

Mother's Education, Age and Knowledge about Home Accident Prevention among Preschool Children in Ilesa Metropolitan City: A Relational Approach

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Abstract

This paper examines 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. 187 nursing mothers from both Local Governments were interviewed. The data collected were analysed using both descriptive and inferential statistics. Findings revealed that there is highly significant difference between mothers' knowledge and their education attainment ($\chi=39.93$; $p\text{-value}=0.0000$) 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. Furthermore, the result shows a high level of significant difference between mothers' age and the level of knowledge display on the causes and prevention of home accidents ($\chi=18.78$; $p\text{-value}=0.0000$). This indicates that the older a mother is the more knowledge she would have acquired as far as home accidents are concern. The study recommends that high premium should be placed on educational programme on home accidents and how it could be managed if it occurs, especially for mothers who have pre-school children. This may be part of both Pre and Post-natal training programme in hospitals. Also, under-aged mothers need be monitored and educated by experienced mothers and Community Health workers on the causes and prevention of home accidents among pre-school age children and that we should be our brothers' keeper.

Keywords: Home Accident, Mother's Age, Mother's Education, Pre-school Children

1. Introduction

Accidents among preschool children have been identified as important problems that need active reduction intervention as they cause injuries, deformities and possibly death. Accidents are major of the five leading causes of death in industrialized and developing countries (Goldman, 1996 and Stanhope and Lancaster, 1996). The prevalence of occurrence, prevention and safety measure put in place is a function of mothers' education. This underscores the need for educational programs for mothers on how to prevent the occurrence of accidents in the home. A survey on the level of knowledge of the causes, prevention and practice of parent when accidents occur will guide in the area of knowledge to be imparted through a functional educational programme either by community health workers or general public enlightenment programmes as injuries arising from home accidents increase community health problems.

The Nursing mother is a woman looking after a baby immediately after delivery up to the time the child is weaned. She provides for the needs of the child, both physical and psychological. According to Crease (1999) a mother is a nation builder, she lays the foundation with the children she bears. The quality of the nation therefore depends on the quality of her children. The day a woman becomes a mother, she assumed a great responsibility which she must bear with the confidence that is born of knowledge and a feeling of adequacy.

It is a true saying that education improves people's ways of life and gives way for enlightenments. In the past accidents were the leading cause of death among all persons aged on to thirty eight (National Safety Council 2000) for children aged one to fourteen years, accidents claims more lives than six leading diseases of influenza and pneumonia, tuberculosis, diphtheria, typhoid and measles combined with these kinds of statistic accidents risks are not to be taken lightly.

A child's safety is the mother's responsibility. It is an awesome responsibility which unfortunately is felt most strongly when a child is hurt in an accident. Mothers feel guilty despite the fact that accidents are by their very definition unanticipated and unintended. However, when they do occur, it does not lessen the guilt consciousness. Children are constantly exposed to hazard and passive protection will never be enough. Protection must be built in. The child himself must learn about the risk or dangers he faces and how to avoid taking undue risk. Some safety experts believe that most accidents are preventable, and when they are not, the injuries that result from them often are. Lesperance (1997) asserted that most injuries are preventable and that people tend to blame their injuries on "accidents." He stressed that when causes of most accidents are examined, it will be realised that the accidents are actually the result of predictable and preventable occurrences. He illustrates thus, suppose you

know you are driving with bad tyres. If one of them blows out, causing you to lose control of the car and crash, this is not an accident. It's a predictable and preventable event. Therefore, to prevent injuries, people must accept responsibility for their actions and must take obvious steps to eliminate safety hazards.

2.0 Review of Literature and Empirical Studies

2.1 Concept of Accident

Some statements according to Iroezi (2000) tend to reveal the intricate meaning(s) of Accidents:

- (i) Had I known
- (ii) Oh, if I had seen it;
- (iii) If I had been there
- (iv) If I had done it by myself
- (v) If I had warned him;
- (vi) If I had not left it there;
- (vii) If I had remarked or picked it up;
- (viii) If I had taught him how to use it;
- (ix) If I had taken that way;
- (x) I should have kept quiet
- (xi) I should have spoken louder
- (xii) I should have taken it from him.

Accident is a human experience which exposes the state of imperfection of human nature. It is a word smartly coined by man to explain off, use as excuse for circumstances beyond his control due to the imperfection in being mere human.

Accident is an unplanned, unexpected, unanticipated or unintended act or event in a sequence of events or acts which result into damage of property, injury, death or combination of all. Udoh (2006) and Hastrup (2006) Citing Arbous (1961) described accident as a Chain of events' each of which is planned or controlled. There occurs an unplanned event which being the result of some acts on the part of individual, may or May not results into injury. Udoh (2006) and Hastrup (2006) earlier opined that an event could be classified as accident by a degree of expectation of event (b) degree of avoid-ability and (c) degree of intention. Accidents are generally classified as home, road / traffic and workplace accidents.

According to Allender and Spradly (2001), accidents are unforeseen and unfortunate happening. Surprisingly, most serious home accidents happen in the living room. According to Wong Chin Khoon (2002), home is a wonderful place to care for the children. Home is where we feel safe. However, many of us are not aware that home is also a place where dangers lurk. He referred to the dangers that we expose our young children to at home if we do not take the necessary precautions.

Also, Oyerinde, (1998) and Falawiyo, (1987) attributed increased in home accident the largely to increased use of products of modern technology in the homes with its resultant increase in the complexity in the structure and contents of a home, hence, dwelling places are increasingly acquiring various types of hazards in their design, construction and/or maintenance, and in a variety of consumer products within the house.

The main causes of accidents in the home are falls, fires and burns, suffocation, choking, poisoning, cuts and lacerations. Sattin et al., (1998) stressed that accident is the leading cause of death and is a major reason for hospital admission and long term of disability nowadays.

2.2 Empirical Studies on Home Accidents

According to Amine et al., (1998), accidents in Egypt are the major cause of morbidity and mortality in children. According to survey carried out in Egypt in 1998, the overall prevalence of injuries indoor home environment was estimated to 72.5% among children. This necessitates establishment of an Egyptian National Injury prevention program for prevention of injuries that result from burns, falls, and poisoning among target children and mothers.

In Jordan, accidents among children showed that the attendance rates at health center in 1998 and 1999 were 9.1 and 7.6 per 1,000 children respectively. While the attendance rates at the hospital emergency department during this year 50.6per 1000 children respectively (Shatanawi, 1998). Although, injuries affect all population groups, mothers and children are at particular risk of fatal injury or permanent disability from these injuries (Moustafa, 1995).

In a similar studies in Lebanon by local specialists showed that 40%of accidents reported in emergency rooms occur at home, with most of these leading to death or permanent dis-ability (Kanafani, 2000)

Even in the Developed Countries, children pre-school accidents are prevalent. In United States, according to National Safe kids Campaign (2000), unintentional injury remains the leading cause of death among children

ages 14 and under in United States. In (2000), 5,686 children aged 14 and under died from unintentional injuries. These injuries have enormous financial, emotional and social effects on not only the child and the family but also on the community and society as a whole.

According to the National Safety Council Report (2011), each year seven million Americans suffer disabling injuries and another 28,800 die as a result of injuries that happen at home. Falls are the leading cause of hospitalized traumatic brain injuries for children ages 5 and younger and for adults ages 55 and older.

In Nigeria, Oyerinde and Obiyemi (2002) paper identified the major risk factors and the occurrence of accidents in the home resulting from these hazards in Ilorin township. Their findings show that the following hazards lead to home accidents: unswitched 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 etc. They recommended that more research work be carried out to identify the relative effectiveness of reduction of household hazards and health education in the prevention of accidents in the homes.

According to Ibrahim, (1994) and John, (1999), Forty percent of deaths due to home accidents are preventable if preventive measures are taken to avoid accidents. They argued that if the mother knows these preventive measures and magnitude of accidents, ignorance and negligence of the mother that are the fundamental causes of accidents will be reduced. Therefore, it is examined that mother knowledge, attitude and practice will prevent accidents at home.

As observed earlier, Majority of accidents in the home are preventable (Oyerinde, 1988 & Folawiyo, 1988). Hence Ibrahim, (1994) observes that parents in all communities needed a wide range of educational counseling about how to prevent accidents in all communities needed a wide range of educational counseling about how to prevent accidents that injure children. Injury prevention requires acute observation skills in noticing potential safety hazards and collaborative skills in working with others to rectify unsafe conditions to promote personal safety (Hitchcock, 1999).

2.3 Risk factor for home accidents:

According to Iroezi (2001) Instruments of Home accidents are these physical things like:

- a. Slippery floor, due to water or oil or slimy liquid on the floor.
- b. Electrical gadgets that are faulty e.g. fans, wall sockets, exposed wires etc.
- c. Toys and bicycles ridden near the steps or uneven surfaces.
- d. Barefooted walk over sharp objects.
- e. Pointed Objects: Toothpicks, pins, needles, biros, nails, injection needles etc.
- f. Sharp Blades, knives, scissors.
- g. Steps / stair case.
- h. Climbing of stools by children
- i. Fire-some lazy women always send children to make fire or light up gas cooker, without checking safety first.
- j. Unkempt Yard: with broken bottles, nails, rusty tins, zinc, sharp sticks.
- k. Drugs: Can be mistakenly taken by children for thirst or the sweetness or to imitate a senior family member. The sickly person can also overdose herself. The forgetful can repeat same doses.

2.4 Place of Education in Home Accidents Prevention

Education for prevention of injuries has been attempted since the seventies in France, United States of America, and Australia and in some developing countries. Approaches to education addressing parents or primary-school children are a concern of governmental as well as non-governmental institutions. Ministries of education, ministries of health, or voluntary associations have generally initiated educational programmers; they have chosen either teachers, health personnel or community leaders for the educational process.

According to Hossein (2009), Community health nurses use educational interventions when teaching safety precautions. Educational interventions, according to her, should be providing information and encouraging client, groups, parents and young children to participate in their own health care.

Similarly, Swanson, and Nies, (1996) observed that community health nurses are in key position in educating families about how to promote home safety, eliminating hazard before exposure occur, and screening for environmental hazards that may threaten the health.

The questions then are: what is the relation between mother's education and home accident prevention? Does education, demonstrated through knowledge displayed when home accident occurs, has any effect on home accident prevention?

This study attempts to describe the effect of mother's education in relation to home accident prevention

among preschool children in metropolitan city of Ilesa.

Specifically, two hypotheses are tested namely

H₀₁: There is no significant difference between mothers' education attainment and their knowledge about home accident prevention among preschool children in Metropolitan City of Ilesa.

H₀₂: There is no significant difference between mothers' age and their knowledge about home accident prevention among preschool children in Metropolitan City of Ilesa.

3.0 Materials and Method:

This study adopted descriptive study design in approach. The sample size was 100 mothers from Ilesa East and West Local Government Area respectively giving a total of 200 with only 187 responses were found to be useful. The sample size was drawn using cluster purposive random technique. The respondents are women with children at home. Data were collected through interview based on the structured questionnaire. The data collected were analysed using descriptive statistics and inferential statistics such as chi-square with the aid of Statistical Packages for Social Scientists (SPSS) Package.

4.0 Empirical Findings:

4.1 Demographic Characteristics of the Respondents

The demographic characteristics of the respondents such as mother age, educational level, occupation and family size were shown in the table 1 below.

From Table 1, the age of the respondents was established to determine the mother's maturity and experience as relates to home accidents among pre-school children. The results in table above reveal that the majority of the respondents were between 26-30years (47.1%) that is 88 respondents out of 187. These were followed by the age bracket of below 25years (24.6%) and age bracket 36-40 years (19.8%) representing 46 and 37 respondents respectively. These reflect that most mothers sampled are experienced and are able to give information they know about the home accidents among pre-school children.

The educational level of the respondents was used to establish their level of exposure to formal training and the results are indicated in the table above. The results revealed that the majority of the respondents are educated with minimum qualification of School Certificate and above. Only 8 respondents (4.3%) are illiterates. Nigeria Certificate in Education (NCE) or Ordinary National Diploma (OND) certificate (43.9%) that is 82 respondents out of 187 and those with Higher National Diploma (HND) and Degree holders represents 17.6% of the respondents 33 respondents. Those with Masters Qualifications were 21.9% that is 13 respondents while School Certificate holders amount to 12.3% representing 23 out of 187 of the entire respondents. Therefore, since the majority of the respondents are literates, it signified that they were knowledgeable enough and understood what they were doing which further strengthens the reliability of the information supplied.

The results in table 1 still shows that majority of the respondents are working in one place or the other; 134 of 187 respondents (71.7%) are in that category. 28.3% of the respondents indicate that they are not working.

The family size shows that (29.4%) of families had 3 members and (54.0%) of the mothers had two children in pre-school age with the mean 1.54 and Standard Deviation 0.5.

4.2 Empirical Findings on Occurrence, Types and Mother's Knowledge

The table 2 shows the frequency distribution of occurrence, types and mother's knowledge regarding causes of home accidents among children.

Table (2) shows that distribution of mothers according to occurrence of home accidents among their children, it was found that the frequency rate of home accidents among children in Ilesa Metropolis was (74.9%) also the table revealed that the knowledge of causes and prevention of home accidents was found to be high at 66.8%. as to the type of home accident that is prevalent among these pre-school children was Fall (25.1%) followed by Bleeding/wound (21.4%) then burns (11.4%) and the lowest type (3.7%) was animal bite.

4.3 Testing of Hypotheses

4.3.1 Hypothesis One

Table (3) showing chi-square result of relationship mothers' knowledge regarding the causes of home accidents and mothers' education attainment.

There is highly significant difference between mothers' knowledge and their education attainment ($\chi=39.93$; p-value=0.0000), hence, the null hypothesis is not accepted. This indicates 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. Mothers' education, therefore, is a factor to be reckoned with as far as home accidents prevention are the target intention. This finding is in line with observation of Swanson and Nies, (1996) and Hossein (2009) that education promotes prevention of home accidents.

4.3.2 Hypothesis Two:

As regards whether there is a significant difference in the knowledge display regarding the causes of home

accidents and mothers' age, Table (4) below shows the Chi-square result of relationship.

Also, the null hypothesis is not accepted at 5% significant level. The result shows a high level of significant difference between mothers' age and the level of knowledge display on the causes and prevention of home accidents ($\chi=18.78$; $p\text{-value}=0.0000$). This indicates that the older a mother is the more knowledge she would have acquired as far as home accidents are concerned. Therefore, experience could be the possible explanation for this significant difference.

5.0 Conclusion and Recommendation

Mother's age and educational attainment are relevant variables in determination of the knowledge display in case of home accidents causes and prevention as Ibrahim (2004) observed that so many accidents could be less serious if parents with children know what to do as soon as they occur.

From this study it is obvious that mothers' education makes a significant difference in mothers' knowledge on home accidents, the need to place a high premium on educational programme on home accidents and how it could be managed if it occurs, especially for mothers who have pre-school children. This may be part of both Pre and Post-natal training programme in the hospitals.

Also, under-aged mothers need be monitored and educated by experienced mothers and Community Health workers on the causes and prevention of home accidents among pre-school age children.

Finally, it is imperative that we are our brothers' keeper, as the most prevalent types of home accidents are falling and wounds which normally occurred both within and outside the home especially when a child begins to crawl and adventure to his/her environments. When accident occurs, inexperience and nervousness may set in for the under-aged mothers, hence, unable to display any knowledge previously learnt. The assistance of her neighbours is of essence at such a time.

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Table 1: Demographic Characteristics of the Respondents

		Frequency N=187	Percentage
Age	Below 25years	46	24.6
	26-30years	88	47.1
	31-35years	14	7.5
	36-40years	37	19.8
	Above 40years	2	1.1
Education	School Cert	23	12.3
	NCE/OND	82	43.9
	HND/Degree	33	17.6
	Masters	41	21.9
	Illiterate	8	4.3
Occupation	Working	134	71.7
	Not working	53	28.3
Family size	3 members	55	29.4
	4 members	24	12.8
	5 members	24	12.8
	6 members	46	24.6
	7 members	38	20.3
Mean=4.94; SD=1.5			
No of pre-school children	1 child	86	46.0
	2 children	101	54.0
Mean= 1.54; SD= 0.5			

Source: Author's Field Survey, 2013

Table 2 showing frequency and percentage distribution of variables

		Frequency N=187	Percentage
Occurrence	Not Occurred	47	25.1
	Occurred	140	74.9
Knowledge	Knowledge	125	66.8
	No Knowledge	62	33.2
Type of Accident	Non-occurrence	47	25.2
	Bite	7	3.7
	Bleeding/wound	40	21.4
	Burns	22	11.8
	Electric	8	4.3
	Fall	47	25.1
	Poison	8	4.3
	Suffocate	8	4.3

Source: Author's Field Survey, 2013

Table 3 showing chi-square result of relationship mothers' knowledge regarding the causes of home accidents and mothers' education attainment

Knowledge	School Cert		NCE/OND		HND/Degree		Masters		Others		χ^2	P-value
	No	%	No	%	No	%	No	%	No	%		
Known	23	18.4	37	29.6	30	24.0	31	24.8	4	3.2	39.93	0.000
No Known	0	0	45	72.8	3	4.8	10	16.1	4	6.5		

Source: Author's Field Survey, 2013

Table 4 showing chi-square result of relationship mothers' knowledge regarding the causes of home accidents and mothers' age

AGE	Below 25years		26-30years		31-35years		36-40years		Above 40years		χ^2	P-Value
	No	%	No	%	No	%	No	%	No	%		
Known	30	65.2	48	54.5	14	100	31	83.8	2	100	18.78	0.0001
Not known	16	34.8	40	45.5	0	0.0	6	16.2	0	0.0		

Source: Author's Field Survey, 2013

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