ISSN: 2577 - 8005

Research Article

Medical & Clinical Research

Effectiveness of an awareness program on mothers' knowledge toward household accidents among their children

Noora Farhan Hassan AL-Abedi[1*], Zahraa Abdelabbas Taher[2], Maha Salah Razzaq[3], Narjis Ali Abdal Ameer ALradhi[4]

[1]*Pediatric Nursing Branch, Collage of Nursing-University of Kufa, Iraq.*
[2]*Adults Nursing Branch, Collage of Nursing-University of Kufa, Iraq.*
[3]*Maternal and Child Health Nursing, Collage of Nursing-University of Kufa, Iraq.*

[4]*Collage of Nursing-University of Kufa, Iraq.*

[*]Corresponding Author
Noora Farhan Hassan AL-Abedi, Pediatric Nursing Branch, Collage of Nursing-University of Kufa, Iraq.

Submitted: 05 May 2023; **Accepted**: 08 May 2023; **Published**: 18 May 2023

Citation: *AL-Abedi NFH, Zahraa Abdelabbas T, Maha Salah R, Narjis Ali Abdal AA (2023) Effectiveness of an awareness program on mothers' knowledge toward household accidents among their children. Medical & Clinical Research, 8(5), 01-06.*

Abstract

In most countries, accidents involving children at home were a serious health problem that could sometimes lead to death.

Study Aims: *To determine the effectiveness of the awareness program on mothers' knowledge by comparing the pre- and post-test scores on household accidents.*

Study Design: *A quasi-experimental design, carried out in February 2022 and until April 2022 at AL-Najaf city_Al-Zahra Teaching Hospital.*

Study Sample: *The sample size was 100 participants. 50 mothers are subjected to the awareness program as the study group, while the remaining 50 participants considered as control group, which is not exposed to the awareness program sessions.*

Study Results: *The majority of participants had poor knowledge about study topic in the pre-test, whereas all of them had good knowledge after being exposed to instructional sessions in the post-test. In addition, there is no significant relationship between the overall assessment of mothers' knowledge regarding household accidents and their demographic data, except for age and educational level, where there was a significant association ($P<0.05$) with mothers' knowledge.*

Conclusion: *According to the results of the current study, it was concluded that there is a need for special counseling programs for mothers who have children of pre-school age about the most important domestic accidents, how to avoid their occurrence, and what are the most important measures necessary to manage them.*

Recommendations: *Spreading cultural awareness among mothers about how to take care of their child, monitor it, and avoid neglect in order to prevent any accidents.*

Keywords: Household Accidents, Cultural Awareness, Physical, Mental, Social Well-Being

Introduction

Accidents are events that happen without human control, are influenced by outside forces, and result in mental and physical injury. Over the globe, accidents and injuries are the main reasons for young children's deaths. Because to their normal attention, carelessness, and mimicry of adult behavior, this age group is thus seen as having a high risk for injury [1]. Around the globe, accidents claim the lives of 30,000 kids per year, or 2,000 kids every day. Millions of younger children may be referred to hospitals because injuries resulting from accidents can lead to lifelong disabilities [2]. Throughout Europe and around the globe, accidents rank as the fourth most common cause of mortality. Accidents harm children by affecting their physical, mental, and social well-being and may result in illness, disability, or death [3].

Child injuries are increasingly being recognized as a public health

issue that might be solved by raising awareness, adopting safe habits, and implementing environmental changes. As preschoolers are particularly prone to accidents, educating mothers on safety precautions at home may significantly lower the number of injuries sustained by young children. A total of 2.8 million youngsters visit the emergency room for the first time each year due to fall-related injuries [4].

Children's safety must be ensured in order to protect their health and wellbeing. Therefore, children must be protected from exposure to injuries through counseling and educational courses for mothers, which emphasize the acquisition of measurable information, capabilities and attitudes. The third Sustainable Development Goal (SDG) of excellent health and well-being, which concerns child health, is primarily concerned with preventing child injuries. The SDGs emphasize the 5-year-old age group since it is the one that is most adversely affected by child mortality globally [5]. Minor injuries are unavoidable as children learn through experience, but by creating a secure atmosphere and closely monitoring youngsters, the dangers may be minimized [6]. Despite the essential role played by the child's environment in the occurrence of injury by creating a safe atmosphere, closely monitoring young people, providing care and attention, and staying away from sources of accidents, exposure to risks can be reduced. Falls, poisoning, cuts, burns, suffocation, and suffocation are among the most common injuries to a child at home [7].

The preschool year's period may be challenging on the parents. This is a crucial stage for success and intellectual development; they have a strong desire for independence and extremely poor judgment when it comes to safety and proper conduct. These little explorers must be closely watched so that their innate curiosity does not cause them to get into hazardous circumstances that might end in harm or damage [8]. The risk of unintended injuries may be effectively communicated to parents and caregivers by family doctors and nurses. They may suggest specific steps to reduce such hazards, such as changing the surroundings and using safety gear [9].

Study Aims: to assess mothers' knowledge about household accidents. Effectiveness of the awareness program on mothers' knowledge toward household accidents by comparing the pre-posttest. Identify the association between mothers' demographic characteristics and knowledge.

Methodology: Quasi-experimental. Study design. The data collection procedure was carried out on February 2022 until April 2022, in Al-Najaf City/Al-Zahra Teaching Hospital.

Study Sample: 100 participants make up the study sample. 50 of them are subjected to the awareness program as the study group, while the remaining 50 are in the control group, which is not exposed to the awareness program.

Results and Finding

Demographic data	Groups	Study group		Control group		Sig.difference	
		Freq.	%	Freq.	%	Chi-square	P-Value
Age	Less than 20	19	38	15	30	3.265	0.194
	20 - 29	29	58	28	56		
	More than 30	2	4	7	14		
Occupation	housewife	40	80	42	84	1.499	0.224
	Employee	10	20	8	16		
Residence	Rural	1	2	0	0	1.010	0.315
	Urban	49	98	50	100		
Educational status	Ability to read & Write	6	12	3	6	0.478	0.189
	Primary school	5	10	1	2		
	Secondary school	37	74	45	90		
	Institute and Above	2	4	1	2		
Monthly Income	Sufficient	16	32	8	16	9.091	0.011
	Sufficient to some extent	14	28	7	14		
	Insufficient	20	40	35	70		

Table 1: Demographic Characteristics of the Study Participants

In Table 1, concerning mothers age, about (56%) in the study group and (58%) in the control group age range of age between 20-29 years old, and the majority of them graduated from a secondary school (74%) and 90% in the control and study group respectively. Regarding mothers' occupation, (80%) of study group and (84%) of control group are housewives. Concerning residence, most of the study samples were from urban areas and has insufficient monthly income (70%) in the control group and (40%) in the study group.

Variables	Pre-Test		Post- test	
	M.S	Assessment	M.S	Assessment
1. Home accidents causes injuries and deaths for pre-school children	1.46	Poor	1.92	Good
2. The appropriate place to store detergents is to put them in a high place away from children.	1.60	Good	2.00	Good
3. It is important to have locks on cabinets used for storing medicines and detergents	1.64	Good	1.96	Good
4. Make the child vomit in all cases if the child has swallowed any chemical substance	1.22	Poor	1.97	Good
5. If the child swallows any chemical, should he be made to drink eggs and milk	1.44	Poor	1.65	Good
6. Do not leave sharp objects in front of the child, which may expose him to the risk of injury	1.44	Poor	1.96	Good
7. The first thing to do if a child gets injured is to apply pressure to the wound site	1.52	Good	1.92	Good
8. Do not let the child go up and down the stairs alone without assistance.	1.08	Poor	1.66	Good
9. Choose appropriate toys according to the child's age so that they are not pointed and not swallow able	1.53	Good	1.96	Good
10. The best measure to take if a child falls is not to move the injured part	1. 47	Poor	2.00	Good
11. Prevent children from walking and running on the floors of the house after wiping them with water	1.44	Poor	1.92	Good
12. When hot oil or boiling water splashes across a child's chest, the first thing to do is to take off their clothes.	1.37	Poor	1.80	Good
13. In the event of a burn, we put ice packs on the affected part as the first action	1.23	Poor	1.64	Good
14. Keep piping hot food and boiling water away from the eyes of the cook	1.74	Good	2.00	Good
15. The first procedure that must be done is to put the child's head down and bang downwards on the back in the event of a crack.	1.49	Poor	1.72	Good
16. To prevent asphyxia, take away any little things from the child's front and stop him from placing them in his mouth.	1.34	Poor	1.81	Good
17. Avoid tickling or laughing at the child while eating, for fear of suffocation	1.56	Good	2.02	Good
18. Avoid leaving electrical equipment connected to electrical points.	1.31	Poor	1.72	Good
19. Avoid putting chemicals such as pesticides inside the kitchen	1.61	Good	1.97	Good

Table 2: Mothers' knowledge toward childhood injury in the study group (pre-posttest).

This Table 2, shows that the most of participants had poor knowledge in the study group (pre-test), whereas, all of them (100%) had good knowledge after being exposed to instructional sessions on the same items in the post-test.

Domain		Pre-test				Post-test			
		Freq.	%	M.S	Assess.	Freq.	%	M.S	Assess.
Overall knowledge	Correct	20	40%	1.45	Poor	0	0%	1.87	Good
	Incorrect	30	60%			50	100%		
	Total	50	100%			50	100%	-	-

Table 3: Overall assessment of mothers' knowledge about household accident (pre-posttest) in the study group

In Table 3, above indicate that the overall assessment of mothers' knowledge regarding awareness program toward childhood injury are poor in the pre-test, whereas has well or good in the post-test in the study group.

Items	Pre-Test		Post- test	
	M.S	Assessment	M.S	Assessment
1. For preschoolers, home accidents are a major source of injuries and fatalities.	1.34	Poor	1.32	Poor
2. The appropriate place to store detergents is to put them in a high place away from children.	1.20	Poor	1.22	Poor
3. It is important to have locks on cabinets used for storing medicines and detergents	1.22	Poor	1.70	Good
4. Make the child vomit in all cases if the child has swallowed any chemical substance	1.34	Poor	1.31	Poor
5. If the child swallows any chemical, should he be made to drink eggs and milk	1.40	Poor	1.58	Good
6. Do not leave sharp objects in front of the child, which may expose him to the risk of injury	1.32	Poor	1.33	Poor
7. The first thing to do if a child gets injured is to apply pressure to the wound site	1.48	Poor	1.47	Poor
8. Do not let the child go up and down the stairs alone without assistance.	1.16	Poor	1.26	Poor
9. Choose appropriate toys according to the child's age so that they are not pointed and not swallow able	1.34	Poor	1.32	Poor
10.The best measure to take if a child falls is not to move the injured part	1.42	Poor	1.42	Poor
11.Prevent children from walking and running on the floors of the house after wiping them with water	1.48	Poor	1.48	Poor
12. When hot oil or boiling water splashes across a child's chest, the first thing to do is to take off their clothes.	1.44	Poor	1.54	Good
13.In the event of a burn, we put ice packs on the affected part as the first action	1.70	Good	1.12	Poor
14.Put hot food and boiling water away from the front eyes of the cook	1.58	Good	1.58	Good
15. The first procedure that must be done is to put the child's head down and bang downwards on the back in the event of a crack.	1.50	Poor	1.55	Good
16. To prevent asphyxia, take away any little things from the child's front and stop him from placing them in his mouth.	1.46	Poor	1.33	Poor
17.Avoid tickling or laughing at the child while eating, for fear of suffocation	1.50	Good	1.54	Good
18. Avoid leaving electrical equipment connected to electrical points.	1.56	Good	1.43	Poor
19. Avoid putting chemicals such as pesticides inside the kitchen	1.54	Good	1.64	Good

Table 4: Mothers' knowledge regarding household injury among their children at pre-posttest (control group).

In Table 4, indicates that the majority of participants in control group (pre-post-test have poor knowledge about household accident due to the participants not expose to any information about the study topic.

Domain		Pre-test				Post-test			
		Freq.	%	M.S	Assess.	Freq.	%	M.S	Assess.
Overall knowledge	Correct	20	40%	1.45	Poor	0	0%	1.87	Good
	Incorrect	30	60%			50	100%		
	Total	50	100%	-	-	50	100%	-	-

Table 5: Overall assessment of mothers knowledge between Pre-Posttest in control group

According to table 5, the study finding found that there is no significant change between the pre-posttest results in the control group.

Variables	Chi-square (X^2)	df	P-value (Sig.)
Age (years)	5.12	1	0.024 (S)
Occupation	2.508	2	0.285 (NS)
Educational Status	5.14	1	0.025 (S)
Residence area	1.11	3	0.775 (NS)
Monthly income	0.120	1	0.312 (NS)

Table 6: Relationship between mothers' knowledge in the study group and their socio-demographic variables.

In Table 6, shows that there is no significant relationship between overall assessment of mothers' knowledge regarding household accidents and their demographic data, except with age and educational level for mothers there was a significant relationship at p-value (0.024 and 0.025) respectively.

Discussion

According to current results in Table 1, reveals that majority of study participants within age group (20-29) years. This result is in agree with other studies done by Mayanlambam and Devi [10], indicated that the participants' average age was 20 years old. About education level of the mothers, the majority of them from both study groups graduated from secondary school. Concerning mothers' occupations, most of them are housewives. This result is supported by the result by Abed and Aldoori [1] mentions that the majority of the study sample graduated from secondary school and housewife. Regarding residence area, most of the research sample residents dwell in urban areas.

Concerning Tables 2 and 4 demonstrations that the participant knowledge is deficit in the control and study group (pre-test), due to the lack of mothers awareness or failure to acquire sufficient knowledge about how to act or what necessary measures to take when an accident occurs. The results approach with a study done by [11] they observed that over 90% of the moms had insufficient knowledge, with just 9.2% of the mothers knowing how to avoid injuries from chemicals and detergents.

Regarding Table 3, it reveals that mothers' knowledge (post-test) in the study group regarding household accidents has improved knowledge after exposure to the instructional program sessions. The research confirms that the mothers' lack of knowledge in the initial test in both groups regarding There were relatively few safety measures taken to keep chemical substances and detergents out of children's reach, which puts them at risk for poisoning or other major incidents that might end in fatalities. Maybe due to lack of mothers' awareness and interest in learning and adhering to the instructions and advice on avoiding accidents and dealing with them when they occur. A study conducted on caregivers in preventing home poisoning in the USA by [12] they mention that less than 20% of participants knew the telephone number of the poison center.

In Table 6 indicates a significant relationship between mothers' knowledge and some demographic variables (age and education), this result supported with other study conducted according to a survey from Canada, education level is correlated with an increase in awareness of accident prevention in the home [13]. This may be due to the increase in the age and level of education, which led to an increase in knowledge and awareness of some domestic accidents and how to deal with or avoid them. Whereas there is a no-significant relationship with the othersvariables.

Conclusion

The researcher concluded that there are improvements in the mothers' knowledge in the study group after exposure to the awareness program sessions (post-test). Whereas there are there are no statistically significant changes in mothers' knowledge about household injury at the pre-posttest in the control group.

Recommendations

• Spreading cultural awareness among mothers about how to take care of their child, monitor it, and avoid neglect in order to prevent any accidents.

• The necessity of paying attention to the private things of the child under the age of five and choosing the appropriate things, such as toys, and keeping others away from sharp and dangerous things to maintain his safety, as well as rehabilitating the child for the appropriate places for him and his age.

References

1. Abed NMAMT, Aldoori (2017) Assessment of Mothers Education and their Knowledge about Home-Accident among Early Childhood Age Group. kufa J Nursing sciences 7(1):
2. World Health Organization (2014).
3. Akturk U, Erci B (2016) Determination of Knowledge, Attitudes and Behaviors Regarding Factors Causing Home Accidents and Prevention in Mothers with a Child Aged 0-5 Years. J Education and Practice, 7(18): 142-153:
4. Hardeman V, Borse NN, Dellinger AM, Betancourt CE, Villareal AN, et al. (2011) The burden of childhood injuries and evidence based strategies developed using the injury surveillance system in Pasto, Colombia. Injury prevention 17:i38-i44:
5. Stralczynská BL, Chroustová K, Skřehot P, Chytrý V, Bílek M, et al. (2022) Childhood injuries and their sustainable prevention from the perspective of parents and grandparents. Sustainability MDPI 14(17):10592.
6. Mohammed AR, Mohammed NS, Byoumi MH (2013) Supportive strategies regarding accidents prevention for mothers of children under five years old. Jbah 3:1-11:
7. Saeed F, Paul A, Rehman A, Hong WH, Seo H (2018) IoT-

based intelligent modeling of smart home environment for fire prevention and safety. J Sensor and Actuator Networks 7(1):11.

8. Latha K (2022) A Study to Assess the Knowledge and Practice Regarding Prevention of Home Accidents among Mothers of under Five Children at Milaganoor. J Nurs Care 11:535.
9. Elboray S, Elawdy MY, Dewedar S, Elezz NA, El-Setouhy M, et al. (2017) Knowledge, Attitudes, and Practices of Family Physicians and Nurses Regarding Unintentional Injuries among Children under 15 Years in Cairo, Egypt. Int J Injury Control Safety Promotion 24(1):24.
10. Mayanlambam, Akoijam Mamata Devi (2016) ART among nursing students by mamatha. Int J Res and Review 3(1):44-47.
11. Lafta, Al-Shatari, Abass S (2014) Mothers' knowledge of domestic accident prevention involving children in Baghdad City. Qatar Medical J (2):17.
12. Gutierrez J, Negrón J, García-Fragoso L (2011) Parental practices for prevention of home poisoning in children 1-6 years of age. J Community Health 36(5):845-848.
13. Uskun E, Alptekin F, Oztürk M, Kis¸ioglu AN (2008) The attitudes and behaviors of housewives in the prevention of domestic accidents and their first aid knowledge levels. Ulus Travma Acil Cerrahi Derg 14(1):46-52.