



Original Research Article

EVALUATING THE PERCEPTIONS, ATTITUDES, AND KNOWLEDGE OF PARENTS CONCERNING THE RISK FOR UNINTENTIONAL CHILDHOOD INJURIES

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ABSTRACT

Background: Unintentional childhood injuries have short—and long-term impacts on affected children and families. As children are curious about their environment, they tend to fall and have accidents. Parents are the main caregivers responsible for their physical safety. In the Indian context, in a low-economic setting, existing literature data is scarce concerning the type and prevalence of injury types and the parental perspective. The present study aimed to evaluate parents' perceptions, attitudes, and knowledge concerning the risk of unintentional childhood injuries.

Materials and Methods: The present study assessed 680 subjects, 298 fathers and 382 mothers. All the subjects were given a structured questionnaire that collected all the necessary data, including demographics and percentage analysis. The data gathered were analyzed statistically for results formulation.

Results: The results of the present study showed that the majority of subjects including mothers and fathers agreed on similar components of attitude and knowledge concerning unintentional childhood injuries. However, study results showed a statistically significant difference concerning the hazard and risk of perception for the severity of unintentional childhood injuries.

Conclusion: The present study concludes that the findings of the present study form the basis for making the outline of customized programs to equip parents in assisting with the safety aspects of their child subjects. The findings of the present study have healthcare policy, social, and domestic level implications.

Keywords: Attitude, children, childhood injuries, knowledge, unintentional injuries.

INTRODUCTION

Unintentional injuries in child subjects are rising in the incidence and prevalence making it a serious public health concern across the globe as they constitute a major healthcare concern. As per the recorded data, nearly 8,30,000 child subjects die from unintentional injuries. Following the WHO (World Health Organization) data from 2008, more than 95% of all deaths from external causes in child subjects are seen in developing and underdeveloped countries. Recent literature data by WHO suggests that the burden from unintentional childhood injuries is highest in Africa and Southeast Asia with more than 600,000 child subjects aged <14 years dying

secondary to unintentional childhood injuries globally.^[1]

In middle and low-income countries, the most common type of injuries affecting child subjects are drowning, poisoning, burns, road traffic accidents, and falls. Based on the recent literature data from India, the incidence of unintentional childhood injuries their prevalence is in the range of 7% to 34%. Unintentional childhood injuries have an effect not only on the physical health of children but also on long-term functional and mental impairment.^[2]

Unintentional childhood injuries pose a high economic burden on families along with child subjects and deprive them of essential healthcare system resources, particularly in limited-resource

settings. Unintentional childhood injuries including poisoning, drowning, burns, road traffic injuries, and falls are commonly seen in the childhood phase, especially in child subjects aged 10 years or younger. Owing to their exploratory and curious nature, child subjects are highly prone to injuries. The tendency of children to engage in risky behaviors and underestimating the surrounding hazards put the child subjects at increased risk of sustaining unintentional childhood injuries. Also, home accidents are commonly seen in young children.^[3] Child subjects aged less than 5 years spend the majority of their time at their home with parents being the primary caregivers. Parents are responsible for the supervision and provision of a safe environment for their child subjects. This makes parents aware of different threats increasing the risk of unintentional childhood injuries. Also, the perception and attitude of parents towards unintentional childhood injuries can help in the determination of the care level parents adopt to prevent injuries, and the perception of parents for injuries can help in developing a comprehensive approach or program to improve the safety measures of children.^[4] Hence, the present study aimed to assess the perception, attitude, and knowledge of parents concerning the risks of unintentional childhood injuries.

MATERIALS AND METHODS

The present study aimed to assess the perception, attitude, and knowledge of parents concerning the risks of unintentional childhood injuries. The study was done at Maharaja Suheldev autonomous medical college, Bahraich, Uttar Pradesh. The study subjects were from the Department of Pediatrics of the Institute. Verbal and written informed consent were taken from all the subjects before study participation. The present study assessed subjects visiting the IPD (In-patient Department) and OPD (Outpatient Department) subjects visiting the Department of Pediatrics of the Institute. The study included 680 subjects from both genders and children in families aged within the age of 1 to 5 years. The exclusion criteria for the study were subjects that were public health specialists, child counselors, and pediatricians. After the final inclusion of the study subjects, the families of the child subjects were counseled and a quick rapport was built with the families along with an explanation of the study purpose and design to them. This was followed by giving the preformed structured questionnaire to assess the response which was then filled by the participants. In cases where multiple parents wanted to fill out the questionnaire, separate questionnaires were given to all the subjects. Among 1076 subjects that took the questionnaire, complete answers were given by 680 subjects comprising 298 fathers and 382 mother subjects and were finally included in the study.

The questionnaire for each participant comprised three parts where knowledge was assessed concerning the various risk factors that might unintentionally cause injuries in child subjects with a tool developed using the Delphi technique where experts provided concurrence in the components of the questionnaire. The attitude of participants was assessed for unintentional childhood injuries using IAQ (Injuries Attitude Questionnaire from 2004.5 This tool comprised two subscales learning and toughening. Perceived seriousness and risk of parents concerning various childhood injuries were assessed using the Glik tool from 19916 which was later 20177 modified for South Indian context.

The data gathered were analyzed statistically using SPSS (Statistical Package for the Social Sciences) software version 24.0 (IBM Corp., Armonk, NY, USA) for assessment of descriptive measures, multiple logistic regression, Kaplan-Meier survival analysis, and Chi-square test. The results were expressed as mean and standard deviation and frequency and percentages. The p-value of <0.05 was considered statistically significant.

RESULTS

The present study aimed to assess the perception, attitude, and knowledge of parents concerning the risks of unintentional childhood injuries. The present study assessed 680 subjects with 298 fathers and 382 mother subjects. There were 382 mothers and 298 fathers subjects in the study. For education status, there were 12 uneducated, 454 below graduation, and 214 graduate and higher studied subjects in the present study, concerning income, income of <500000 and >50000 were reported by 190 and 144 study subjects respectively [Table 1].

It was seen that for knowledge of study subjects, potential injury to the child can be caused by locking the door can be known by 23.6% of mothers and 25.5% of fathers, by tubs/buckets filled with water by 23% of mothers and 16.1% fathers, choking by nuts and popcorns in toddlers and babies by 29.3% mothers and 27.5% fathers, suffocation by heavy blankets by 41.4% mothers and 48.3% fathers, using crib/beds with fixed sides are best management by 31.9% mothers and 26.2% fathers, raw sprouts causing food poisoning by 63.9% mothers and 68.5% fathers, avoiding honey in babies aged <1 year by 60.7% mothers and 56.4% fathers, selecting non-toxic material in baby toys by 28.8% mothers and 24.8% fathers, and ointments, cosmetics, and toilet cleaner can cause poisoning by 17.3% mothers and 18.8% fathers.

Concerning attitude, it was assessed on two subscales toughening and learning where toughening results showed that a child can build character by taking sensible risks that could result in some minor injuries felt by 43.5% of mothers and 35.6% of fathers, minor injuries can help their child build stamina by 46.6% mothers and 39.6% fathers, injuries can help the child

handle physical pain better by 39.8% mothers and 45% fathers, after being injured their child usually learns that they should not do the same thing again by 49.2% mothers and 40.3% fathers, and few minor injuries could be good for their child because they will help him/her learn to be more cautious by 47.1% mothers and 49% fathers. For learning, sometimes it is better to let their child learn on their own, even if it means getting hurt a little was felt by 51.3% of mothers and 39.6% of fathers, when a child experiences an injury, he learns the consequences of risky behavior was felt by 51.3% mothers and 38.3% fathers, being injured will help their child toughen up physically was felt by 42.4% mothers and 37.6% fathers and mental toughening by 37.7% mothers and 38.3% fathers, and getting injured will help their child learn limits of their abilities by 35.1% mothers and 38.9% fathers.

For perception of risk, among all provided situations, suffocation from soft toys, poisoning due to overdose

of medicines or wrong administration, poisoning due to cleaning agents, choking due to food, burns, and falling from stairs, 51.8% mothers perceive risk of falling from stairs as serious injury, 46.1% mothers as poisoning due to cleaning agents as very serious, 46.3% fathers as burn risk as serious injury, and 47.7% fathers perceived poisoning due to overdose of medicines or wrong administration as very serious. In perception of hazard, the situations provided were injuries due to toys (sharp edges/metal) playground equipment, drowning at home, drowning at pool, motor accident, entrapment in cupboards or refrigerator, and suffocation due to heavy blanket, 45.5% mothers perceived suffocation due to heavy blanket as serious injury, 50.8% mothers considered motor accident hazard as very serious injury, 41.6% fathers perceived drowning at home as serious injury and 52.3% fathers perceived motor accident hazard as very serious injury.

Table 1: Demographic data of study subjects

S. No	Characteristics		Number
1	Relationship	Mothers	382
		Fathers	298
2	Income	<500000	190
		>500000	144
		No response	346
3	Education	Uneducated	12
		Below graduation	454
		Graduation and higher	214

Table 2: knowledge of study subjects concerning potential injury

S. No	Knowledge for potential injury	Mother (%)	Father (%)
1	By locking the door	23.6	25.5
2	Tube/buckets filled with water	23	16.1
3	Chocking by nuts and popcorns	29.3	27.5
4	Suffocation by heavy blankets	41.4	48.3
5	Using crib/beds with fixed sides are best management	31.9	26.2
6	Raw sprouts causing food poisoning	63.9	68.5
7	Avoiding honey in babies <1 year	60.7	56.4
8	Selecting non-toxic material in baby toys	28.8	24.8
9	Ointments, cosmetics, and toilet cleaner can cause poisoning	17.3	18.8

Table 3: Attitude of study subjects concerning potential injury

S. No	Attitude	Mother (%)	Father (%)
1	Taking sensible risks that could result in some minor injuries	43.5	35.6
2	Minor injuries can help their child build stamina	46.6	39.6
3	Injuries can help the child handle physical pain better	39.8	45
4	After being injured their child usually learns that they should not do the same thing again	49.2	40.3
5	Minor injuries could be good for their child because they will help him/her learn to be more cautious	47.1	49
6	Sometimes it is better to let their child learn on their own, even if it means getting hurt a little	51.3	39.6
7	When a child experiences an injury, he learns the consequences of risky behavior	51.3	38.3
8	Being injured will help their child toughen up physically	42.4	37.6
9	Getting injured will help their child learn limits of their abilities	35.1	38.9

Table 4: Perception of risk among study subjects concerning potential injury

S. No	Perception of risk	Mother (%)	Father (%)
1	Mothers perceive risk of falling from stairs as serious injury	51.8	-
2	Poisoning due to cleaning agents as very serious	46.1	-
3	Burn risk as serious injury	-	46.3
4	Poisoning due to overdose of medicines or wrong administration	-	47.7
5	Suffocation due to heavy blanket as serious injury	45.5	-
6	Motor accident hazard as very serious injury	50.8	-
7	Drowning at home as serious injury	-	41.6
8	Motor accident hazard as very serious injury	-	52.3

DISCUSSION

The present study assessed 680 subjects with 298 fathers and 382 mother subjects. There were 382 mothers and 298 fathers subjects in the study. For education status, there were 12 uneducated, 454 below graduation, and 214 graduate and higher studied subjects in the present study, concerning income, income of <500000 and >50000 were reported by 190 and 144 study subjects respectively. These data were comparable to the studies of Johnston BD et al,^[8] in 2013 and Paul S et al,^[9] in 2019 where authors assessed subjects with demographic data comparable to the present study in their respective studies to assess the knowledge, attitude, and perception of parents towards unintentional childhood injuries.

The study results showed that for knowledge of study subjects, potential injury to the child can be caused by locking the door can be known by 23.6% of mothers and 25.5% of fathers, by tubs/buckets filled with water by 23% mothers and 16.1% fathers, choking by nuts and popcorns in toddlers and babies by 29.3% mothers and 27.5% fathers, suffocation by heavy blankets by 41.4% mothers and 48.3% fathers, using crib/beds with fixed sides are best management by 31.9% mothers and 26.2% fathers, raw sprouts causing food poisoning by 63.9% mothers and 68.5% fathers, avoiding honey in babies aged <1 year by 60.7% mothers and 56.4% fathers, selecting non-toxic material in baby toys by 28.8% mothers and 24.8% fathers, and ointments, cosmetics, and toilet cleaner can cause poisoning by 17.3% mothers and 18.8% fathers. These results were consistent with the studies of Prafulla S et al,^[10] in 2014 and Ince T et al,^[11] in 2017 where knowledge factors reported by authors in their studies were similar to knowledge levels assessed in the present study.

It was seen that concerning attitude, was assessed on two subscales toughening and learning where toughening results showed that a child can build character by taking sensible risks that could result in some minor injuries felt by 43.5% of mothers and 35.6% of fathers, minor injuries can help their child build stamina by 46.6% mothers and 39.6% fathers, injuries can help the child handle physical pain better by 39.8% mothers and 45% fathers, after being injured their child usually learns that they should not do the same thing again by 49.2% mothers and 40.3% fathers, and few minor injuries could be good for their child because they will help him/her learn to be more cautious by 47.1% mothers and 49% fathers.

For learning, sometimes it is better to let their child learn on their own, even if it means getting hurt a little was felt by 51.3% of mothers and 39.6% of fathers, when a child experiences an injury, he learns the consequences of risky behavior was felt by 51.3% mothers and 38.3% fathers, being injured will help their child toughen up physically was felt by 42.4% mothers and 37.6% fathers and mental toughening by 37.7% mothers and 38.3% fathers, and getting injured will help their child learn limits of their abilities by 35.1% mothers and 38.9% fathers. These findings were in agreement with the results of Ma X et al,^[12] in 2021 and Ramdzan SN et al,^[13] in 2014 where attitude responses seen in the present study were comparable to the records mentioned by the authors in their respective studies.

For perception of risk, among all provided situations, suffocation from soft toys, poisoning due to overdose of medicines or wrong administration, poisoning due to cleaning agents, choking due to food, burns, and falling from stairs, 51.8% mothers perceive risk of falling from stairs as serious injury, 46.1% mothers as poisoning due to cleaning agents as very serious, 46.3% fathers as burn risk as serious injury, and 47.7% fathers perceived poisoning due to overdose of medicines or wrong administration as very serious. In perception of hazard, the situations provided were injuries due to toys (sharp edges/metal) playground equipment, drowning at home, drowning at pool, motor accident, entrapment in cupboards or refrigerator, and suffocation due to heavy blanket, 45.5% mothers perceived suffocation due to heavy blanket as serious injury, 50.8% mothers considered motor accident hazard as very serious injury, 41.6% fathers perceived drowning at home as serious injury and 52.3% fathers perceived motor accident hazard as very serious injury. These results were in line with the studies of Mathur A et al,^[14] in 2018 and Hemalatha K et al,^[15] in 2018 where the perception risk of risk and hazards reported by the authors in their studies correlated to the results of the present study.

CONCLUSION

The present study, considering its limitations, concludes that the findings of the present study form the basis for making the outline of customized programs to equip parents in assisting with the safety aspects of their child subjects. The findings of the present study have healthcare policy, social, and domestic level implications. Development of

teaching and education programs for families of children aged 0-5 years might be helpful in further awareness.

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