



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Shandi university

Faculty of Graduate Studies and Scientific Research

**Mother Knowledge Toward First Aid and
Prevention of Common Home Accidents Among
Children Under Five Years in**

Al-Andolos Area

٢٠١٧

*Partial dissertation submitted for fulfillment of MSc degree in
community and family health nursing*

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April ٢٠١٧

Dedication

I dedicate this research:

*To the spring that never stop giving. Whose weaves my
happiness with string of merciful heart*

My father Achwany and my mother Maria

To whom love flow in my veins and my heart always

To my husband James Drfoun

To my beloved Sisters and Brother Emmanuel

*For this encouragement and support during years of
study.*

Acknowledgement

Firstly all thanks to my Lord who created me and made me alive till this moment.

Special thanks to Shandi University

*And I would like to express my sincere gratitude to my supervisor. Dr: **Mohammed Jebreldar***

to provide support, guideline and encouragement through conducting the research.

Great thanks to my beloved husband James Drfoun for his big patient, support and motivation that he gave me

Big thanks and appreciative for respondent of this research to all women in Al-andolous area for their contribution

And finally I don't forget my family, my friend and all of them who support and give me advice during this work.

ملخص الدراسة

اجريت هذه الدراسة الوصفية لتقييم معرفة الامهات عن الاسعافات الاولية والوقاية من اكثر الحوادث المنزلية حدوثا لدى الاطفال ما دون سن الخامسة. تحديد اكثر الحوادث المنزلية حدوثا والعوامل التي تؤدي الى حدوثها . وقياس العلاقة بين حدوث الحوادث و العوامل. فى الفتره من شهر اكتوبر ٢٠١٦ حتى يناير ٢٠١٧ على ١٥٠ من الامهات.

اختيرت عينة الدراسه فى منطقة الاندلس باستخدام تقنية المراحل المتعدده . و تم جمع البيانات باستخدام استبيان ذات اسئلة مغلقة. و الذى ينقسم الى قسمين: القسم الاول ويحتوى على البيانات الاولية. والقسم الثانى عبارة عن اسئلة لتقييم معرفه عن الاسعافات الاولية و الوقاية من الحوادث المنزليه وتم تحليل البيانات بالكمبيوتر باستخدام الحزمة الاحصائية للعلوم الاجتماعيه الاصدار (٢٢).

و توصلت الدراسه الى ان نصف الامهات بين (٢٥-٣١) من العمر وان اكثر من نصف الامهات (٦٨%) لديهم ما بين (١-٣) طفل. وان اكثر الحوادث حدوثا هي حوادث السقوط بنسبة (٥٨%). وتوصلت الدراسة ايضا الى ان ثلث العينه فقط هم الذين لديهم معرفة جيده (٣١%) حول الوقايه من الحوادث المنزليه. وهناك علاقه تربط بين مهنة الام و حدوث الحوادث المنزليه للاطفال. وجدت الدراسه ان معظم الامهات لديهن معرفة جيده (٧٦%) (٨١%) (٨٥%) تجاه الوقاية من حوادث الحروق؛ السقوط و الاختناق على التوالي . ومعرفة ضعيفه (٧٩%) (٥١%) فى حالة الوقاية من الغرق و التسمم علي التوالي. اما بخصوص الاسعافات الاولية للحوادث فى حالة حدوثها فان معظم الامهات لديهن معرفه جيده (٦٩%) (٦٠%) فى الاسعافات الاولية لحوادث التسمم و الاختناق علي التوالي. و معرفة متوسطه (٥٩%) فى حالة حوادث الغرق اما فى حالات الحريق و النزيف و الجروح فليهن معرفه ضعيفه (٦٣%) (٤٨%) فى اسعافه علي التوالي.

واوصت الدراسه وزارة الصحة بزيادة معرفة ووعى الامهات عن الوقاية من الحوادث المنزليه لدى الاطفال دون سن الخامسة و بالتركيز على زيادة الوعى عن الحوادث المنزليه عبر وسائل الاعلام ووسائل التواصل الاجتماعى.وعلى المنظمات الحكوميه وغير الحكوميه عمل برامج صحيه عن اسباب حدوث الحوادث المنزليه و كفييه اسعافها و طرق تجنبها.

Abstract

A descriptive study was done to assess the knowledge of mother toward first aids and prevention of common home accidents among children under five years, to identify the most common home accident take place, to determine the risk factors and measure the association between factors contributed to home accident during the period from October 2016 to January 2017, among 100 mothers.

This study was done in Al-kalakala Al-Andolus. . A multi-stage sampling technique was used. Data was collecting using questionnaire with close ended questions; which divided into two parts: first part content the socio-demographical data, and other part content question to assess knowledge. Data was analyzed by computer, using the statistical package of social science (SPSS) version (22). And data was presented in form of tables and figures.

Finding revealed that half of mothers were in between age (20-31). Otherwise (78%) of mothers had (1-3) of children. While (08%) of children had a falling accident. (31%) of mothers had a good knowledge regarding prevention of accident. But there is a significant relationship between occupation and occurrence of accident among children,

Current study mention that mostly of mother had a good knowledge (76%) (81%) (80%) regarding prevention of burn, falling and choking accidents, respectively, and fair knowledge (49%) (01%) regarding prevention of drowning and poisoning accident among their children respectively. While the mothers had Good knowledge (69%) (60%) regarding poisoning and choking first aid, fair knowledge (09%) regarding drowning first aid, and poor knowledge (63%) (48%) regarding burn, cuts, bleeding first aids.

The present study recommended the ministry of health to increase public awareness regarding home accidents through mass media and social media. Further study on large sample in Khartoum locality, Nongovernmental and governmental organizations should make health program about causes of home accidents, first aid management and method of prevention.

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List of abbreviations

WHO: World Health organization

MCH: Maternal and child Health

SPSS: Statistical package of social sciences

Chapter One

Introduction

Problem Statement

Justification

Objectives

1.1 Introduction

Accidents are major causes of death among children, especially for children 1 to 6 years old. The top leading causes of accident to children's were falls, choking, and burns accident. Awareness and supervision are essential as the child gains increased locomotors and manipulative skills that are coupled with an insatiable curiosity about the environment⁽¹⁾.

Injuries do not always indicate neglect. It is a difficult task to watch children carefully without overprotecting or unnecessarily confining them. Small falls help children learn the dangers of highest; touching a hot object once can emphasize to the child the pain of burn. Parents need to remember that infants and young children cannot anticipate danger or understand where it is or is not present. It must be remembered that child need to be physically removed from the situation. Accident is the number one cause of death among children developing countries and fifth in world among the entire population in most countries^(2,3).

The importance of the mothers role in childhood accident prevention has long been recognized, although many studies suggests that many mothers are unsure of that role, feel inadequately prepared for it and recognize significant constraints on their accident prevention activity. The Health of the nation suggested that specific accident prevention activities should be undertaken by the mothers. Home accidents rank as the number- one cause of death and a leading cause of hospitalization for the infants and toddlers^(4,5).

Accidents all over the world are one of the leading health problems. Therefore various programs have been developed to prevent accidents. The most important way to protect against accidents in the primary prevention is to educate society, especially parents is to be educated about prevention of accidents and first aid to reduce accidents. Researchers identified that the parents had inadequate

knowledge about home environment in terms of accidents were found to be unsafe. Education that prepared for protection from accidents is carried out mostly by nurses. It was found that education about accidents given by public health nurses was successful and parents increased their security measures after the stated education ^(٧)

١,٢ Problem statement

Home accidents in Sudan still a major problem and put in danger the lives of little ones. The rate of home accidents (burn, falls) among children under the age of five was (١٣,٣%). Home accidents among children under the age of five are increasing and this issue requires more attention and effort^(١).

Many accidents can be prevented by parents who are aware that young children want to explore every nook and cranny in their rapidly expanding world. The most important way to protect against accidents in the primary prevention is to educate society about prevention of accidents and first aid to reduce accidents.

١,٣ Justification

Home accidents among children are increasingly seen as a community health problem. According to the National Safe Kids Campaign in the United States ٤٠٪ of deaths and ٥٠٪ of non-fatal unintentional injuries occur in and around the home^(٧)

The mother should know about the home safety needs and the methods of prevention, and the first aids that mother should apply in case of accident occur of under five children because mothers are usually the caregivers and who will be at home with the child.

1.4 Objectives

1.4.1 General objective:

Assesment of mother knowledge regarding first aid and prevention of common home accidents among children under five years.

1.4.2 Specific objectives:

1. To assess the level of mothers knowledge regarding home accidents
2. To identify the most common under five years accident at home.
3. To determine the common risk factors of home accident among children under five year
4. To measure the association between factors contributed to home accidents and socio-demographical data.

Chapter Two
Literature Review

2. Literature review

2.1 Background:

The burden and pattern of child accident are just now being studied in low-middle-income countries, where the age distribution of the population compounds the problem posed by child accident. In 2000 (23%) of the world's population of children <0 years of age (ie. 1.41 billion children) lived in Africa, while only (10%) lived in high income countries. According to WHO report of 2008, the leading cause of childhood injury and death is road accidents which kill 260,000, drowning 170,000, burns 96,000, falls 47,000 occurs a year globally and injured around were 10 million. About 50,000 aged 0-14 years, especially <0 years, die every as a result of unintentional poisoning⁽¹⁾.

Home accidents rate among under-five children in Khartoum rate was 10,3%. The most frequently risk factor of under-five home accidents was the area of fall in the home and mainly happened in the rooms⁽²⁾.

In today's world, in the developed as well as developing countries, danger not only on the roads but it also exists in the home. Every year thousands of children die or permanently disabled as a result of accidental injuries. In many developing countries, injuries are one of the major causes of death in children in the age group of 1-0 years⁽³⁾.

Accidents are unforeseen and unfortunate happening. Accurate term that refers to any injury those results from unintended exposure to physical agents including heat, mechanical energy, chemicals or electricity. Home accidents differ from country to another due to many factors such as economical and cultural factors. The largest number of accidents happens in the living room; however the most serious accidents happen in the living room⁽⁴⁾.

१.१ Definitions:

A home is an exciting place for infants and small children, who love to explore but aren't aware of the potential dangers. Life can't be risk-free, but most household accidents can be prevented by utilizing a household safety list. The incidence of accidental injuries is increasing in, especially home accidents in children. Therefore the knowledge of mothers is essential for undertaking measures to prevent them ⁽¹¹⁾

Accident defined by WHO as: unintentional event resulting in recognizable damage. And it can be defined as an unexpected, unplanned occurrence which may involve injury. And according to other definition, an accident is that occurrence in a sequence of event which usually produces unintended injury, death or property damage. Home accident is meant an accident which takes place in the home or in its immediate surroundings, and more generally, all accident not connected with traffic, vehicles or sport ⁽¹²⁾.

Accidents are random chance or lack of responsibility and the term of accident are being replaced with the idea that injuries have causes that can be modified to prevent or lessen their frequency and severity. Home accident is an accident which takes place in the home or in its immediate surroundings ^(13, 14).

A cross-sectional study was conducted among १३० rural mothers during May to June २०१२, to assess the knowledge of rural mothers regarding common domestic childhood injuries and home safety measures adopted by them in west district of Tripura, India. A systematic random sampling technique was used to select individual participant and information collected using pre-tested semi-structured interview schedule. The study revealed that sex of the children was

important factor for knowledge level of mothers. The reported incidence of domestic injury was low that might have been due to under reporting⁽¹⁹⁾.

A descriptive survey was conducted to assess the knowledge of mothers regarding prevention of minor accidents among children. Data was conducted from 100 mothers attending MCH clinic & having at least one toddler. The researcher found that most of participants had average knowledge, 26% had good knowledge and least (1%) had poor knowledge regarding accident prevention in infant and toddler. And found a significant association between knowledge and age level of education and age of a child and non significant between knowledge and family types, occupation and ethnicity. This study revealed majority (29%) of the mothers was likely to be uneducated⁽¹⁷⁾.

2.3 Causes of home accident:

2.3.1 Falls:

A fall is defined as an event which result in a Person coming to rest inadvertently on the ground or floor or other lower level, childhood falls occur largely as a result of their evolving developmental stages, innate curiosity of their surrounding, and increasing level independent that coincide with more challenging behaviors. In 2004, an estimated 424 000 people of all ages died from falls worldwide – over 46 000 were children. Falls ranks as the 12th leading cause of death among children less than 10 years, non-fatal falls are the 13th leading cause of disability-adjusted life years lost⁽¹⁸⁾.

Falling is a normal part of the way a child develops – learning to walk, climb, run, jump and explore the physical environment.

Most falls are of little consequence and most children fall many times in their lives without sustaining much more than a few cuts and bruises. But some

falls go beyond the resilience of a child's body, making them the fourth largest cause of unintentional injury death for children. Non-fatal falls also represent a significant burden on health care facilities around the world ⁽¹⁴⁾.

2.3.2 Falling causes:

- Wet and slippery floors
- Cluttered floors
- Damaged floors and stairs
- Inadequate lighting
- Damaged sidewalks ⁽¹⁴⁾

Falls are responsible for the largest number of hospital visits for non-fatal injuries, especially for children and young adults. Falls from rooftop, windows, and stair are common.

Falls are the main cause for admission to hospital for both children and older people. A recent Fall Support Program in North & West Belfast for older people recorded almost two thirds of those assessed had at least one previous fall, and nearly 40% of patients reported a loss of confidence after a fall ⁽¹⁴⁾.

2.3.3 Poisoning:

Poisoning is an emergent condition that presents with signs and symptoms specific to the causative substance, it caused by intake of a toxic substance in an amount harmful to the body through different ways, Poisoning are types of emergency pediatrics disease with preventable causes that lead to significant morbidity and mortality ⁽¹⁵⁾.

Poisoning is common in 1-5 year old children. Because of curiosity and willingness to learn, investigation of children's surrounding is frequently seen in this age group, and substances found can be taken by mouth by children which may lead to poisoning ⁽¹⁵⁾.

Food poisoning has been defined by the World Health Organization as any disease of an infectious or toxic nature caused by or thought to be caused by the consumption of food or water ^(٢٣).

There is low level of awareness concerning food poisoning or the potential dangers that lurk side by side with some food nutrients. In Nigeria, food poisoning is usually associated with evil spirit, malice or curses. There is lack of proper monitoring and supervision by the food safety officers and the enforcement of food hygiene regulations. Highly processed foods with extended shelf lives, some of which are consumed without further cooking are becoming increasingly popular due to urbanization and pose a serious risk to health ^(٢٤).

The main sources of food poisoning include natural sources such as poisonous plants; chemical or metal contamination, such as pesticides and herbicides; and from micro organisms such as bacteria, viruses and protozoa. Bacteria, viral and protozoa infections which are the major causes of acute food poisoning of infectious origin are classified as “food borne” infections, while those of the chemical and natural sources of food poisoning are classified as food toxicity ^(٢٥).

٢,٣,٤ Causes of poisoning ^(٢٦):

Common substances that can cause poisoning include the following:

- Automobile fluids (Gasoline, antifreeze, windshield fluid)
- Cosmetics and other personal care products
- Household cleaning products (drain cleaners, dishwasher detergent)
- Over- the counter or prescription medications (analgesics such as acetaminophen, cough and cold medicines, vitamins)
- Foreign objects (toys, batteries)
- Paints and thinners
- Pesticides (insecticides, weed killer, rodenticides)

- Plants
- Art supplies and office supplies
- Alcohol
- Food products
- Herbal medicines

٢,٣,٥ Poisoning sign and symptoms^(٢٦):

Depend on the amount, type of toxin, the form of exposure, and the age and overall health of person

٢,٣,٦ Sign that may indicate poisoning include:

- Drug or chemical containers that are open, spills, or out of place
- Unusual odors (the breath or clothing)
- Spills and stains on clothing, skin, flooring
- Acute or chronic symptoms (behavior changes, drowsiness, heavy drooling, stomach pain, sweating, vomiting)

٢,٣,٧ Symptoms can vary from mild to moderate to severe:

Mild:

- Diarrhea
- Dizziness
- Drowsiness
- Fatigue
- Headache
- Loss of appetite
- Minor skin or eye irritation
- Nausea or upset stomach
- Passing cough
- Soreness or stiffness in the joint
- Thirst

Moderate

- Blurred vision
- Confusion and disorientation
- Difficulty breathing
- Excessive tearing and fever
- Low blood pressure and loss of muscle control and muscle twitching
- Pallor or flushed or yellowish skin
- Persistent cough and rapid heart rate
- Seizures, severe diarrhea, severe nausea, stomach cramps
- Sweating, thirst, weakness

Severe

- Cardiopulmonary arrest
- Convulsions
- Disseminated intravascular coagulation
- Esophageal stricture
- Inability to breathe and increased respiration
- Loss of consciousness
- Uncontrolled and severe muscles twitching
- Rapid heart rate with low blood pressure
- Respiratory distress
- Seizures that do not respond to treatment

٢,٣,٨ Burn^(٢٧)

Burn is a type of injury to skin or other tissue, caused by heat, cold, electricity, chemical, friction, or radiation. Is one of the most common household injuries, especially among children, Burns are characterized by severe skin damage that causes the affected skin cells to die.

٢,٣,٩ Types of burns:

- First degree burns
- Second degree burns
- Third degree burns
- Fourth degree burns

٢,٣,١٠ Sign and symptoms of burns:

- Blisters
- Pain, peeling skin
- Red skin
- Shock, swelling
- White or charred skin

٢,٣,١١ Causes of burns:

- scalding from hot, boiling liquids
- chemical burns
- electrical burns
- fires, including flames from matches, candles, and lighters
- excessive sun exposure

٢,٣,١٢ Managing burn pain:

Burn pain is difficult to control because of its unique characteristics, its change patterns, and various components. There is pain involved in treatment of burn, as the wounds must be cleansed and the dressings changed.

٢,٣,١٣ Complication of burn:

- infection
- blood loss
- shock, and death
- tetanus

- hypothermia and hypovolemia

Lack of water supply, low income, and crowding were associated with an increased risk of burn. The presence of a living room and better maternal education were protective factors. To prevent burns interventions should be directed to low socioeconomic status groups; these interventions should be designed accordingly to local risk factors⁽¹⁴⁾.

Burns may be distinguished and classified as thermal burns, inhalational burns, first degree or superficial burns, second degree or partial-thickness burns, third-degree or full-thickness burns. Chemical burns electrical burns, radiation burns; Infants under the age of one year are in a particular category, as their mobility starts to develop and they reach out to touch objects. Scald burns are the most frequent type of burns among children under the age of six years on observation that appears to come across geographic and economic groups. Typical scald burns occur when a child pulls down a container of hot fluid, such as a cup of coffee, onto his or her face upper extremities and trunks⁽¹⁵⁾.

Approximately 10% of residential fire deaths are caused by children playing with matches or other ignition sources. Additionally faulty chimney's, flue vents, fixed heating units, fireplaces, central heating systems. Wood burning stoves, as well as human error, all have been implicated; Clinical features of burns includes, First degree partial thickness burns, Second degree partial thickness burns, Third degree full thickness burns, Fluid and Electrolyte imbalance, Alterations in Respiration, Decreased cardiac output, Substantial pain, Altered level of consciousness, Psychological alterations, withdrawal, suppression⁽¹⁶⁾.

The most frequent causes of home accidents are burns and it's an injury of the skin or any other organic tissue. Burns occur when some or all the

cells in the skin or other tissue are destroyed by hot liquid, hot solids and flames. Child death from burns is currently over seven times higher in low and middle-income countries than in high-income countries ⁽¹¹⁾.

The main factor in burns is carelessness and lack of knowledge about safety measures and the problem can be tackled through education. More than 70 percent of the children who die from burns are under the age of five. Home fires in which children die are most commonly caused by someone playing with matches, lighter, candles or heaters ⁽¹²⁾.

Burns are damage of skin caused by contact with fire, heat, electricity, radiation or chemicals, burns are a potential hazard in every home. In fact, burns, especially scalds from hot water and liquids, are some of the most common childhood accident. Children are small, and have sensitive skin that needs extra protection. Toddler and children are more often burned by a scalding or flames ⁽¹³⁾.

A study was conducted to assess risk factors and to suggest preventive measure for pediatric burn injuries in the Czech Republic. The researcher found that, the incidence of burn admissions among 1-14 year's olds increased from 80 to 96 per 100,000, between 1996 to 2006, mainly 13% increase among 1-4 year olds. Around 31% of all burn hospitalizations were in 1 year-olds, 49% of burns occurred at home, 40% in the kitchen, 14% in the living room or bed room and 11% in the bathroom of the 18% occurring outdoors. Scalds from hot liquids accounted for 40% of all burns. This study reveals that, there is a need for passive preventive measures. Educational programs should be developed for mothers and caregivers ⁽¹⁴⁾.

A study was conducted to explore the patterns of severe burns injuries with a view to identifying, whether they could be prevented with better parent

education. The researcher found that, immobile infants are at significant risk of burns and majority of burns sustained in the home. The injuries were scalds (43%), contact burns (39%), total body surface area ranged from (0.0% to 30%). Infants less than 6 month old are at significant risk of burn and is usually caused by hazards in the home environment. These infants are vulnerable to inadequate first aid. Better parental education helps to reduce the number of injuries in this group⁽³⁰⁾.

A study was conducted on “Burns and scalds first aid home treatment in London. Of these 64 patients who had first aid treatment before admitted in hospital. 23 patients applied gelatin violet, 9 patients applied raw eggs, 13 patients applied both, 11 patients applied engine oil, 1 patients applied kerosene oil, 1 patient applied corn flour paste, one patient applied palm oil, Vaseline, honey and sand. This study shows that a prospective study was needed to educate people to apply only cold water for burn injuries must be emphasized⁽³¹⁾.

A retrospective study was conducted to identify scald demographics and etiologies. The researcher found that, the main etiologies of scald burns included hot water (20%), soup (24%) and coffee or tea (21%) occurred in the kitchen (83%) and mainly in child’s home (94%) mother was primary caregiver (98%). Focus group participants (80%) reported receiving no prior burn prevention education and preferred to receive prevention instruction⁽³²⁾.

A qualitative study was conducted to gain an in depth understanding of people’s perceptions of childhood burns and their prevention in rural areas. The researcher found that home as the most common place for childhood burn injuries and the household members or caregivers responsible because of their lack of supervision and carelessness regarding first aid, the mothers reported prevailing harmful practices which are likely to make injuries worse. The researcher

concluded that, a safety education program could be an effective intervention to improve knowledge and practices of mothers in the rural area with regard to prevention of burn injuries in children^(٢٨).

٢,٣,١٤ Choking:

Choking is the mechanical obstruction of the flow of air from the environment into the lungs. Choking prevents breathing, and can be partial or complete. Prolonged or complete choking result in asphyxia which leading to anoxia and is potentially fatal^(٢٩).

Choking is the interruption of respiration by internal obstruction of the airway, usually by food or small toys in young children. Prevent oxygen from getting to the lungs and the brain leading to a brain damage or even death within four minutes^(٣٠).

٢,٣,١٥ Causes of choking^(٣١):

- food, coins
- small balls
- Plastic bags and balloons
- Small game and toy parts
- Safety pins and jewelry
- Cords and ribbons
- Fridges
- Rubbish dumps and sand- holes

٢,٣,١٦ Sign and symptoms of choking^(٣٢):

- Struggling to breath (gaspings)
- Coughing

- Gagging
- Bluish lips or skin
- May wave arm or grab at throat

2,3,17 Complication of choking:

Which often develop quickly (in as few as 4 minutes) and may cause death.

- Brain damage
- Collapsed lung
- Loss of consciousness
- pneumonia

Adequate respiration and nutrition are essential throughout a lifetime. Breathing occurs spontaneously without requiring an active effort by infants. Choking and suffocation are responsible for almost 40% of unintentional injuries in infants under the age of one in Canada⁽⁴⁷⁾.

Studies of mouthing behavior show that children younger than three years of age put more things in their mouth—and keep them there for longer—than any other age group, with children under one year of age mouthing the widest variety and number of items. At this age, almost any item a child comes into contact with is mouthed⁽⁴⁷⁾.

The majority of choking and suffocation deaths occur in the first year of life, with the majority of hospitalizations occurring in the first three years and an elevated risk of hospitalization persisting until six years of age⁽⁴⁸⁾.

The presence of older siblings in the household increases the risk for choking, possibly because toys and other objects with small parts are more likely to be present and care giving activities, such as feeding, to be undertaken by older siblings⁽⁴⁹⁾.

Food and non-food items were equally represented in hospitalizations, whereas foods (66%) and coins were the most common items implicated in emergency department visits, Coins are the leading nonfood product implicated in nonfatal foreign body ingestion, but they usually do not cause true choking in children⁽⁴⁶⁾.

Parents of young children or of a child with special needs may use a toddler beds with rails, or modify a bed to prevent a fall; such devices and modifications can be hazardous, and have been implicated in injury deaths⁽⁴⁷⁾.

2,3,18 Drowning:

Is the process of experiencing respiratory impairment from submersion/immersion in liquid; Victims of drowning have a very slim chance of survival after immersion. The victim loses consciousness after approximately 3 minutes of immersion, and irreversible brain damage can take place after 4-6 minutes⁽⁴⁸⁾.

Drowning refers to an event in which a child's airway is submerged in liquid, leading to an impairment of breathing. Boy is two times more likely to drown than girls and the most vulnerable ones are children one to four years of age⁽⁴⁸⁾.

2,4 Risk factor for home accidents:

According to (49) Instruments of Home accidents are these physical things like:

- Slippery floor, due to water or oil or slimy liquid on the floor.
- Electrical gadgets that are faulty (fans, wall sockets, exposed wires).
- Toys and bicycles ridden near the steps or uneven surfaces.
- Walk over sharp objects.
- Steps / stair case.
- Climbing of stools by children

- Fire-some lazy women always send children to make fire or light up gas cooker, without checking safety first.
- Unkempt Yard: with broken bottles, nails, rusty tins, zinc, sharp sticks.
- Drugs: Can be mistakenly taken by children for thirst or the sweetness or to imitate a senior family member.
- The forgetful can repeat same doses.
- unsafe environment,
- Social habits and traditions clearly play significant roles of fall injury among children
- Aged less than five years.
- Home design and family factors were associated with fall injury as well as socio-demographic and socioeconomic factors⁽⁶⁾.
- Inappropriate heights and surfacing in playgrounds
- Inadequate supervision of younger children.
- Contact with scalding liquids is the leading cause of burn injury.
- Male are especially at risk of drowning twice the overall mortality rate of female.
- Access to water increase, infant left unsupervised, are other risk factors of drowning⁽⁶⁾.

2.9 Prevention of home accident⁽¹²⁾:

- Screening within living environment for risks for falls
- Clinical interventions to identify risk factors, such as vitamin D and calcium supplementation, treatment of correctable visual impairment
- Home assessment and environmental modification for those with known risk factors or a history of falling.
- Muscle strengthening and balance retraining prescribed by a trained health professional.

- Development and implantation of safe water system.
- Building four-sided pool barriers preventing
- Creating and maintaining safe water zone for recreation; covering of wells or open cisterns
- Emptying buckets and baths, and storing them upside down

Chapter Three
Methodology

3. Methodology

3.1 Study design:

This study was a descriptive, cross sectional community based research, designed to assess the mother's knowledge regarding first aid and prevention of common home accident among children under five years, in period extended from September 2016 to January 2017.

3.2 Study area:-

This study was conducted in AL-Andolus area localized in Al-Kalakala east in Jabal Awleia locality, in South part of Khartoum state Republic of Sudan. Al-Andolus is located in the middle, from the south, Mosab Ebn-Omeer campase of student, from east Mayo area, and from north the military industrialization, from west Altawedat area. Al-Andolus divided into many blocks. This study was done in Al-Andolus block three.

3.3 Study population:-

The study population consist of mother of under five year children, in Al-Andolus block three.

i. Inclusion criteria:-

- Mother of under five years children those who are living in selected areas at Al-Andolus.

ii. Exclusion criteria:-

- Mothers who are not co-operative.
- Mothers who are not available during the study.

3.4 Sample size:

The sample was obtained from (100) mothers of under five years children

3.6 Sampling technique:

A multi-stage sampling technique was used in selecting the 100 mothers. It consisted of the stratified random sampling was used to divided the area into five group, simple random sample technique was used to selection of 20 mothers with under five years children from each group.

3.7 Data collection tool:-

Data was collected by using structured questionnaire developed by researcher. Questionnaire compose of (28) closed ended questions. It was divided into two parts:

- Part one content Socio-demographic characteristics as (mother age, level of education, occupation...).
- Part two content Knowledge of mothers of under five year children regarding first aid and prevention of common home accidents.

3.8 Scoring system:

Scoring system was established by researcher which the data was distributed in three categories to assess the level of mother knowledge regarding first aid and prevention of common home accident among children under five years, if mothers responded from (100%-80%) choice it considered good knowledge. (79%-60%) choice considered fair knowledge, and less than (59%) choice considered poor knowledge.

3.9 Data collection technique:

The data was collected by direct interview between researchers and respondent within ten days. Every questionnaire takes from 10-15 minutes.

٣,١٠ Data analysis:

Data was analyzed entered into the computer using the statistical package of social scientific (SPSS) version ٢٢), and presented in forms of tables and figures.

٣,١١ Ethical consideration:-

The study was approved by ethical committee of research in faculty of post graduate and scientific research, before conduction the study. Verbal Permission was takes from Al-Andolus community leaders. Verbal informed consent was obtained from the mothers before questionnaire administration. Mothers were assured of confidentiality, privacy and secrecy of information provided.

Chapter Four

Result

ξ. Results

Table No (١): Distribution according to their age

Mother age	Frequency	Percent
١٨-٢٤	١٢	٨٪
٢٥-٣١	٧٥	٥٠٪
>٣٢	٦٣	٤٢٪
Total	١٥٠	١٠٠٪

Above table showed that half of study group their age range between (٢٥-٣١) years old, less than half (٤٢%) their age more than (٣٢) years.

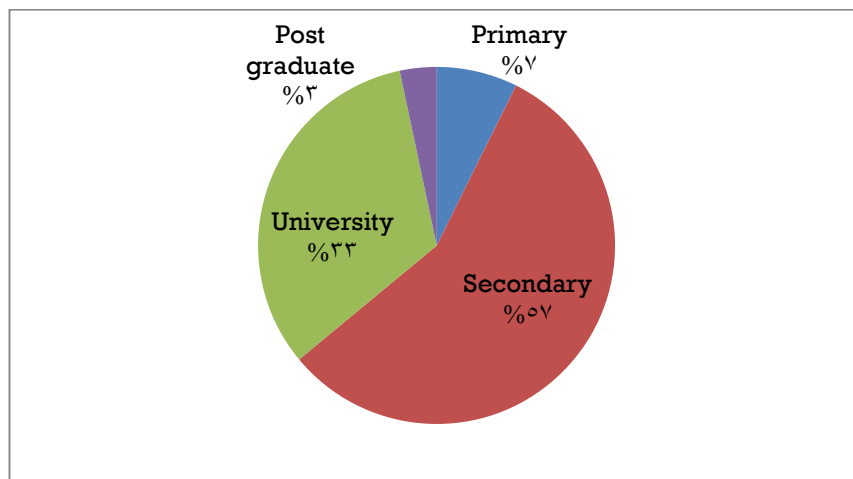


Figure (١): Distributions according to their level of education

Clarify that more than half of study group (57%) their educational level was secondary school, more than one third of study group (33%) their educational level was university.

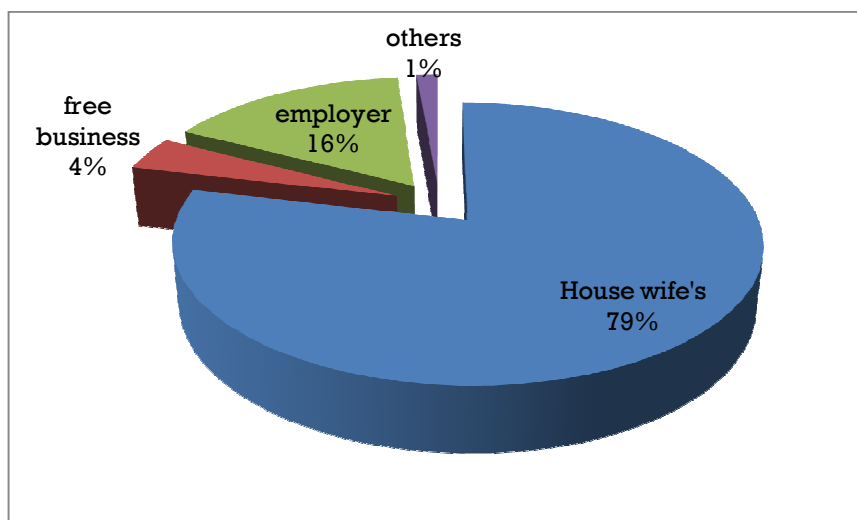


Figure (٢): Distribution according to their occupation

Figure above showed that most of study group (٧٩%) their occupation was a house wife, (١٦%) was employee.

Table No (٢): Distribution according to their family income

Family income	Frequency	Percent
<١٠٠٠-٢٥٠٠	٦٤	٤٣%
٢٥٠٠-٥٠٠٠	٨١	٥٤%
>٥٠٠٠	٥	٣%
Total	١٥٠	١٠٠%

Table above illustrated that more than half of study group (٥٤%) their family income range between (٢٥٠٠-٥٠٠٠ SDG), and less than half (٤٣%) their family income range between (<١٠٠٠-٢٥٠٠ SDG).

Table No (۳): Distribution according to their family type

Family type	Frequency	Percent
nuclear	۹۱	۶۱٪
extended	۰۹	۳۹٪
Total	۱۰۰	۱۰۰٪

Table above showed that less than two third (۶۱٪) of study group their family type was nuclear family and more than one third (۳۹٪) their family type was an extended family.

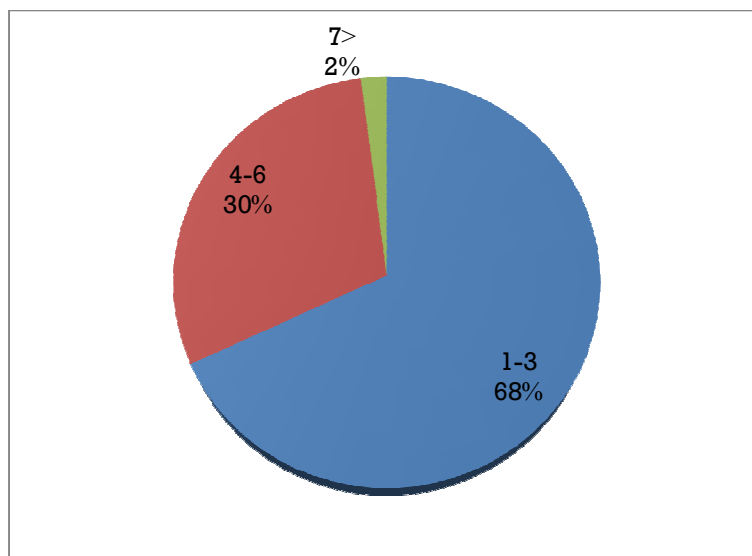


Figure No (۳): Distribution according to their number of children

Above figure revealed that two third (۶۸٪) of study group had between (۱-۳) child and (۲٪) had more than (more than ۷) child.

Table No (٤): Accidents that occur among child of study group

Accident occur	Frequency	Percent
Falls	٨٧	٥٨٪
Poisoning	١٩	١٣٪
Burns	١٢	٨٪
Suffocation	٦	٤٪
Other	١٧	١١٪
No	٩	٦٪
Total	١٥٠	١٠٠٪

Table above showed that more than half (٥٨٪) of study group has a falling accident occurrence among their children, and (٤٪) of them had a choking accident occur to their children.

Table No (٥): The source of information about prevention of home accident among children under age of five years

Source of information	Frequency	Percent
Audio-visual	٣٨	٢٥%
Health personnel	٥٣	٣٥%
relatives	٥٩	٤٠%
Total	١٥٠	١٠٠%

Table above illustrated that one forth (٢٥%) of study group gets their information from audio-visual sources, and less than half (٤٠%) get the information from their relatives.

Table No (٦): Knowledge regarding place of accident occur

Place of accident occur	Frequency	Percent
Kitchen	٧٢	٤٨%
Rooms &hall	٤٤	٢٩%
Garden	٣٤	٢٣%
Total	١٥٠	١٠٠%

Table above clarify that mostly (٧٢%) of study group had a good knowledge regarding places of accident occur, and more than one fifth (٢٣%) had a poor knowledge regarding places of accident occur.

Table No (V): Distribution according to knowledge regarding risk factor and prevention of home accident

Risk factor of accident	Frequency	Percent
Good knowledge	۱۰۶	۷۰٪
Fair knowledge	۲۵	۱۷٪
Poor knowledge	۱۹	۱۳٪
Prevention of home accident		
Good knowledge	۹۶	۶۴٪
Fair knowledge	۳۶	۲۶٪
Poor knowledge	۱۵	۱۰٪
Total	۱۵۰	۱۰۰٪

Table above revealed that more than two third (۷۰٪) of study group had a good knowledge regarding risk factor of home accident, less than one fifth (۱۳٪) had a poor knowledge, regarding the prevention of home accident less than half (۴۶٪) of study group had a good knowledge, and (۱۰٪) of study group had a poor knowledge.

Table No (A): Distribution according to their knowledge regarding causes, sign and symptoms and first aid of poisoning

Causes of poisoning	Frequency	Percent
Good knowledge	129	68%
Fair knowledge	20	13%
Poor knowledge	1	1%
Sign and symptoms of poisoning		
Good knowledge	103	69%
Fair knowledge	36	24%
poor knowledge	11	7%
Management of poisoning		
Good knowledge	103	69%
Fair knowledge	36	24%
poor knowledge	11	7%
Total	150	100%

Table above showed that two third (68%) of study group had a good knowledge regarding the cause of poisoning accident, and (1%) of them had a poor knowledge, while more than two third (69%) of study group had a good knowledge regarding sign and symptoms and first aid of poisoning, and (7%) of them had a poor knowledge regarding sign and symptoms and first aid of poisoning.

Table No (4): Distribution according to their knowledge regarding prevention of poisoning

Prevention of poisoning	Frequency	Percent
Good knowledge	46	31%
Fair knowledge	47	51%
Poor knowledge	27	18%
Total	100	100%

Table above illustrated that more than half (31%) of study group had a good knowledge regarding prevention of poisoning accident, and (18%) of them had a poor knowledge regarding prevention of poisoning.

Table No (١٠): Distribution according to their knowledge regarding causes, first aid and prevention of burn

Causes of burn	Frequency	Percent
Good knowledge	١٣٠	٨٧%
fair knowledge	٢٠	١٣%
Burn first aid		
Good knowledge	١٧	١١%
fair knowledge	٣٩	٢٦%
poor knowledge	٩٤	٦٣%
Prevention of burn accident		
Good knowledge	١١٥	٧٦%
fair knowledge	٣٤	٢٣%
poor knowledge	١	١%
Total	١٥٠	١٠٠%

Table above clarify that majority (٨٧%) of study group had a good knowledge regarding causes of burn accident. Regarding the burn first aid, two third (٦٣%) of study group had a poor knowledge, and (١١%) had a good knowledge. while mostly (٧٦%) of the study group had a good knowledge regarding prevention of burn accident, and (١%) of them had a poor knowledge.

Table No (11): Distribution according to their knowledge regarding causes of falling, cuts and bleeding first aids and prevention of falling

Causes of falling	Frequency	Percent
Good knowledge	82	50%
fair knowledge	68	40%
Cuts and bleeding first aids		
Good knowledge	8	5%
fair knowledge	70	47%
poor knowledge	72	48%
Prevention of falling		
Good knowledge	122	81%
fair knowledge	28	19%
Total	150	100%

Table above showed that more than half (50%) of study group had a good knowledge regarding causes of falling accident. and (5%) of study group had a good knowledge regarding first aid of cuts and bleeding, and less than half (48%) of them had a poor knowledge regarding first aid of cuts and bleeding, while the majority (81%) of study group had a good knowledge regarding falling prevention, and less than one fifth (19%) of mothers had a fair knowledge regarding prevention of falling accident

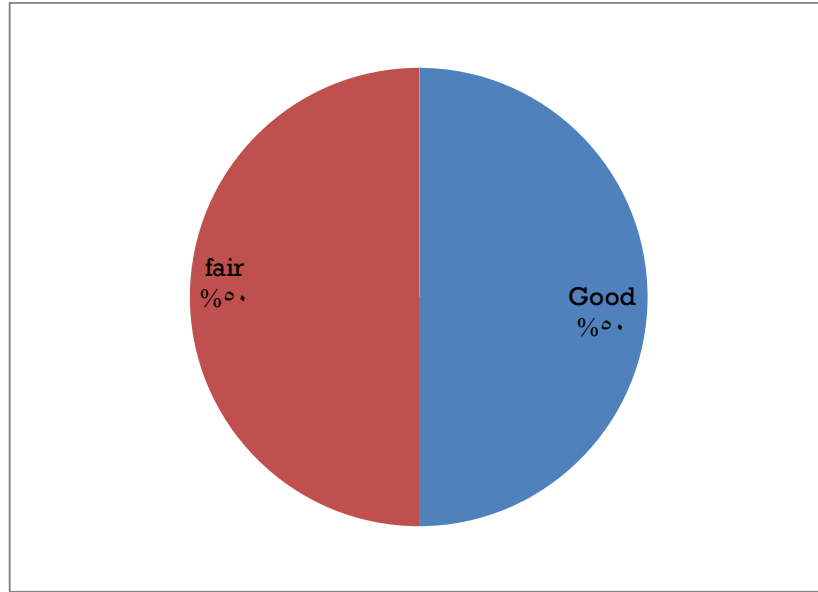


Figure (٤): Distribution according to their knowledge regarding causes of choking

Figure above showed that half of study group had a good knowledge regarding causes of choking accident and another half had fair knowledge.

Table No (١٢): Distribution according to their knowledge regarding sign, first aid and prevention of choking

Sign of choking	Frequency	Percent
Good knowledge	١٠٦	٧١%
fair knowledge	٣٤	٢٢%
poor knowledge	١٠	٧%
First aids of choking		
Good knowledge	٩٠	٦٠%
fair knowledge	٣٦	٢٤%
poor knowledge	٢٤	١٦%
Prevention of choking		
Good knowledge	١٢٨	٨٥
fair knowledge	٢٢	١٥
Total	١٥٠	١٠٠%

Table (١٢) revealed that mostly (٧١%) of study group had a good knowledge regarding sign of choking, and more than one fifth (٢٢%) had a fair knowledge. Regarding choking first aid more than half (٦٠%) of study group had a good knowledge, and less than one fifth (١٦%) had a poor knowledge regarding choking first aid. and that majority (٨٥%) of study group had a good knowledge regarding choking prevention, and less than fifth (١٥%) had a fair knowledge regarding choking prevention.

Table No (١٣): Distribution according to knowledge regarding first aid and prevention of drowning

First aid of drowning	Frequency	Percent
Good knowledge	٦١	٤١%
fair knowledge	٨٩	٥٩%
prevention of drowning		
Good knowledge	٣٢	٢١%
fair knowledge	١١٨	٧٩%
Total	١٥٠	١٠٠%

Table above showed that more than half (٥٩%) of study group had a fair knowledge regarding drowning first aid, and less than half (٤١%) of them had a good knowledge, while mostly (٧٩%) of study group had a fair knowledge regarding prevention of drowning, and one fifth (٢١%) had a good knowledge.

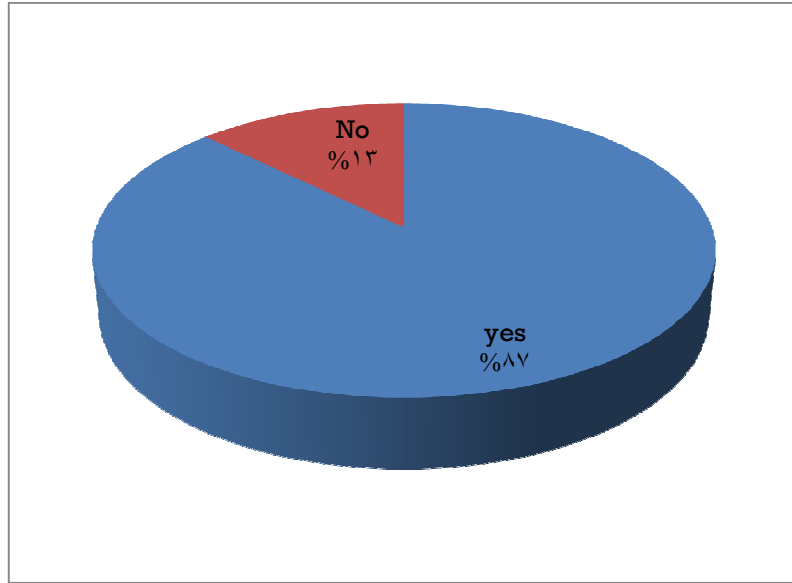


Figure (°): Distribution according to their opinion regarding important first aid

Figure above determine that majority (87%) of study group mentioned that according to their opinion the first aid is important.

Table No (١٤): Correlation between educational level of study group and their knowledge regarding causes of home accident

educational level	Knowledge regarding causes of home accident			Total	P-value
	good	fair	Poor		
illiterate	١ ٠,٧%	٠ ٠,٠%	٠ ٠,٠%	١ ٠,٧%	٠,٠٢ *
primary	٧ ٤,٧%	١ ٠,٧%	٢ ١,٣%	١٠ ٦,٧%	
secondary	٦٢ ٤١,٣%	١٥ ١٠,٠%	٨ ٥,٣%	٨٥ ٥٦,٧%	
university	٣٣ ٢٢,٠%	٨ ٥,٣%	٨ ٥,٣%	٤٩ ٣٢,٧%	
post graduate	٣ ٢,٠%	١ ٠,٧%	١ ٠,٧%	٥ ٣,٣%	
Total	١٠٦ ٧٠,٧%	٢٥ ١٦,٧%	١٩ ١٢,٧%	١٥٠ ١٠٠,٠%	

*Significance at P. value $\leq ٠, ٠٥$

** Highly significance at P. value $\leq ٠, ٠١$

Table above illustrated that there was significant relationship ($p=٠,٠٢$) between educational level of study group and their knowledge regarding causes of home accident.

Table No (١٥): Correlation between educational level and knowledge regarding causes of poisoning

education level	Knowledge regarding causes of poisoning			Total	P-value
	good	fair	poor		
illiterate	١ ٠,٧%	٠ ٠,٠%	٠ ٠,٠%	١ ٠,٧%	٠,٩٥
primary	٨ ٥,٣%	٢ ١,٣%	٠ ٠,٠%	١٠ ٦,٧%	
secondary	٧٤ ٤٩,٣%	١٠ ٦,٧%	١ ٠,٧%	٨٥ ٥٦,٧%	
university	٤١ ٢٧,٣%	٨ ٥,٣%	٠ ٠,٠%	٤٩ ٣٢,٧%	
post graduate	٥ ٣,٣%	٠ ٠,٠%	٠ ٠,٠%	٥ ٣,٣%	
Total	١٢٩ ٨٦,٠%	٢٠ ١٣,٣%	١ ٠,٧%	١٥٠ ١٠٠,٠%	

*Significance at P. value $\leq ٠, ٠٥$

** Highly significance at P. value $\leq ٠, ٠١$

Table above clarify that there was No significant relationship ($p=٠,٩٥$) between educational level of study group and their knowledge regarding causes of poisoning

Table No (16): Correlation between educational level and knowledge regarding sign and symptoms of poisoning

education level	Knowledge regarding sign and symptoms of Poisoning			Total	P-value
	Good	fair	poor		
illiterate	1 0,7%	0 0,0%	0 0,0%	1 0,7%	0,072
primary	7 4,7%	3 2,0%	0 0,0%	10 6,7%	
secondary	53 30,3%	24 16,0%	8 5,3%	85 56,7%	
university	38 20,3%	8 5,3%	3 2,0%	49 32,7%	
post graduate	4 2,7%	1 0,7%	0 0,0%	5 3,3%	
Total	103 68,7%	36 24,0%	11 7,3%	150 100,0%	

*Significance at P. value $\leq 0,05$

** Highly significance at P. value $\leq 0,01$

Table above showed that there was No significant relationship ($p=0,072$) between educational level of study group and their knowledge regarding sign and symptoms of poisoning.

Table No (١٧): Correlation between educational level and knowledge regarding place of accident occur

education level	Knowledge regarding place of accident occur			Total	P-value
	kitchen	Rooms, hall	Yard, garden		
illiterate	١ ٠,٧%	٠ ٠,٠%	٠ ٠,٠%	١ ٠,٧%	٠,٢٣٠
primary	٣ ٢,٠%	٦ ٤,٠%	١ ٠,٧%	١٠ ٦,٧%	
secondary	٤٣ ٢٨,٧%	٢٦ ١٧,٣%	١٦ ١٠,٧%	٨٥ ٥٦,٧%	
university	٢٢ ١٤,٧%	١٢ ٨,٠%	١٥ ١٠,٠%	٤٩ ٣٢,٧%	
post graduate 1	٣ ٢,٠%	٠ ٠,٠%	٢ ١,٣%	٥ ٣,٣%	
Total	٧٢ ٤٨,٠%	٤٤ ٢٩,٣%	٣٤ ٢٢,٧%	١٥٠ ١٠٠,٠%	

*Significance at P. value $\leq ٠,٠٥$

** Highly significance at P. value $\leq ٠,٠١$

Table above revealed that there was No significant relationship ($p=٠,٢٣٠$) between educational level of study group and their knowledge regarding place of accident occur.

Table No (١٨): Correlation between educational level and knowledge regarding cut & bleeding first aid

educational level	Knowledge regarding cut and bleeding first aid		Total	P-value
	good	fair		
Illiterate	١ ٠,٧%	٠ ٠,٠%	١ ٠,٧%	, , , , , **
Primary	٨ ٥,٣%	٢ ١,٣%	١٠ ٦,٧%	
Secondary	٣٥ ٢٣,٣%	٥٠ ٣٣,٣%	٨٥ ٥٦,٧%	
University	١٦ ١٠,٧%	٣٣ ٢٢,٠%	٤٩ ٣٢,٧%	
post graduate	١ ٠,٧%	٤ ٢,٧%	٥ ٣,٣%	
Total	٦١ ٤٠,٧%	٨٩ ٥٩,٣%	١٥٠ ١٠٠,٠%	

*Significance at P. value $\leq ٠, ٠٥$

** Highly significance at P. value $\leq ٠, ٠١$

Table above showed that there was highly significant relationship ($p=٠,٠٠$) between educational level of study group and their knowledge regarding cuts and bleeding first aid.

Table No. (19): Correlation between occupation and occurrence of accident

Occupation	occurrence of accident						Total	P-value
	Fall injuries	Poisoning	Burns	suffocation	Other	No		
House wife's	66 44.0%	16 10.7%	11 7.3%	6 4.0%	10 6.7%	9 6.0%	118 78.7%	0.001*
Free business	3 2.0%	1 0.7%	1 0.7%	0 0.0%	1 0.7%	0 0.0%	6 4.0%	
employee	17 11.3%	2 1.3%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	24 16.0%	
others	1 0.7%	0 0.0%	0 0.0%	0 0.0%	1 0.7%	0 0.0%	2 1.3%	
Total	87 58.0%	19 12.7%	12 8.0%	6 4.0%	17 11.3%	9 6.0%	150 100.0%	

*Significance at P. value ≤ 0.05

** Highly significance at P. value ≤ 0.01

Table above showed that there was significant relationship ($p=0.001$) between occupation of study group and occurrence of accident during one month

Table No (٢٠): Correlation between occupation and knowledge regarding sign of choking

occupation	their knowledge regarding sign of choking			Total	P-value
	good	fair	poor		
House wife's	٨٢ ٥٤,٧%	٣٠ ٢٠,٠%	٦ ٤,٠%	١١٨ ٧٨,٧%	٠,٠١٢*
free business	٥ ٣,٣%	١ ٠,٧%	٠ ٠,٠%	٦ ٤,٠%	
employer	١٨ ١٢,٠%	٣ ٢,٠%	٣ ٢,٠%	٢٤ ١٦,٠%	
others	١ ٠,٧%	٠ ٠,٠%	١ ٠,٧%	٢ ١,٣%	
Total	١٠٦ ٧٠,٧%	٣٤ ٢٢,٧%	١٠ ٦,٧%	١٥٠ ١٠٠,٠%	

*Significance at P. value $\leq ٠,٠٥$

** Highly significance at P. value $\leq ٠,٠١$

Table above clarify that there was significant relationship ($p=٠,١٢$) between occupation of study group and their knowledge regarding sign of choking

Chapter Five

Discussion

Conclusion

Recommendations

5.1 Discussion

Accidental injuries are the most common cause of death in children over the age of one. First aid is the immediate care given to a suddenly ill or injured child until medical care arrives. The most important way to protect against accidents is education of society, especially mothers about prevention. A descriptive cross sectional study attempt to assess the knowledge of mother toward first aid and prevention of home accident among under five children, in the period extended from September 2016 to January 2017.

The study determined that (90%) of study group were between (20-31) years. And related to educational level, more than half of mothers (57%) are in secondary school. And regarding the mother occupation; (79%) of them was housewife. Its mean that mother with small age and low educational level had minimum knowledge of accident prevention. The relationship between educational level of mother and their knowledge regarding causes of home accident this present study revealed that there was statistical significant association. This finding is similar with the study of Amirat and Abd El-Aziz who mentioned that the highest accidents occur between mothers in middle of age group. Concerning to the economical status this study revealed that more than half of mothers (54%) were between (2000-5000 SDG) per month. While (71%) of the family is a nuclear. Its mean mother will found difficult to following child while he working at home. This result disagrees with (Manjulika.Debnath etal) who mentioned that the most accident reported from nuclear families. The present study determined that (78%) of family had from (1-3) children. And this finding explained as when child number increase the mother can gain more experience regarding first aid and prevention of accident (91, 93, 94).

This study illustrated that more than half (58%) of mothers report that falling accident was the most accident that was occurring. This result is similar to finding of study that was conducted to assess rate of under-five children home accidents; which mentioned that the most frequently reported home accident, were falls and burns. Regarding the relationship between occupation and occurrence of accident; this present study was found that there was statistically significant relation^(56, 57).

Furthermore; regarding the source of information about home accident the present study mentioned that less than half (40%) of mothers their information was from their relative. this finding related to their opinion that old mothers or old relatives had experience more than others. This result similar with the study that was conducted In Nigeria to investigate the knowledge, attitude and practice of adult about food poisoning, mentioned that, Most of the respondents (81,6%) obtained information on food poisoning from family members⁽⁵⁸⁾.

This present study also mentioned that less than half (48%) of mothers reported that home accident among children occurs in the kitchen. This result was similar to study done in Tanzania to determine the causes, magnitude and management of burns in children under five years of ages. Who was mentioned the accident it was found that children were playing in the kitchen while their mother, caregiver or relatives were cooking⁽⁵⁹⁾.

As well, the current study finding that mostly (90%) of mother had a good knowledge regarding the risk factors of home accident; while two third (66%) had a good knowledge regarding prevention of home accident among their children under five years. This result is similar of study that was conducted to assess and identifies the effect of mother's education in relation to home accident prevention among preschool children; mentioned that mother reported that they know knowledge regarding causes of home accidents⁽⁶⁰⁾.

The present study determined that two third (66%) of the mother had a good knowledge regarding the causes, sign and symptoms, first aid; while poor knowledge (33%) regarding prevention of poisoning among their children. This result it similar to study done by Labib Sharif and Talal Al-Malki which mentioned that: over (90%) of the students have excellent knowledge (answering right) regarding causes of poisoning.⁽²⁸⁾

On the other hand, the present study clarified that majority (87%) of mother has a good knowledge regarding causes and prevention of burn among the children. and poor knowledge regarding management of burn (13%). The result was similar to the study of Justin Temu M etal; that mentioned the causes of burn injury occurred for the intentional burns hot fluids or food were poured over the child⁽²⁹⁾.

Regarding the present study revealed that more than half (55%) of mother has a good knowledge regarding causes and prevention of falling among their children. And poor knowledge regarding first aid of wound and bleeding. This result it similar in the study regarding mothers practice in case of wound slightly more than two thirds of mothers (66,6%) used more than one method. While (33%) of them didn't know what to do in case of bleeding. Falling accident was the most accident occurs (almost every day) and mother. The present study also revealed that there was highly statistical significant relation between the educational level of mother and the first aid of wound and bleeding. This result was similar to the stud that was done in Egypt, to assess mother's knowledge, attitudes and practices about the first aids, mentioned that well educated mothers manage the cut/wounds by proper first aid measures⁽³⁰⁾.

Concerning the knowledge of mother regarding causes of choking accident; present study revealed that half of mother had good knowledge about the causes. And mostly (91%) of mothers had a good knowledge regarding sign of choking. More than half (60%) of mother has a good knowledge regarding first aid in case of

choking occur to their children, while majority (80%) of mothers had a good knowledge of choking prevention. This result oppose with the study when was mentioned that regards mother's practice in case of choking it was clear that nearly half of mothers didn't know what to do and went to hospital (67).

The present study showed that more than half (69%) of mother has a fair knowledge regarding first aid of drowning accident occur to their children. And fair knowledge among mostly (79%) of mothers regarding prevention of drowning. The study was same to study of (Balint.Banfai et al.)that mentioned most of parents recognized the Basic Life Support (BLS) in situation of drowning (69) .

Regarding the opinion of mothers regarding the important of first aid, majority (87%) of mothers recognize that first aid are important and they needed to learn it. The result was similar to a study done in Egypt to assess mother's knowledge, attitudes and practices (KAP) about the first aids; it was found that 77% of mothers believe that mothers with young children should know about first aids (70).

٥,٢ Conclusion

The current study revealed that mostly of study group had a good knowledge regarding prevention of burn, falling and choking accident among children under five years, and poor knowledge regarding prevention of drowning and poisoning accident among their children.

Most of mothers had a good knowledge regarding poisoning and choking accident first aid, and poor knowledge in cuts and bleeding and burn accident first aid

The study revealed that more than half of mother has a falling accident occur to their children and kitchen is the most places to accident occurrence.

٥,٣ Recommendation

The study was recommended in the following points:-

١. The ministry of health should increase the public awareness regarding home accidents through mass media and social media.
٢. Governmental and nongovernmental organizations should arrange workshop regarding safe housing condition.
٣. Further studies on different geographical locations in Khartoum state.

Annexes

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Questionnaire

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Questionner to assess mother knowledge toward first aid and prevention of common home accidents among children under five years in Al-Andolos Area

Socio-demographic data:-

١. **Mother age:**
<١٨-٢٤ () ٢٥-٣١ () >٣٢ ()
٢. **Education level:**
Illiterate () Primary school () Secondary school ()
University ()
Postgraduate ()
٣. **Occupation:**
House wife () Free business () Employee () other ()
٤. **Income:**
<١٠٠٠-٢٥٠٠ () ٢٥٠٠-٥٠٠٠ () >٥٠٠٠ ()
٥. **Family type:**
Nuclear () Extended ()
٦. **Number of children:**
١-٣ () ٤-٦ () >٧ ()

Knowledge regarding home accident

٧. **Accident that was occur to your child:**
Falling () Poisoning () Burn () Suffocation () Other ()
No ()
٨. **Source of information about home accident:**
Audio-visual source () Health personal () Relatives ()
٩. **Place of accident occur:**
Kitchen () Hall and rooms () Yard and ()
١٠. **Risk factors of home accident:**
Parent neglect and left dangerous object in reach of children ()
Children not aware about the dangerous environment ()

- Lock of supervision among children () Act of GOD ()
11. **Prevention of home accident:**
 Supervised children and follow them everywhere () Remove
 dangerous object from their reach () Remove children from
 dangerous places ()
 Don't acting things that children can imitate ()
12. **Causes of poisoning:**
 Chemical substance and cleaning product () Drugs () Food ()
 Make up ()
13. **Sign and symptoms of Poisoning:**
 Breathlessness () abdominal pain and vomiting ()
 Un-consciousness () protruding of tongue ()
14. **Poisoning management:**
 Go to hospital immediately () Give child cold milk or lemon juice ()
 Commit vomiting () Washing skin with water for a while ()
15. **Poisoning prevention:**
 Remove chemical, cleaning product, and drugs from reach of children ()
 Warmth and cold the food well () Washing hand before and after
 preparing food () don't allow children to play with make-up
 product ()
16. **Causes of burn:**
 Hot drink and food () fire () electricity and chemical
 substance () Sun rise ()
17. **Burn first aid:**
 Use honey or sugar () cold water () burn cream ()
 mud () other ()
18. **Burn prevention:**
 Avoid children from play with match () Avoid children to play in the
 kitchen during cooking () Avoid carry the children while carry
 hot object ()
 Remove hot object after cooking from reach of children ()
19. **Causes of falling:**
 Lock of supervision and follow up when child play () Act of God ()
 Slipping from wet ground ()
 Children play on furniture and high places ()

٢٠. **Cuts and bleeding first aid:**
 Compression on place of wound to stop bleeding ()
 Raise the part of injury to stop the bleeding () Cleaning the wound ()
 Go to the hospital ()
٢١. **Falling prevention:**
 Following and supervise children () to dry the wet ground ()
 Arrange the furniture and place of play ()
 Prevent child from play in furniture ()
٢٢. **Causes of choking:**
 Swallowing small object and coins () Put their head into plastic
 bag () Suffocation during sleeping ()
 Give child solid food ()
٢٣. **Sign of choking:**
 Breathlessness () Unable to cry () Unconsciousness ()
 Grip neck ()
٢٤. **Choking first aid:**
 Beating on back of child to remove the foreign object ()
 Insert hand into throat () Go to hospital () don't know ()
٢٥. **Choking prevention:**
 Remove coins and beads from reach of children ()
 Sitting the child during eating () don't play by toys with small part ()
 Prevent children to play with plastics bags ()
٢٦. **Drowning first aid:**
 Remove child from water () Insure that the child can breathe well ()
 chest compression to remove water () Go to the hospital
 immediately ()
٢٧. **Drowning prevention:**
 Cover big tool of water at home () supervise children ()
 don't leave child alone into basin ()
٢٨. **Opinion of mother regarding need of learning first aid:**
 Yes it's important () no it's not important ()