

ORIGINAL PAPER

FEAR OF FALLING AMONG COMMUNITY DWELLING OLDER ADULTS

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Abstract

Aim: The aim of the study was to describe experience with falls, fear of falling, perceptions of the consequences of falls and how the fear of falling affects daily life in community-dwelling older adults. **Design:** The study used a qualitative design to describe the lived experiences of community-dwelling older adults with the fear of falling. **Methods:** Semi-structured interviews were conducted individually with six participants who reported the fear of falling. **Results:** Five main areas emerged from data analysis: development of the fear of falling, feared consequences of falling, activities curtailment, fall prevention behavior and meaning of social support in daily life. The fear of falling was described as a negative experience, directly linked to fall consequences such as physical injury, incapacitation, loss of autonomy, fear of dependence and experience of humiliating conditions. To maintain a certain level of independence in daily life, the participants chose to avoid falls by activity curtailment, organizing their lives more carefully and getting support from others. **Conclusion:** All participants identified that they had discovered their fear of falling after experiencing falls. The fear of falling was associated with feared consequences of a potential fall and had an impact on their daily life. The participant also mentioned other contributors to their fear of falling, including ill health and aging.

Keywords: Fear of falling, older adults, perceived consequences of falls, daily life.

Introduction

Falls are a common problem in old age, with over 30% of community-dwelling older adults experiencing one or more falls each year and the risk steadily increasing with age. Falls are the leading cause of disability and accidental death in older adults (Gillespie et al., 2012; Deandrea et al., 2013). The physical consequences of falls are varied; however, most frequent are fall-related fractures, mainly of the forearm and thigh bones (Hegyi, Krajčík, 2010). Many older adults who fall may also suffer from psychological consequences of falls. These include a fear of falling and loss of self-confidence. Psychological concerns related to falling can be equally disabling and affecting an individual's activities of daily living, health and well-being as physical injuries (Tischler, Hobbson, 2005; Moore, Ellis, 2008).

Originally, the fear of falling was considered a post-fall syndrome. However, more recent studies found that the fear of falling could be identified in older adults who have not fallen before (Zijlstra et al., 2007; Scheffer et al., 2008). The post-fall syndrome was first mentioned in 1982 by Murphy and Isaacs, who noticed that after a fall, ambulatory persons developed fear and walking disorders. The fear of falling was identified as one of the key symptoms of this syndrome. Since that time, the fear of falling has gained its recognition as a specific health problem among the elderly without an appropriate conceptual definition. It is often used as an umbrella term and many authors use the terms fear of falling, falls efficacy and balance confidence interchangeably. In a systematic review and meta-analysis, Payette et al. (2016) used the term fall-related psychological concerns. These include concepts with different theoretical origins such as the fear of falling, falls efficacy and balance confidence. Fear refers to a temporary state of apprehension towards an explicit threat, while self-efficacy (falls efficacy) refers to one's ability to manage a threat and balance confidence means a lack of confidence to hold balance during normal activities (Jung, 2008).

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In the Slovak and Czech Republic the contemporary research of falls predominately focuses on hospitalised patients, specifically on predicting the risk of falling (Bóriková et al., 2016, Majkusová et al., 2014). There is little evidence of fall-related psychological concerns in older adults such as the fear of falling in the Slovak Republic. According to foreign research results, there is a high prevalence of the fear of falling (21% to 85%) in the elderly living in the community. Thus, we can hypothesize that there is a similar incidence of the fear of falling in community-based older adults in Slovakia.

Aim

The aim of this study was to interview older adults who experienced the fear of falling to gain an insight into the history of falls, onset of the fear of falling and perceived consequences of falls. The secondary aim was to describe how participants' daily lives were affected by the fear of falling.

Methods

Design

The study used a qualitative design to describe the lived experiences of community-dwelling older adults with the fear of falling, focusing on the worrisome consequences of falls. Descriptive phenomenological research utilizes a methodological framework that answers research questions through a scientific description of the experiences (Dowling, 2007). In the present study, the fear of falling is viewed as any fall-related concerns which are associated with walking and maintaining balance during activities.

Sample

A purposive sample of community-dwelling older adults was gained from the primary care setting. Participants were given notice about study via a poster (hanging on a waiting room wall) and by a nurse during their regular visit to a general practitioner. The poster contained more information about the study topic, research team and instructions for those interested in participating. All volunteers were personally approached, mainly in their homes, and those who met inclusion criteria were invited to participate. The criteria required that participants (a) currently perceived any concerns related to falls, (b) were 65 years of age or older, (c) were not seriously ill (such as in a terminal stage of illness), (d) were ambulant / ambulant with a walking aid, (e) had an appropriate mental status, (f) read and wrote Slovak, and (g) were capable of giving consent. At the same time, they were given more detailed information

outlining the nature of the study and what they were required to do and were asked to sign a consent form. Confidentiality procedures and safeguards were explained, as well as the fact that the participants had the right to withdraw at any time. The study sample was small and, after theoretical saturation, a total of five women and one man ($n = 6$) aged 67 to 80 years (mean = 73.8 years) were finally selected to participate in the study. Three participants had fallen once and the other three fell two times in the previous 2 years (from April 2014 to April 2016). Participants completed a simple personal sheet prior to the interview (see Table 1). Pseudonyms were used to ensure confidentiality.

Data collection

The principal investigator conducted face-to-face semi-structured interviews, comprising mostly open-ended questions, with all the participants separately in their homes in April 2016. A schedule based on initial analysis of relevant literature was used during the interviews to maintain the conceptual focus of the study. The confidential interviews were audio-taped and transcribed verbatim by the main investigator. Field notes were made before, during and after each interview, recording the context of the interview and the investigator's personal reflections on the interview.

The interviews explored areas under each of the following headings:

Background

Please describe your living arrangements.

How often do you see your family and/or friends?

Are you satisfied with the social support you get? Would your friends or family be able to help you quickly?

Do you see yourself as a healthy person? How would you describe your health?

Fear of falling

What is your personal fall history? When did you fall? Did you sustain any fall-related injuries? Did you need any medical/physiotherapy intervention?

Do you have any concerns related to falls? Why do you fear falling?

Please describe what exactly you are afraid of if you were to fall again.

When did this fear develop?

Have you adopted any safeguards against falls?

Daily life / activities of daily living

How active are you?

How independent do you think you are?

Do you leave your home?

Table 1 Personal characteristics of participants

Participant	Age	Sex	Living status	Health	No. of falls*	Type of injury	Fear of falling**
Emilia	67	F	lives in a house together with her son	<i>I feel healthier than others of my age.</i>	2	soft tissue injury	somewhat fearful
Anna	68	F	lives in her own house; her son lives next door	<i>I am as healthy as, even healthier than, others in my age.</i>	2	soft tissue injury	somewhat fearful
Elena	74	F	lives in her own house; her son very often drops in	<i>I am satisfied; my health is not bad for my age.</i>	1	bone fracture	fearful
Jan	75	M	lives in a house together with his wife	<i>I am just as healthy as others of my age.</i>	2	bone fracture	little fearful
Alzbeta	79	F	lives alone in her own house; she only has a son who lives in a neighboring city and comes to visit her regularly	<i>I fell ill and disabled, but it is normal for the elderly, isn't it?</i>	1	bone fracture	fearful
Maria	80	F	lives alone in her own house; she has two daughters; both daughters and their families help her; they live in a city approximately 30 km from her house	<i>I feel ill and disabled, but I accept that, because one has no other choice at my age.</i>	1	bone fracture	fearful

M – male; F – female; No. – number; *falls occurred between April 2014 and February 2016; **fear of falling was evaluated using a single question on a 5-point Likert scale (not fearful – little fearful – somewhat fearful – fearful – extremely fearful)

Have you decreased the level of your activities since you began to fear falling?

Please describe how you manage your daily life. Do you think it is affected by your fall-related concerns? Do you participate in any activities during which you feel like you might fall?

Data analysis

In this study, Colaizzi's method of data analysis was used (Edward, Welch, 2011). The principal investigator read and reread each participant's interview transcript to identify their lived experiences with the fear of falling. Further, each transcript was examined for statements and phrases that pertained to the studied phenomenon, and initial codes were extracted from the descriptions. Meanings were formulated from the initial codes to shed light on statements hidden in different contexts about the phenomenon. The formulated meanings were aggregated and organized into thematic clusters, the so-called categories, to identify the experiences common to all participants. The categories were then integrated into main comprehensive thematic areas of the lived experiences of the participants (Saldaña, 2009). The data were coded manually. Several strategies were used to increase validity of the data. Field notes taken by the researcher were used to ensure that the data were not misinterpreted. In a peer-review process, another member of the research team reviewed the transcripts both to verify the emergent codes, categories and thematic areas and to confirm that the statements were based on

participants' expressions rather than on the investigator's preconceptions. Finally, the data were validated by participants self-reviewing the transcripts again. All participants (with the exception of Maria who was admitted to hospital with pneumonia and, due to many complications, transferred to a long-term care facility) agreed that the meanings, codes, categories and thematic areas were representative.

Results

The primary objective of this study was to gain an insight into the development of the fear of falling and consequences older adults feared if they were to fall. The following two broad thematic areas emerged from the data: the **development of the fear of falling** and **feared consequences of falls**. The secondary aim of the study was to describe how the fear of falling affected participants' daily lives. The extent to which their daily lives were limited by the fear of falling varied and the participants used various strategies to handle it, namely fall prevention, giving up some activities and relying on social support. Thus, the thematic areas that emerged as an impact of the participants' fear of falling on their daily lives were **fall prevention behavior**, **need to give up activities** and **meaning of social support**. Each area is exemplified by the statements of interviewed participants, thoroughly commented and interpreted with previous findings.

Development of the fear of falling

The participants in the present study talked widely about their perceptions of fear of falling. All participants had experienced a fall. They all identified that they had discovered their fear of falling after experiencing a fall requiring medical or physiotherapy intervention. Anna stated: *“My fear is due to such bad falls that I have gone through recently. Luckily, I have not broken anything, but I bruised my back very badly. My back has been so painful since then. I’m really scared of falling again.”*

Many participants mentioned having friends of the same age or relatives who had experienced bad falls. They did not feel this directly contributed to the development of their own fear, but rather added to their concerns after their own fear had already developed. For example, Jan said: *“My biggest fear after that bad fall is of being confined to a wheelchair like my brother...”*

Feared consequences of falls

All participants described the fear of falling as a concern related to many negative consequences of a potential fall. In this study, five categories related to feared consequences of fall emerged, namely **physical injury, feeling invalid and being a burden, losing autonomy and being institutionalized, long lie and fall experience**.

Physical injury outlines the participants’ concerns of possible injuries they might sustain if they were to fall again. Specifically, the participants explained they feared they might injure their bodies and again experience some injury-related complications such as pain and need to be admitted to a health care facility as they had before. Alzbeta said: *“I have a fear of getting hurt when I fall, and of days full of pain... Nobody wants to go through that again, nothing but pain and waiting for somebody to come and help you.”* Some participants clearly identified that if they were to fall again, that they would **feel invalid and being a burden**, be unable to walk and care for themselves and would have to fully rely on others. Two participants expressed their extreme fear of the negative consequence of being restricted to a wheelchair or bed. Emilia stated: *“I don’t want to be unable to move, I think most of all I fear being constantly dependent on somebody.”* In the interviews, the participants mentioned that **losing autonomy and being institutionalized** were their major fears. Elena said: *“I want to live here [her house] as long as I can. When I have to go to a retirement home... I am not used to that, here I am the boss, and things are done the way I do them.”* **Long lie** was based on statements about the fear of

being unable to get up and get help reasonably soon after a fall. Maria described: *“If I fell and could not get a hold of anybody because I live here alone, my daughter drops by every day, but still, if I fell at night... That would be a worse thing. I have a phone, but if I’m not able to crawl to that.”* **Fall experience** was related to negative feelings that some participant experienced when they had fallen, such as feelings of helplessness, uncertainty and social embarrassment. Maria said: *“I thought that was the end... As I just lied there... I couldn’t do anything else, I tried to move, turn round and get up.”* Jan talked about his experience with social embarrassment: *“When I fell, it was almost two years ago, it was here in the village, right behind the bus stop next to the grocery... Some school kids were laughing... I could hear them. Somebody said that I was drunk and homeless.”*

Need to give up activities

The participants identified many activities they had given up partially, temporarily or completely as a result of the fear of falling. The activities avoided by participants varied widely and included mainly outdoor activities such as traveling, working in a garden, using stairs and even walking out to the mailbox. Maria said: *“I don’t feel sad because I can’t go out, I stopped going for a walk alone, even to the mailbox.”* The participants also mentioned moderating the speed with which essential activities were performed, for instance, turning around slowly, taking time to get out of bed or stand up, and walking slower. Slowing down was considered beneficial by some and frustrating by others. Jan stated: *“It is not the same now... I used to walk quickly and now I have to put on the brake, but it annoys me in a way.”* Although all participants made changes to their activities, the degree of change varied; however, all participants avoided activities they thought would put them at direct risk of falling. Anna stated: *“Well, I used to love riding my bike but I can’t do that anymore... I am afraid of falling because I feel dizzy. That is one thing I regret.”*

Fall prevention behavior

All participants felt that their own actions and environment were responsible for their falls. They fell because that they did not pay enough attention. Jan stated: *“I broke my leg. I thought for a little moment that it could happen. I had done it many times before, I walked as quickly as I used to.”*

Even though all participants tried to maintain independent lifestyles in their own homes they all made certain changes in order to avoid falls. These changes involved adaptations in the homes or the use of aids to decrease the likelihood of a fall (e.g. fitting

rails, using walking aids and removing mats or carpets from the floor). Two participants made changes to their bathroom and kitchen. Maria asked her son for help. *“He put those rails right here, along the wall in the hallway, I can go through freely without my wheeled walker, when I crawl to the toilet, I can grasp furniture and make my way safely even if it’s dark.”*

Alzbeta stated: *“I have to be careful and do things the right way... I do not use those cupboards [the ones hanging high on the wall], I moved all the stuff I need every day to these two cupboards nearby the stove.”* To maintain safety and activity in daily life, four participants told about how carefully they planned their days. Two ordered lunch from community service and three got help with groceries. It means that they had to check regularly what they needed and make a shopping list. Elena stated: *“My son buys and delivers groceries every week on Friday, so I have to call him and dictate the list. I concentrate on not missing anything...”*

The method all participants used to avoid falls was “taking care”, and phasing out activities considered as high risk. Emilia stated: *“I am afraid of going out when the road is slippery and rather stay at home. If I need to arrange something I decide to do so, but I have to be careful. I have to consider many things, for example, if the road is wet, I take on appropriate footwear and have a fully charged cell phone in my pocket”.*

Meaning of social support

Throughout the interviews, some participants indicated that it was natural for them to expect help and support from significant others, mainly from their children and close friends. All participants stated that their own children offered such help and assistance with anything they needed. The participants mentioned that emotional support was even more important for them than instrumental help. Some participants discussed the fear of falling with family members or friends whereas others did not. Emilia indicated that it was good to tell others about her feelings, *“I told my son about it [the fear of falling]. I told him how I felt when I fell and of my concerns about falling again. He was very supportive, offered me help with shopping and did a bathroom makeover immediately.”* By contrast, Alzbeta described her situation as follows: *“I don’t have anyone here and my son has his own issues, he helps me as much as he can with shopping, to visit doctors, but I’m afraid to tell him that I have such a fear [of falling]... Because... It can bring up discussion about a nursing home again.”* (She mentioned they discussed a nursing home right after

her fall.) *“And, you know, I would like to be here as long as I can care for myself. It would be nice to have somebody to talk to... A friend of mine lives nearby... But I’m not able to meet her because I am not confident to do so.”*

Discussion

All participants experienced falls. They all identified that they **developed the fear of falling** following a fall. In all of them, the fall required medical or physiotherapy intervention. This finding is consistent with Tischler and Hobson (2005) who found that those who had the fear of falling were more likely to have falls requiring medical intervention. All participants had experienced a fall within the previous 2 years. The participants frequently mentioned also other contributors to the fear of falling including poor health (feeling weak and unsteady) and the aging process. Therefore, the perceptions of falls themselves and subjectively perceived health were investigated as well. Our findings on the role of aging in the development of the fear of falling are consistent with those reported by Roe et al. (2008) and Lee et al. (2008) in qualitative studies of older people’s experience of falls. Chou and Chi (2007) studied the temporal relationship between falls and the fear of falling in older people in the primary care setting and found that falls were not an independent predictor of the fear of falling. A common independent predictor for falls and the onset of the fear of falling was age. Lee et al. (2008) found that the experience of falls of others did not impact the development of a fear.

All participants described the fear of falling as a concern related to the many negative consequences of a potential fall. **Physical injury** outlines the participants’ concerns about possible injuries they could sustain if they were to fall again. According to Kong et al. (2002) and Yardley and Smith (2002), an individual’s psychological distress was likely to increase if one was to sustain injury, experience physical limitations and lose independence as a result of a fall. Some participants clearly identified that if they were to fall again, they would **feel invalid and being a burden**, be unable to walk and care for themselves and would have to fully rely on others. Two participants expressed their extreme fear of the negative consequence of being restricted to a wheelchair or bed. Similarly, Kong et al. (2002) reported that the individuals in their study feared being unable to independently care for themselves and needing more help from others. **Losing autonomy and being institutionalized** were major fears. A study conducted by Tischler and Hobson

(2005) identified the fear of being unable to walk, being restricted to a wheelchair or bed, being institutionalized and losing independence. Gentleman and Malozemoff (2001) found that the fear of losing independence was a greater concern than the actual fall itself. Inability to get up after a fall has been discussed in the literature. Approximately 47% of older adults who fell were unable to get up independently (Lord et al, 2007).

Fall experience was related to negative feelings that some participants experienced following falls. It included statements about feelings of helplessness, uncertainty and social embarrassment.

Yardley and Smith (2002) discussed the fear of pain and suffering, social embarrassment and negative emotions people experience when they fall. Beliefs about falls and their consequences may play a role in developing concerns about falls (Delbaere et al., 2009). In the present study, the beliefs about negative consequences of falls seemed to be a part of the previous fall experience and play a role in developing the fear of falling. Our results are consistent with those by Delbaere et al. (2009) who found that both previous falls and beliefs about falls were unique and independent predictors of the onset of concerns about falls. Beliefs that a person holds regarding falls (e.g. related injuries, social embarrassment or damage to personal identity) (Yardley, Smith, 2002), including beliefs stemming from previous fall events, will influence the extent to which the risk of falling is interpreted. The importance of cognitive functions in the development of the fear of falling is outlined in a recent study by Shirooka et al. (2016). These findings suggest that cognitive impairment, especially the one in executive function, is associated with the absence of the fear of falling in community-dwelling frail older adults. According to Delbaere et al. (2009), the level of concern about consequences of falling is necessary to raise awareness and being more careful. But catastrophic beliefs about falls (thinking the worst of falls) and extreme levels of the fear of falling are simply not the result of previous falls with all the negative consequences such as pain or mobility restriction. It is assumed that some other pre-dispositional factors such as anxiety and negative affectivity (Keogh in Asmundson et al., 2004) play a role in the creation of beliefs about potential falls and the onset of the fear of falling. The above factors were not analyzed in the present study and require further research.

Need to give up activities

The participants identified activities they had given up partially, temporarily or completely as a result of their fear of falling. Moderating the speed with which

essential activities were performed was mentioned as well. Very similar findings on moderating speed were described by Lee et al. (2008).

The change in the participants' activities is consistent with previous studies which found that the fear of falls limited people's activities (Tischler, Hobson, 2005). The present study suggests that initially, non-essential activities (e.g. hobbies) are avoided. More essential activities tend to be undertaken at a slower pace, with care or assistance, when the high risk of falling is recognized. Those participants with older age, poor health and higher levels of the fear of falling seemed to avoid more activities than the rest of the sample. Thus, restriction of activities may be related not only to the fear of falling but also to factors such as aging and the health status. These relationships between activity curtailment, health and ageing mean that care must be taken when relating restriction in activity directly to the fear of falling. Consideration should also be given to the degree of activity restriction that is a part of the normal ageing process and worsening of health. Very similar findings on contributing factors associated with activity restriction and the fear of falling in older adults were mentioned by Roe et al. (2008) and Lee et al. (2008).

Fall prevention behavior

Simpson et al. (2003) found that the majority of fallers attributed their falls to personal behaviors. Personally uncontrollable factors included uneven footpaths or the current health status (e.g. vertigo) and functional ability of participants. Particularly those who reported higher levels of the fear of falling made many home makeovers aimed at reducing the risk of falls. Our findings are not completely consistent with those by other authors suggesting that home-environment fall risks are not perceived by older people as being relevant to them, and that they have a passive approach to making changes at home to reduce the risks (Snodgrass, Rivett, Mackenzie, 2005). The level of the fear of falling and awareness of the risk of falling indoors supposedly lead them to make their homes safer and free of risks. Even though all participants tried to maintain independent lifestyles in their homes they all made certain changes in order to avoid falls. These changes involved adaptations in the homes or the use of aids to decrease the likelihood of a fall (e.g. fitting rails, using walking aids and removing mats or carpets from the floor).

As participants believed they had contributed to their own falls, it was not surprising that the majority of changes made by them were intuitive and seemed to occur naturally as their fear of falling developed. To

maintain maximum safety and activity in daily life, the participants planned carefully what to do next. Similarly, in a study by Mahler and Sarvimäki (2012), older adults strictly controlled their daily regimen in order to maintain balance in everyday life.

Meaning of social support

The participants indicated that it is natural for them to expect help and support from significant others. All participants were satisfied with the instrumental level of social support and they considered it as an important prerequisite for continuation to remain active throughout their lives even when they faced the fear of falling. The participants mentioned that emotional support was even more important for them than instrumental help. They did not communicate their fear to their social networks because of different qualitative aspects of social support such as (a) issues of distrust (it can start up discussion about a nursing home), (b) conviction that such information can be interpreted by significant others as a burden, and (c) a lack of supportive persons. Social support may serve as a buffer to the potentially debilitating consequences of the fear of falling (Tischler, Hobson, 2005). The role of social support, instrumental but especially emotional, as a buffering factor in the case of illness or handling a burden is well documented (Kebza, 2005).

Limitations of study

The results may not be an adequate representation of the older adult population living in the community due to the limited sample size and study design which was aimed to produce rich, descriptive information on the individual perceptions and experiences of participants. Member checking was carried out personally, improving the reliability of the results. The participants had never participated in any research; therefore, volunteer bias had little effect in this study. Since the sample consisted mostly of women, the male perspective on the fear of falling was not sufficiently represented and neither was non-fallers' perspective.

Conclusion

This study describes elderly people's perceptions of their fear of falling through telling of their fall experiences. Overall, the participants viewed their fear of falls as a concern, negative experience associated with incapacitation, dependence, experiencing of humiliating condition, loss of autonomy and having to leave their home. All the participants stated that they had realized their fear of falling after experiencing falls. The participants revealed the belief that the environment and they

themselves were the causes of their falls. Thus, they used various ways of reducing their fall risk. The participants changed their own behavior by taking care and organizing their daily lives more carefully. Those with high levels of the fear of falling made adjustments to their homes and all participants limited their activities to some extent. It appears that the majority of participants avoided activities that were seen as highly risky and were non-essential (unrelated to self-care). Those seen as risky but essential to maintaining an independent life such as basic activities of daily living (e.g. personal hygiene, meal or handling personal agenda) were undertaken at a slower pace, with care or arranged with a certain amount of help from others. Social support was mentioned as an important buffer which reduced the negative impact of the fear of falling on participants' daily lives. There is also evidence of other factors such as health and aging that affect the restriction of activities and do not contribute to the curtailment of activities due to the fear of falling.

Even though it is not possible to relate the findings to all aged people, this study adds to the knowledge of the fear of falling in community-dwelling older adults in Slovakia.

Ethical aspects and conflict of interest

The study was approved by the Faculty Board and Ethical Committee of Alexander Dubcek University of Trencin in Trencin. The investigator also received permission to conduct the study from the primary care center management. Informed consent was obtained prior to initial interviews. Assurance was given that data would be anonymized and kept confidential. The authors declare that they have no conflict of interest.

Author contribution

Conception and design (MD), data collection (MD), analysis and interpretation (MD, EK), drafting the manuscript (MD), critical revision of the manuscript (EK, MD), the final completion of the article (MD).

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