

# Preventing Unintentional Injuries to Children Under 5 in Their Homes: Palestinian Mothers' Perspectives

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## Abstract

Unintentional injuries are a growing global public health problem, causing mortality, morbidity, and disability among children. The rates of injuries were highest among children under the age of 5 years, and this forms a significant burden on health care systems, particularly in low- and middle-income countries. Mothers have a major role to play in the prevention of home injuries, as expressed in many international reports. There is a paucity of research in this area regarding Palestine. Therefore, this study aimed to explore mothers' perceptions about the prevention of home injuries among children aged under 5 and the potential factors that might influence their injury prevention practices. A qualitative approach was followed, whereby 12 mothers from three settings (rural, refugee camp, and urban) in Ramallah District were purposively selected to participate in this study. The data were collected through semi-structured interviews, and the derived data were analyzed using thematic analysis. The study findings suggested that there are many similarities between the perspectives of mothers within the three settings. Most of them had a positive attitude toward preventing home injuries. However, many environmental factors affected their practice, including low economic status, the physical environment of the house, the social environment (e.g., fatalism), and the political environment. The study concluded that the causes of in-home injuries in Ramallah District are embedded within the families' social and economic status and are influenced by the surrounding environment. Consequently, it supports the use of multiple intervention strategies within a holistic approach that acknowledges these factors to help prevent future home injuries.

## Keywords

child injury, injury prevention, qualitative research, interviews, mothers' perceptions, home injury

## Introduction

The term “injury” was defined by the World Health Organization (WHO; 2008) as an “acute exposure to physical agents such as mechanical energy, heat, electricity, chemicals, and ionizing radiation interacting with the body in amounts or at rates that exceed the threshold of human tolerance” (p. 1). Injuries can be categorized according to intention as unintentional, which do not occur on purpose or where there is no intention to harm, and intentional, where there is use of physical force with intention to harm, either by other individuals (violence) or by the person themselves (self-harm/suicide) (Cohen et al., 2003).

Unintentional injury among young children is a major global public health issue, particularly in low- and middle-income countries (WHO, 2008). These injuries cause mortality, morbidity, and disabilities among children (WHO, 2008). Moreover, they place a major burden on health care systems (McCarthy, 2014; Muir & Bennett, 2010).

Parents (traditionally mothers) have been identified as the main individuals responsible for providing a safe

environment for children and protecting them from risks (Child Accident Prevention Trust, 2011; European Child Safety Alliance, 2007; National Institute for Health and Clinical Excellence, 2010). They play a vital role in managing and preventing the risk of home injuries to their young children (Morrongiello, Ondejko, & Littlejohn, 2004). A better understanding of the social and cognitive elements that influence their practice in the area of injury prevention, particularly in the home context, might advance the effectiveness of the educational and behavioral interventions that target them (Vladutiu, Nansel, Weaver, Jacobsen, & Kreuter, 2006).

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Worldwide, studies have explored parents' perceptions or practices regarding the prevention of injuries at home (Carter, Morgan, & Lancashire, 1995; Kendrick et al., 2012; Whitehead & Owens, 2012), but to date they have shown differing views from parents who live within different settings, all of which highlight the need for similar studies in the Palestinian context.

A study in Egypt, for example, explored the perceptions, attitudes, knowledge, and behavior of young individuals regarding unintentional injuries (Day et al., 2010). It showed that participants had low confidence in the preventability of such injuries, although they were interested in injury prevention programs. In contrast, Hooper, Coggan, and Adams (2003) conducted phone surveys in New Zealand, which indicated that 84% of the participants thought that most injuries were preventable, and 91% of them considered their homes to be safe or reasonably safe. Nevertheless, the findings of this study might be subject to social desirability bias, as participants might overreport activities that are socially desirable, such as the usage of safety equipment.

There have been relatively few studies concerning injury prevention in Palestine (Sawalha, Sweileh, Tufaha, & Al-Jabi, 2010; Shaheen, 2009). The reviewed studies indicate that the home can be a significant setting for injuries, particularly to young children (Abu-Rmeileh, Hussein, Abu-Arqoub, Hamad, & Giacaman, 2008). However, the exact process of the occurrence of these injuries was not completely clarified. This could be linked with the fact that most of the studies used quantitative approaches (surveys and reviews of hospital admissions or death registries; Al Laham, Elmanama, & Tayh, 2013; Sawalha, 2007, 2008; Younis, Younis, Hamidi, Musmar, & Mawson, 2011). The only exception was the study by Raanan and his colleagues (2008) which included a qualitative aspect. This survey found that falling down was the most common cause of unintentional injuries among young children (35%), followed by cuts (27%) and burns (11%). The focus group data indicated that the participants' belief in fate could be an important factor in their feeling that unintentional injuries could not be prevented. It also showed that the participants needed more health education, particularly in providing first aid for their children. This pilot study concluded that further research was needed to find other factors for planning intervention programs.

There is a need for further reliable information that enhances the decisions regarding the prevention of unintentional child injuries at home and develops practices in this area. Such research will allow investment of the scarce resources in what works and reduce the burden of child injuries on the health systems (Ebel, Medina, Rahman, Appiah, & Rivara, 2009). In the absence of such data, this study aims to gain insights about the issue of childhood injury prevention.

This study aimed to explore mothers' perceptions regarding the prevention of unintentional injuries in the home

among children under 5 years old within different settings in Ramallah District and to identify the factors that might influence their practice in this area. This exploration has the potential to contribute to a theoretical base for the decision-making process and develop the parents' and other stakeholders' practices.

### *Theoretical Framework*

The Injury Iceberg Model, which was derived from ecological theory, was used to guide this study. This model maps the factors that cause unintentional injuries and the most effective strategies for their prevention. In the Injury Iceberg Model, individuals and their behaviors are placed on the tip of the "iceberg" as the visible components of the system. However, the determinants of their visible behavior—for example, the social, cultural, political, and physical environment—are hidden below the "waterline." This suggests that attempts to prevent unintentional injuries by modifying visible behaviors are less likely to be effective—unless the whole system that lies behind this behavior is understood (Hanson et al., 2005).

This model has various strengths that were useful for this study. First, it comprehensively addresses the injury prevention issue at multiple levels and highlights the impact of, and interaction between, factors. This supports this study's attempt to explore how these different levels work within Ramallah District, how people make sense of them, and how they influence their daily practices. Second, it creates a context for acknowledging an area that needs further intervention—to improve the prevention of the home injuries in Ramallah District—as mentioned by Harper et al. (2004).

## **Method**

### *Design and Setting*

This article aims to illuminate mothers' views regarding injury prevention and to explore the factors that could affect their behaviors in this area. To achieve this, a qualitative approach was followed. This study focuses on mothers who live in three settings in Ramallah District: rural, urban, and camps. Ramallah District was purposively selected for this study, as a central city and one of the four main populated areas in the West Bank of Palestine (Ministry of Health-Palestinian Health Information Center, 2012). It is also considered the most important administrative center in Palestine (Mahmoud et al., 2003). It contains the main commercial and service centers in the West Bank (Mahmoud et al., 2003) and the main referral primary health clinics (Palestinian Central Bureau of Statistics [PCBS], 2008).

The study targeted three settings: rural, urban, and refugee camps. A rural setting is defined as a geographical location that has less than 4,000 residents or whose population ranges from 4,000 to 9,999, but does not have any of the

**Table 1.** The Interview Schedule.

N	Questions of the interview
1.	From your experience, what do you think are the reasons for injuries among under-5 children at home? Prompt: Do you think that they are preventable?
2.	Who do you think should be involved in the prevention of under-5 children at home?
3.	What do you think is parents' role in the prevention of child injury?
4.	At your home, what do you do to keep your under-5 child safe from unintentional injuries?
5.	If your child gets injured, what will you do about it?
6.	Where did you get information about home safety? Prompt: Family member/health professionals/other Do your friends do any good activities that help to prevent home injuries?
7.	From your experience, what do you think are the factors that can minimize the incidents of child injuries at home?
8.	From your experience, what do you think are the things that can negatively affect your practice regarding injury prevention among under 5-year-old children at home?
9.	What further support do you think families could be given to help them in preventing injuries among their under 5-year-old children at home?

following elements: public electricity network, public water network, post office, health center with a full-time physician, and a school offering a general secondary education certificate (PCBS, 2011). The urban setting is defined as any locality that has a total population of 10,000 or more, which includes all governorates/districts regardless of their size (PCBS, 2011).

The refugee camp area is similar to a low-income, crowded urban settlement (Palestinian Liberation Organization: Negotiation Affairs Department, 2009; United Nations, 2010), while conventional refugee camps are usually transitory tent communities. The unique case of the Palestinian refugee phenomenon means that these camps are permanent settlements with relatively more substantial dwellings and facilities. However, the term "camp" is still used to reflect the right of refugees to return to their homes and lands (United Nations, 2010).

### Sample

The eligible participants were mothers aged over 18 years, with at least one child under 5 years. They were recruited from the main Central Immunization Clinic in Ramallah city using information sheets that were distributed by nurses. The clinic was chosen because the immunization rate in Palestine is high (97%-99%) and because it attracts caregivers from villages, camps, and cities (Rahim et al., 2009). This might increase the chance of obtaining different views, which can enrich the study. Besides, this site can be easily accessible for parents who live in the three settings.

At the end of the recruitment process, 21 mothers agreed to participate. However, three of them subsequently withdrew due to their husbands' refusal ( $n = 2$ ) and the need to redecorate the home ( $n = 1$ ). After that, 12 of the remaining 18 participants were purposively selected, with emphasis on selecting participants from the three settings. Four participants from each setting were finally included. They were

selected in an approach that ensured variation in the demographic data. The main characteristics that were considered during selection included place of residency, economic status, educational level, number of parents, and number of children in the household.

In addition, it is important to note that data saturation was achieved at 12 interviews. Meadows (2003) stated that the minimum sample size for any study depends on reaching the point of data saturation, after which no new information or concepts emerge pertinent to the study topic. Data saturation was achieved at four participants from each setting, as they were discussing the same issue and no new concepts or information was emerging, so no further interviews were conducted.

### Data Collection

The interview questions were based on themes derived from a review of literature on the prevention of home injuries (see Table 1). They were piloted in an interview with a mother of three children, who lived in Ramallah District. This interview was not one of the study's final 12 interviews. The piloting highlighted the mother's concerns about being criticized as bad or negligent, which emphasized the need to reassure the mothers that the study did not aim to evaluate their parenting skills, and that home injuries can occur despite the most diligent maternal care. This reassurance statement was mentioned at the beginning of each interview.

Semi-structured interviews (lasting 30-60 min) were undertaken in Arabic in the participant's homes and were audio recorded. After that, the audio was transcribed and translated into English. The questions were applied flexibly during the interviews to allow each participant to contribute to the study. The interviews started with warm-up questions to establish rapport, and then the main questions, based on the interview schedule, were asked. During the interviews,

verbal probes were used to further explore any hidden meanings and to enhance the understanding of their perspectives (Bowling, 1997; Harrell & Bradley, 2009; Ryan, Coughlan, & Cronin, 2009).

It is possible that the characteristics of the interviewer (young, female, highly educated) influenced the rapport building and the interaction with the participants; sometimes it made it easier and at other times more difficult. The researcher had to change the tone of voice, body language, attitude, and complexity of the language depending on the different participants and situations. However, at all times objectivity was maintained, and the focus was on achieving the aims of the study. For example, the educational level of the mothers varied. Therefore, the researcher had to ensure that the used words for the questions were appropriate and that the mothers understand it. In addition, it was noticed that the response of participants varied. Some of them were talkative and discussed the interview questions and other unrelated issues with minimum probes, and minimum efforts were needed to conduct the interview, whereas other participants were more reticent and additional probes were needed to encourage them to elaborate on each point.

### Data Analysis

The data analysis was conducted using Braun and Clarke's (2006) framework. This is an inductive thematic approach, which involves grouping of the data content into categories based on common themes, without being constrained by a preset label (Green & Thorogood, 2005; Priest, Roberts, & Woods, 2002). The study used manual and NVivo 10 software program coding (QRS International). Early coding was manual and then the main themes, codes, and necessary quotations were put into NVivo in English. The data were translated according to the WHO (2010) guidelines.

Credibility was established by the use of field notes and reflexivity (Thorne, 2000). An outside research assistant conducted the coding independently from the researcher. After that, the codes were discussed and refined codes were produced for the final analysis (Black, Brazier, Fitzpatrick, & Reeves, 2000). Miles and Huberman (1994) suggest that a level of agreement of 90% or above on double coding is desirable, and this level of agreement was achieved. Other strategies included giving attention to negative cases to enhance credibility (Black, Reeves, Brazier, & Fitzpatrick, 1998).

### Ethical Consideration

Approval was obtained from the participants and the ethical committee of the University of Nottingham Medical School and the Palestinian Ministry of Health. A written consent form was completed by the participants, and their names were replaced with codes to preserve their confidentiality.

For example, (P1, Camp) refers to the first mother in the camp context.

## Results

The final sample included 12 mothers (see Table 2); 11 of whom lived with their spouses. Most families had three to four children, and urban families had fewer children than camp and rural families. Most mothers in the refugee camps ( $n = 3$ ) and half the rural mothers ( $n = 2$ ) were educated to high school level, while all urban mothers had an undergraduate degree. Eight fathers had a high school education, two had an undergraduate degree, and the remainder—who all lived in the urban setting—had postgraduate degrees. Almost all fathers were employed, whereas only five mothers were employed, including the four mothers in the urban setting. The age of the parents ranged from 25 to 45 years. All families in the urban setting earned more than ILS 2,237 (£411) each month, whereas only one family in each of the other two settings reached this level. The ILS 2,237 income level is considered the poverty line for a household of two adults and three children in Palestinian society (PCBS, 2011). The rural families all owned their homes, whereas three urban families rented. In the camp, the homes were owned by United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).

The results of the data analysis, based on the main themes that emerged, are presented below. This includes the mothers' views and attitudes toward injury prevention and the factors that affected their practices around the prevention of unintentional injuries (see Table 3).

### The Mothers' Views and Attitudes Toward Injury Prevention

*Preventability of home injury.* An important finding was that most mothers thought that injuries at home could be prevented:

You can prevent injuries easily through the following steps: placing medication outside the reach of the children . . . and by placing the chlorine or vinegar outside the reach of the children. (P1, Urban)

Only two urban mothers thought injuries could not be completely prevented, and they linked this with the characteristics of children under the age of 5, for example, their tendency to be active and explore the environment around them. These mothers thought that the only thing that they could do to prevent injuries was to watch their children:

I do not think that injuries can be prevented; there are things that are difficult to control. Increasing the child's awareness and controlling them is something that has been very difficult for me to do, especially when they spent all their time at home . . . paying attention is the only thing that we can do. (P2, Urban)

**Table 2.** Demographic Characteristics of Participants (N = 12).

Demographic characteristics	Category	Total N	Camp n (%)	Rural n (%)	Urban n (%)
Marital status	Married	12	4 (33.33)	4 (33.33)	4 (33.33)
	Divorced/widowed	0	0 (0)	0 (0)	0 (0)
Number of parents in the home	One	1	0 (0)	1 (100)	0 (0)
	Two	11	4 (36.36)	3 (27.28)	4 (36.36)
Mothers' education	High school or less	5	3 (60)	2 (40)	0 (0)
	Undergraduate study	7	1 (14.29)	2 (28.57)	4 (57.14)
	Postgraduate study	0	0 (0)	0 (0)	0 (0)
Fathers' education	High school or less	8	3 (37.5)	3 (37.5)	2 (25)
	Undergraduate study	2	1 (50)	1 (50)	0 (0)
	Postgraduate study	2	0 (0)	0 (0)	2 (100)
Mothers' occupation	Employed	5	0 (0)	1 (20)	4 (80)
	Unemployed	7	4 (57.14)	3 (42.86)	0 (0)
Fathers' occupation	Employed	11	4 (36.36)	3 (27.28)	4 (36.36)
	Unemployed <sup>a</sup>	1	0 (0)	1 (100)	0 (0)
Mothers' age	Less than 25	0	0 (0)	0 (0)	0 (0)
	25-34	6	1 (16.67)	2 (33.33)	3 (50)
	35-44	3	1 (33.33)	1 (33.33)	1 (33.33)
	45 or more	3	2 (66.67)	1 (33.33)	0 (0)
Fathers' age	Less than 25	0	0 (0)	0 (0)	0 (0)
	25-34	4	0 (0)	1 (25)	3 (75)
	35-44	4	1 (25)	2 (50)	1 (25)
	45 or more	4	3 (75)	1 (25)	0 (0)
Salary	Less than £411	2	1 (50)	1 (50)	0 (0)
	Around £411	4	2 (50)	2 (50)	0 (0)
	More than £411	6	1 (16.67)	1 (16.67)	4 (66.66)
Accommodation	Owned	5	0 (0)	4 (80)	1 (20)
	Rented	3	0 (0)	0 (0)	3 (100)
	Camp	4	4 (100)	0 (0)	0 (0)
Number of children	1-2	2	0 (0)	0 (0)	2 (100)
	3-4	5	1 (20)	2 (40)	2 (40)
	5-6	1	1 (100)	0 (0)	0 (0)
	7-8	2	0 (0)	2 (100)	0 (0)
	9-10	2	2 (100)	0 (0)	0 (0)
Number of children aged under 5	1	5	2 (40)	2 (40)	1 (20)
	2	7	2 (28.57)	2 (28.57)	3 (42.86)

<sup>a</sup>One father was a prisoner of the occupying forces.

**Responsibility for injury prevention.** All mothers agreed that most of the responsibility lay with the parents, particularly the mothers:

The man works long hours and he is absent from home most of the time, and even when he returns to the home he wants to sleep and relax . . . he cannot provide any care for the children and therefore the responsibility rests on the mother. (P4, Rural)

Nevertheless, it is noteworthy that in the urban setting, two mothers thought that the mother and the father shared equal responsibility. In addition, most mothers could identify other people responsible for injury prevention, including members of the extended family, the Palestinian national

authority, nongovernmental organizations (NGOs), and the health organization.

**Attitude to external advice.** Most mothers accepted external advice regarding injury prevention, particularly from health professionals, if they felt that it was intended to benefit their children:

I will listen to the person who advises me for my children's benefit, even if he hurts me from inside, and criticizes me . . . I will listen to any advice if it is useful especially from the health staff. (P3, Camp)

However, two mothers were less positive:

**Table 3.** The Main Themes and Codes That Emerged From the Data Analysis.

Category	Theme	Code
Parental views and attitudes toward injury prevention	Preventability of home injuries	Preventable Not preventable
	Responsibility for injury prevention	Mothers' responsibility Both parents' responsibility Other parties' responsibility
	Reaction to external advice	Accept Avoid
Factors affecting the prevention of unintentional injuries	Parental factors	Low economic status Mothers' negligence Mothers' employment status Mothers' level of education Mothers' young age
	Children-related factors	Child impulsiveness Child curiosity
	Environmental factors	Physical Social Political situation

Honestly, I do not like any one to interfere with my family and in how I raise my children, especially certain people. (P1, Camp)

### *Factors Affecting the Prevention of Unintentional Injuries*

From all of the mothers' perspectives, the factors were organized under the parental, child, and environmental themes.

**Parental factors.** A key finding was that all the mothers discussed the influence of low economic status on injury prevention practice:

The windows of my home do not have protective mesh, and the electricity wires are exposed, and also the balcony does not have protective bars, all of these needs to be repaired and fixed, I know that. But the lack of financial resources prevents us from doing that. (P3, Rural)

In particular, the mothers in the camp felt that they had no choice and that their children were deprived.

Almost all mothers mentioned negligence and lack of observation as a leading cause of home injuries. However, during discussions of negligence, they referred to practices of other mothers that they knew or had heard about and did not criticize their own practice, even though accidents had happened to them:

Lack of the mothers' observation is a major danger. Sometimes, the mother gets busy with cleaning the home or with the other children (if she has more than one child), during this time the child will be alone in the home without observation, and he will be exposed to all source of dangers. (P2, Urban)

Some mothers discussed the influence of maternal employment, suggesting that it had a negative effect, as the mothers would leave their children for a long time and other care providers would not be able to provide the same level of care. The mothers in the urban setting discussed this issue from their own experience. They stated that they returned home tired from work and feeling overburdened; they did not find time for their children and expressed guilt at being away from them:

I spend hours away from my children and I cannot watch them during these hours. My work takes a long time; this time should be dedicated to my children . . . when the burn injury, that I told you about previously, happened to my son in my mother's home, I blamed myself a lot and I said to myself "maybe if I was with him at home and did not leave him, then this injury would not have happened" (P1, Urban)

Seven mothers (two camp, two rural, three urban) considered the influence of parental education and their capability to modify their houses to prevent hazards:

The educated mothers can evaluate the useful things from the harmful ones and the safe practices from the unsafe ones at home . . . the education affects the mother's awareness and her thinking . . . I think that it affects the mother's awareness of what is happening at the home, whether she has placed the things in the right place, and whether she is using them in the right way. (P2, Urban)

Maternal age was only mentioned by one mother:

When I got married I was young and could not do anything alone. I felt that there was a lot of pressure on me. My mother-in-law helped me in everything . . . I faced many injuries among

my children at that time and many of them could have been prevented, I think that this was related to my young age and lack of experience. (P2, Camp)

**Factors relating to children.** Some of the mothers discussed the influence of the children's impulsiveness and their curiosity on injury occurrence and the mothers' ability to observe and protect them at home:

My children want to know everything around them; how to open this box, or how these machines work, and what is behind this chair . . . my youngest son is very curious, I catch him many times trying to set a fire in the home . . . I do not know what to do about this. You cannot hold back their passion for knowledge or their desire to discover the environment around them. (P1, Camp)

**Environmental factors.** These can be grouped into three categories: physical, social, and political.

**Physical environment.** All of the mothers highlighted the influence of the place of living on injury prevention. For example, the mothers in the camp setting mentioned specific difficulties in their physical environment that influenced the occurrence of injuries, such as the intermittent power supply.

In addition, home owners in the urban area were reluctant to add protective measures to the homes, such as adding protective mesh to the windows due to the cost:

When we rented our home, the windows and the balcony did not have any protective mesh, and we asked the owner to add them and he refused to do that . . . so me and my husband had to add the protective mesh at our expense to protect our children. (P1, Urban)

Although these issues were to some degree outside the mothers' spheres of influence, they could still increase the risk of certain home injuries, such as falls and poisoning.

All mothers mentioned the influence of limited space and the structure of the home on the occurrence of injury. However, the mothers in the camp stressed this point more than the other mothers. They indicated that living space in the camp is small and that they were not allowed to build more rooms or change the structure of the home:

I am not happy with the space of the home, because it is very limited and small. But I cannot expand it, as I live in the camp where we do not have the authority to expand the home. This affects my ability to control the occurrence of injuries within a small crowded area. (P1, Camp)

**Social environment.** All mothers in the camp and urban settings and two mothers in the rural setting discussed the concept of fatalism. The majority of them ( $n = 9$ ) stated that they believed in fate, and at the same time they took all the necessary precautions to protect their children from home injuries:

I believe in God and I trust him. But . . . if I was in a house and there was no protective mesh on the windows, and the child falls as a result of this, is this not the fault of the parents? As they did not apply the required protection, even if God protects the children and even if we believe in fate, you need to be logical and apply all the required protection at home. (P3, Camp)

Importantly, one mother in the camp setting expressed a contrasting view and voiced her idea that injuries were a fate that could not be changed, and consequently did not apply protective measures in her home:

Sometimes when an accident occurs, the blame is placed on the mother from many people, including her husband and his family, that she is the cause of this accident and that it is her fault, although it is fate and it is God's wish and you cannot prevent it. (P2, Camp)

Although this phenomenon was not identified as a view by others, it was recognized:

I think that a few people in our community understand the idea of God's protection wrongly . . . they had to make sure that their home is safe and provide all the necessary precautions and then trust God . . . originally, this idea of totally relying on the God without taking precautions contradicts with the Islamic religion which urges the people to take all reasons and work hard, then depending on God. (P2, Rural)

The influence of extended family members was seen differently across the study participants, with the majority of the mothers in the rural and urban settings ( $n = 3$  in each setting) and one mother in the camp expressing how it had a positive influence:

The influence of my husband and his family is always positive, because they are keen on giving helpful tips regarding the safety in the home, and safety measures to be adopted . . . they lead us to be more careful, particularly in dealing with the heating and the hob (cooktop) . . . they advised me not to leave our daughter alone while the heating is turned on, and not to leave sharp materials or the medication in places that can be approached by her. (P2, Urban)

The remaining mothers in the camp and one mother in each of the rural and urban settings expressed how this support had a negative influence, as family members might interfere in the child's rearing and criticize maternal practices of injury prevention.

**Political environment.** An important factor that was highlighted by eight mothers was the influence of the political situation in Palestine (all mothers in the urban area and half of the mothers in the camp and rural settings):

The political status of Palestine affects the psychology of the children and it spoils their spirit . . . they feel fear and panic at

this young age . . . mainly when the soldiers come to arrest some Palestinian men in the middle of the night, or kill one of their friends. This will certainly frighten the young children. But I do not know exactly what the impact of this on their future will be. However, I think that it puts them in a difficult psychological situation. Especially if the site of the home is close to the places of confrontation . . . it increases the tendency of the children to be violent inside the home. (P4, Camp)

One mother in the rural setting stated that the political environment in Palestine is highly influential, as it had weakened the ability of the Palestinian authority to provide the required support for the children and their families. According to her, in a war situation children's home safety could justifiably be deemed by some to be a low priority on the government agenda.

## Discussion

This is the first qualitative study that investigates the prevention of in-home injuries within three settings (camp, urban, and rural) in Ramallah District, from the mothers' perspective. The findings of this study are important as there has been little research conducted in Palestine on this phenomenon.

An important finding of this study is the positive attitudes that most of the mothers had toward working to prevent home injuries; the majority of them thought that such injuries could be prevented, and they acknowledged their role in injury prevention. Nevertheless, two urban mothers thought that injuries could not be completely prevented. They linked this with the characteristics of children under the age of 5, such as lack of their ability to recognize danger and their curiosity to explore the environment that surrounds them.

According to Piaget's cognitive theory, the intellectual development of children occurs through a process whereby the children incorporate new experiences via integration and adjustment to deal with these experiences (Child Development Institute, 2018). Children aged under 5 usually pass through two of the four stages of intellectual development. First is the "sensory-motor" phase, where children learn about the surrounding environment through their senses, curiosity, and motor activity, such as watching, grasping, mouthing, and listening (Ball, Bindler, & Cowen, 2010). Second is the "preoperational" stage, where children display egocentric thinking (they cannot accept the viewpoints of other people), unrealistic and magical thinking, and transductive reasoning (they draw conclusions from one general fact to another) (Ball et al., 2010).

Piaget thought the children's interpretations of the environment to be different from adults' and saw them as less competent, thereby making them more vulnerable to home injuries (Child Development Institute, 2018). Therefore, the physical and cognitive ability of children under 5 should be considered when preparing a home safety strategy, where

their views and thinking around the home environment are assessed and considered (Ball et al., 2010; Oswalt, 2014).

Some previous studies from other countries have found that most parents thought that injuries could be prevented (Department for Children Schools and Families, 2010). For example, Hooper et al.'s (2003) study found that 84% of participants thought that most injuries in the home were preventable.

Conversely, Day et al. (2010) found that participants had low confidence in the preventability of injuries. However, this study explored perceptions regarding unintentional injuries in general, not specifically injuries to children, and the participants within all the focus groups were urban, upper-middle-class, relatively well-educated, young adults. Other participants with different characteristics might have had different perceptions. There is disagreement in the literature about parental perceptions of the preventability of home injuries, where these perceptions varied within different contexts. This might be due to different individual cultures or habits between nations and different methodologies implemented by researchers to investigate the issue.

Another important finding of the study is that it highlighted certain factors that influenced the mothers' practices in injury prevention, mainly the low economic status of families, the physical environment of the house, belief in fate, and the support of the extended family. With respect to fatalism, the interviews with the mothers in this study showed that most of them, in all settings, believed in fate, but at the same time took precautions to prevent home injuries. However, one of the mothers in the camp setting voiced that home injuries occurred through God's will and therefore disregarded the (to her) questionable efficacy of certain aspects of protective home measures.

Raanan et al.'s (2008) study, conducted in Palestine, found different results. It indicated that the fatalism of the majority of parents in the focus groups could be an important factor in their feelings that unintentional injuries could not be prevented. The difference might be due to that study covering a broader age group of children. Another explanation is that with the "focus group" method some of the participants might influence the others, and some might be afraid to discuss issues that they think contradict a religious standard. Alternatively, the difference in the parents' perspectives could be linked with the difference in their religious understanding and their level of education, or the influence of their community.

Fatalism is not a new research subject in this context (Girasek, 1999; WHO, 2008). Girasek's (1999) study in the United States found that 26% of respondents mentioned the influence of fate on the occurrence of injuries. Most Muslims believe that the events that occur in their lives are determined by God and should be accepted. However, this is with the caveat that humans should take necessary actions, such as acting to safeguard life and prevent harm, which are incumbent on all Muslims (Al-Sheha, 2001). This includes

safeguarding children from danger (Kassamali, 2014). Therefore, from a religious point of view, it is the responsibility of parents to prevent injuries to their children.

However, folk religion and popular (mis)understandings of the concept of fate can be reflected in different attitudes and practices (Al-Sheha, 2001). The findings of this study suggest that a few parents might misunderstand the concept, and this could negatively influence their practices in the area of injury prevention. This suggests the need for clarification of this misunderstanding among the parents and the wider community through education and the raising of awareness.

It is notable that all the women, except two urban mothers, saw injury prevention as primarily the mother's responsibility. Also, some of the mothers thought that their employment was an influential factor, and they blamed themselves for any home injuries that happened while they were working. The concept of hegemonic masculinities and femininities could explain these beliefs (Jewkes et al., 2015). Hegemonic masculinity explains how gender power operates at multiple levels, providing a framework that illustrates how gender inequalities are produced and how they affect different roles and decisions (Jewkes et al., 2015). In Palestine, the culture of the community tends to link certain roles with gender, such as what does it mean to be a "mother" or a "father" and what the responsibilities are under each title (Sa'ar & Yahia-Younis, 2008); taking care of the children and protecting them would be seen more as a mother's role.

The current study suggests that home injuries result from the interactions between many factors, at the individual family level (e.g., the level of education) and at the environmental level (e.g., the home physical environment or the surrounding social context). The link between individual behaviors and environmental factors has been made in earlier works, and there is an evidence base for it (Christoffel & Gallagher, 2006; Dahlgren & Whitehead, 1991; Green & Kreuter, 1999). The literature strongly supports the importance of the context and the environment in health promotions, as context is important in understanding the behavior of individuals (McLeroy, Bibeau, Steckler, & Glanz, 1988). This was clearly illustrated in the Injury Iceberg Model (Davies & Macdowall, 2006).

The findings of this study suggest that preventing unintentional injuries in the home requires further attention to the individual parents' status, as well as the whole system that surrounds them. This includes the social and physical environment, as well as the political situation. The study also supports the need for further injury prevention activities on many levels, as suggested by the Injury Iceberg Model (Gielen, Sleet, & DiClemente, 2006). However, in Palestine, the particular social, political, and physical environments as well as the low economic status of the families were the most influential factors on parental practices in injury prevention. Therefore, these should be the main aspects of any future strategy that targets this topic, with the aim of providing better support to the parents in this direction.

## *Strengths and Limitations*

There are several strengths to this study, as its findings help to address the paucity of qualitative literature on injury prevention among children in Palestinian homes. This study revealed rich data that contributed to the body of knowledge and participated in developing current policies and practices that aim to prevent future injuries in Palestine. It is expected that these participants' experiences and insights will be transferable to other families in similar situations.

One of the limitations of this study is potential interviewer bias, as maintaining objectivity while interpreting the findings was challenging. To minimize this, a clear and thick exposition of the data collection and analysis process, and a reflexive account of the entire study process were conducted. In addition, the data of the interviews were double-coded.

Social desirability bias is another potential limitation. To overcome this, some of the questions in the interviews were repeated to double-check the participants' answers. Moreover, all the interviews were audio-taped, which might have affected the participants' ability to disclose some of their concerns. In addition, some family members attended two of the interviews, and although they obtained the mothers' approval to do so, their attendance might have inhibited the mothers from discussing their opinions freely.

## *Implications*

The study suggests the need for parents to be empowered to help them prevent in-home injuries to their children. This could be achieved through developing their skills and knowledge and through providing a supportive environment for parents that would help to prevent any future injury. This can be a role for the health professionals, particularly nurses.

In this study, the positive attitudes of the majority of mothers toward injury prevention provided evidence of their readiness to work on this issue. Policy makers should harness this positive energy and develop a comprehensive strategy for injury prevention in line with the recommendations in the World Report (WHO, 2008). This would include involving individuals and organizations that are concerned with preventing home injuries, along with strategies for monitoring and evaluation.

There is a clear need for further qualitative and quantitative studies in different parts of Palestine to find out whether other families have similar perspectives. There is also a need for further qualitative research that looks at fathers' perceptions regarding this issue. We would also recommend investigating the perspectives of young mothers (aged under 25 years) in other qualitative studies, as they were not covered by this study, despite the inclusion criteria.

The data from this study, on influencing factors such as the physical structure of homes, could be used as a framework for other studies. For example, further quantitative studies are necessary to estimate the influence of the factors that were discussed within the study on a larger scale.

## Conclusion

This study suggests that most mothers in all the settings (camp, rural, and urban) had positive attitudes toward working to prevent in-home injuries. However, many barriers exist in their daily living conditions that prevent them from achieving the required level of prevention. The study revealed that a combination of multiple environmental factors led to the occurrence of injuries among children aged under 5 and influenced the mothers' practices in the three settings. It has also emphasized the need for a movement toward the adoption of a broader remit for preventing home injuries in Ramallah District.

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