Assess the prevalence and mother's knowledge regarding home accidents in under five children: A descriptive study

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ABSTRACT

BACKGROUND: Home accidents or domestic accidents are now a days a major reason of death or disabilities in this world .Where as Children less than 5 yearsare most likely prone to home accidents due to many reasons such as their curious nature of knowing the things better ,lack of supervision of care takers, mothers lack of knowledge on prevention of home accidents etc. As a primary care giver mothers knowledge about home accidents plays an important role in avoiding unintentional injuries among children.

OBJECTIVES:
1). Assess the prevalence of home accidents among under five children.
2).Assess the mother's knowledge regarding home accidents among under-five children.
3).Find out the association between the prevalence of home accidents among under-five children and selected socio-demographic variables
4). Find out the association between the mother's knowledge regarding home accidents among under-five children and selected socio-demographic variables.

METHOD: Descriptive research design has been used to attain the objectives of present study. A total 100 mothers of under five children were selected as sample by using convenient sampling technique.

RESULT: The prevalence of home accidents among under five children revealed that 33% of children had home accidents and 67% had no home accidents. Hence the prevalence rate of home accidents among under five children was 33%. Results showed that majority 86% of mothers had average knowledge and 14% of mothers had poor knowledge regarding prevention and management of home accidents.the association between prevalence of home accidents of under five children with selected demographic variables which was tested by using chi-square test. Results showed that age of the mothers, educational status, monthly income of family, occupational status, type of family, number of children and mass media were found statistically non significant association at $p<0.05$ level with prevalence of home accidents of under five children. the association between level of knowledge regarding prevention and management of home accidents among mothers of under five children with selected demographic variables which was tested by using chi-square test. Results showed number of children of mothers was statistically significant association at $p<0.05$ level with level of knowledge regarding prevention and management of home accidents. The other demographic variables such as age of the mothers, educational status, monthly income of family, occupational status, type of family and mass media were found statistically non significant association at $p<0.05$ level with level of knowledge regarding prevention and management of home accidents.

CONCLUSION: study concluded that there is need for paying much more attention on mother's education on prevention of home accidents in under five children.

KEY WORDS: Prevalence, Knowledge Mothers, Children, Home accidents.

INTRODUCTION

Children's are the heart of the house where they are loved and cared by everyone. But because of many reasons children may get hurt unintentionally. Children some times are over

excited for knowing the things better and this curious nature lead to them to several injuries .

Despite the fact that home is a safe and secure environment for children, it is also the site of many accidents and deaths. Falls, burns, drowning, suffocation, choking, poisoning, and cuts are the most common home mishaps. They learn to walk, run, leap, and explore the physical environment through falling, which is a natural part of growing up. While most falls are minor, some go beyond a child's body's resilience, making them the fourth leading cause of unintentional injury mortality in children. Any type of injury can have a severe physiological, psychological, social, environmental, and financial impact on children and their families, disrupting their daily lives. [1]

According to Piaget's theory of cognitive development, children in the preoperational stage are unable to protect themselves from accidents. Stage of symbolism (from ages 2 to 4).It is possible that children will having an accident when attempting to copy their parents' and/or other people's behaviour life during the pre-operational sensory stage4–7 years old Children may avoid engaging in certain behaviours. Have caused accidents in the past, but they continue to do so .They are considered to be at risk because they appear to be to be unable to apply what they've learned in the past to new situations varying circumstances .They experience accidents simply because they are unable to anticipate them. They can't figure out the consequences of their conduct Relationships between cause and effect.[2]

The focus of this research is on unintentional house accidents, which we define as "any event that occurred inside the home or in the immediate neighborhood of the home that resulted in injury"3 and which did not occur on purpose but by chance.[3]

ASSUMPTION

1) Mothers may be having some knowledge regarding prevention of accidents.

2).Children under five years of age are more prone for accidents.

3).Mothers are the primary care givers who spend more time with the children.

Methods

Study area and period:

The study was conducted in Vadodara town from November 1- Dec 30.2021.

Study design

A Community based Descriptive research design was conducted among under five children's mothers.

Population

Source population:

The source population was all Mothers of under five children

Study population:

All sampled mothers of under five children during study period.

Inclusion criteria and Exclusion criteria:

Inclusion criteria

All sampled mothers of under five children who live in, in the study period.

Exclusion criteria

Mothers those who are severely ill during data collection period and unable to communicate was excluded from our study

Sample size

100 Mothers of under five children

Sampling procedure

Convenient sampling technique

Variables

Dependent Variable: Knowledge of mothers of under five children

Independent Variables: Marital status, educational status, Age of mother, Age of child, Occupation, Ethnicity, Family monthly income, mass media.

Data collection instrument and procedure

Structured and semi-structured English version questionnaire was prepared from the literature review by principal -investigators. Translation to Gujarati version and again translated to English version were used by the principal

investigators before starting the data collection time.It includes about mothers' socio-demographic factors, knowledge of mothers and prevalence of home accidents.

Data collection instrument and methods:-The data collector was the group members. Face to face interview held privately after verbal consent is obtained from each participant. The data was collected until the required sample size achieved.

Data processing and analysis

The coded data were entered to computer by using Statistical Package for Social Science (SPSS) version 25 statistical software for analysis. Cleaning were performed by using frequency distribution .Any error were corrected after revision of the original data using the code numbers of the questionnaires. Frequencies were computed for description of the study population in relation to socio-demographic and other relevant variables. The association between independent and dependent variable determined by odd ratio with 95% CI and P-value less than considered as statistically significance. All variables with P<0.2 in the bivariate analysis were included in the final model of multivariate analysis in order to control all possible confounders. The direction and strength of statistical association was measured by odds ratio with 95% CI. Adjusted odds ratio along with 95% CI was estimated to identify association factors for knowledge about neonatal danger signs by using multivariate analysis in the binary logistic regression. In this study P-value < 0.05 was considered to declare a result as statistically significant association. The result presented by charts, figures, and tables.

Ethical Consideration

The ethical clearance was obtained from Parul university ethical committee. Permission letters were received from the Parul university ethical committee. The purpose of the study was briefly explained for the respondents and verbal consent was obtained. All the study participants were informed about the purpose of the study and their right to refuse was obtained from all study participants prior to the interview. The respondents were also been told that the information obtained from them was kept confidential and not link to third party and do not cause any harm on them.

Results:

Socio-Demographic Characteristics

N=100

Demographic Variables		Frequency	Percentage
Age of the mother	18-24 years	54	54 %
	25-30 years	32	32 %
	More than 30 years	14	14 %
Educational status	Illiterate	22	22 %
	Primary school	67	67 %
	Graduate	11	11 %
Monthly income of Family	Below Rs 5000	25	25 %
	Rs 5001-10000	46	46 %
	Above Rs 10000	29	29 %
	Housewife	79	79 %

Occupational status	Private/ Self employed	19	19 %
	Govt employee	2	2 %
Type of family	Nuclear	19	19 %
	Joint	71	71 %
	Separated	10	10 %
Number of children	One	16	16 %
	Two	69	69 %
	More than two	15	15 %
Mass media	Television	71	71 %
	Radio	5	5 %
	Newspaper	24	24 %

Depicts the frequency and percentage distribution of demographic variables. According to age of the mothers majority 54% were in 18-24 years of age, 32% were in 25-30 years of age and 14% were in more than 30 years of age.

Data on educational status of mother showed that maximum 67% had education up to primary school, followed by 22% were illiterate and 11% of mothers were graduate.

With regard to monthly income of family, majority 46% of mothers had income of Rs 5001-10000 per month, 29% had income of above Rs 10000 per month and 25% had income of below Rs 5000 per month.

As per occupational status of mothers, 79% were housewife, 19% were in private employee / self employed and 2% were government employee.

According to type of family of mothers, maximum 71% were living in joint family, 19% were living in nuclear family and 10% were separated.

With regard to number of children, maximum 69% of mothers had two children, 16% had one child and 15% had more than two children.

As per mass media, majority 71% of mothers had information from television, 24% had from newspaper and 5% had from radio.

TABLE 2 : This section consist of prevalence of home accidents among under five children.
N=100

Demographic Variables		Frequency	Percentage
Prevalence	Yes	33	33 %
	No	67	67 %
Type of injury child had	Fall	24	72.8 %
	Burn	6	18.2 %
	Poisoning	3	9 %
	Superficial injury	25	75.8 %

Nature of injury child had	Fracture	5	15.2 %
	Severe injury	3	9 %
Place of accidental injury	Kitchen	7	21.3 %
	Hall	21	63.5 %
	Balcony	5	15.2 %
Site of accidental injury	Head and face	4	12.1 %
	Upper extremity	20	60.6 %
	Lower extremity	9	27.3 %
Any first aid given to child	Yes	25	75.8 %
	No	8	24.2 %

Depicts the prevalence of home accidents among under five children revealed that 33% of children had home accidents and 67% had no home accidents. Hence the prevalence rate of home accidents among under five children was 33%.

According to type of injury of children, majority 24(72.8%) of children had fall, 6(18.2%) of children had burn injury and 3(9%) of children had poisoning.

With regard to nature of injury, maximum 25(75.8%) of children had superficial injury, 5(15.2%) had fracture and 3(9%) of children had severe injury.

As per place of accidental injury, majority 21(63.5%) of children had injury in hall, 7(21.3%) of children had injury in kitchen and 5(15.2%) had injury at balcony.

According to site of accidental injury, majority 20(60.6%) had injury at upper extremity, 9(27.3%) had injury at lower extremity and 4(12.2%) had injury at head and face.

As per any first aid given to child after injury, majority 25(75.8%) had given first aid to child after injury and 8(24.2%) had not given any first aid to child after injury.

TABLE 3 : **knowledge regarding prevention and management of home accidents among mothers of under five children.**

N=100

Level of knowledge	F	%	Mean D	SD
Poor knowledge	14	14		
Average knowledge	86	86	20.81	2.121
Good knowledge	0	0		

Depicts the frequency and percentage distribution of level of knowledge regarding prevention and management of home accidents among mothers of under five children Results

showed that majority 86% of mothers had average knowledge and 14% of mothers had poor knowledge regarding prevention and management of home accidents.

TABLE 4: Association between prevalence of home accidents of under five children with selected demographic variables.

N=100

Demographic Variables		Prevalence		Chi value	Df	p value
		Yes	No			
Age of the mother	18-24 years	18	36	1.144	2	0.564[NS]
	25-30 years	12	20			
	More than 30 years	3	11			
Educational status	Illiterate	9	13	1.716	2	0.424[NS]
	Primary school	22	45			
	Graduate	2	9			
Monthly income of Family	Below Rs 5000	11	14	1.886	2	0.389[NS]
	Rs 5001-10000	13	33			
	Above Rs 10000	9	20			
Occupational status	Housewife	27	52	1.052	2	0.591[NS]
	Private/ Self employed	6	13			
	Govt employee	0	2			
Type of family	Nuclear	5	14	1.569	2	0.456[NS]
	Joint	26	45			
	Separated	2	8			
Number of children	One	7	9	1.042	2	0.594[NS]
	Two	21	48			
	More than two	5	10			
Mass media	Television	27	44	3.969	2	0.137[NS]
	Radio	0	5			
	Newspaper	6	18			

*p<0.05 level of significance   NS-Non significant

Depicts the association between prevalence of home accidents of under five children with selected demographic variables which was tested by using chi-square test. Results showed that age of the mothers, educational status, monthly income of family, occupational status, type of family, number of children and mass media were found statistically non significant association at p<0.05 level with prevalence of home accidents of under five children.

TABLE 5: Knowledge regarding prevention and management of home accidents among mothers of under five children with selected demographic variables.

N=100

Demographic Variables		Level of knowledge		Chi value	Df	p value
		Poor	Average			
Age of the mother	18-24 years	7	47	1.195	2	0.550[NS]
	25-30 years	6	26			
	More than 30 years	1	13			
Educational status	Illiterate	4	18	2.631	2	0.268[NS]
	Primary school	7	60			
	Graduate	3	8			
Monthly income of Family	Below Rs 5000	5	20	1.104	2	0.576[NS]
	Rs 5001-10000	6	40			
	Above Rs 10000	3	26			
Occupational status	Housewife	10	69	1.229	2	0.541[NS]
	Private/ Self employed	4	15			
	Govt employee	0	2			
Type of family	Nuclear	3	16	0.453	2	0.797[NS]
	Joint	9	62			
	Separated	2	8			
Number of children	One	7	9	14.38	2	**0.001***
	Two	5	64			
	More than two	2	13			
Mass media	Television	10	61	0.195	2	0.907[NS]
	Radio	1	4			
	Newspaper	3	21			

*p<0.05 level of significance   NS-Non significant

Depicts the association between level of knowledge regarding prevention and management of home accidents among mothers of under five children with selected demographic variables which was tested by using chi-square test. Results showed number of children of mothers was statistically significant association at p<0.05 level with level of knowledge regarding prevention and management of home accidents. The other demographic variables such as age of the mothers, educational status, monthly income of family, occupational status, type of family and mass media were found statistically non significant association at p<0.05 level with level of knowledge regarding prevention and management of home accidents.

DISCUSSION

In the present study it was observed that the frequency and percentage distribution of level of knowledge regarding prevention and management of home accidents among mothers of under five children Results showed that majority 86% of mothers had average knowledge and 14% of mothers had poor knowledge regarding prevention and management of home accidents. The prevalence of home accidents among under five children revealed that 33% of children had home accidents and 67% had no home accidents.

A review article by Sudheer a sulgante, et al-(2020)A population-based cross-sectional analytical study was conducted .Data regarding self-reported domestic accidents in the last one year were collected using a structured questionnaire and assessment of household hazards was done after examining the house.Among the 578 randomly selected households, 393(68%) belonged to nuclear families, 486(84%) had pucca houses and in 339(59%) overcrowding was present. 59(10.2%) households reported domestic accidents – of which 25(42%) had adult victims, 22(37%) were due to falls, 27(45%) had upper limb injuries and 25(43%) occurred in kitchen. On assessment of safety practices, 121(21%) houses had doors with stoppers, 394(68%) had items scattered on living room floor while 128(24%) and 160(30%) had grab bars and doormat in bathrooms respectively. Domestic accidents were more prevalent among overcrowded households[4]

In a study by Manpreet kauret,al (2016) A non-experimental descriptive study was conducted in selected rural area of Ambala, Haryana to assess the knowledge of parents regarding prevention of home accidents among under five children and to determine the association of the knowledge with selected characteristics. The data were collected from 60 parents of under five children by structured knowledge questionnaire. There were 30 knowledge items. Major findings of the study revealed that most of the parents (41.7%) were in the age group of 23±27 years. Majority of the subjects (80%) were females and (38.3%) had done senior secondary. Majority of the subjects (66.7%) were home makers. Majority of subjects (65%) belonged to the joint family. Seven sample (11.7%) were having very good knowledge, 35

subjects (58.3%) were having good knowledge and 18 subjects (30%) were having average level of knowledge regarding prevention of home accidents and 62.5% had knowledge on first aid management of home accidents.[5]

According to N bhuvaneshwari et al (2019)A community-based, cross-sectional study was conducted in 2018in a ward of Mehrauli containing 20,800 households, and the total sample of children was selected from 400 households by systematic random sampling, with sampling interval being 52. Information was taken using a predesigned, semi-structured, pretested proforma from both the parents and children Results:: The prevalence of home injury was found to be 39.7% in the last 1 year, significantly higher in the age group of 1-3 years (54.3%) followed by 5-10 years (45.1%) (P = 0.000). The total number of injuries and the average number of injuries in girls were significantly higher than those of boys. The most common type of home injury was falls (59.5%) followed by injury with sharps and burn injury. The environmental risk was assessed using standard and working definitions and found unsafe electrical points (95.3%), unsafe stairs (100%), unsafe kitchen with access to sharps (29.3%), access to active fire (19.3%), and unsafe furniture and objects (22.8%).[6]

CONCLUSION

Through this study it is concluded that there is moderate knowledge of prevention of home accident among mothers of under five children. The prevalence rate of home accident which was 33% is still need to taken care of for the betterment and safety of under five children . There is need for paying much more attention on mothers education on prevention of home accidents in under five children.

ETHICAL CONSIDERATION

Ethical consideration has been taken from informed written consent from the participants of the study. Anonymity and confidentiality of

the participants has been maintained during the study.

Competing interest:

The authors report no conflicts of interest for this work.

Authors' contributions

SS conceived and designed the study; SS, VC analyzed the data, RP and VC wrote the manuscript, SS, RP and VC drafted the report and advised the whole research paper and were involved in the interpretation of the data and contributed to manuscript preparation. All authors have read and approved the final version of the manuscript.

Acknowledgments

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