuries occurring in the home environment

Childhood burns are largely environmentally conditioned and preventable. It would therefore seem natural that the prevention of burns should focus on a mixture of environmental modification. Parental education and product safety

Many times death results because of delay in reaching the casualty to appropriate medical care and low lack of knowledge regarding first aid and treatment on the contrary, if help is provided to casualty as soon as possible following the accident or injury, a life could be saved.

Statement of the Problem

A descriptive study to assess the knowledge of mothers of under five children regarding burn and its prevention in selected rural area with a view to develop a information booklet

Objective of the Study

- To assess the level of knowledge among mothers of under five children regarding burn and its prevention
- To associate knowledge of mothers with selected demographic variables.
- To develop an information booklet on burn and its prevention

Hypothesis

H₁: There will be a significant improvement in the knowledge of mothers regarding burn and its prevention after administration of information booklet.

H₂: There will be significant association between the knowledge of mothers of under five children with selected demographic variables.

2. Operational Definitions

- **Assess:** it is the organized systematic, continuous process of collecting data from mothers of under five children, regarding first aid for burn and its prevention
- **Knowledge:** in this study it refers to the awareness and understanding regarding first aid for burn and its prevention as assessed by structured questionnaire
- **Burn:** a burn is defined as an injury to the skin or other organic tissue caused by thermal trauma
- **Prevention:** It refers to the action taken prior to the occurrence and development of risk factors in population group, which remove the possibility that risk factor, will ever occur.
- **Mothers of under five children:** The mother who are having children below five year of age group. The infant,

toddlers and preschooler together categorized as under five children

- **Rural area:** rural area is a group of people living in a geographical area where it does not have much facilities and away from the cities and towns and fulfills the criteria of rural
- **Information booklet:** refers to a set of written information and instructions related to burn and its prevention.

3. Research Methodology

Research Approach: the research design selected for present study was non experimental, descriptive design was consider as appropriate design in the view of the nature of the problem statement.

Setting of the study the study: Subjects were selected from rural are at Tumkur Karnatka. This setting was chosen on basis of investigators feasibility. In term of availability and accessibility of the mothers.

Population: All the mothers of under five children in selected rural area of Tumkur constitute the target population for the study.

Sampling: The process of selecting a portion of population to represent the entire population convenient sampling technique was used. The entire subject who fulfilled the inclusive criteria of the study was included.

Sample size: Out of defined population the researcher had selected the sample size of present study was 60 mothers of under five children who fulfilled the inclusive criteria of the study were included.

Inclusive Criteria

The samples were included who fulfilled the following criteria-

- Mothers who are having under five children.
- Mothers who are living in the rural area of Tumkur.
- Mothers who can read and write either kannada and English
- Those who are willing to participate in this study.

Exclusive Criteria

- Mothers who have completed family
- Mothers who will be selected for pilot study

Research Tool: Based on the objective of the study a structured questionnaire was prepared in order to access the knowledge of mothers of under five children regarding burn

and its prevention. The structured questionnaires are of two parts

Part 1: Consists of 10 demographic characteristics of mothers such as age, religion, educational status of mother and husband, occupation of mother and husband, family monthly income, type of family, housing conditions, mode of cooking and this was not scored but used for descriptive analysis.

Part II: It consists of 30 structured questionnaires to access the knowledge of mothers regarding burn and its prevention. Each correct answer was given a score of one and the wrong answer was given a score of zero.

Validity:

Content validity of tool was established by obtaining the suggestions from experts. The tool was validated by 08 expert in field of pediatric nursing, Pediatrician and statistician, Kannada language expert and English language expert. After consulting guide and statistician, the final tool was reframed. Tool was found to be validand suitable for the study.

Reliability

The tool after the validation was subjected to test for its reliability the reliability of tool was computed by split half method with accessed feasibility of the tool reliability, the tool for knowledge questions was found to be 0.904.

Data Collection Procedure

Permission from the concerned authority: formal permission was obtained from medical officer of rural area Tumkur

Period of data collection: the data collection procedure was carried out for a period of six weeks

Data analysis: the data obtained was analyzed in term of the objective of the study using descriptive and inferential statistics.

The plan for data analysis is as follow. Organization of the data in the master sheets or computer;

- Frequencies and percentages for the analysis of the demographic data
- Mean, SD, renegees of scores
- Chi square test to associate the demographic variables with knowledge on burn and its prevention among the others of under five children.

Section 1: Distribution of subjects according to socio demographic

Table 1: Demographic Profile, N=60

Demographic variables		No. of subjects	Percentages
Age	18-25	14	23.3
	26-30	30	50
	31-15	16	26.7
Religion	Hindu	36	60
	Muslim	16	26.7
	Christian	08	13.3
Educational status of mother	Primary	2	3.3
	Middle school	27	45
	High school	21	35
	PUC	10	16.7
Occupational status of mothers	Housewife	28	46.7
	Employed	17	28.3
	others	15	25
Education of husband	Primary school	23	38.3
	High school	09	15
	PUC	13	21.7
	Graduation or above	15	25
Occupation of husband	Employed	12	20
	Unemployed	30	50
	Business	18	30
Family monthly income	Rs.2500-3500	09	15
	Rs.3501-4500	30	50
	Rs.4501 & above	21	35
Type of family	Joint	31	51.7
	Nuclear	25	41.7
	Single parent	4	6.7
Type of house	Pucca	14	23.3
	Semipucca	26	43.3
	kutchcha	20	33.3
Mode of cooking	LPG	09	15
	Electricity	21	35
	Kerosene	19	31.7
	Wood	11	18.3

Section II: Assessment of knowledge of subjects regarding burn and its prevention

Table 2: Knowledge Score Regarding Burn and its Prevention

Variables	No. of Items	Range		Knowledge score		
		Min	Max	Mean score	SD	Mean %
Knowledge	30	03	11	7.68	1.662	25.6

In the study 30 knowledge items were distributed to the mothers and it was found that the knowledge score of the mothers on burns and its prevention, the mothers had the mean score of 7.68 and SD 1.662 and mean percentage is 25.6 %.

Table 3: Distribution of subjects according to level of knowledge, N=60

Level of Knowledge	Frequency	Percentage
Moderately adequate	23	38.3
Inadequate	10	16.7
Poor	27	45
total	60	100

In the present study it was found that the level of knowledge of the mothers was as follow, about 38.3% of mothers had moderately adequate knowledge on burn and its prevention and about 16.7% of the mothers had inadequate knowledge and 45% of the mothers having poor knowledge.

Table 4: Demographic wise assessment of knowledge, N=60

Demographic variables		N	Mean	SD	Mean %	Significant test
Age	18-25	14	7.93	1.439	26.43	F-TEST=0.433 P=0.651
	26-30	30	7.73	1.617	25.76	
	31-15	16	7.38	1.962	24.0	
Religion	Hindu	36	7.5	1.828	25	F-TEST=0.6 P=0.552
	Muslim	16	7.88	1.204	26.26	
	Christian	08	8.12	1.727	27.06	

Educational status of mother	Primary	2	5.5	0.707	18.33	F-TEST=1.239 P=0.304
	Middle school	27	7.81	1.711	26.033	
	High school	21	7.67	1.39	25.56	
	PUC	10	7.8	2.044	26	
Occupational status of mothers	Housewife	28	7.43	1.55	24.76	F-TEST=0.907 P=0.409
	Employed	17	8.12	1.453	27.066	
	others	15	7.67	2.059	25.56	
Education of husband	Primary school	23	7.74	1.514	25.8	F-TEST=0.51 P=0.677
	High school	09	7.22	1.481	24.07	
	PUC	13	8.08	1.656	26.93	
	Graduation or above	15	7.53	2.031	25.1	
Occupation of husband	Employed	12	7.75	2.221	25.83	F-TEST=0.027 P=0.973
	Unemployed	30	7.63	1.542	25.43	
	Business	18	7.72	1.526	25.733	
Family monthly income	Rs.2500-3500	09	8.22	1.716	27.4	F-TEST=0.714 P=0.494
	Rs.3501-4500	30	7.7	1.393	25.67	
	Rs.4501 & above	21	7.43	1.989	24.77	
Type of family	Joint	31	7.87	1.821	26.23	F-TEST=0.446 P=0.643
	Nuclear	25	7.52	1.475	25.07	
	Single parent	4	7.25	1.708	24.167	
Type of house	Pucca	14	7.5	1.506	25	F-TEST=0.388 P=0.68
	Semipucca	26	7.58	1.815	25.27	
	kutchcha	20	7.95	1.605	26.5	
Mode of cooking	LPG	09	7	1.732	23.33	F-TEST=3.906 P=0.013
	Electricity	21	7.48	1.721	24.93	
	Kerosene	19	7.42	1.427	24.73	
	Wood	11	9.09	1.221	30.3	

Section III: Association between the selected Demographic variables and the level of knowledge

Demographic variables		N	Level of knowledge			Chi Square
			Moderately adequate	inadequate	poor	
Age	18-25	14	7 50.0%	1 7.1 %	6 42.9 %	CHI SQUARE VALUE=2.811 P=0.59 NS
	26-30	30	12 40.0 %	5 16.7 %	13 43.3%	
	31-15	16	4 25.0%	4 25.0%	8 50.0%	
Religion	Hindu	36	12 33.3 %	7 19.4 %	17 47.2 %	CHI SQUARE VALUE=1.203 P=0.878 NS
	Muslim	16	7 43.8 %	2 12.5 %	7 43.8 %	
	Christian	08	4 50.0 %	1 12.5 %	3 37.5 %	
Educational status of mother	Primary	2	0 0%	0 0%	2 100%	CHI SQUARE VALUE=5.528 P=0.478 NS
	Middle school	27	11 14.7 %	5 18.5 %	11 14.7 %	
	High school	21	7 33.3 %	5 23.8 %	9 42.9 %	
	PUC	10	5 50.0%	0 0 %	5 50.0 %	
Occupational status of mothers	Housewife	28	6 21.4 %	7 25.0 %	15 53.6 %	CHI SQUARE VALUE=7.122 P=0.13 NS
	Employed	17	9 52.9 %	2 11.8 %	6 35.3 %	
	others	15	8 53.3 %	1 6.7 %	6 40.0 %	
Education of husband	Primary school	23	9 39.1 %	5 21.7 %	9 39.1 %	CHI SQUARE VALUE=3.02 P=0.806 NS
	High school	09	2 22.2 %	2 22.2 %	5 55.6 %	
	PUC	13	6 46.2 %	2 15.4 %	5 38.5 %	
	Graduation or above	15	6 40.0 %	1 6.7 %	8 53.3 %	
Occupation of husband	Employed	12	5 41.7 %	3 25.0 %	4 33.3 %	CHI SQUARE VALUE=1.373 P=0.849

	Unemployed	30	11	5	14	NS
			36.7 %	16.7 %	46.7 %	
	Business	18	7	2	9	
			38.9 %	11.1 %	50.0 %	
Family monthly income	Rs.2500-3500	09	4	2	3	CHI SQUARE VALUE=1.094 P=0.895 NS
			4.4 %	22.2 5	33.3 %	
	Rs.3501-4500	30	10	5	15	
			33.3 %	16.7 %	50.0 %	
Rs.4501 & above	21	9	3	9		
		42.9 %	14.3 %	42.9 %		
Type of family	Joint	31	16	5	10	CHI SQUARE VALUE=5.521 P=0.238 NS
			51.6 %	16.1 %	32.3 %	
	Nuclear	25	6	4	15	
			24.0 %	16.0 %	60.0 %	
Single parent	4	1	1	2		
		25.0 %	25.0 %	50.0 %		
Type of house	Pucca	14	4	4	6	CHI SQUARE VALUE=2.351 P=0.671 NS
			28.6 %	28.6 %	42.9 %	
	Semipucca	26	10	04	12	
			38.5 %	15.4 %	46.2 %	
kutchcha	20	9	2	9		
		45.0 %	10.0 %	45.0 %		
Mode of cooking	LPG	09	2	3	9	CHI SQUARE VALUE=12.771 P=0.047 SIGNIFICANT
			22.2 %	33.3 %	44.4 %	
	Electricity	21	7	3	11	
			33.3 %	14.3 %	52.4 %	
	Kerosene	19	5	4	10	
			26.3 %	21.1 %	52.6 %	
Wood	11	9	0	2		
		81.8 %	0 %	18.2 %		

It is evident from present study that Chi Square value computed for the age, religion, education status of mother and father, occupation of mother and father, monthly family income, type of family, type of house with the level of knowledge was statistically not significant and mode of cooking was found significant.

Research Hypothesis-2

H₂ there will be a significant association between the knowledge of mothers of under-five with selected demographic variables

Null Hypothesis-2

H₀₂ there was not a significant association between selected knowledge of mothers of under five children with selected demographic variables.

4. Results

The overall knowledge score of mothers under five children regarding burn and its prevention was found that about 38.3% of mothers had moderately adequate knowledge on burn and its prevention and about 16.7% of the mothers had inadequate knowledge and 45% of the mothers having poor knowledge.

5. Recommendation

On the basis of the finding of study following recommendation have been made

- A similar study can be conducted on a large sample to generalize the study finding.

- Mass and individual education in regional language too enlighten the mother can be organized at all the level of health facilities.
- Comparative study may be conducted to find out the similarities or differences in knowledge between rural mothers and the urban mothers.
- An experimental study can also be done in order to see the effect of educational program on the knowledge and practice f the selected population.
- Cross sectional studies can be conducted on the knowledge, attitude, practices of parents regarding burn and its prevention.

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