Original Article

EFFECTIVENESS OF HEALTH EDUCATION AMONG MOTHERS TO REDUCE UNINTENTIONAL HOME INJURIES OF UNDER-FIVE YEAR OLD CHILDREN IN RURAL COMMUNITY

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Abstract

Background: Unintentional home injuries among under five year old children in rural community is a common issue which lead serious health problems and increase disability rate in children under five year of age. The aim of study was to assess the effectiveness of health education among mothers to reduce unintentional home injuries of under-five year old children in rural community.
Methods: A study design was quasi experimental, one group pre and post test design was used and data was collected at Ali Raza Abad community, Raiwand Road Lahore. Convenient sampling technique was used. Sample size was 71 community mothers who have children under 5- year of age with age group 18years to 45 years. Data was collected by administering knowledge and practice questionnaire before and after the health education programme. The post data was collected after four week intervention after pre data collection.
Results: The current study shows that the overall mean score of pre-test is .4907 and overall mean score of post-test knowledge was .8422. The overall mean score of pretest was .4930 and overall mean score of post-test practice was .8003. These results show that health education is effective to enhance the knowledge and safety practice of mothers.
Conclusion: Based on the findings of this study, it concluded that health education is so effective to bring significant change in knowledge and practice among mothers of under under-five year of old children.
Keywords: Effectiveness, health education, mothers and under five children, rural community

Introduction

Unintentional home injuries are interaction between individuals, their social and physical environment. More than 5 million people die each year as a result of unintentional injuries. World Health Organization report shows that a total account of death in world is 9% and home injuries are common in children under five year of age group (1). Unintentional home injuries are common in children. Unintentional injuries are main causes of morbidity, disability and mortality in children, results show that every year

630,000 children died due to unintentional home injuries(2).

According to injury report, 30,000 cases of home injuries lead to death every year in United States (3). Worldwide unintentional injury in children is a very common and vital public issue. It is a major cause of death in children and also responsible for disabilities in under-five year old children (4).

Children under-five year age group face many risks in term of home injuries because they spent most of their time at home, they are energetic and take part in their surroundings, they are more Sensitive to get injuries. They have no any developmental skill to protect their self from injuries due to sensitive appearance of body morphology (5).

Injury experts recommended the use education of community surveys and health which increasing the knowledge, attitude and practice of mothers on unintentional child injuries in low and middle-income countries (6).

In Pakistan unintentional home injuries in children under age of five year was the 3rd most common cause of death (11%) after diarrhea illness (18%) and pneumonia (17%). Drowning (22%), burns (11%) and falls (10%) were the commonest injuries with mortality two time greater in rural community as compare to urban community areas due to lack of awareness (7).

Unintentional injuries are subset of injuries in which there was no evidence of preplan occurrence of injuries, further more in winch include different injuries like drowning, suffocation, burns, poisoning, falls, and physical injuries etc (8).

Unintentional home injuries do not just contribute to child mortality, on the other hand unintentional home injuries can also have other consequences like discomfort, lifelong disability, distress and traumatic psychological problems and due to that reason economic burden of families also increase (9). Home safety education and safety in equipment use (in kitchen, living rooms and bath rooms) is effective to reduced home injuries in children. Health education is also important to increased safety behaviors and awareness in community people which help to reduce unintentional home injuries. So health education is effective way to enhance the knowledge of community people toward safety measure (10).

Children environment and maternal behavior is important to reduce the unintentional injuries at homes. Effective educational program enhance the mothers knowledge towards home injuries. Because supervision and awareness is important to reduce the risk factor in environment where children play. So, positive maternal behavior towards children environment is important for the health and wellbeing of children's (11).

Health education in community with various methods is effective way to motivating and modifying inappropriate performance because health education is important for people to pay attention toward learning process, to create desirable behavior in order to achieve health (12).

Health education is very important to enhance the general knowledge of mothers toward home injuries. On community level, health education program is effective to improve the knowledge of mothers.

By the help of health education mothers can modify the home condition and use safety measure to protect their child from home injuries.

Home safety health education is associated to reduce the injury rates in children at home. Because unintentional home injuries are preventable and proper understanding of these injuries enable mothers to take action to reduce home injury risk in children under five year of age (13)

Theoretical Framework

In current study health education intervention based on health belief model which formed in 1952 include general health motivation for the purpose of distinguishing illness and sick-role behavior from health behavior (14). In this study modifying variable (improvement in knowledge, attitude and practice) by the help of health education which leads toward perceived benefit (improve health) but perceived barriers are negative attitude of mothers and caregivers. In perceived seriousness includes the negative behaviour of parents and caregivers which lead toward perceived threat like lifelong disability, mortality and morbidity in children. Perceived susceptibility (unintentional home injuries) also leads toward perceived threats. After understanding of unintentional risk the mothers and caregiver enable to do action to reduce unintentional home injuries in under-five year old children (15).

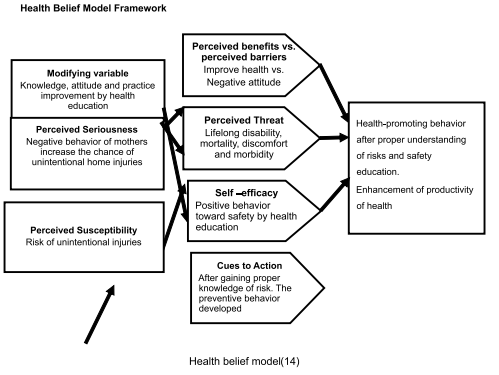

Figure 1. Health Belief Model Framework.

Methodology

Setting

This study was conducted in community Ali Raza Abad, Raiwand Road, Lahore.

Research Designs

The quasi-experimental study design was use in this research.

Population

The target population for this research includes mothers of under- five year old children of Ali Raza Abad community.

Sampling

Convenient sampling technique was use in this study.

Research Instrument

A well developed questionnaire on knowledge and safety practice checklist which adopted from base article(15) were use to assess the knowledge and practice of participant before and after interventions.

Data collection Procedure

The data collected through questionnaire and practice check list. The pre data collected through questionnaires which save as baseline and then, education session conducted in group at natural home settings. In this way, 4 groups entertained consisting of 15 to 18 mothers. The interventions done for four weeks. After one month intervention post data collected from mothers of under five year children on unintentional home injuries.

Inclusion Criteria:

- Mother having a child of 1-5 year of age.
- Mothers with age group of 18years to 45 years.
- Mothers who willing to participate. Exclusion Criteria:
- Mothers with cognitive disability excluded from study.
- Mothers who belong to urban community excluded from the study. Data analysis
- Data analyzed by using SPSS version 21.0 statistical software for data analysis.
- Demographic data has shown in percentage, frequency and standard deviation.
- Effectiveness of intervention assessed by comparing the pre and post data separately by using the parried t test.

Study Time Line

This study took approximately 4 months (from September 2018 to December 2018).

Ethical Consideration

The ethical rules of research study set by the ethical committee of the Lahore school of Nursing followed while conducting the research and the rights of the research participants preserved.

Written informed consent was taken from all the participants.

- All information and collected data were kept confidential.

- Participants remained unappear throughout the whole study.
- It has informed to participants that they will be free to withdraw at any time there are no disadvantages or risk on the procedure of the study

Results

This section presents the outcomes of the study. This chapter includes two portions of analysis. First analysis was done of demographic data. It gives detail of 5 demographic questions. Descriptive analysis was used to find out the distribution of each characteristic. Demographic characteristic were Age, Education, Employed, Caregiver and Income Level of participant.

Table no. 1 shows the demographic data of participants. The total no. of participants which included in study were 71. In Age Group section, 35 (49.3%) participants age were in 19-25 years, 33(46.5%) participants age were in 26-35years and 3(4.2%) participants were belongs to 36-47age group. In Qualification section, 35(32.4%) participants were Illiterate, 33(29.6%) participants education level were in Primary-Middle and 23(32.4%) participants education were Metric and 4(5.6%) particpant were in higher education level. In Empolyed section, 10(14.1%) participant were employed and 61(84.9%) particpants were unemployed. In care giver section 71(100%) participants were only mother no any other caregiver included. In Income Level section income of families was 10,000-35,000 which responed by 71(100%)participants.

Table 1 Demographic data of Participants

Sr#	Demographic Characteristic	N	%age
		71	100%
1	**Age Group**		
	19-25 year	35	49.3%
	26-35year	33	46.5%
	36-47year	3	4.2%
2	**Qualification**		
	Illiterate	23	32.4%
	Primary- Middle	21	29.6%
	Metric	23	32.4%
	Higher Education	4	5.6%
3	**Employed**		
	Yes	10	14.1%
	No	61	84.9%
4	**Caregiver**		
	Only Mothers	71	100%
	Other Caregiver	0	0%
5	**Income Level**		
	10,000-35,000	71	100%
	Above 35,000	0	0%

Knowledge & practice

This section of results shows the knowledge and practice of of participents. Table 2 shows the (pre and post) knowledge and practice of participent.

Knowledge

In pre-knowledge the overall mean of n=71 participant was .4907 with standard deviation .25979 and in post- knowledge the overall mean was .8422 with standard deviation .22105. The knowledge of participants before intervention was not enough but after intervention the knowledge became increase. This shows that health education was effective.

Practice

In pre practice the overall mean of n=71 participant was .4930 with standard deviation .05972 and in post practice the overall mean was .8003 with standard deviation .08965. Similarly, in the case of practice the level of practice before intervention was not enough but after intervention the practice level became increase. This shows that health education was effective

Table 2. Knowledge & practice Mean and Standard deviation difference.

	Mean	Std deviation
Knowledge Pre knowledge	.4907	.25979
Post knowledge	.8422	.22105
Practice Pre practice	.4930	.05972
Post practice	.8003	.08965

Discussion

A quasi experimental pre and post study design is used to assess the effectiveness of health education among mother of under-five year old children. Current study showed that health education is so effective to bring the change in knowledge and safety practice among mothers of under under-five year of old children. In pre data, which show that mothers have poor or not enough knowledge and safety practice, but after 4 week interventions knowledge and safety practice improve among mothers which showen by post data. Similar study results shows that educational intervention and home. Visits had a significant effect to reduce home injuries in under-five year old children. Health education significantly improves the knowledge and had a significant effect on mothers' awareness toward their child. This study also showed that 30% of all unintentional injuries among children can be prevented after educational intervention(16). A study shows that the knowledge of mothers in preventing household unintentional injuries had increased after 1 month interventions compared to before intervention. This shows that, effective health education intervention and training programs had increased mothers' knowledge in preventing unintentional home injuries (17). Another study shows that effective health education and teaching is important to avoid children from home injuries. Over all pretest knowledge on prevention of household injuries among mothers of toddlers was average which recommend there is need for structured teaching programme for mothers of regarding prevention of household injuries among under-five year children. Post test result shown the significant improvement in the level of knowledge regarding prevention of household injuries among under-five year children. It can be concluded that teaching the mothers of toddlers to improve the knowledge regarding prevention of unintentional home injuries (18). A study shows that mother's education along with firm guidance is the key to prevent accidents and safe living. Mother's age also impacted to reduce injuries because adult mothers have less experience as compare to late adulthood mothers. The health education to mothers is important to promote safety in under-five year's children. Health education is also important that help to avoid potential dangers for young children in the home and surroundings. Mother's knowledge and practice plays very important role in preventing home injuries in children(19). Structured teaching programme was effective strategy in bringing about changes of cognitive and effective behavior of mothers of under-five children in selected area of Aanganwadis of Visnagar regarding prevention of unintentional home injuries. Mothers of under-five children gained significant knowledge related to risk that show the structured teaching was effective. The structured health education programme on prevention of home accidents was acceptable and useful method of teaching for mothers and caregivers of under five children (20). Recently a similar study conducted in India its results shows that in pre intervention mother's knowledge were not enough after intervention mother knowledge improved regarding home injuries among under-fiver year children. That shown from home teaching and interventions effectively improve knowledge and practice of mother(21). Another study shows that health education is effective because household socioeconomic factors were strongly associated with children unintentional injuries. Children with less educated mother were in risk of unintentional injuries. The possible reason may be that better educated mothers have good knowledge and ability to reduced

unintentional injuries in children. On the other hand, low educated mothers likely to have lack of safety knowledge and parenting skills, as well as knowledge and ability on child prevention (22). A study shows that the highly educated mothers give less attention to their child as compare less educated (23). But the current study is effective to enhance the knowledge of low educated mothers live in rural community. In pre data mothers had less knowledge but after intervention knowledge and level of practice improve which reveal the effectiveness of health education.

Conclusion

On community level health education program is effective to improve the knowledge and safety practice of mothers. By the help of health education mothers can modify the home condition and use safety measure to protect their child from home injuries. Home safety health education is associated to reduce the injury rates in children at home. Because unintentional home injuries are preventable and proper understanding of this injury risk enable mothers to take action to reduce home injuries in children under- five year of age. Based on the findings of the current study, it is concluded that current study shows that health education is so effective to bring significant change in knowledge and practice among mothers of under under-five year of old children. In pre data, which show that mothers have poor or not enough knowledge, but after 4 week interventions knowledge & practice increase among mothers which showed by post data.

Limitations

1. The sample was limited to only 71 mothers, the findings could not be generalized on others geographical areas.
2. The sample used for study belongs to one rural community.
3. No attempt was made to follow-up to measure the retention of knowledge and practice after the post-test.
4. This study is also limited due to lack of resources.

Recommendation

1. A similar study can be repeated on a larger sample covering the entire community population in Lahore as well as others parts of the country.
2. A similar study can be conducted among rural and urban communities of country.
3. An experimental study can be undertaken with a control group to increase the validity of results.
4. A comparative study may be undertaken on low economic status community and high economic status to compare the knowledge & practice of mothers under five year old children.

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