Pharmacophore

ISSN-2229-5402

Journal home page: http://www.pharmacophorejournal.com

Pharmacophore
an International Journal
ISSN 2229-5402

THE EFFECT OF TRAINING PREVENTION OF CHILDREN'S HOME ACCIDENTS USING GROUP DISCUSSION FOCUSED ON MOTHERS TO IMPROVE THE SAFETY OF HOUSES IN RURAL COMMUNITY

Hadis Mastalizade[1], Ali Mansoori[1], Hamid Reza Sheikhi[1] *

1. Master of Nursing, Faculty Member, Faculty of Nursing and Midwifery, Zabol University of Medical Sciences, Zabol, Iran.

ARTICLE INFO

Received:
03th Jun 2017
Accepted:
29th Nov 2017
Available online:
14th Dec 2017

Keywords: *home safety, children, home accidents, focused group discussion*

ABSTRACT

Background and Objective: Household events are disasters that occur in the home or in the surrounding area, causing a recognizable injury. Children are vulnerable groups in most of the events due to their specific physical, psychological and behavioral characteristics and game patterns and living in an environment where adults have made for themselves. Therefore, the present study was carried out to investigate the effect of training prevention of children's home accidents using group discussion focused on mothers to improve the safety of houses in rural community.
Materials and Methods: This is a pre-and post-quasi experimental study. The statistical population consisted of mothers with children aged 6 months to 6 years covered by health centers in Zabol. The research sample consisted of 40 mothers with a child aged 6 months to 6 years who were covered by Akbar Abad health home in Zabol, who had inclusion criteria. The used instruments were mother's demographic characteristics and home security investigation checklist.At first, the data were collected using a household security checklist by observation method at home visits. After assessing the safety of homes with a checklist and identifying the weaknesses and strengths of homes, the training was organized through a focused group discussion in 6 sessions for mothers. Then, after 2 months, the home security status was re-evaluated and compared with the results before the intervention. The data were analyzed using SPSS version 20 and descriptive statistics (mean, standard deviation and frequency) and inferential statistics (t-test, independent t-test and ANOVA) were used for statistical analysis. P <0.05 was considered significant.
Results: In terms of home safety dimensions, after the intervention, the safety of the home increased significantly, so that the mean scores of kitchen safety was increased from 8.60 to 12.72 (P <0.001), room safety from 4.5 To 6.17 (P <0.001), stairway and ladder safety from 4.20 to 4.45 (P = 0.11), safety of balcony, yard, parking and roof from 10.5 to 27.7 (P <0/001), bath safety increased from 4.22 to 5.5 (P <0.001) and overall home safety increased from 26.26 to 35.77 (P <0.001).
Conclusion: Based on this study, the use of mothers' trainingusing group discussion focused on home safety improvement is effective. Therefore, considering the role of home safety in preventing home accidents, educating (training) and informing mothers using a focused group discussion is suggested as a strategy for preventing accidents in children.

To Cite This Article: Hadis Mastalizade, Ali Mansoori, Hamid Reza Sheikhi *, (2017), "The effect of training prevention of children's home accidents using group discussion focused on mothers to improve the safety of houses in rural community", ***Pharmacophore, 8(6S),*** *e-1173636.*

Introduction

In the epidemiological dictionary, the incident is defined as an unexpected event, which usually causes injuryin traffic, work, home or recreation facilities (1). The World Health Organization has also classified an accident as an event or incident that could lead to injury and disrupt the development of an activity or work (2, 3). The most vulnerable age groupsto accidents arechildren and young people (4). Wong also considers the accidents after cardiovascular disease, as the second cause of death in all ages (5). Home (Household) accidents mean disasters that occur in the home or in the surrounding area and cause recognizable injury (6). Household accidents may occur due to poisoning, fire, choking in water, electric shock and collapse (7),which causes 90% of the unintentional deaths from the accident (8). Annually, about 5 million people die from home-

Corresponding Author: Hamid Reza Sheikhi,Faculty Member of Zabol University of Medical Sciences, Zabol, Iran.
Email: Hamid.Nurse1369@gmail.com

related disasters which are expected to reach 8.8 million in 2020, according to the World Health Organization (9). In Iran, according to the Ministry of Health's latest announcement, the incidence (accident) rate is 512 people per 100,000 people and the mortality (accident) rate of home (household) accidents is 6% (10).

In Iran, the most common place of incident (accident)occurrence is homewith 43% of accidents occur in it (11). Over the past decade, contrary to the trend towards reducing household incidents and traffic in many developed industrial countries, this trend has been rising in developing countries and ours (Iran) (12). For example, in 2003, the first cause of the burden of diseases in our country was incidences and accidents, and the resulting burden was 4008 people per 100 thousand people, which is a total of 2.3 times more than that in America (13). More than half of the incidents (accidents) occur in children under the age of six in the home (14),because children are more vulnerable to accidents than adults due to limitations in risk identification (15). Children are also vulnerable groups in most accidents because of physical, psychological and behavioral characteristics, exposure patterns, play patterns and life in an environment that adults make for themselves (16). One of the issues to be considered in urban and rural sustainable development programs is the relationship between housing and related events (17). In terms of the location of the accident at home, the rooms in Iran (18) and the balcony in the United States ranked first among the children (19).

Incidents imposehuge cost on the health system (20). Economically, tens of billions of dollars is the cost and damages of this issue (21). Children who survive these events may require constant care. The disabilities caused by incidents (accidents) not only affect the health of the child, but also her/his education and other dimensions of the life of the child and the family (22). The safety of the home is a condition in which the risks and conditions that lead to physical, psychological or material losses occur… Generally incidents (accidents) in the poorer classes of the community, unsecured housing and more populous families occur more frequently and in unsecured homes deaths from accidents is 2.5 times more than secured homes (9). In a research carried out on residential houses in the city of Mashhad in 2009, the results showed that houses in the marginal area of Mashhad had relatively lower safety than central areas (23). Also, in order to maintain and improve the safety of residential homes, solutions such as increasing public awareness and education, especially for women, are used (24). There are various educational methods, such as face to face education, tutorials during the visit, lectures, education through volunteers, educational videos, focused group discussions, posters and pamphlets. Among these methods, a focused group discussion approach is likely to be effective in improving the safety of homes.

The use of focused group discussion is a way to provide solutions and collect information. The focused group discussion is a semi-structured group session conducted by the leader of the group and is held in an unofficial with the aim of providing a solution and collecting information about a specific topic (25). In this way, people are able to describe their feelings and behaviors (26). Participants are believed to not only answer the questions posed by the interviewer but also respond to the comments of other participants. In a focused group, emphasis should be on interaction among members of the group, and instead of asking question by facilitator, members of the group should be encouraged to communicate with one another and exchange views about their experiences. In the field of care and hygiene (health), the focused (centralized) group is a suitable method for discovering beliefs about risky behaviors and seeking general understanding of the causes of illness (27).

Since children as actual potential capitals and future makers have an important role to play in preserving the values and acquired capitals and in advancing the cultural, social and economic affairs of any society, as well as the fact that majority of the household accidentsoccur in rural areas and in families with low literacy mothers,therefore, the aim of this study was to determine the effect of training prevention of children's home accidents using group discussion focused on mothers to improve the safety of houses in rural community.

Materials and Methods

This study was a quasi-experimental one. The statistical population consisted of all mothers with children aged 6 months to 6 years old who were covered by Akbar Abad health center in Zabol. The sample size on the basis of a pilot study on 10 people and using the formula for comparing the means, with a confidence coefficient of 95% and a test power of 80, was determined 40. The inclusion criteria of study included the lack of approved physical and mental disabilities in children, and the written consent of the parents of children to visit the home and participate in the sessions. The exclusion criteria also included the reluctance to continue to collaborate in the study, missing more than one session in a focused group discussion, the occurrence of incidents (accidents) that could not continue to collaborate, the parents' inaccessibility when completing the checklist and the post-test questionnaire and filling out checklist incompletely.

A multi-stage random sampling method was used for sampling. At first, with a list of all rural health centers in Zabol, randomly a rural center was selected from all centers and from the selected centers, one health home was randomly selected, accordingly, the village of Akbar Abad, Zabol, as an intervening village, was selected, thenbased on the households list in the health house, 40 mothers who had the inclusion criteria of the study were selected randomly.

Demographic information questionnaire including maternal information (age, education, occupation, number of children) and home safety check list were used to collect information. The checklist for the safety of rural homes in 2005, along with the corresponding forms is the other instrument, which is completed according to the Ministry of Health and Medical Education instruction, and the data collection method is observation and interview. In this checklist the house is divided into five parts: 1- kitchen- 2- room 3- stairs and ladder 4- balcony, yard, parking and roof 5-bathroom. The safety of the kitchen

include (15 questions), room safety (8 questions), safety of the stairs and the ladder (5 questions), safety of the balcony, the yard, parking and roof (9 questions), safety of bathroom (7 questions) in which for each question that its answer is positive, score 1 is given and, if the answer is negative, the zero score is given. At the end of the checklist, the total score of all parts of the home is calculated and the overall score for the home is obtained. In a safe kitchen, a score of 1-4 indicates poor safety, a score of 9-5 indicates moderate safety and a score of 15 -10 indicates optimal safety. In a secure (safe) room, score 1-2 shows poor safety, a score of 3-5 indicates moderate safety and 6-8indicates an optimal safety. On the safety of staircase and ladder, score 1-2 indicates poor safety, score 3 indicates moderate safety and a score of 4 to 5 represents optimal safety. In the safety of balcony, courtyard, parking and roof, score 1-3 indicates poor safety, a score of 4-6 indicates moderate safety and a score of 7-9 represents anoptimal safety. And in a safety of bath, the score of 1-2 indicates poor safety, a score of 3-4 indicates moderate safety and a score of 5-7 indicates optimal safety. For scoring the final score, the scores for all the items are combined and then the final score is reported as follows: Score 1-14 indicates poor home safety, score 15-29 represents a moderate safety and a score of 30-44 represents the optimal home safety (28).

In order to collect the data, the researcher referred to the research environment and, while introducing himself and explaining the goals of this study, obtained the written consent for research samples from the parents. At first, the home safety checklist was completed for all participants, and then the samples were divided into groups of 10, and the time and place of the sessions were announced and the goals were explained. After analyzing the primary information (data) on the home safety checklist and determining the educational needs of mothers, educational intervention was conducted during 6 sessions (each session was 45 to 90 minutes) and then again 2 months after the focused group discussions, the safety status of the home was completed through home visits and its results were compared with the results before the intervention. To analyze the results of pre-test and post-test, SPSS software version 20 and descriptive statistics such as mean and standard deviation, and t-test, independent t-test and ANOVA were used at a significant level of 0.05.

Findings

The findings showed that the majority of mothers (87.5%) were housewives with less than 55% diploma education, over 35 years old (70%) and 3-4 children (58%). The mean age of mothers in this study was 27.77 years with a standard deviation of 8.58 years.

According to table 1, the safety of the kitchen after intervention was significantly increased compared to before the intervention and t test also showed a significant difference ($p < 0.001$). Also, in other parts of room safety, stairs and ladder safety, balcony safety, courtyard, parking, roofing and bath safety, after intervention, the safety level increased and the t test also showed a significant difference in this area ($P < 0.05$). Also, the overall home safety after intervention significantly increased compared to before intervention, and the t-test showed a statistically significant difference ($p<0.001$) (Table 1).

Table 1. Comparing the safety of homes and its other dimensions before and after intervention

Variable	before intervention	after intervention	Statistical test	P-value
	Standard deviation ± Mean	Standard deviation ± Mean		
Kitchen Safety	8.60±3.76	12.72±2.21	Paired t	<0.001
Room safety	4.50±1.93	6.17±0.98	Paired t	<0.001
Stairs and ladder safety	4.20±1.38	4.45±1.03	Paired t	<0.001
Safety of the balcony, yard, parking and roof	5.10±1.75	7.27±1.26	Paired t	0. 01
Bath safety	4.22±1.62	5.15±1.27	Paired t	<0.001
Total home safety	26.62±8.08	35.77±5.04	Paired t	<0.001

In addition, the findings of this study indicate that there is a significant relationship between the dimensions of home safety and the level of maternal education, so that mothers with university education have better safety than mothers with lower education and ANOVA tests, except for stairsand ladder safety, in other dimensions of home safety between different educational levels of mothers shows a significant difference ($P<0.05$). Also, there was a significant statistical relationship betweenhome safety dimensions (except for the stairway and ladder section and bathroom safety) and employment status of mothers based on independent t test ($P<0.05$), with employee mothers compared to housewives hadbetter safety.

Discussion

According to the findings of table 1, the highest safety in the home is for the stairway and ladder section and other parts have moderate safety. The results of a study by SaeediNejat and colleagues about residential buildings in the margin area of Mashhad showed that the kitchen section had higher safety than other parts (23). This does not match our preliminary review. The reason for the high safety of the staircase in the present study was the lack of a staircase in most of the homes examined, which made the investigator persuadedwhen scoring all safety dimension in the stairway and the ladder, assign

score 1 from scores of zero and one to them and naturally, this section has the most safety. Also, according to Zazouli et al., which conducted the study on the safety status of residential houses in rural households in the city of Ramyan, the rooms obtained the highest score (28), which is incompatible with the present study. The high level of room security (safety) among different parts of the house could be related to the importance of the families' attention to the importance of observing the safety principles in the place of living and resting,because family members spend most of their time in this part of the house throughout the day. Therefore, this section is considered as part of the main part of the home and the safety of this section is more important.

In a study on the safety of homes in urban housing projects, the highest level of home safety was in the kitchen sector (29), which is not consistent with the results of this study. One of the reasons for this difference is the study done in the different sections of the society as well as the higher socioeconomic status of people in different regions, as most of these people, and especially the mothers whowere our target groups in thestudy, spent more time in the kitchen due to spouses' and family responsibilities, and given the fact that urban residents often have a better economic status than rural areas more focus is made on the kitchen.

The results of this study showed that all five parts of the home after the educational intervention reached the moderate to the optimum level of safety. Based on this, it can be said that training (educating) in the form of focused group discussion has dramatically improved the safety situation in the five parts of the home.

Based on the results, it was determined that the higher the level of education in mothers, the higher the safety of the home, which is compatible with the study by Eldosokyand his colleagues (30). In the study conducted by Thienet al., there was a significant relationship between education and home safety (31).

In the present study, a significant relationship was found between occupation and home safety, while in a study conducted by HatamAbadi and colleagues, it was found that there was no direct relationship between job status and maternal safety measures (32). This difference could be due to reasons such as higher literacy, better economic status and more opportunities for life.

Conclusion

The results of this study showed that the use of focused group discussion with a comprehensive approach and as an effective nursing intervention can enhance the safety of homes in preventing children's household incidents (accidents). Considering the results indicating the use of focused group discussion as an educational method in the prevention of children's household incidents (accidents), the beneficial effects of this pattern can be exploited in this critical and important issue. And given the importance of the role of education in promoting preventive behaviors in accidents and injuries, and considering that unsafe homes have widespread effects on children, the need for education in a wider range and with different tools in society is more than ever felt and should be considered as a health priority in the community. Therefore, this approach can be suggested along with other health care as a guide to the development of educational programs, especially for families with children under the age of 6.

References

1. Kozier, B., Erb, K. (2000). Fundamental of Nursing. (6 thed). Negsay. prentiel Hall Health. PP 165.
2. Behrman, R., Kliegman, R., Jenson, H. (2004). Nelson Text Book of pediatric (17 thed): London: W.B. saunders company. PP 105, 106,133-137.
3. Sallky. stansfied. Gordons. Smith, williamp. mcgreeveyinjury; diseasecontolprioities in dereloding countries: oxford medical publications. 2008.
4. Hajhashemi, Sedigheh. Survey of Prevalence foreign body Aspiration in infants & children in Ahvaz. The firs seminar in khoramabad 1385
5. Wong, D.L., Hockenberry, M., wilson, D., winkelstein, M., schwartz, p. (2005). Nursing care of Infant and children. Mosby, (7th ed), chapter 1, 7 pp698-70.
6. Nghab M, Habibi M., Rezaifard A, Choobineh AR, the observations resumes home city of Shiraz (82-1380), Kermanshah University of Medical Sciences Journal improvement-Journal. Winter 1386 Year XI, No. IV
7. Allahverdi Pour H. Passing from traditional health education to achieving theory-based Health Education programs.Journal of Professional Health Education& Health Promotion 2004; 1(3): 75-80. [In Persian]
8. Unicef.World Report on child injury prevention .Translate Rafieifar SH. Tehran: Mehrravash, 2009. P.7-130. (Persian)
9. Adesunkanmi AF, Oyelami AO. Epidemiology of childhood injury. J of trauma 1998; 44(3); 506-11.
10. WWW.ISNA.ir/news.cont
11. Rahimie Y. Prevention of Accident and Injuries in Children and dolesents.Tehran:2003.P.3-10. (Persian).
12. Norman R, Matzopoulos R, Groenewald P and Bradshaw D. The high burden of injuries in South Africa. Bulletin of the World Health Organization, September 2007, 85.
13. Naghavi M, Abolhassani F, Pourmalek F, Jafari N , MoradiLakeh M, Eshrati B. The burden of disease and injury in Iran2003. Iranian Journal of Epidemiology 2008, 4: 1-19.

14. Goel A. Kumar S. Bagga MK. Epidemiological and Trauma Injury and Severity Score (TRISS) nalysis of trauma patients at a tertiary care centre in India. Natl Med J India 2004; 17: 186-189.
15. Sekii H, Ohtsu T, Shirasawa T, Ochiai H, Shimizu T, Kokaze A. Childhood mortality due to unintentional injuries in Japan, 2000–2009. Int J Environ Res Public Health. 2013; 10(2):528-40.
16. Soori H. Children indoor and outdoor play pattern in Ahwaz city: implications for injury prevention. Eastern Meditr Health J 2006; 12(3/4): 19-28.
17. Ellaway A, Morris G, Curtice J, Robertson C, Allardice G, Robertson R. Associations between health and different types of environmental incivility: A Scotland-wide study. Public Health. 2009; 123(11):708-713.
18. Ahmadabadi MN, Alipour F, Tabataei SA, Karkhane R, Rezaei H, Ahmadabadi EN. Sharp-Object-Induced Open Globe Injuries in Iranian Children Admitted to a Major Tertiary Center: a Prospective Review of 125 Cases. Ophthalmic Res 2010; 45(3):149-54.
19. Shields BJ, Burkett E, Smith GA. Epidemiology of balcony fall-related injuries, United States, 1990-2006. Am J Emerg Med. 2010 Mar 24.
20. Fraga AMA, Fraga GP, Stanley C, Costantini TW, Coimbra R. Children at danger: injury fatalities among children in San Diego County. Eur J Epidemiol 2010; 25; 211-217.
21. WHO, Trauma Care Guide. Translation zareh Mohammed, Center for Disease Control, Ministry of Health and Medical Education, Sound Publishing Center, 2003.
22. Unicef.World Report on child injury prevention .Translate RafieifarSH.Tehran: Mehrravash, 2009. P.7-130. (Persian)
23. SaeidiNejat SH, Okhravi N, Chahipour M, Ghonche H, Fathalizade S. The Role of Residential Area in House Safety in Mashhad Urban Area in 2009. Hakim. 2011; 13 (4):234-240
24. World Health Organization. Road traffic crashes leading cause of death among young people. GENEVA: 2007.
25. Wong LP. Focus group discussion: a tool for medical research. Singapore Med J; 2008. 49(3): 256-260
26. Halcomb EJ, Gholizadeh L, DiGiacomo M, Phillips J, Davidson PM. Literature review: consideration in undertaking focus group research with culturally and linguistically diverse group. J ClinNurs; 2007. 16(6): 1000-1011.
27. Wong LP. Focus group discussion: a tool for medical research. Singapore Med J; 2008. 49(3): 256-260
28. ZazouliMA,YazanyJ,Ahmadnezhad A. Assessment of Safety Status of Residential Housing in Rural Families of Ramian Township (GolestanProvicine, Iran) : 2011.22(2):163-174
29. Golpayegani A A, Khanjani N, ZeidAbadi A. Check the safety of homes in areas with urban housing scheme. Journal of housing and rural environment. 2012; 4 (144): 49-58.
30. Eldosoky R. Home-related injuries among children: knowledge, attitudes and practice about first aid among rural mothers. EMHJ. 2012; 18(10):1021-7.
31. Thein M, Lee B, Bun P. Knowledge, attitude and practices of childhood injuries and their prevention by primary caregivers in Singapore. Singapore medical journal. 2005; 46(3):122.
32. HatamAbadi H R, Mahfouz Poor S, Khazaei A R. Evaluate factors related to preventive behaviors of household unintentional injuries in children. Journal of Safety Promotion and Injury Prevention. 2012; 1(3): 140-49.