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Araştırma Makalesi/Research Article *2022 - 4(1)*

Differences in Fear of Falling, Risk of Falling, Behavior of Falling and Dependence on Care among Older People Living in Nursing Homes and Homes: Descriptive Comparative Research*

Evde ve Huzurevlerinde Yaşayan Yaşlılar Arasında Düşme Korkusu, Düşme Riski, Düşme Davranışı ve Bakım Bağımlılığı Açısından Farklılıklar: Karşılaştırmalı-Tanımlayıcı Araştırma

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Abstract

Aim: The aim of the study is to determine the fear of falling, the risk of falling, the behaviour of falling and the dependence on care in older people living in nursing homes and homes and to evaluate the relationship between them.

Material and Method: The study was a comparative-descriptive design. It was conducted in Nursing Home (64) and Family Health Center (64) with 128 elderly individuals. In the study, Tinetti Falls Efficacy Scale, The In-Home Safety Conditions Assessment Form for Falls, The Falls Behavioral Scale for Older People, The Care Dependency Scale were used. The data was collected by the researcher using the face-to-face interview technique and observation method by making home and nursing home visits.

Results: The Tinetti Fall Activity Scale scores of the elderly living in the home were higher than the scale scores of the elderly living in the nursing home but the difference between them was not significant ($p>0.05$). The total falls risk scores and the falling behaviour scale scores of the older people living in the home were higher than the total falls risk scores of the older people living in the nursing home ($p<0.05$). For older people living at home and nursing home, a positive and strong relationship was found between care addiction and fear of falling ($r=0.777$, $p=0.001$). It was found in the study that 40% of care dependence in the elderly was explained by the fear of falling.

Conclusion: It is recommended that nurses should evaluate the fall situations and risk factors of individuals living in their homes, and then, they should make plans to reduce risks and falls without increasing care dependency.

Keywords: Risk of falling, fear of falling, fall behaviors, care dependency, older people.

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Öz

Amaç: Bu çalışma huzurevlerinde ve kendi evlerinde yaşayan yaşlılarda; düşme korkusu, düşme riski, düşme davranışı ve bakım bağımlılığını belirlemek ve aralarındaki ilişkiyi değerlendirmek amacıyla yapılmıştır.

Gereç ve Yöntem: Araştırma karşılaştırmalı-tanımlayıcı çalışmadır. Huzurevinde kalan (64) ve Aile Sağlığı Merkezi'ne kayıtlı (64) toplam 128 yaşlı ile gerçekleştirilmiştir. Çalışmada; Tinetti Düşme Etkinlik Ölçeği, Ev İçi Güvenlik Koşulları Değerlendirme Formu, Yaşlılar için Düşme Davranışları Ölçeği ve Bakım Bağımlılığı Ölçeği kullanılmıştır. Veriler araştırmacı tarafından, yüz yüze görüşme tekniği ve ev ve huzurevi ziyaretleri yapılarak gözlem yöntemi kullanılarak toplanmıştır.

Bulgular: Evde yaşayan yaşlıların Tinetti Düşme Aktivite Ölçeği puanı, huzurevinde yaşayan yaşlıların puanından yüksek olduğu ancak aralarındaki farkın anlamlı olmadığı belirlenmiştir ($p>0.05$). Evde yaşayan yaşlıların düşme riski toplam puanları ve düşme davranışları ölçeği toplam puanları, huzurevinde yaşayan yaşlıların toplam puanlarından daha yüksek bulunmuştur ($p<0.05$). Evde ve huzurevinde yaşayan yaşlılarda bakım bağımlılığı ile düşme korkusu arasında pozitif yönde ve güçlü bir ilişki bulunmuştur ($r=0.777$, $p=0.001$). Araştırmada yaşlılarda bakım bağımlılığının %40'ının düşme korkusu ile açıklandığı bulunmuştur.

Sonuç: Çalışma sonucunda hemşirelerin özellikle evde yaşayan bireylerin düşme durumları ve risk faktörlerini değerlendirmeleri ve bunun sonucunda bakım bağımlılığını arttıran riskleri belirlemeleri ve düşmeleri azaltmaya yönelik planlar yapmaları önerilmektedir.

Anahtar Kelimeler: Düşme riski, düşme korkusu, düşme davranışı, bakım bağımlılığı, yaşlı.

INTRODUCTION

Fear falling, the risk of falling, and other factors can affect the behaviour of older people, and these factors can affect each other. Another situation affected by this situation is the dependency of older people. Falls are one of the health problems causing care dependency (Todd & Skelton, 2022). Studies have found that one-third of individuals aged 65 and over fall once or more frequently each year, 82% of accidents occur at home, and 60% of fatal accidents are due to falls at home (Cuevas-Trisan, 2017; Beyazay et al., 2014; Gülhan Güner & Nural, 2016). It has been determined that the problem of falling is a serious health problem for elderly people living in nursing homes, as well as at home. Previous studies have shown that the most common type of accident in nursing homes is falling with 63.3%, the incidence of one-year, first-time or recurrent falls is 33.9% in elderly individuals living in nursing homes, and falling in the last 6 months increases the risk of falling again by 3.7 times.Moreover, it has been determined that the elderly individual remains bedridden for a long time after falling (Kaya et al., 2012; Altıparmak & Horosan 2012). Older individuals who have health problems such as falls need care because they have difficulty maintaining their daily lives. After a while, they may become dependent on the places and/or their environment that take care of them. Research has found that fear of falling increases with age and restricts daily life activities (Bulu, 2018; Göçer & Günay 2018). Bulu (2018) found that the fear of falling increases with age and limits daily living activities (Bulu, 2018). Tunçay and Özdinçler (2011) determined that the fear of falling affects the quality of life and daily living activities of elderly individuals (Uz, 2008). It has been observed that the number of researches related to the problems faced by the patient after the fall and the relation between the care dependence developed accordingly is limited. Çubukçu found that concluded that those who received home care should be assessed for the risk of falls at regular intervals (Çubukçu, 2018). In addition, studies have shown that 2/3 of falls in older people can be prevented, therefore, identification of risk factors is an important requirement in the prevention of falls (Akgör, 2017; Bulut-Doğan, 2012). For this reason, changes and risk factors related to aging that cause the decline can be identified in advance and the quality of life of many older people can be maintained, disability can be prevented and the burden of their families can be eased by taking the necessary measures (Akdeniz et al., 2010). It is important to determine the risk factors for older individuals and to take measures to address the risk factors. In addition to determining the risk of falls, the assessment of domestic safety conditions is one of the important measures that can be taken (Akgör, 2017).

Nurses should be able to monitor older individuals in their environment, gather information about their patients, identify existing problems, and develop a solution to each problem by placing these problems in priority order (Kahraman, 2013). This is why the places where the older people live should first be reviewed in terms of the risk of falling. In addition, planned nursing care will differ because the care requirements of dependent and independent older individuals are different from each other. The evaluation of nursing care will enable the determination of nursing care behaviors and outcomes, learning the expectations of older individuals from nurses, making new arrangements that they can benefit from, and improving health accordingly (Kissel et al., 2010). It is thought that this study will contribute to the determination of fall risk factors of older people and to increase their awareness about prevention of fall, to determine care needs and independence levels and to provide a higher quality nursing care. As a result of the literature surveys, no study has been found examining the relationship between the older people's fear of falling, the risk of falling, the behavior of

falling and the dependence on care at home and the nursing home by using comparative-descriptive research design. Unlike previous studies, with nurse visits to home and nursing home, our study evaluates the fall risks of older people and many factors affecting falls together. The aim of the study was to determine the relationship between the fear of falling, the risk of falling, the behavior of falling and the care-dependency in older people.

Research Questions:

1- Are there differences between the fear of falling for the older people living at home and in a nursing home?

2- Are there differences between the risks of falling for the older people living at home and in a nursing home?

3- Are there differences in the falling behavior of older people living at home and in nursing homes?

4-Are there differences in the care dependencies of the older people living at home and in a nursing home?

5- Is there an association between the fear of falling, the risk of falling, the behavior of falling and the care dependencies in the older people living at home and in a nursing home?

MATERIAL AND METHOD

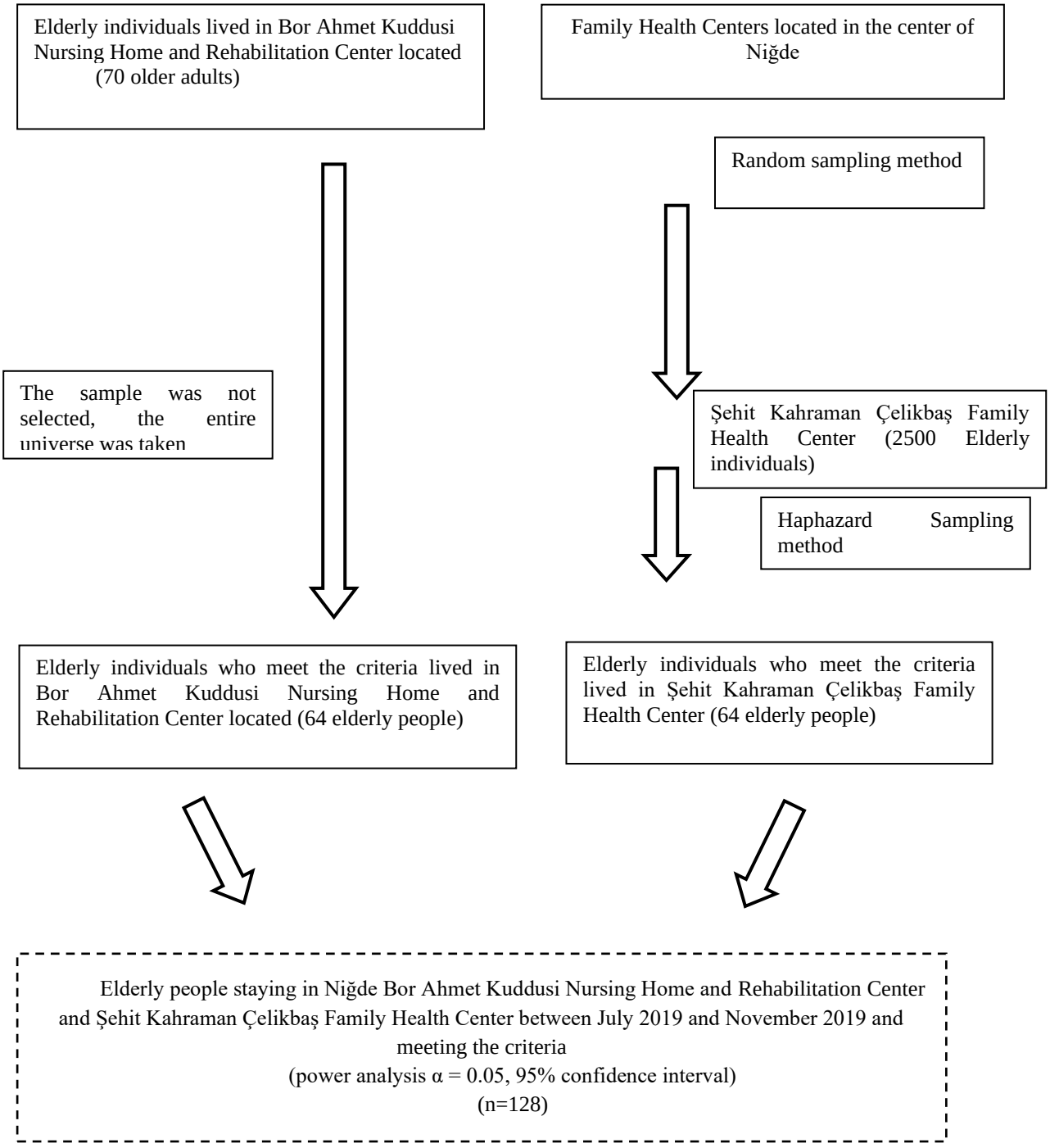
The Aim and Type of the Study: The aim of the study was to determine the relationship between the fear of falling, the risk of falling, the behavior of falling and the care-dependency in older people. The study was conducted using descriptive-comparative research.

The Population and Sample of the Study: The research was conducted July 2019-November 2019 in Nursing Home and Rehabilitation Center and Family Health Center located in Niğde. The research was conducted in Bor Ahmet Kuddusi Nursing Home and Rehabilitation Center located in Niğde and Şehit Kahraman Çelikbaş Family Health Center located in Niğde center. There is one nursing home for the elderly in Niğde. For this reason, this group was chosen as the population. Şehit Kahraman Çelikbaş Family Health Center was selected among 9 Family Health Centers by using the drawing method, one of the simple random sampling methods. Family Health Centers were numbered and lots were drawn by putting the numbers in the bag. Individuals aged 65 and over who are staying at the Nursing Home and Rehabilitation Center constitute the first group of the population of the research (70 people). Individuals aged 65 and over, who are registered at Şehit Kahraman Çelikbaş Family Health Center, constitute the second group of the population of the research (2500 people).

The sample of the study was calculated as a total of 128 people, including 64 people for each group with α=0.05, 95% confidence interval, in the power analysis made through the Domestic Safety Conditions Evaluation Form to G-power program. While performing the power analysis, the calculation was made by taking the scale total score of Akgör's study as a reference. (Akgör, 2017). In the study, no sample selection was made in the first group, and all the elderly (64 people) who stayed in Bor Ahmet Kuddusi Nursing Home and Rehabilitation Center, who agreed to participate in the study and who met the criteria were included in the study. For the second group, 64 elderly individuals were selected from the 65-year-old and older individuals who were registered in the Şehit Kahraman Çelikbaş Family

Health Center by the nonprobable accidental sampling method (Haphazard Sampling). Sample selection was shown in Figure 1. In descriptive-comparative studies, both groups should have similar characteristics. Therefore, it was ensured that both sample groups were similar in terms of age, gender and chronic disease (Table 2).

Figure 1. Sample selection



Inclusion criteria: Being 65 years of age and over**,** the absence of a mental and psychological problem, no problem with perception of spoken and read things.

Exclusion criteria: Not accepting home visit.

Data Collection Tools: In collecting data, Personal Information Form consisting of 22 questions including socio-demographic characteristics and fall story (Bulut Doğan, 2014), The Tinetti Falls Efficacy Scale, The In-Home Safety Conditions Assessment Form For Falls, The Falls Behavioral Scale for older people, and The Care Dependency Scale were also used to collect data.

Tinetti Falls Efficacy Scale: It was developed by Tinetti et al. (Tinetti et al., 1990). Erdem and Emel verified its Turkish validity and reliability in 2004, the Cronbach alpha coefficient was found to be 0.89 Erdem and Emel (Erdem & Emel, 2014). Likert system from 1 to 10 is used. Fear of falling decreases as the score obtained from The Tinetti falls efficacy scale increases. In this study, the Cronbach alpha coefficient of the scale was found to be 0.98.

The In-Home Safety Conditions Assessment Form for Falls: The reliability coefficient of the Scale developed by Akın and Lök was found to be 0.73 (Akın & Lök, 2012). The form consists of six parts. The Environmental Assessment Form for Falling Down Consists of observational questions and is scored between "0" and "1". The increase in scores indicates that the risk of falling is high. The same rule applies to each subdivision (Akın & Lök, 2012). In this study, the Cronbach Alpha coefficient of the scale was 0.85.

The Falls Behavioral Scale for Older People: It was developed by Clemson et al. (Clemson et al., 2003). The Turkish validity reliability of the scale was verified by Uymaz and Nahcivan and the Cronbach alpha value was found to be 0.90 (Uymaz & Nahcivan 2013). The scale consists of 30 items and 10 sub-dimensions. The scale, which is based on self-notification, is aimed at diagnosing the behaviors and awareness that older individuals exhibit to protect themselves from potential falls. Each expression is a 4-point Likert type scale scored from 1 to 4. The high scores obtained from the scale indicate the safe / protective behaviors of the individual and the low scores indicate the risky behaviors. In this study, the Cronbach alpha coefficient of the scale was found to be 0.76.

The Care Dependency Scale: It is a scale developed by Dijkstra in the Netherlands in 1998 (Dijkstra et al., 1996). Turkish validity reliability was verified by Akin et al. and Cronbach's alpha value was determined to be 0.91 (Akın et al., 2013). Care dependency scale items are rated with Likert type scoring ranging from 1 to 5 (Akın et. al., 2013). A high scale score indicates that the individual is independent in meeting care needs, while a low scale score indicates that the individual is dependent on meeting care needs. In this study, the Cronbach alpha coefficient of the scale was found to be 0.86.

Data Collection: The data was collected by the researcher using the face-to-face interview technique and observation method by making home and nursing home visits. Due to the characteristics of the older individual, the forms were divided and applied considering the status of the older individual when filling out the form. Depending on the condition of the older people, they were given breaks during the day or collected within two days. The in-home safety conditions assessment form was filled out by the researcher, with each title observed separately.

The Dependent and Independent Variables of the Study: The independent variables are sociodemographics characteristics of older people. The dependent variables are fall-related features.

Data Analysis: In the study, the IBM SPSS Statistics 22.0 package program was used to evaluate the data (IBM Corp., Armonk, New York, USA). The Shapiro-Wilk W test was utilized to find out if the data was distributed normally. The data distribution was normally. The data for continuous variables are shown as mean±standard deviation and the categorical data as n (%). Independent groups t-test analysis was used when comparing continuous variables (falling behavior, etc.). The Cronbach Alpha (α) value for the reliability of the scales has been calculated. When p values were calculated less than 0.05, it was considered statistically significant. In addition, multiple Pearson correlation analysis and linear regression analysis were used to test the existence of the relationship between the variables. Correlation coefficients were interpreted with reference to Aygül (2005). (0.00-0.25 very weak; 0.26-0.49 weak; 0.50-0.69 moderate; 0.70-0.89 high, 0.90-1.00 very high correlation).

Limitations of the Study: The limitation of the study is that the research findings can only be generalized to the province where the study was conducted and that they only reflect the family health center in the region. Since this research was conducted only in Niğde Nursing Home and Rehabilitation Center and family health center, it cannot be generalized for elderly individuals in Turkey.

Ethics Committee Approval: In order to conduct the research, the Academic Board Decision from the Faculty of Health Sciences of Erciyes University, the approval of Erciyes University Faculty of Medicine Clinical Research Ethics Committee (date: 22.05.2019; no: 20191399), written approval from the Ministry of Family, Labor and Social Services Department of Education and Publication, written approval Niğde Provincial Health Directorate, and Oral and written Informed Volunteer Consent was obtained from the elderly who participated in the study for the implementation of the questionnaires.

RESULTS

In Table 1, the distribution of the conditions and causes of falls of the seniors participating in the study is given.

Table 1. Falling conditions of elderly participants in the study and distribution of causes (n=128)

Falling Status and Reasons		Nursing home (n=64)	Home (n=64)
		n (%)	n (%)
Last fall	In the last year	24(37.5)	32(50.0)
	I never fell	40(62.5)	32(50.0)
Dizziness	Yes	19(30.2)	25(39.1)
	No	45(69.8)	39(60.9)
Loss of balance	Yes	19(29.7)	25(39.1)
	No	45(70.3)	39(60.9)
Attaching the foot	Yes	12(18.8)	20(31.2)
	No	52(81.2)	44(68.8)
In appropriate shoes	Yes	6(9.4)	11(17.2)
	No	58(90.6)	53(82.8)
Improper ground	Yes	1(1.6)	13(20.3)
	No	63(98.4)	51(79.7)
Insufficient light	Yes	-	8(12.5)
	No	64(100.0)	56(87.5)
Improperbed-chair height	Yes	-	8(12.5)
	No	64(100.0)	56(87.5)
Improperly placed furniture	Yes	-	8(12.5)
	No	64(100.0)	56(87.5)
Other	Yes	-	1(1.6)
	No	64(100.0)	63(98.4)
To experience disability after a fall	Yes	10(15.6)	24(37.5)
	No	54(84.4)	40(62.5)

Table 2. Descriptive- Comparative study randomization table

Variables			Fallen n (%)	Not Fallen n (%)	p
Home (n=64)	Age	65-74	13(20.3)	16(25)	p=0.309
		75-84	13(20.3)	14(21.9)	
		85 and upper	6(9.4)	2(3.1)	
Nursing home (n=64)	Age	65-74	14(21.9)	22(34.4)	p=0.697
		75-84	5(7.8)	9(14.1)	
		85 and upper	5(7.8)	9(14.1)	
Home (n=64)	Gender	Men	8(12.5)	12(18.8)	p=0.281
		Women	24(37.5)	20(31.3)	
Nursing home (n=64)	Gender	Men	13(20.3)	28(43.8)	p=0.201
		Women	11(17.2)	12(18.8)	
Home (n=64)	Chronic illness	Yes	30(46.9)	29(45.3)	p=0.641
		No	2(3.1)	3(4.7)	
Nursing home (n=64)	Chronic illness	Yes	21(32.8)	33(51.6)	p=0.594
		No	3(4.7)	7(10.9)	

Research questions1: The average scores of the older people living at home for fear of falling were 71.63±25.65 and the average scores of the older people living in nursing homes for fear of falling were 65.6±27.43. The difference between the two groups was found to be not statistically significant (t=1.128, p=0.203) (Table3).

Research questions 4: Care dependency scale score distributions are given in Table 3. It was found that the average of care dependence of the older people living in the home was 77.36 ± 12.34, the average of care dependency of the older people living in the nursing home was 76.04 ± 14.65, and the difference between the two groups was not statistically significant (t = 0.548, p = 0.585).

Table 3. Tinetti Fall Efficiency Scale and The Care Dependency Scale's score distributions of elderly individuals

Scales	Living place		t test	p
	Home (n=64)	Nursing home (n=64)		
Tinetti Fall Efficiency Scale (x̄± SS)				
Fear of falling	71.63 ± 25.65	65.6 ± 27.43	t=1.128	p=0.203
The Care Dependency Scale (x̄± SS)				
The Care Dependency	77.36 ± 12.34	76.04 ± 14.65	t=0.548	p=0.585

Research questions 2: The In-Home Safety Conditions Assessment Form score distributions are given in Table 4. The total falls risk scores of the older people living in the home (6.32 ±5.58) were higher than the total falls risk scores of the older people living in the nursing home (0.03 ±0.25). The difference between the two groups was found to be statistically significant (t=9.008, p<0.05).

Research questions 3: In Table 4, the average score of the older people living at home on the falling behavior scale was 2.91±0.46, while the average score of the older people living in the nursing home on the falling behavior scale was 2.72±0.44 (t= 2.334, p< 0.05).

Table 4. The In-Home Safety Conditions Assessment Form for Falls and The Falls Behavioral Scale for Older People's scale scores

	Living place		t test	p
	Home (n=64)	Nursing home (n=64)		
In-Home Safety Conditions Assessment Form for Falls Score (x̄± SS)				
Living room	1.14 ± 1.75	0.03 ± 0.25	**t=5.010**	**p=0.000**
Kitchen	1.42 ± 1.60	0.00 ±0.00	**t=7.102**	**p=0.000**
Bedroom	0.59 ±1.57	0.00 ±0.00	**t=3.024**	**p=0.003**
Bathroom	2.81 ± 1.93	0.00 ±0.00	**t=11.631**	**p=0.000**
Stairs	0.20 ± 1.07	0.00 ±0.00	t=1.516	p=0.132
Corridor	0.15 ± 0.54	0.00 ±0.00	**t=2.311**	**p=0.022**
Fall risk - Total	6.32 ± 5.58	0.03 ± 0.25	**t=9.008**	**p=0.000**
The Falls Behavioral Scale Score (x̄± SS)				
Cognitive Adaptation	2.92 ± 0.64	2.61 ± 0.65	**t=2.719**	**p=0.007**
Mobility	2.92 ± 0.77	2.86 ± 0.71	**t=0.497**	**p=0.620**
Avoidance	2.94 ± 0.62	2.88 ± 0.54	**t=0.577**	**p=0.565**
Awareness	2.92 ± 0.41	2.85 ± 0.38	**t=0.985**	**p=0.326**
Impetuosity	2.82 ± 0.70	2.84 ± 0.62	**t=-0.133**	**p=0.895**
Practicality	2.98 ± 0.61	2.77 ± 0.65	**t=1.961**	**p=0.052**
Change in Activity Plan	2.89 ± 1.08	2.14 ± 1.13	**t=3.813**	**p=0.000**
Carefulness	2.78 ± 0.95	2.82 ± 0.96	**t=-0.276**	**p=0.783**
Level Changes	2.76 ± 0.75	2.10 ± 0.75	**t=4.984**	**p=0.000**
Don't catch up on the phone	3.00 ± 1.08	2.79 ± 1.10	**t=1.052**	**p=0.295**
The Falls Behavioral Scale Total	2.91 ± 0.46	2.72 ± 0.44	**t=2.334**	**p=0.021**

*p<0.05

Research questions 5: In Table 5, the relationship between fear of falling, risk of falling, falling behavior and care dependence in the older people who live at home and nursing home is given. There was a statistically significant and positive relationship between care dependence and fear of falling (r=0.764, p<0.01). The model is significant in the table based on fear of falling and care dependence in the elderly (p=0.001, F=84.910). 40% of care dependence variance changes in the elderly are explained by this model (Table 6).

Table 5. The relationship between fear of falling, risk of falling, falling behavior and care dependence in the elderly living at home and nursing home

		Falling behavior	Care Dependency	Fear of falling	Falling risk
Falling behavior	r	-	0.139	0.122	-0.086
	p	-	0.117	0.170	0.336
Care Dependency	r		-	**0.777**	-0.019
	p		-	**0.001**	0.832
Fear of falling	r			-	-0.035
	p			-	0.694
Falling risk	r				-
	p				-

*: p<0.05, **:p<0.01 r: Pearson Correlation Coefficient

Table 6. The predictive effect of the total score of the Tinetti Fear of Falling Scale on the total score of the Care Dependency Scale in the elderly (n = 128, Nursing Home (64) and Family Health Center (64) in Niğde)

Variables	*B*	*Std. Error*	*β*	*T*	*p*
Model 1					
Fear of Falling	R=0.638; R^2=0.406; Adjusted R^2:0.402;			$F_{(1.75)}$:84.910;	p<0.001
Care Dependency	0.383	0.042	0.638	9.215	**0.001**

Bold value indicates statistical significance, Multiple linear regression, *p< 0.01

DISCUSSION

Although falls are common in older people, they are major health problems and according to research, falls constitute the sixth of the causes of death among older people (Todd & Skelton, 2022). It was found that the average scores of older people living at home for fear of falling were higher than the average scores of older people living in nursing homes for fear of falling, meaning that older people living at home were less afraid of falling (Table 3). Ünver et al. reported that older people with a history of falls were more afraid of falls than those without a history of falls (Ünver et al., 2017). Our study concluded that although older individuals living at home fell more than those living in a nursing home, their fears of falling were low. This result suggests to us that those at home may take more risky behavior and increase the risk of falls due to low fear of falls than those staying in a nursing home.

Comparing the fall risk total scores of both groups in the study, it is seen that the home environment creates a much higher risk of falling for those living at home (Table 4).In the study, it was determined that all parts of the house pose a risk of falling for the older people living in the home, and only the living room poses a risk of falling for those living in the nursing home. For the older people living at home, the bathroom was the most at risk of

falling, and the corridor was the least at risk of falling. The only area that appears to be at risk for the older people living in the nursing home was the living room, and this risk situation for the older people living in the nursing home was found to be quite low compared to those living in the home. As shown in Table 1, reasons such as unsuitable floors, inadequate light, inappropriate bed and chair height, and inappropriately placed furniture, especially for the older people living at home, are causing the falling. However, these reasons do not pose a risk to the older people living in a nursing home. The fact that the home environments are arranged according to daily living habits and living comfort, the inadequate measures taken for the older people living at home and the fact that the home design has not been made in accordance with the safety of the older people causes higher risk of falling for the older people living at home. In the study, it is thought that the presence of non-slip mats and grab bars in the nursing home in the bathroom and the fact that the carpets in the rooms are fixed reduces the risk of falling. Similarly, in the study conducted by Lök (Lök, 2010). It was found that the number of problems in the areas of bath / toilet, kitchen, bedroom, living room / hall and all areas is a risk factor in terms of falling, while the number of problems in the corridor and stairs is not an important risk factor reported that 90.0% of the falls among the older people are in the building and the majority of them are in the living rooms (Butler et al., 2004). In the study conducted by Akgör, it was determined that 38.9% of the older people fell in the garden of their house and 19.4% of the older people fell in the bathroom / toilet last year (Akgör, 2017). There is no comparison study on the domestic security conditions of older people living in nursing homes and homes in literature. In addition, when the causes of falls were looked at in the study, dizziness and loss of balance were found to be the most common cause of falls encountered among older people living in nursing homes and homes. It has been found that older people living at home are more likely to experience all these falling causes (Table 1). This result means that especially nursing homes take more security measures against the fall of older people and these environments are safer against the fall. On the other hand, the fact that fall cases are more common among the older people living in the home suggests that furniture, room, floor and usage tools in the home environment may not be designed according to the living habits and health conditions of the older people. In the literature, there are similar findings to the results of the study. Yeşilbalkan and Karakovan reported that 36.2% of the older people fell due to dizziness and 34% of the older people fell due to stumbling (Yeşilbalkan & Karadakovan 2005).

In the study, it was found that the average score of the older people living at home on the falling behavior Scale was higher than the older people living in a nursing home (Table 4). The fact that the older people living at home show more falling behavior can be explained by the findings found in the study, namely the risk of falling in the home, differences in the drugs used by the older people living at home, low fear of falling and other falling risks. In the literature, studies comparing the fall behaviors of the older people who stayed at home and staying at the nursing home were not found, but some studies with the older people found that there were findings similar to the general findings in this study. In their study, Boğa et al. found that the total score average of the scale obtained from the falling behavior scale for the older people was 2.70±0.43 (Boğa et al., 2015). In another study, Uymaz found the total score average of the scale obtained from the falling behavior scale for the older people as 2.25± 0.29 (Uymaz, 2012).

The study found that older people living at home and in a nursing home had high care dependency score averages ($p>0.05$) (Table 3). This result can be interpreted as the fact that

the older people in both groups are less dependent on meeting their needs in terms of care dependency and are largely able to meet their own needs. Lohrmann et al. reported in their study with older people patients aged 60 years and older that care dependence also increased with increasing age, but older people were independent in terms of care (Lohrmann et al., 2003). Considering all the findings of the study, it is suggested that lower levels of fear of falling and low levels of care dependency in the older people living in the home cause higher risk of home safety and higher risk of falling.

The risk and fear of falling is an important health problem that causes loss of independence in daily living activities of the elderly (Damian, et al. 2013). A significant, positive and strong relationship was found between care dependency and fear of falling for the elderly living at home and in a nursing home (Table 5). In other words, it can be stated that the increase in the fear of falling scores of the elderly living at home and in the nursing home causes an increase in the care dependency score. In addition, it was found in the study that 40% of care dependence in the elderly was explained by the fear of falling. This finding supports our interpretation. Similarly, Tunçay and Özdinçler (2011) found in their study that the fear of falling affects the activities of daily living and quality of life in the elderly. In other studies in the literature, it has been reported that the fear of falling in the elderly reduces the ability to perform daily living activities by creating significant differences in the emotions and behaviors of the individual (Zijlstra, et al. 2007; Meriç & Oflaz, 2007). Considering this situation, it can be said that the fear of falling, both at home and in the nursing home, affects their independence.

CONCLUSION

As a result of this study, it was found that the older people living in the home show more fall behavior than the older people living in the nursing home, they are riskier in terms of the risk factors associated with the fall and they take less attention to the domestic security measures causing the risk of falling. However, the study found that older people a dependency increased due to fear of falling, but the older people did not make any changes in domestic regulation or behavior related to it.

It is recommended to make nursing plans for the older people who live at home as a priority and to raise awareness about the older people to protect themselves from falling and to minimize the risk of falling by making living spaces safer. In addition, it is recommended to raise awareness and follow-up about fall behaviors by communicating regularly with the older people, to raise awareness of the older people and the people who care for them in order to eliminate domestic safety risks, to educate the whole community, especially relatives of the older people, in terms of fall risks and ways of prevention, to take domestic measures to prevent falling of the older people. Since nurses working in primary health care services have the opportunity to observe the elderly individual and the environment they live in, therefore they realize the risks that may cause accidents and falls, and have the opportunity to take the necessary precautions, work closely with the community and can cooperate with local governments, it can be suggested that they make plans for the elderly by evaluating the results of the study while providing these services to the elderly. It may be recommended to carry out new studies using these plans.

Ethics Committee Approval: In order to conduct the research, the Academic Board Decision from the Faculty of Health Sciences of Erciyes University, the approval of Erciyes

University Faculty of Medicine Clinical Research Ethics Committee (date: 22.05.2019; no: 20191399).

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