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The Role of Health Education in Reducing Risk Factors in Children Under 5 Years

Kalvandi Narges[1], Keshtkari Ali[2], Nikghadam Hormoz[3], Bafahm Fatemeh[4]*

[1]Master of Community Health Nursing Student, Hamadan University of Medical Sciences, Hamadan, Iran
[2]Department of Pediatrics, School of medicine and Clinical Research Center, Emam Sajad Hospital, Yasuj University of Medical Sciences, Yasuj, Iran
[3]Master of Pediatric Nursing Student, Hamadan University of Medical Sciences, Hamadan, Iran
[4]Abadan School of Medical sciences, Abadan, Iran

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ABSTRACT

The incident is the first cause of death and disability and responsible for 40% of the total deaths in children throughout the world. By controlling the risk factors of these incidents, it is possible to prevent these incidents and disabilities. In this regard, it is important to consider the preventive behaviors of home health by the child careers and educational programs to promote them. The purpose of this study was to investigate educational interventions in order to reduce the risk factors in domestic events of children under the age of five based on the study method and how to use health education frameworks in the community so the impact of these interventions can be considered in reducing risk factors. Search using Persian and English keywords in children's events, home affairs, children's educational models, and educational interventions in children in specific and popular databases, such as the Iran medex database, SIDs, Pub med, Scopus, and Elsevier. The above mentioned database was searched from January 2017 to March 2018. Interventions to reduce the risk factors of home-based children in the sub-years of age were divided into general education based and non-based model and health education theories. Of the 7 papers reviewed, 4 papers were based on modeling and teaching theories and 3 articles without the use of educational models and theories. Teaching-based education and health education models have a greater impact on reducing the risk factors of under-age children. Also, time, location, duration of interventions, personality traits and the use of new educational methods for some audiences are important in the effectiveness of the training provided to reduce the risk factors.

Keywords: Child, Household Incidents, Educational Intervention

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Corresponding author: Bafahm Fatemeh
e-mail✉ f.bafahm62@gmail.com
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INTRODUCTION

Accidents are a chain of events that lead to damage and recognizable disease in humans [1]. Incident has always been recognized as one of the most important causes of death in humans [2]. One of the high-risk groups in the events are children under the age of five. The physiological patterns associated with evolutionary stages in children make this group susceptible to such events. Interestingly, despite the fact that some people consider the home as the safest place for their child, about one third of the incidents occur at home [3]. The numbers of children, usually the first incident experienced are at home [4]. According to studies, incidents are the first major cause of death in the first five years of life of children across the globe [5]. Annually, household accidents account for 875,000 children who account for 40% of the total child death in the world. These deaths are mainly taking place in low-income and middle-income countries, especially in the countries of South Asia. The rates

of deaths from childhood incidents in low-income countries are about 11 times higher than in high-income countries. A survey conducted in 2016 shows that most of the incidents were of the type of household, including falling, burning with boiling water and poisoning. The results of a study in Iran show that the number of injuries reported by home-related incidents is 11% severe, 39% moderate and 49% mild. In this study, the fall was recognized as the first cause of the incident in children. According to a report released in 1395, 7409 injuries under five years were referred to the Emergency Hospitals in Hamadan, which accounted for 45% of the incident [6-10]. The lack of recognition of the ways of preventing accidents and incidents in children and believing that it is unpredictable is one of the main problems of today's societies, which can be addressed to some extent by training the primary caretakers of children [11]. Educational programs can be used to create an attitude for controlling and controlling child abuse [12, 20]. Health education programs can empower people to change their own and their communities by influencing their beliefs, attitudes and decision-making skills [15]. The purpose of this article is to review the studies that used educational interventions to reduce the risk factors in home-based children under the age of five. With this systematic review, we are looking at whether the use of specific health education frameworks could be more effective in reducing the risk factors in the home health of children under the age of five.

MATERIALS AND METHODS

In this systematic review, Search using Persian and English keywords in children's events, home affairs, children's educational models, and educational interventions in children in specific and popular databases, such as the Iran medex database, SIDs, , Pubmed, Scopus, Elsevier. The above mentioned database was searched from January 2017 to March 2018.

Inclusion criteria were: Intervention studies that are training as their main intervention. Interventions to reduce the risk of household accidents and children under the age of five. Studies have been published between 2007-2017.
Also, the Exclusion criteria for withdrawal of descriptive studies and studies that were conducted on non-educational interventions or educational interventions for secondary prevention on affected children were also carried out.

According to the criteria for entry and the study design, the papers were reviewed and the articles that did not have the required quality were excluded from the study in light of the objective of the study. The following is a summary of the details of the studies studied.

Details of these studies were:
Place of study, time of study, purpose of study, target group, sample size and how to conduct educational intervention. All ethical issues regarding the correct use of extracted articles and the standards for publishing the work were observed.

RESULTS

After searching the databases and extracting a large number of articles based on the title and abstract, 214 articles (96 articles from English sources and 118 articles from Persian sources) were investigated, out of which 186 articles were No reviews due to the lack of educational intervention. They were 28 articles were examined more precisely, of which 21 articles of educational intervention were reviewed in groups aged five to above That Of these, 14 were excluded in the second phase due to inadequate intervention. Finally, 7 papers were reviewed in this review.

In total, all the papers examined were divided into two main groups.
1) Studies that model and educational theories were the basis for intervention [16-19].
2) Studies that had educational interventions without using health education model and prototype [20, 21]. Two studies were done before and after, four studies were done empirically and a semi-experimental study.

DISCUSSION

The studies that the model and educational theories were based on interventions:
A study by Asna Ashari *et al*., in 2014 entitled the study of the effect of educational program of Behvarzans on the basis of the BASNEF model for preventive measures of mothers from 2-2 years old households in rural areas of Ray city, that is a

semi-experimental interventional study. A sample of 50 people from health centers from 12 health centers that participated in the census and randomly divided into two intervention and control groups. Of the mothers of children aged 5-2 years old, who were covered by health care homes, a total of 145 mothers were selected in each of the control and intervention groups. The Behvarzan intervention group was trained in three sessions and then both Behvarzes were trained in three training sessions for selected mothers. The tool was a questionnaire. The findings of this study showed that there was no significant difference between the two intervention and control groups before and after the intervention between the intervention and control groups in terms of mean scores of the structures There was a significant difference in the BASNEF model in the Behvarzes and mothers group [16].

In a study by Mymanat Abadi entitled the effect of educational intervention based on the Health Belief Model on the harm caused by home health in children under the age of five in mothers referring to health centers in Qorveh in 2012, a randomized field trial study was conducted on 120 mothers under 4 years of age were covered by 4 health centers that were randomly divided into two groups: intervention and control. The interventional effect was evaluated using a questionnaire including 6 constructs of health belief model constructs. Data analysis showed that there was a significant difference between the mean scores of the constructs in all cases before and after the intervention ($p < 0.05$) [17].

In a study by Ebadi Fard entitled The Effect of Educational Intervention on Protection Motivation Theory on the Promotion of Disaster Prevention and Disaster Prevention in mothers under the age of five in 2014, a study was conducted on an interventional type that was based on 190 eligible mothers were taken. The data collection tool was a researcher-made questionnaire based on the theory of protection motivation constructs. After the pre-test and its results, suitable educational intervention was performed and only in the experimental group. Then, two months after educational intervention, the data were analyzed and analyzed. The findings showed that there was a significant difference between the mean scores of all the constructs of the theory of protection motivation in the test and control groups, so that in all cases the test group was more favorable than the control group ($P < 0.05$). In the test group, there was a significant difference between the mean scores of all the constructs of the theory of protection motivation before and after the intervention ($P < 0.05$); while in the control group, the mean scores of all the structures of the model before and after the intervention intervention There was no significant difference ($P > 0/05$) [18].

An interventional study by Shaykhi, entitled The Effect of Theory-Based Learning on Promoting Disaster Preventive Behaviors in Mothers under the Five-Year-Old Year in 2017, was conducted on 130 eligible mothers. In this study, the data collection tool was a self-regulated questionnaire it was divided into 4 parts (demographic, awareness, health belief model, performance). Before intervention, from both groups, the data were collected and then trained in the intervention group during four sessions. Data showed that there was no significant difference between the two intervention and control groups before intervention, but there was a significant difference between the two groups after intervention in the intervention group ($p < 0.01$) [19].

Studies that did not use health education models and strategies were educational interventions:
A study by Jetten *et al*., Entitled Assessment of Community-Based Prevention Program for Childhood Childhood Burns in India, an empirical study of the pre and post plan between February and June 2009. In this study, families were selected for at least one child under the age of four from two low-income and high-income communities. The instruction was completed at the beginning of the training and then a training program was implemented and the training was followed by a survey. A total of 34 families completed the questionnaire. A significant reduction was observed in burns. Out of 18 cases of burns before intervention, two burn injuries were reduced after training. In addition, the number of hazardous situations that occurred to cause injury at home was significantly reduced after the prevention program [20].

A study by Moron Jillo *et al.,* Entitled "Factors Affecting the Risks of Inadvertent Injuries to Children, Parenting Style, and Education Strategies on Home Safety", was conducted on

home-based home safety issues for mothers with children between the ages of 24-24 and 42-43. Initially, a structured home-based home-care interview was conducted on home affairs issues, and after the research team identified with their mothers the dangers of their child-related issues at home, the research team identified educational strategies as a countermeasure using incident events. The results of the study showed that mothers used these educational strategies well for their children [21].

In a study by Tabibi *et al.,* Referred to as the Prevalence, Causes and Prevention of Children's Events in Iran in 2009, after examining the prevalence and causes of accidents in Iran, all educational strategies such as education through schools, the media and Parents reviewed. The results of the study showed that education through the school, family, books, TV, and health centers is very limited, and in general there is a modular, programmed educational program for increasing children's safety and only training programs there are raging ways that are provided through schools, media and parents [2].

CONCLUSION

In sum, it can be stated that health education has a significant impact on the reduction of the risk factors of children's homes, and education for mothers is a very powerful lever to prevent these incidents. According to a review of the articles conducted in this study, it can be argued that educational programs can be used to promote preventive behaviors, among which the use of theoretical frameworks and health education models can be used in the acquisition of the best results are very effective. Also, the use of standardized and well trained programs can improve the impact of educational interventions.

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