



# Knowledge, Attitude and Perception on Prevention of Home Accidents among Mothers who Came to the Pediatrics Department of the Korle-Bu Teaching Hospital

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## Abstract

**Objective:** The study examined the knowledge, attitude and perception on the prevention of home accidents among mothers who reported at the pediatrics department of the Korle-Bu Teaching Hospital.

**Sample:** In all 30 mothers with children age 0 to 5 years were sampled for the study.

**Methods:** The study also used the survey method with the aid of the questionnaire as the main instrument of data collection.

**Results:** The outcome of the study showed that (73.3%) have had their children suffered from child injuries. Again, in terms of the prevalence of specific child injuries the study observed that burns (66.7%) and cut / wounds (63.3%) were recorded as the most prevalent child injuries among the respondents. In all 70 percent of the respondents recorded child injuries more than once in their homes. Furthermore, majority of the mothers expressed high knowledge on the causes and risk factors of home accidents among children aged 1-5 years. There is a clear indication of positive attitude of the respondents towards prevention of child injuries associated with the child at home. However, there is an indication from the outcomes that the respondents exhibited inappropriate attitude to prevention of home accidents. The study found that with the exception of education of mother and marital status of the mothers, all the other demographic variables showed insignificant relationship to prevention of child injuries. The study recommends that education programmers basing on the prevention and management of home accidents should be given urgent attention.

**Keywords:** Home accident prevention; Knowledge; Attitude; Children under five years

## Introduction

Home Accidents have been identified as the largest single cause of death after the age of one year and are among the most severe health problems facing the world today. In both the industrialized world and developing countries, accidents remain one of the major five leading causes of deaths.

According to the World Health Organization [1] every year about, 830,000 children die from home accidents worldwide. This corresponds to 2,000 child deaths in a day. In addition, majority of children (millions) have been referred to hospital due to home accident-related to injuries, eventually resulting in permanent disabilities. Equally, in Europe and worldwide home injuries are classified as the fourth leading cause of deaths [2]. Though the actual number of accidents and associated harms cannot be established, home accidents are greater than traffic and occupational accidents. This is because there are insufficient records and data from hospitals and this doesn't present all relevant figures [2]. The Center for Disease Control (2011) observed that home accidents make up the third leading cause of emergency department visits in the USA and in the United Kingdom it is noted that 40% of all accidents occur at home whiles 2,700,000 people get treatment relating to home accidents. Similarly, 7,000 deaths are recorded annually due to home accidents [3].

The National Safe Kids Campaign (2012), reported that in the United States 40% of deaths and 50% of non-fatal unintended accidents occur in and around the home.

Records from the Korle Bu Teaching Hospital's department of child health indicate that in Ghana domestic accidents among children under the age of five years are surging high. The statistics further shows that

in 2016 accidental poisoning averages four times a month for the first half of the year.

One factor that plays a critical role both in occurrence and the severity of an injury is the environment of the child. Most injuries which occur to the child take place near him [4]. Paudel et al. [4] further argued that majority of accidents happens in the living room; nonetheless the most severe accidents occur in the kitchen.

Baker et al. [5] opined that injuries cause almost half of all deaths among children aged 1-4 years), as home is the place where children spend most of their time in, this is where most injuries occur, especially among younger children [6].

Home accidents differ from country to another due to many factors such as economic and cultural factors. Although accidental injuries to infants and young children are often serious; they are generally avoidable with appropriate information and safe practices. Young children are mostly prone to injuries due to their inborn quest to discover their world coupled with their inability to notice the dangers of their activities. While young children learn through practice, minor

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injuries are inevitable. However, providing a safe environment in addition to close supervision and setting the limits of safety can help limit the risks associated with injuries. It is therefore important for parents to remember that they need to ensure a persistent equilibrium between over protection of the child and the freedom given the child in the process of learning the hazards of his environment.

### Problem statement

Injuries related to home accidents are gradually becoming health problems in our communities. It is argued that although home accidents are unexpected and unintentional, mothers feel remorseful when they occur. Yet, when they occur, it does not take away shameful feeling of these mothers [7].

In many situations children are continually exposed to danger and passive protection will never be enough. Protection must therefore be built in to help the child fight off these dangers. Again, the child himself must be made acquainted to the risk or dangers he faces as well as measures to avoid attracting unnecessary risk. Lesperance et al. [8] observed that most injuries can be prevented and that people tend to blame their injuries on «accidents.» According to the author the cause of most accidents are actually the results of predictable and preventable occurrences. The most important risk factors reported for home injury include living in unsafe homes, low socioeconomic status, and mothers' low knowledge and inappropriate attitudes. Several studies have evaluated the role of parents' preventive measures in decreasing the incidence of home injuries [9,10].

A study performed in 14 European countries has shown that the most important obstacle for adopting preventive measures is the inability of mothers to take continuous care of their children, followed by poor knowledge and inappropriate attitude about factors involved in injuries. Many researches have placed great emphasis on motivations and obstacles faced by mothers to adopt preventive measure of home accidents. However, the exact role of the majority of these factors is still unknown. Although valuable efforts have been made to recognize such factors, the results have been different and even contradictory due to cultural, social, regional difference. In Ghana, there is little known about the knowledge, attitude and perception of the mother on the preventive measures available for home accidents. This study attempts to explore the knowledge, attitude and perception of mothers on the preventive measure of home accidents in Ghana using mothers who reported to the pediatrics department of the Korle-Bu Teaching Hospital.

### Objectives of the study

The main objective of this study was to assess the knowledge, attitude and perception of mothers on the preventive measures of home accidents among mothers who came to the pediatrics department of the Korle-Bu Teaching Hospital.

Specifically the study looks at the following objectives:

1. To examine the prevalence of pediatric injuries in homes in Ghana.
2. To examine the knowledge level and awareness of mothers on the causes and risk factors of home accidents.
3. To identify the attitudes and perception of mothers towards preventing home accidents.
4. To determine the relationship between socio-demographics and the preventive measures of home accidents.

### Review of Literature

**Conceptualization of pediatric accidents:** According to Olutayo et al. [7] an accident is perceived as an experience of human that shows the state of deficiency of the human nature. It is the unintended, unpredicted, unsuspected or involuntary act or event in a sequence of events or acts which result into destruction of property, injury, death or combination of all. According to Udoh [11] accident is a Chain of events' which is deliberate or controlled. These unplanned events which being the result of some acts on the part of individual, may or may not results into injury. Furthermore, He added that an event could be termed as accident only by (a) the degree to which the event is expected (b) the degree to which it can be avoided and (c) the degree of intention. Generally, accidents are categorized as home, road / traffic and workplace accidents. Khoon [12], observed that the home is a perfect place to care for children and also this is where we feel secure. Nonetheless, many fail to realize that home is also a place where dangers are present. Surprisingly, most serious home accidents happen in the living room. According to Khoon [12] home accidents are the hazards that we expose our young children to at home if we do not take the needed protections in the home.

Oyerinde [13] and Folawiyo [14] stated that the increase in home accident is attributable to the excessive use of products of modern technology in the homes as well as the resultant rise in the complex nature of the structure and contents of a home. Hence, homes are continually procuring various types of dangers in their set-up, construction and/or maintenance and in a diversity of consumer products within the home.

Mohammed et al. [15] identified the major causes of accidents in the home as falls, fires and burns, suffocation, choking, poisoning, cuts and lacerations.

#### The various types of home accidents among children

**Falls:** Falls are perceived as the commonest cause of accidents in the home and account for 44 per cent of all children's accidents. Falls involve tripping over on the same level. However, the most severe magnitudes arise from falls between two levels. For instance, falling out of a pram or highchair or falling from a bed or down the stairs [16].

**Scalds and burns:** Lindblad et al. [17] observed that burns are classified as one of the distressing injuries because of their long-term physical, psychological, and economic effects. Those at risk for scald and burns are mainly children aged 0 to 2 years because of their natural desire for inquisitiveness, spontaneity, mode of reaction, and inexperience in assessing danger and risk. According to Fox [16] scalds are caused by hot drinks mostly in children under the age of five years. Due to the sensitive nature of the child's skin, hot drinks can scald a child 15 minutes after coming into contact. Children can suffer burns after exposure to open fires, a cooker, irons, curling tongs and hair straighteners, cigarettes, matches and cigarette lighters.

**Glass-related accidents:** Glass is known to cause serious cuts in children. Eventually, many children end up in hospitals every year because of glass-related accidents in the home. Many get injured when glasses and bottles break. According to Fox [16] due to the increasing use of glass in the home more glass-related injuries have been recorded in recent years.

**Poisoning:** Young children are mostly prone to the consumption of poisonous substances, especially liquids, because they are very curious and therefore may end up putting most items in their mouths even though they are unaware of consequences [17].

Most poisonous substances involve medicines, household products and cosmetics. Some poisonous substances can cause breathing difficulties. For instance, under-the-sink cupboards which contain potentially dangerous cleaning products. To a child, these substances appear like brightly colored sweets despite being toxic. It is noticed that there is an increasing number of children who have accidentally eaten these substances in recent years [16].

**Suffocating and choking:** Babies and young children are at risk from choking because they like to put things in their mouth as a way of examining them.

### Risk factor for home accidents

Iroezi [18] list the following as risk factors of home accidents. They include:

- Floors those are slippery as results of water or oil or slimy liquid on the floor.
- Faulty electrical gadgets. For instance fans, wall sockets, exposed wires etc.
- Riding of toys and bicycles near the steps or uneven surfaces.
- Walking barefooted over sharp objects.
- Pointed Objects such as toothpicks, pins, needles, biro, nails, injection needles etc.
- Sharp objects such as knives, scissors etc.
- Steps/stair case.
- Young children attempting to climb stools.
- Fire- parents sometimes ask young children to light fire or gas cooker, without checking safety first.
- Messy Yard where broken bottles, nails, rusty tins, zinc, sharp sticks are scattered around.
- Drugs: children can mistakenly take drugs.

### Environmental factor

According to Ineichen [19] environmental factors are related to some aspects of house design and furnishing are possibly significant threats to health; children open faulty electrical wiring, poor segregation of motor traffic from areas where children play. Also faulty design and poor and poor maintenance of home, careless housekeeping and using improperly house-hold equipment.

### Prevalence of pediatric injuries in homes in Ghana

A study by country health system facts [20] revealed that in Ghana, home injuries are the sixth leading cause of deaths in children under five years of age, however, there are no data on the mode of injury of these children. Additionally, data are also lacking on the number of non-fatal injuries in this population (country health system facts, 2010).

According to Asiedu [21] statistics from the Korle Bu Teaching Hospital's department of child health indicates that domestic accidents among children under the age of five years are on the rise. The statistics shows that accidental poisoning averages four times a month for the first half of the year in 2016.

### Knowledge level and awareness of mothers on the causes and risk factors of home accidents

El-Sabely, Yassin and Zaher [22] contend that ignorance and negligence of the mother is one fundamental cause of accidents in the home. He further argued that it is significant to improve the mother's knowledge, attitude and practice in order to prevent accidents at home. Education improves the way of life of people and provide avenue for

enlightenments [23]. Oladunjoye [24] examined the effect of the mother's education in preventing home accident among preschool children in Ilesa Metropolitan city. The study employed the survey method and cluster sampling the two Local governments in the city. Furthermore, 187 nursing mothers from both Local Governments selected and were interviewed for the study. The results revealed a highly significant difference between mothers' knowledge and their educational attainment ( $\chi^2=39.93$ ; p-value=0.0000) demonstrating that the level of educational attainment has significant difference on the level of knowledge on the causes and prevention of home accident among pre-school children. The result further revealed a high level of significant difference between mothers' age and the level of knowledge exhibited on the causes and prevention of home accidents ( $\chi^2 =18.78$ ; p-value=0.0000).

Similarly, El-Sabely et al. [22] found in their study that more than half of the studied mothers (55.3%) did not have any knowledge about the causes of home accidents. On the other hand, the study did not show a significant relationship between the mother's age and her knowledge regarding causes of home accidents was (p>0.05). However, the results revealed that mother's knowledge regarding causes of home accidents increased with increasing educational level. Hence, the literature established that there is low knowledge of mothers regarding the causes and risk factors associated with home accidents among mother.

### Attitudes and perception of mothers towards preventing home accidents

Researchers [25-27] have contended that parents have lesser understanding concerning prevention of accidents. Yalakin et al. [28] revealed that mothers of children who experienced home accident exhibited poorer attitudes and behaviors more commonly. Similarly, Özmen et al. [26] found that mothers are unskilled to take safety precautions against home accidents. A study performed in 14 European countries has shown that the most important obstacle for adopting preventive measures is the inability of mothers to take continuous care of their children, followed by poor knowledge about factors involved in injuries [29]. Again the study found that the most common response, when asked why some parents find it difficult to protect their children from accidental injury, was not being able to watch their children constantly. Lack of awareness or knowledge about the causes of accidents was the second response. While two-thirds of parents would like to see more help from the government to prevent childhood injuries, Three-quarters of parents agreed that child injuries can be avoided.

Supervision is one essential tool to manage home accidents Stratton [30] argued that the primary role played by parents in preventing home injuries is to protect the child from accessing hazards, through effective supervision. Some researchers have indicated that parents need supervision to prevent injuries and identify the need to vary their supervision depending on the child's age and extent of environmental risk [31,32]. Conversely, other studies have found that parents do not, actually vary supervision for high-risk, frequently injured children [33].

Therefore, what parents report in the lab may bear little relation to how they typically behave during the course of their day-to-day interactions with their children?.

### Relationship between socio-demographics and the preventive measures of home accidents

The relationship between demographic factors and preventive measures of home injuries have been documented in many researches [26,27,34].

Eldosoky [35], observed in his studies on home accidents that boys were most frequently opened to home. The researcher concluded that home accidents predominantly occur among boys.

Similarly, Aksakal et al. [36] found that occurrence of home accident was significantly lower among work class mothers.

However, this was not the case in a study by [34,37]. The researchers revealed in their studies that there was no significant difference between occupational status of parents and the incidence of home accidents. It is assumed that there is an increases risk for home accidents in children in extended families since there is inadequate time to care for the child, unsatisfactory supervision for child as well as the issue of more children requiring attention from mother in such families. Turan et al. [38] revealed a significant relationship between number of persons in the family and the occurrence of home accidents in the child. The researchers further revealed that there is a significant relationship between income level and home accidents. Family residence is also known to influence home accidents. The authors found a significant relationship between residence of family and home accident in a child. Their studies reported that there is higher incidence of home accident in children of families residing in secluded houses. On the contrary, Karatepe et al. [34] and Alasya [37] found no significant relationship between home accident and type of residence.

Other researchers have also found that children living in flatted houses are more commonly exposed to home accidents [9,39,40].

There is also evidence of a significant relationship between education level of the mother and home accident in child [35,38,41,42].

On the other hand, some studies have also reported a contrary relationship between maternal education and home accident in child [35,43,44].

Furthermore, mother's age and home accident in child have also revealed a significant relationship. Balibey et al. [44] found that there is increasing incidence of home accident as maternal age advances. Balibey et al. [44], in a study found that risk for home accident in a child was increased by as a mother's age progresses. In contrast, other studies have recorded no significant relationship between a mother's age and home accidents [35,42].

Some studies [35,45] have also revealed a significant relationship between the number of children in the family and the occurrence of home accident in child. According to these researchers, the incidence of home accident in child increases with the increasing number of siblings. It is reported that the frequency of home accidents can be greater since mother can spend less time to look after child with the increasing number of siblings. On the contrary, other studies have found no significant relationship between the occurrence of home accident and the number of siblings.

## Related studies

According to Amine et al. [46] in his study carried out in Egypt, the results revealed that the overall incidence of injuries indoor home environment was estimated to 72.5% among children. This outcome pushed for the setting up of a National Injury prevention program in Egypt for preventing injuries arising from burns, falls, and poisoning among target children and mothers.

In a similar studies in Lebanon, Kanafani, [47] found that local specialists showed that 40% of accidents reported in emergency rooms occur at home and most of these accidents lead to death or permanent

disability.

In the United States, the National Safe kids Campaign (2000) described unplanned injury as being the leading cause of death among children. Similarly, according to the National Safety Council Report [48] seven million Americans suffer incapacitating injuries and another 28,800 die as a result of injuries that happen at home each year. Falls have also been identified as the leading cause of hospitalized traumatic brain injuries for children ages 5 and younger.

A study by Oyerinde et al. [49] in Nigeria reported the risk factors and the occurrence of accidents in the home resulting from these hazards in Ilorin Township. The study revealed that hazards such as not switching off electrical appliances, lit candles, lamps, matches, faulty electrical connections, over-cooked or fried oil, boiling water, drugs, razor blades, pins or nails, kitchen knives, can openers, pieces of broken bottles or plates, damaged furniture, toys and utensils, hostility in the family due to various reasons, carelessness of the house maids, stairs, slippery floors have been the major causes of home accidents.

In a study by Ibrahim [48] 40% percent of deaths which could have been prevented were due to home accidents. The researchers contend that the mother's lack of knowledge of preventive measures ignorance and negligence of the mother have been the fundamental causes of accidents. The researchers therefore concluded that mother knowledge, attitude and practice will prevent accidents at home.

As observed from the literature, majority of accidents in the home are preventable it is important for parents in our communities to be given fundamental counseling about how to prevent accidents.

## Methods

The study was structured within the framework of the descriptive cross-sectional survey research design. The relevance of descriptive approach is to make comparison or contrast and to also discover relationships between variables this study is limited to mothers with babies within the ages of 0-5 years who reported at the Korle-Bu Teaching Hospital. In this case, the units of analysis included all mothers who reported at the pediatric department of the, of the Korle-bu teaching hospital. In this case 30 mothers were randomly selected for the study. Specifically, purposive sampling method was employed in the sampling of the mothers. The sources of data for the study were gathered from two main sources; primary and secondary sources. The secondary data was obtained from books, journals, articles, internet, among other publications. On the other hand, the primary data was obtained from the study's unit of analysis using questionnaires. Questionnaires were used to collect data from the mothers. The research used questionnaire over other research instruments because questionnaires give a series of questions asked to individuals to obtain statistically useful information about a given topic. The field data was processed before analysis. The data processing involved cleaning the data. This was done at the data entering stage. At this stage, the data were inspected, and erroneous data were corrected. The Statistical Product and Service Solutions (SPSS), version 18 was used in analysing the quantitative data, while the results were presented using descriptive statistics through percentages and frequencies.

## Results

### Background information

This section of the study presents the analysis and discussions of the demographic characteristics of the respondents. Thus, the



respondents were mothers with children aged 0 to five years who visited the pediatric department of the hospital. Thirty complete questionnaires were obtained from the respondents and used for data analysis. Thus the study recorded 100% response rate. That is to say, 30 respondents participated in the study. Specifically, the study examined the demographic characteristics of the respondents using the following seven variables: age of mother, educational background, family size, social class (income level), and marital status, residential status of respondents as well as sex of child. In this regard, the study examined the demographic distributions of the respondents.

Thus, the age analysis revealed that respondents of age group 25-34 majorly dominated the study with 58.6 percent representation. However, the least age group was those of age 41+ years group that did not record any representation in the study. Further analysis showed that majority of the mothers was below 34 years and this makes up about 90 percent of the study. The reason for this could be that majority of these women will be mothers within their active child bearing years. And therefore were likely to have children within 0 to 5 years. The results of the data are presented below Table 1.

The study also examined the educational background of the respondents. It is noted that mothers with junior high school education level dominated the study (46.7%) while those with no educational background were less represented on the study. The study recorded 23 percent of mothers with tertiary education. In all, it is noted that 90 percent of the respondents had some level of education while 10 percent had no education. Hence we can conclude that the study is majorly dominated by mothers with some level of education. The results of the study are presented below Table 2.

Furthermore, the study explored the family size of the respondents. It is noticed that respondents with family sizes of three and four constitute the majority of the study (46.7%) while those with family size of five and six or more were scarcely represented. This is not surprising, since it seems to validate the national statistics of household size as stated by the GLSS (2012). Hence we can conclude that the respondents with household size of three and four dominated the study. The results of the study are presented below Table 3.

The study also sought to examine the income status of the respondents. From the results 60 percent of the respondents are within the low income status while 23 percent are within the middle income status. The reason for this could be the general economic conditions in the country. Hence we can conclude that majority of the respondents were within the low income status (Table 4).

Furthermore, the marital status of the respondents was also analyzed. From the results majority (73.3%) of the respondents were married while the minorities were single although they have children. It is further noticed the total percentage of the married is in excess of about 47 percent of those who are single, hence we can deduced from the results the study majorly constitute married couples. The results are presented below Table 5.

The residential status of the respondents showed that majority of the respondents (63.3%) resides in a compound house while the minority

Age Group	Frequency	Percent
Below 25 years	11	37.9
25-34	18	61.9
35-44	1	3.3
45 and above	0	0
<b>Total</b>	<b>29</b>	<b>100</b>

Table 1: Age distribution of mothers.

lived in an apartment. The choice of residents could be influenced by the income status of the respondents. Thus since majority of the respondents fell within the low income group, it was not surprising the most of them lived in a compound house. Hence we can conclude that majority of the respondents lived in a compound house due to their income status. The results of the data are presented below Table 6.

Finally, the study also analyzed the sex of the respondents' children and the results are analyzed below. It is noticed from the results that majority (55.2%) of the respondents had male children while minority had female children (44.8%) (Table 7).

### Prevalence of pediatric injuries in Ghanaian homes

This section of the study explores the level of prevalence of child injuries in Ghanaian homes. Specifically, the section examines the occurrence of child injuries at home the type of injuries that normally occur and the number of times they occur in the homes.

In this regard the study analyzed the occurrence of child injuries in Ghanaian homes. The results below showed that majority of the respondents (73.3%) have had their children suffered from child injuries. This number exceeds the minority by 47 percent; hence we can conclude that child injuries are prevalent in homes in Ghana. The

Educational Level	Frequency	Percent
None	3	10
Basic	5	16.7
JHS	14	46.7
SHS/VOC	1	3.3
Tertiary	7	23.3
<b>Total</b>	<b>30</b>	<b>100</b>

Table 2: Educational background of respondents.

Family Size	Frequency	Percent
Three	14	46.7
Four	14	46.7
Five	1	3.3
Six	1	3.3
<b>Total</b>	<b>30</b>	<b>100</b>

Table 3: Size of household.

Income Status	Frequency	Percent
High	5	16.7
Middle	7	23.3
Low	18	60.0
<b>Total</b>	<b>30</b>	<b>100</b>

Table 4: Income statuses of respondents.

Marital Status	Frequency	Percent
Married	22	73.3
Single	8	26.7
<b>Total</b>	<b>30</b>	<b>100</b>

Table 5: Marital status of respondents.

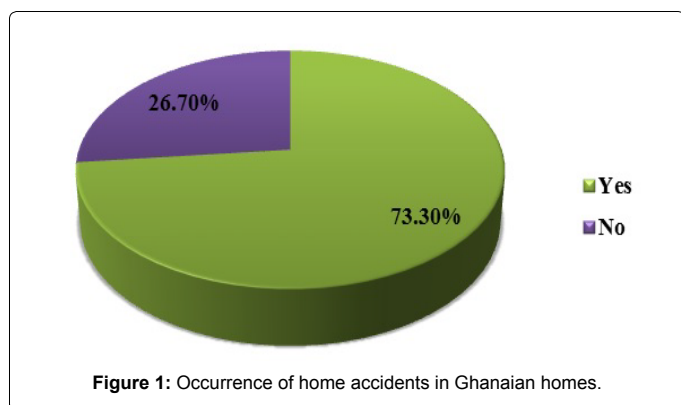
Residential Status	Frequency	Percent
Compound House	19	63.3
Apartment	11	36.7
<b>Total</b>	<b>30</b>	<b>100</b>

Table 6: Residential status of respondents.

statistics by country health system facts, (2010) shows that accidental poisoning averages four times a month for the first half of the year in 2016. Research on home accidents have found that in Ghana, home injuries are the sixth leading cause of deaths in children under five years of age, however, there seems to be lack of data on how these children were injured. Additionally, data are lacking on the number of non-fatal Injuries in this population. However, this study found that burns and cut/wounds were the leading cause of child injuries and therefore contradicts the findings by the country health facts. The results are presented below Figure 1.

Furthermore, the study sought to inquire from the respondents the most prevalent type of child home injures that occurred in Ghanaian homes. From the result burns (66.7%) and cut/wounds (63.3%) were seen as the most prevalent child injuries among the respondents. Whiles child poisoning is seen to have never occurred among the respondents. This is an indication that burns and cut/wounds are the prevalent child injuries in Ghana. The results are showed below Table 8.

In relation to the above findings this study sought to examine the frequency of the occurrence of home accidents among the respondents. The results showed that in most homes in Ghana home accident occurred more than once. Specifically from the study majority of the respondents opined that home accidents occurred twice (56.7%) while



Sex of Child	Frequency	Percent
Male	16	55.2
Female	13	44.8
<b>Total</b>	<b>29</b>	<b>100</b>

**Table 7:** Sex of Child.

Type of Accident	Frequency	Percent
Cut / wound	19	63.3
Fall/fracture	8	26.7
Burns	20	66.7
Poisoning	0	0
Chocking	5	16.7
Animal bite	5	16.7
Drowning	1	3.3

**Table 8:** Types of home accidents in Ghanaian homes.

Occurrence	Frequency	Percent
Once	9	30.0
Twice	17	56.7
Three Or More	4	13.3
<b>Total</b>	<b>30</b>	<b>100</b>

**Table 9:** Frequency of occurrence child injuries in the home.

30 percent also claimed that home accidents occurred once. In all 70 percent of the respondents recorded child injuries more than once in their homes. The reason from the higher frequency of occurrence although not tested for could be due to lack of supervision on the part of parent among other reasons. The results are presented below Table 9.

### Knowledge on causes and risk factors

This section of the study presents the mothers' knowledge and awareness of the causes and risk factors associated with cancer. In all 10 knowledge variables of home maintenance techniques that predispose the child to injuries were employed and used in the study. A cross-sectional assessment of the results showed that majority of the mothers has high knowledge of the causes and risk factors of home accidents among children. Specifically, the respondents expressed knowledge in the fact that lack of supervision, presence of objects on floors and the exposure of hot cooking pots as well as hot water were precursors that trigger child injuries in the home. On the other hand, accidental swallowing of drugs and detergents were not much know among the respondents (57.7%) as triggers of home accidents since a significant number of the respondents showed less knowledge in that regard. Although their source of knowledge was not ascertained reasons could be their level of education and age (Table 10).

### The attitude and perception of mothers towards prevention of home accidents

This section of the study sought to explore the mothers' attitude and perception often exhibited in the prevention of child injuries in the home. For this reason, the study identified thirteen attitude variables that have the likelihood to trigger home accidents or otherwise. Cross-sectional analysis presents a clear indication of positive attitude of the respondents towards prevention of child injuries associated with the child at home. On the other hand, there is also some indication from the results that the respondents showed low attitude to prevention of home accidents. The table below showed a summary of the results (Table 11).

Furthermore the study sought to ascertain the perception of the respondents toward prevention of childhood injuries. In this regard the study inquired from the respondents whether home accidents can be prevented and the mode of prevention where necessary. The results found that majority of the respondents have a positive perception towards the prevention of home accidents among children age 0 to 5 years. This result explains that the respondents were majorly against the occurrence of home accidents. This explains their positive attitude towards its prevention and hence a positive perception. The results of the study are presented below Figure 2.

Knowledge	Yes	
	Frequency	Percent
Lack of supervision	27	90.0
Lack of supervision	29	96.7
Accidental swallowing of objects	24	80.0
Covering of head with blanket	23	79.3
Hot water of soup	26	86.7
Child close to fire	24	80.0
Hot cooking utensils	28	96.6
Accidental swallowing of drugs	15	57.7
Swallowing of detergents	15	57.7
Swallowing of detergents	22	75.9

**Table 10:** Mothers' knowledge of the causes and risk factors associated with home accidents among children age 0-5 years.

Attitude	No (Never Happened)	YES (Happened)
	Percent	Percent
I Place cutters on table cabinet	53.3	46.7
I Give string or plastic to children to play with	93.3	6.7
I Keep nails at home	77.0	23.0
I pay attention to place hot water and dishes out of children's reach	10.0	90.0
I leave electrical devices attached to wall plug at home	80.0	20.0
I put chemical substances in the kitchen	73.3	26.7
I leave child to play alone at balcony	63.3	36.7
I give chain or bead to children to play with	83.3	16.7
I leave pocket lighter or matches on table	83.3	16.7
I keep drugs within fridge	43.3	56.7
I dry floor in bathroom after cleaning or bathing	30	70
I cook on portable gas stove	40	60
I pay attention to place handles of pans inside	6.7	93.3

Table 11: Attitude of mothers towards home accident prevention.

Mode of Prevention	Frequency	Percent
Active supervision	29	96.3
Reducing risk of home accidents	25	83.3
Maintaining safety precautions at home	24	80.0
Putting things out of child's reach	23	79.3
Teaching child to be cautious in hurtful situations	26	86.7

Table 12: Respondent's perception of prevention of child injuries at home.

In relation to the previous responses of the respondents the study sought to inquire from the respondents the mode of prevention of home accidents among children. Studies indicate that parents expect supervision to prevent injuries and recognize the need to vary their supervision depending on the child's age and extent of environmental risk [31,32]. Generally it is noticed that majority of the respondents were aware of the preventive mechanisms for home accidents. Specifically, 97 percent of the respondent ranked active supervision as the most important preventive measure for accidents in the home. This was followed by, educating children to be cautious in hurtful situations (86.7%) among others. Hence we can conclude that the respondents perceive active supervision as the most important mode of prevention of child injuries in the home. The findings of the study therefore agree with the one done by the earlier researchers above. The results are showed below (Table 12).

Further the study also inquired from the respondents activities they have undertaken at home to prevent the occurrence of home injuries among infants. The following were identified:

1. Strict supervision.
2. Proper maintenance of electrical appliances.
3. Educating the child.
4. Maintaining safety at home.

### The relationship between socio-demographics and the preventive measures of home accidents

This section of the study explores the relationship between demographic factors and the preventive measures of home accidents among infants. Analyses of the relationship between demographic factors and preventive measures of home accidents posted largely an insignificant relationship. With the exception of education of mother and marital status of the mothers, all the other demographic variables were deemed to be insignificant to preventive measures of home

injuries among infants. In the case of education of the respondents the study found significant relationship between active supervision and education of the mother. Indicating that mothers with higher education were more likely to offer active supervision to their wards than mothers with lower education level. Similarly, education of the mother was also deemed significant to maintenance of safety precautions at home as well as putting things out of the reach of the child. In the case of marital status of the respondents the study recorded a significant relationship with the entire variable associated with preventive mechanism indicating that marital status is significant with the demographic variables. Specifically, it is noticed that mothers who were married were more likely to initiate preventive measures than the single mothers. Hence, it is deduced from the above discussion that marital status and education of the mother were the only demographic variables found to be significant with the preventive mechanisms of child injuries at home. Similarly, Oladunjoye [24] studied the effect of mother education on prevention of home accident among preschool children in Ilesa Metropolitan city. The study adopted survey method in data collection using structured questionnaire. Cluster random sampling technique was adopted based on the two Local governments in the city. Using 187 nursing mothers

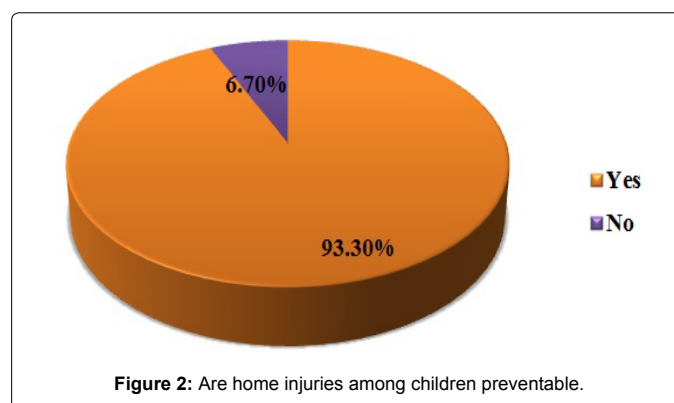


Figure 2: Are home injuries among children preventable.

Demographic Factors	Level of Significance
<b>Age of mother</b>	
Active supervision	0.46
Reducing risk of home accidents	0.02
Maintaining safety precautions at home	0.46
Putting things out of children reach	0.46
Teaching child to be cautious in hurtful situations	0.30
<b>Education level</b>	
Active supervision	0.02
Reducing risk of home accidents	0.02
Maintaining safety precautions at home	0.04
Putting things out of children reach	0.13
Teaching child to be cautious in hurtful situations	0.24
<b>Family size</b>	
Active supervision	0.48
Reducing risk of home accidents	0.43
Maintaining safety precautions at home	0.48
Putting things out of child's reach	0.48
Teaching child to be cautious in hurtful situations	0.28
<b>Social class</b>	
Active supervision	0.49
Reducing risk of home accidents	0.49
Maintaining safety precautions at home	0.49
Putting things out of child's reach	0.49
Teaching child to be cautious in hurtful situations	0.32
<b>Marital status</b>	
Active supervision	0.01
Reducing risk of home accidents	0.00
Maintaining safety precautions at home	0.01
Putting things out of child's reach	0.01
Teaching child to be cautious in hurtful situations	0.00
<b>Residential status</b>	
Active supervision	0.26
Reducing risk of home accidents	0.39
Maintaining safety precautions at home	0.26
Putting things out of child's reach	0.16
Teaching child to be cautious in hurtful situations	0.26
<b>Sex of child</b>	
Active supervision	0.18
Reducing risk of home accidents	0.81
Maintaining safety precautions at home	0.18
Putting things out of child's reach	0.18
Teaching child to be cautious in hurtful situations	0.67

**Table 13:** Relationship between demographic variables and preventive mechanisms for child injuries.

from both Local Governments were interviewed. Findings revealed that there is highly significant difference between mothers' knowledge and their education attainment ( $\chi^2=39.93$ ;  $p$  value=0.0000) indicating that level of education attainment has significant difference on the level of knowledge regarding the causes and prevention of home accident among pre-school children. This finding by Oladunjoye [24] confirms the findings of the study. The results of the data are presented below (Table 13).

## Summary

**How prevalent are pediatric injuries in homes in Ghana?:** Majority of the respondents (73.3%) have had their children suffered from child injuries. This number exceeds the minority by 47 percent; hence we can conclude that child injuries are prevalent in homes in Ghana. Again, in terms of the prevalence of specific child injuries the

study observed that burns (66.7%) and cut / wounds (63.3%) were recorded as the most prevalent child injuries among the respondents. With regards to the number of occurrence of child injuries the results showed that in most homes in Ghana home accident occurred more than once. Specifically from the study majority of the respondents opined that home accidents occurred twice (56.7%) while 30 percent also claimed that home accidents occurred once. In all 70 percent of the respondents recorded child injuries more than once in their homes.

**What is the knowledge level and awareness of mothers on the causes and risk factors of home accidents?:** Majority of the mothers have high knowledge of the causes and risk factors of home accidents among children. Specifically, the respondents expressed high knowledge in the fact that lack of supervision, presence of objects on floors and the exposure of hot cooking pots as well as hot water were precursors that trigger child injuries in the home. On the other hand, accidental



swallowing of drugs and detergents were not much known among the respondents (57.7%) as triggers of home accidents since a significant number of the respondents showed less knowledge in that regard. Although their source of knowledge was not ascertained reasons could be their level of education and age.

**What are the attitudes and perception of mothers towards preventing home accidents?:** Cross-sectional analysis presents a clear indication of positive attitude of the respondents towards prevention of child injuries associated with the child at home. On the other hand, there is also some indication from the results that the respondents showed inappropriate attitude to prevention of home accidents. Specifically, while majority of the respondents accepted that they did not give string or plastic materials to kids to play with (93.3%), 37 percent also agreed that they allowed children to play alone at balcony. These results showed that the respondents did not display absolute attitude towards prevention of child injuries.

**What is the relationship between socio-demographics and the preventive measures of home accidents?:** The relationship between demographic factors and preventive measures of home accidents posted largely an insignificant relationship. The study found that with the exception of education of mother and marital status of the mothers, all the other demographic variables showed insignificant relationship to prevention of child injuries. In the case of education of the respondents the study found significant relationship between active supervision and education of the mother. Indicating that mothers with higher education were more likely to offer active supervision to their wards than mothers with lower education level. Similarly, education of the mother was also deemed significant to maintenance of safety precautions at home as well as putting things out of the reach of the child. In the case of marital status of the respondents the study recorded a significant relationship with the entire variable associated with preventive mechanism indicating that marital status is significant with the demographic variables. Specifically, it is noticed that mothers who were married were more likely to initiate preventive measures than the single mothers. Hence, it is deduced from the above discussion that marital status and education of the mother were the only demographic variables found to be significant with the preventive mechanisms of child injuries at home.

## Conclusion

This study assessed the knowledge, attitude and perception on prevention of home accidents among mothers who came to the pediatrics department of the Korle-Bu Teaching Hospital. The study employed 30 mothers using the survey research methodology and questionnaires as the main instrument of data collection. The results of the data were analyzed using SPSS version 20 and data was presented using descriptive statistics. The study found that child injuries are prevalent among infants aged 0 to 5 years in homes in Ghana, however, knowledge of the respondents on causes and risk factors are high. With regards to attitude towards prevention, this study found that although there is positive attitude, there seem to be significant inappropriate attitudes towards prevention. Similarly, this study also found a relationship between education and marital status and the prevention of child injuries at home.

## Recommendation

Based on the findings of the study this study will like to make the following recommendation:

1. There should be an urgent need for educational programmer

regarding on home accidents and its management for mothers who have young children. This could be done by the public health department of the hospital.

2. It is also important to develop the attitude of being each other's keeper on matters relating to home accidents.
3. The mass media should be involved in the determination information regarding of increase public awareness of home accidents through mass media.
4. Mothers should be educated and trained on how to keep the house safe for children.
5. Health education program regarding the management of the home, first aid administration as well as prevention of home accidents should be encourage among mothers.

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