

# Determination of Knowledge, Attitudes and Behaviors Regarding Factors Causing Home Accidents and Prevention in Mothers with a Child Aged 0-5 Years

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## Abstract

**Objective:** In this study, it was aimed to determine knowledge, “attitudes” and “behaviors” in mothers with a child aged 0-5 years regarding factors causing “home accidents” and prevention.

**Method:** The target population of the study consisted of mothers with a child aged 0-5 years who were admitted to pediatrics ward of A County Hospital. The sample size was determined as 305 subjects by power analysis. Overall, 340 mothers were recruited. The data sheet developed by researchers and a questionnaire on parental attitudes about home accidents developed by Yalaki et al. were used for data collection. Before data collection, verbal consent was obtained from mothers. The study was approved by local Ethics Committee. Data were analyzed by using Kruskal-Wallis test, t test and chi-square test.

**Results:** Mean age was  $30.11 \pm 5.8$  years among mothers included. A significant association was detected between experiencing home accident and maternal age, maternal education level, number of child, number of person in the family and income of family ( $p < 0.05$ ). In this study, it was found that wrong attitudes and behaviors were more common among mothers of children experienced home accident ( $p < 0.05$ ).

**Conclusions:** It was found that there is a significant association between home accident and maternal age, maternal education level, number of child, number of person in the family, residence and income level. In addition, it was found that mother of “children” experience home accident have inappropriate attitudes and behaviors regarding prevention of home accidents and that education is an important factor in prevention of home accidents.

**Keywords:** Attitudes, behavior, home accident, children

## INTRODUCTION

Annually, 830,000 children died due to home accidents worldwide, corresponding 2,000 child deaths per day. Again, millions of children referred to hospital due to injuries caused by accidents, resulting in lifelong disabilities (World Health Organization, 2014). The accidents are fourth leading cause of deaths in Europe (HEIDI, 2012), and worldwide (Çavuşoğlu, 2008; Erci *et al.*, 2009; Tanır, 2012). Among types of accident, it is thought that number of home accidents is greater than traffic and occupational accidents, actual number of accidents and associated harms cannot be established because records are insufficient and data from hospitals alone doesn't represent all relevant figures (Tanır, 2012). In USA, home accidents comprise third leading cause of emergency department visits (CDC, 2011). In UK, 40% of all accidents occur at home and 2,700,000 people are treated due to home accidents with 7,000 deaths annually (ROSPA, 2012). According to the National Safe Kids Campaign in the United States, 40% of deaths and 50% of non-fatal unintentional injuries occur in and around the home (National Safe Kids Campaign, 2012). A child's environment plays a critical role, both in the occurrence and the severity of an injury. Most injuries take place in or near a child's home (WHO Issue Brief Series, 2013). In Turkey, home accident with incidence of 25.0% is second leading cause following traffic accidents (Koçer, 2006).

The accidents impair homeostasis of an individual by influences on physical, psychological and social health of child and may cause disease, disability or even deaths. Thus, accidents at childhood are an important public health issue (Çınar & Görak, 2003; Çınar, 2004).

Accidental injuries to infants and young children are often serious, but are largely preventable with appropriate information and safe practices. Young children are particularly vulnerable to accidents due to their innate desire to explore their world and the inability to perceive the dangers of their actions. As children learn through experience, minor injuries are inevitable but providing a safe environment can reduce the risks, coupled with close supervision and setting the limits of safety. Parents should remember that they need to maintain a constant balance between over protecting the child on one hand and giving him freedom in his process of learning the hazards of his environment (Hossien, 2009).

The common causes of home-injury deaths are fire and burns, suffocation, drowning, choking, falls, poisoning and firearms. According to the Centers for Disease Control and Prevention (CDC), most home accidents happen where there's water in the bathroom, kitchen, swimming pools, or hot tubs. Heat or flames: in the kitchen or at a barbecue grill. Shrestha (2006) indicated that Burn injury is a leading cause of unintentional injuries in children, the prevalence of burn injury under 5 years of age and female children were mostly affected. Toxic substances: under the kitchen sink, in the medicine cabinet, in the garage or garden shed, or even in a purse or other place where medications are stored. Potential for a fall: fall from bed, sofa or crib on stairs, slippery floors, from high windows, or from tipping furniture (Morrison & Stone, 2009).

As child lacks of capability to protect himself/herself from accidents, it is responsibility of adults to provide safe environment, to take protective measure and to audit safety of living spaces of children (Ulukol *et al.*, 2005).

In the literature, it is suggested that parents have poorer understanding regarding protection from accidents and children are at risk for accidents (Uskun *et al.*, 2008; Özmen *et al.*, 2007; Uğur & Şahin, 2001). In a study by Yalaki *et al.*, it was found that mother of children experienced home accident displayed wrong attitudes and behaviors more commonly (Yalaki *et al.*, 2010).

It is obvious that public health nurse has an important role regarding education that will be provided to parents for prevention and reduction of home accidents (Port & Mandleco, 2002). Ensuring information about safety measures in home accidents has an important impact on reducing incidence of injuries in children. A healthy population and future is likely with children raised by parents who recognize value of health, protect own health and reasonably utilize healthcare services (Çınar & Görak, 2003).

In the present study we incorporated measures of each of these constructs (vulnerability, severity, effort, preventability, and social norms) in an effort to identify those that best predicted mothers' home-safety practices. Drawing on the epidemiological literature, we focused on injuries known to be likely to occur to young children in their homes, including falls, poisoning, drowning, cuts, burns, and suffocation/strangulation/choking. This study was conducted to identify factors causing home accidents and knowledge, attitudes and behaviors regarding home accidents among mother having a child aged 0-5 years.

## **METHODS**

### **Study design and sample**

It is a descriptive study conducted between March, 2012 and May, 2012. The target population of the study included mothers of children aged 0-5 years who admitted to pediatrics ward of Malatya State Hospital between March, 2012 and May, 2012. The sample size of the study was determined as 305 subjects based on power analysis with effect size of 0.25, alpha value of 0.05 and representativeness power of 0.95. The study sample consisted of 340 mothers who were selected randomly according to non-probability sampling method. Inclusion criteria were lack of communication problem, no psychiatric therapy and agreement to participate to the study.

### **Data Collection**

A data sheet to record sociodemographic characteristics and a questionnaire to identify parental attitudes towards home accidents developed by Yalaki *et al.* were used to collect data.

### **Procedure**

The questionnaire and the scale were administered by way of face to face interviews after the written and verbal consent of the subjects was obtained. The investigators read the questions for those who were illiterate and marked the answers after making certain that the questions were understood. The questionnaire took approximately 15–20 min to complete.

### **Instruments**

#### **Data sheet**

The data sheet developed by researchers includes 15 question regarding socio-demographic characteristics such as age, education level, occupation of parents, income and residence. In second part consisting of 7 questions, data related to child such as age, gender, experience of home accidents and type of home accidents were questioned.

#### **Awareness of Home Accidents in Families with Children Aged 0-5 Years**

This scale developed by Yalaki *et al.* is a questionnaire aiming to identify attitudes of families towards home accidents.

Eight negative and 17 positive statements were developed to determine attitudes of families towards home accidents. The statements were rated by a Likert scale. The answers "always-frequently" and "sometimes-rarely" were assessed together (Yalaki *et al.*, 2010). Cronbach's alpha was found to be 0.87.

### Permission and Ethics

Written permissions were obtained from the Scientific Ethics Committee and from the Chief Physician of Malatya State Hospital. Before administering the forms, the purpose of the study was explained to the patients and their verbal approvals were obtained; their privacy was respected.

### Statistical Analyses

In evaluating the data, the descriptive characteristics of patients and the information on the illness were taken as the independent variables and the scores obtained from the MSPSS and the FSS as the dependent variables. The statistical analyses to evaluate the data were carried out using the program Statistical Package for the Social Sciences, Version 18.0 (SPSS). Mean, t test, one way ANOVA, Kruskal-Wallis variance analysis and chi-square test were used in the statistical analysis. The level of significance was accepted to be  $p < 0.05$  in the study.

## RESULTS

**Table 1. Distribution of the mothers by selected socio demographic characteristics**

FEATURES	N=340	%
<b>Mother's age</b>		
16-25	76	22.4
26-35	199	58.5
36-50	65	19.1
<b>Marital Status</b>		
Married	329	96.8
Divorced	11	3.2
<b>Number Of Children</b>		
1-2	194	57.1
3-4	116	34.1
5 And Above	30	8.8
<b>Mother's Education</b>		
Illiterate	51	15.0
Read & Write	23	6.8
Preparatory Education	190	55.9
Secondary Education	50	14.7
University Education	26	7.6
<b>Father's Education</b>		
Illiterate	16	4.7
Read & write	19	5.6
Preparatory education	192	56.5
Secondary education	72	21.2
University education	41	12.1
<b>Mother's Occupation</b>		
Housewife	309	90.9
Public servant	31	9.1
<b>Number Of Family Members</b>		
3-5	221	65.0
6-8	106	31.2
9 and above	13	3.8
<b>Caring For The Child</b>		
Mom	304	89.4
Childminder	18	5.3
Family Member	18	5.3
<b>Socioeconomic Status</b>		
Worse lower	87	25.6
Low	171	50.3
Middle	52	15.3
High	30	8.8
<b>Residential Houses</b>		
Apartment House	166	48.8
Squatter Houses	174	51.2

Of the mothers included, 58.5% was aged 26-35 years; 96.8% was married; 57.1% had one or 2 children, 43.8% was graduated from primary school and 90.9% was housewife. Of the fathers included, 31.5% was graduated from primary school and 56.2% was self-employed. Of the mothers, 89.4% reported that she is taking care of her child; 50.3% reported poor economical status; and 51.2% reported isolated house as residence (Table 1)

**Table 2: Comparison between demographic characteristics of mothers and home accidents**

FEATURES	N=340	Occurred of home accidents %	Not Occurred of home accidents %	p
<b>Mother's age</b>			61.8	
16-25	76	38.2	62.8	40.0
26-35	199	37.2		X: 11.0
36-50	65	60.0		<b>p=0.004</b>
<b>Marital Status</b>				
Married	329	41.9	58.1	X: 0.13
Divorced	11	36.4	63.6	p=0.757
<b>Number Of Children</b>				
1-2	194	34.5	65.5	X: 19.6
3-4	116	44.8	55.2	<b>p=0.001</b>
5 and above	30	76.7	23.3	
<b>Child's sex</b>				
Female	160	40.0	60.0	X: 0.49
Male	180	43.8	56.2	p=0.569
<b>Mother's education</b>				
Illiterate	51	60.0	40.0	X: 20.0
Read & write	23	78.3	21.7	<b>p=0.001</b>
Preparatory education	190	40.0	60.0	
Secondary education	50	36.2	64.0	
University education	26	19.2	80.8	
<b>Mother's occupation</b>				
Housewife	309	44.0	56.0	X: 7.04
Public servant	31	19.4	80.6	<b>p=0.010</b>
<b>Number of family members</b>				
3-5	221	36.2	63.8	X: 8.57
6-8	106	50.9	49.1	<b>p=0.014</b>
9 and above	13	61.5	38.5	
<b>Caring For The Child</b>				
Mom	304	43.1	59.9	X: 2.19
Childminder	18	33.3	66.7	p=0.335
Family Member	18	27.8	72.2	
<b>Socioeconomic status</b>				
Worse lower	87	54.0	46.0	X: 18.1
Low	171	44.4	55.6	<b>p=0.001</b>
Middle	52	23.1	76.9	
High	30	15.4	84.6	
<b>Residential houses</b>				
Apartment House	166	29.5	70.5	X: 20.0
Squatter Houses	174	53.4	46.6	<b>p=0.001</b>

Table 2: Comparison between demographic characteristics of mothers and home accidents

When maternal demographic characteristic and home accidents in child were assessed, it was found that there was a significant relationship between maternal age and home accident in child with higher incidence by advancing maternal age ( $p=0.004$ ). No significant relationship was detected between marital status and home accident ( $p>0.05$ ). It was found that there was a significant relationship between number of children and home accident in child ( $p=0.001$ ) with higher incidence by increasing number of siblings. No significant relationship was detected between gender of child and home accident ( $p>0.05$ ). A significant relationship was detected between maternal education level and home accident in child ( $p=0.001$ ) with lower incidence by increasing education level. Again, a significant relationship was detected between occupation of mother and home accident in child ( $p=0.010$ ) with higher incidence in children of housewives. It was found that there was a significant relationship between number of person in family and home accident in child ( $p=0.014$ ) with higher incidence by increasing number of person in the family. No significant relationship was detected between home accident in child and person who take care of children ( $p>0.05$ ). A significant relationship was detected between income level and home accident in children ( $p=0.001$ ) with lower incidence by increasing income. In addition, a significant relationship was detected in type of residence and home accident in child ( $p=0.001$ ) with higher incidence in families residing isolated houses (Table 2).

Table 3: Data regarding home accident in child

Information Related to Home Accidents	N=340	%
<b>Occurrence of home accidents</b>		
Occurred	142	41.8
Not Occurred	198	58.2
<b>Child's sex</b>		
Female	60	42.3
Male	82	57.7
<b>Referred to hospital at the time of home accident</b>		
Yes	80	54.8
No	62	45.2
<b>Take Precautions</b>		
Yes	105	73.9
No	37	26.1
<b>Types Of Home Accidents</b>		
Fall-Slipping	73	21.5
Burn	31	9.1
Choking Or Asphyxia	8	2.4
Stab Injury	19	5.6
Poisoning	4	13.4
Swollen Bead	7	2.1

Table 3: Data regarding home accident in child

In this study, it was found that 58.2% of children had experienced home accident. Of these, 57.7% were boys; 54.8% referred to hospital at the time of home accident; and protective measures were implemented in 73.9% after accident. When type of accidents were assessed, it was found that 21.5% had experienced fall-slipping, 13.4% had poisoning, 9.1% had burn, 5.6% had stab injury, 2.4% had choking or asphyxia and 2.1% had swollen bead (Table 3).

**Table 4: Distribution of maternal behaviors and attitudes towards prevention of accidents according to home accident status**

Attitudes and Towards	Occurrence of home accidents:		p
	Occurred	Not Occurred	
	S ( %)	S (%)	
1. I place cutters such as knife, eating irons at table or cabinet.	94(66.2)	58(29.3)	p=0.010
2. I give string or plastic bag to children to play.	12(75.0)	4(25.0)	p=0.006
3. I give dry fruits to children younger than 4 years of age.	25(58.1)	18(41.9)	p=0.004
4. I keep pails filled at home.	17(50.0)	17(50.0)	p>0.05
5. I leave workbag on the table.	6(37.5)	10(62.5)	p>0.05
6. I pay attention to place hot water and dishes in a place where one couldn't touch.	120(40.7)	175(59.3)	p>0.05
7. I leave electrical device attached to wall plug.	28(59.6)	19(40.4)	p=0.008
8. I put teapot on stove.	89(53.9)	76(46.1)	p=0.001
9. I pay attention to place handles of pan inside.	90(40.4)	133(59.6)	p>0.05
10. I inactivate stove and control gas before going sleep.	73(34.3)	140(65.7)	p=0.001
11. I put substances such as pesticides or detergent into dispenser used for foods or drinks.	5(18.5)	22(81.5)	p=0.011
12. I put chemical substances such as pesticides or bleach within kitchen.	30(55.6)	24(44.4)	p=0.025
13. I cook on portable bottle gas at home.	43(87.8)	6(12.2)	p=0.001
14. I dry floor in bathroom after cleaning.	59(41.5)	124(62.6)	p=0.001
15. I keep drugs within refrigerator.	111(42.9)	148(57.1)	p>0.05
16. I let child to play alone at balcony.	19(51.4)	18(48.6)	p>0.05
17. I select safe wall plugs with cover and safety lock.	43(31.2)	95(68.8)	p=0.001
18. I leave child alone to go shopping or neighbor.	10(66.7)	5(33.3)	p=0.045
19. I read label before giving drug to my child.	99(37.9)	162(62.1)	p=0.009
20. I coat sharp edges of tables by using smooth fabrics.	27(30.0)	63(70.0)	p=0.009
21. I leave pocket lighter or match on the table.	8(61.5)	5(38.5)	p>0.05
22. I let child aged<5 years to wear bracelet, wristband or evil eye bead t	12(30.0)	28(70.0)	p>0.05
23. I put substances like dishwashing soap, descaling agents and drainer opener to elevation where child cannot reach.	124(41.1)	178(58.9)	p>0.05
24. I let children to play at proximity of windows.	8(36.4)	7(63.6)	p>0.05
25. I give change or bead to children to play.	15(65.2)	8(34.8)	p=0.018

Table 4: Distribution of maternal behaviors and attitudes towards prevention of accidents according to home accident status

When answers of mothers to the questions asked to identify behaviors and attitudes towards prevention of home accidents, it was found that wrong attitudes and behaviors were more common in the mothers of children experienced home accident, indicating significant difference ( $p<0.05$ ) (Table 4).

**Table 5: Distribution of maternal behaviors and attitudes towards prevention of accidents according to education level**

Attitudes and Towards	Preparatory education- Illiterate- Read & write	Secondary education- University education	P
	S ( %)	S (%)	
1. I place cutters such as knife, eating irons at table or cabinet.	114(43.2)	38(50)	p>0.05
2. I give string or plastic bag to children to play.	16(6.1)	0(0)	p=0.028
3. I give dry fruits to children younger than 4 years of age.	38(14.4)	5(6.6)	p>0.05
4. I keep pails filled at home.	31(11.7)	3(3.9)	p=0.046
5. I leave workbag on the table.	16(6.1)	0(0)	p=0.027
6. I pay attention to place hot water and dishes in a place where one couldn't touch.	226(85.6)	69(90.8)	p>0.05
7. I leave electrical device attached to wall plug.	43(16.3)	4(5.3)	p=0.014
8. I put teapot on stove.	146(55.3)	19(25.0)	p=0.001
9. I pay attention to place handles of pan inside.	170(64.4)	53(69.7)	p>0.05
10. I inactivate stove and control gas before going sleep.	161(61.0)	52(68.4)	p>0.05
11. I put substances such as pesticides or detergent into dispenser used for foods or drinks.	22(8.3)	5(6.6)	p>0.05
12. I put chemical substances such as pesticides or bleacher within kitchen.	48(18.2)	6(7.9)	p=0.031
13. I cook on portable bottle gas at home.	44(16.7)	5(6.6)	p=0.027
14. I dry floor in bathroom after cleaning.	129(48.9)	54(71.1)	p=0.001
15. I keep drugs within refrigerator.	194(75.3)	65(85.5)	p=0.030
16. I let child to play alone at balcony.	32(12.1)	0	p=0.001

17. I select safe wall plugs with cover and safety lock.	97(36.7)	41(53.9)	p=0.007
18. I leave child alone to go shopping or neighbor.	14(5.3)	1(1.3)	p>0.05
19. I read label before giving drug to my child.	188(71.2)	73(96.1)	p=0.001
20. I coat sharp edges of tables by using smooth fabrics.	62(23.5)	28(36.8)	p=0.020
21. I leave pocket lighter or match on the table.	11(4.2)	0	p>0.05
22. I let child aged<5 years to wear bracelet, wristband or evil eye bead t	33(12.5)	7(9.2)	p>0.05
23. I put substances like dishwashing soap, descaling agents and drainer opener to elevation where child cannot reach.	234(88.6)	71(93.4)	p>0.05
24. I let children to play at proximity of windows.	9(3.4)	2(2.6)	p>0.05
25. I give change or bead to children to play.	22(8.3)	1(1.3)	p=0.032

Table 5: Distribution of maternal behaviors and attitudes towards prevention of accidents according to education level

When answers of mothers to the questions asked to identify behaviors and attitudes towards prevention of home accidents, it was found that wrong attitudes and behaviors were increased in the mothers of children experienced home accident by lower education status ( $p<0.05$ ) (Table 5).

## DISCUSSION

In the present study, it was aimed to identify factors causing home accidents of mother with a child aged 0-5 years and their attitudes and behaviors towards preventing home accidents. The overwhelming importance of accidental injuries, deaths and disabilities in children is no longer a “privilege” of the industrialized world: both developing and developed countries are now facing a tremendous increase in accidents in young children (55).

In the present study, a significant relationship was detected between maternal age and home accident in child with increasing incidence by advancing maternal age. In a study by Balibey *et al.*, it was suggested that risk for home accident in a child was increased by advancing parental age (Balibey *et al.*, 2011). On contrary to our study, there are studies which found no effect of parental age on home accident in child (Erkal, 2010; Karatepe & Akış 2013).

In the present study, it was found that there is a significant relationship between number of child in the family and home accident in child with increasing incidence by increasing number of siblings. In parallel to our study, there are studies reporting that incidence of home accident in child by increasing number of siblings (Balibey *et al.*, 2011; Aksakal *et al.*, 2012). It is thought that incidence of home accidents can be higher since mother can spend less time to look after child when number of siblings is increased. On contrary to our study, there are studies in which no significant relationship was detected between incidence of home accident and number of siblings (Alasya, 2012; Bombacı *et al.*, 2008).



In the present study, it was seen that there is a significant relationship between education level of a mother and home accident in child with decreasing incidence by increasing education level. Similar results were found in some studies in the literature (Erkal, 2010; Aksakal *et al.*, 2012; Erkal & Şafak, 2006; Turan & Ceylan, 2008; Minh, 2004; Afkar, 2013). However, there are studies reporting no significant effect of maternal education level on home accidents in child (Karatepe & Akış 2013; Currie & Hotz, 2004; Boztaş, 2008; Köse & Bakırcı, 2007).

In the present study, a significant relationship was detected between occupation of mother and home accident in a child with higher incidence in children of housewives. In a study by Aksakal *et al.*, it was reported that incidence of home accident was significantly lower in working mothers (Aksakal *et al.*, 2012). In other studies in the literature, no significant difference was detected between occupational status of parents and incidence of home accidents (Karatepe & Akış 2013; Alasya, 2012).

In the present study, it was found that there is a significant relationship between number of person in the family and home accident in child with increasing incidence by increasing number of person in the family. It is thought that risk for home accident in a child is increased in extended families since there is limited time for care of child, insufficient supervision for child and more than one person requiring attention from mother in such families.

In the present study, a significant relationship was detected between income level and home accident in children with lower incidence of home accident in child by increasing income. Our results are in agreement with studies by Alasya, Turan and Ceylan (Alasya, 2012; Turan & Ceylan, 2008).

In the present study, a significant relationship was detected between residence of family and home accident in child. It was found that incidence of home accident is higher in children of families residing in isolated house. In the studies by Karatepe and Akış, and Alasya *et al.*, no significant relationship was found between home accident and type of residence (Alasya, 2012; Karatepe & Akış 2013; ). In other studies, it was found that children living in flatted houses exposed to home accidents more commonly (Istre, *et al.*, 2003; Lyons *et al.*, 2006; Tsoumakas *et al.*, 2009). It is thought that proximity to garden and road in isolated house and presence of stairs and balcony in flatted houses could increase likelihood of home accidents.

It was found that 58.2% of children included had experienced home accident. In the literature, incidence of home accident was reported as 50-65% (Aksakal *et al.*, 2012; Alasya, 2012; Aktaş, 2010; Dal Santo *et al.*, 2004; Duff *et al.*, 2002; Miller *et al.*, 2004; Valent *et al.*, 2007; Chong *et al.*, 2009; Mahalakshmy *et al.*, 2011; Yıldırım, 2010; Yıldırım & Kubilay 2012). 13,3-49,6% in some studies (Yalaki *et al.*, 2010; Erkal, 2010; Karatepe & Akış 2013; Bombacı *et al.*, 2008; Köse & Bakırcı, 2007; Tsoumakas *et al.*, 2009; Valent *et al.*, 2007; Chong *et al.*, 2009) whereas 65.5-78.0% in others (Balıbey *et al.*, 2011; Mahalakshmy *et al.*, 2011; Yıldırım, 2010; Yıldırım & Kubilay 2012; Afkar, 2013).

In the present study, it was found that boys were most commonly exposed to home accidents. In the studies on home accidents, it was shown that home accidents are more common among boys in agreement with our results (Özmen *et al.*, 2007; Uğur & Şahin, 2001; Erkal, 2010; Karatepe & Akış 2013; Tsoumakas *et al.*, 2009; Yıldırım & Kubilay 2012; Chan, 2003; Chini, 2006; Kendrick, 2007; Shenassa, 2004; Eldosoky, 2012).

When type of accidents were assessed in our study, it was found that falls were most common type of injury; followed by poisoning, burns and injury. In the literature, it was reported that falls are most frequent type of accident in agreement with our study (Erkal, 2010; Karatepe & Akış 2013; Aksakal *et al.*, 2012; Boztaş *et al.*, 2008; Tsoumakas *et al.*, 2009; Dal Santo *et al.*, 2004; Chong *et al.*, 2009; Mahalakshmy *et al.*, 2011; Yıldırım, 2010; Kim, *et al.*, 2012; Runyan, *et al.*, 2006; Aktaş, 2010).

In the present study, it was found that wrong attitudes and behaviors were more common among mothers of children experienced home accident. This finding is in parallel to those reported by Yalaki *et al.* and Uskun *et al.* (Yalaki *et al.*, 2010; Uskun *et al.*, 2008). In a study on mothers having a child aged 0-6 years, it was found that mothers are incompetent to take safety measures against home accidents (Özmen *et al.*, 2007).

In the present study, a significant relationship was detected between education level of mother and attitudes and behaviors towards prevention of home accidents. Similar results were found in some studies in the literature (Yalaki *et al.*, 2010; King *et al.*, 2001; Huong, 2005; Anh *et al.*, 2007; Afkar, 2013). One framework for reducing childhood injuries is based on the public health model – a model that is used for preventing many other diseases. The public health approach includes identifying the magnitude of the problem through surveillance and data collection, identifying risk and protective factors, and, on the basis of this information, developing, implementing, and evaluating interventions, and promoting widespread adoption of evidence-based practices and policies (El-Sabely *et al.*, 2014).

## Practical Implications

### The study results recommended that;

Health promotion programs about accidents prevention; should be directed to mothers and children's care givers in all health care settings. Supportive strategies for families should be directed toward children less than five year. Mass media has a vast responsibility in health awareness for accidents prevention among children. Health education program about causes of home accidents, first aid management and method of prevention into the curriculum at different levels. Female illiteracy problem must be eradicated because it is associated to every children's health problems especially accidents. So the role of nurses, either individually or through their professional associations, is very important in utilizing supportive strategies essential for accidents prevention among children.

### Limitations

This study collected data from only one hospitals in Turkey; thus, its generalizability is limited.

## CONCLUSION

In conclusion, it was found that there was a significant relationship between home accident in a child and maternal age, number of children in the family, number of person in the family (extended family), residence and income. In addition, it was found that mothers with a child experienced home accident had wrong behaviors and attitudes towards prevention of home accidents and that educations is an important factor in prevention of home accidents.

Accordingly, it is important to provide education to fathers although mothers have an important role in the prevention of home accidents in children since mothers have major responsibilities in the management of home, house works and care of children due to their traditional role in Turkish society. In our study, maternal attitudes and behaviors towards prevention of home accidents were investigated; however, paternal attitudes and behaviors towards prevention of home accidents should also be investigated.

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