Evaluation of Pain, Activities of Daily Living, Mood Changes, and Stress Levels in Frail Individuals

Kırılgan Bireylerde Ağrı, Günlük Yaşam Aktiviteleri, Duygu Durum Değişikliklerinin ve Stres Düzeylerinin Değerlendirilmesi

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Abstract

Objective: This study aimed to evaluate pain, activities of daily living, depression, anxiety, and stress levels in frail individuals.

Materials and Methods: This descriptive cross-sectional study was conducted with 264 people who applied to family medicine outpatient clinics between February and March 2023. Strength, assistance with walking, rising from a chair, climbing stairs, and falls (SARC-F) questionnaire and Frail scale; pain levels using the visual analog scale; mood changes and stress levels using the depression anxiety stress scale; and functionality and autonomy in daily life using the Katz activities of daily living Scale (KATZ-ADL) and instrumental activities of daily living scale (IADL). Participants were diagnosed as frail according to the results of the Frail scale and divided into groups (frail, pre-frail, non-frail). p<0.05 was considered statistically significant.

Results: Among the participants, 28.8% were frail, 48.5% were pre-frail, and 22.7% were non-frail. The median age was 73.15±6.13 years in the frail group, 71.43±5.09 years in the pre-frail group and 69.63±4.93 years in the non-frail group. SARC-F was significantly higher in the frail group (p<0.05). KATZ-ADL and IADL scores were significantly lower in the frail group than in the non-frail or pre-frail group (p<0.05). DASS-anxiety (p=0.413) and DASS-stress (p=0.068) did not show a significant difference between the frail and non-frail groups, while there was a significant difference in other group comparisons (p<0.05).

Conclusion: Autonomy in daily life was found to be lower and pain, negative mood changes, and stress levels were higher in vulnerable individuals in our study.

Keywords: Frailty, pain, mood changes, stress, activities of daily living

Öz

Amaç: Bu çalışmada kırılgan bireylerde ağrı, günlük yaşam aktiviteleri, depresyon, anksiyete ve stres düzeylerinin değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntem: Çalışma 264 kişi ile gerçekleştirildi. Katılımcıların SARC-F ve Frail skalası ile kırılganlıkları; vizüel analog skala ile ağrı düzeyleri; depresyon anksiyete stres skalası ile duygu durum değişiklikleri ve stres düzeyleri; Katz günlük yaşam aktiviteleri ölçeği (KATZ-GYA) ve Lawton-Brody enstrümental günlük yaşam aktiviteleri ile günlük yaşamlarındaki fonksiyonellik ve özerklik durumları değerlendirildi. Katılımcılar Frail skalası sonuçlarına göre kırılganlık tanısı aldı ve gruplara (kırılgan, pre-kırılgan, kırılgan olmayan) ayrıldı ve gruplar arası veriler karşılaştırıldı. Yapılan istatistiksel analizlerde p<0,05 anlamlı kabul edildi.

Bulgular: Katılımcıların %28,8'i kırılgan, %48,5'i pre-kırılgan ve %22,7'si kırılgan olmayan olarak saptandı. Kırılgan grupta ortalama yaş 73,15±6,13 yıl, pre-kırılgan grupta 71,43±5,09 yıl ve kırılgan olmayan grupta 69,63±4,93 yıldı. SARC-F skoru kırılgan grupta anlamlı olarak daha yüksekti (p<0,05). KATZ-GYA ve LGYA skorları kırılgan grupta kırılgan olmayan veya pre-kırılgan gruba göre istatistiksel olarak anlamlı düşüktü (p<0,05). DASS-anksiyete (p=0,413) ve DASS-stres (p=0,068) değerleri kırılgan ve kırılgan olmayan grup arasında anlamlı bir farklılık göstermezken, diğer grup karşılaştırmalarında anlamlı farklılık mevcuttu (p<0,05).

Sonuç: Çalışmamızda kırılgan bireylerde günlük yaşamda özerklik daha düşük, ağrı düzeyleri, olumsuz duygudurum değişiklikleri ve stres düzeyleri daha yüksek bulunmuştur. Kırılgan bireylerde yaşam kalitesini artırmak amacıyla günlük yaşamda özerkliğin artırılması, ağrıyı azaltmaya yönelik tedavilerin planlanması, duygu durum değişikliklerine ve stres artışına yönelik önlemlerin alınması faydalı olacaktır.

Anahtar kelimeler: Kırılganlık, ağrı, duygu durum değişiklikleri, stres, günlük yaşam aktiviteleri

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Introduction

A new term, "frailty", has gained attention due to the rise in the number of old people worldwide (1). This concept has emerged as a result of the fact that individuals of the same chronological age do not show the same characteristics when evaluating the elderly. Frailty is characterized by the deterioration of the homeostasis mechanism as a result of the decrease in physiological reserves with aging. It is affected by genetic, environmental and epigenetic factors and has physical, cognitive and social components (2).

In the literature, it is seen that the prevalence of frailty varies between 4% and 59.1%, and increases with age (3,4). Gale et al. (5) also reported that this rate was 6.5% in adults aged 60-69 years and increased to 65% in people over 90 years of age.

The frailty criteria were published in the early 2000s by Dent et al. (6) According to these criteria, three or more of the following factors indicate frailty: Weight loss, motor slowness, decreased physical activity, fatigue and weakness. Concepts such as frailty, sarcopenia, polypharmacy and malnutrition, which are components of the geriatric syndrome, negatively affect the quality of life. Studies have shown that the presence of malignancy, chronic diseases, and rheumatological diseases increase frailty and also are a source of pain (7). Furthermore, people with chronic pain are twice as likely to be frail in the following year compared to people in the same age group, suggesting that chronic pain contributes to the development of frailty (8). Depression and anxiety in the elderly are different from other age groups. Agitation, hypochondriacal and somatic complaints are expressed more frequently, and impairment in activities of daily living, sleep and appetite problems are more common compared to other age groups (9,10).

Frailty includes a range of symptoms including biological, psychological, cognitive and sensory problems. In addition, conditions such as pain, depression and anxiety have also been associated with frailty in studies (11,12). Considering the increase in pain with age as a normal process and ignoring it may lead to an increase in frailty and a decrease in daily functionality. In addition, frailty, which starts as a physiologic factor, may affect the social life of the elderly and psychologically affect depression, anxiety and stress levels. Sedentary life together with pain brings sarcopenia. Sarcopenia in the elderly can lead to impaired balance and falls. Many conditions including fractures and consequent bed dependency, pressure sores or cerebrovascular events may occur as a result of falls. For this reason, pain and physical performance level should be questioned in the elderly. Managing pain and frailty not only improves patients' quality of life, but also reduces the financial burden on the government as it can reduce immobility. Ensuring healthy ageing will also prevent a range of comorbidities. Therefore, in our study, we planned to investigate pain, physical frailty, social and psychological conditions in geriatric patients.

Materials and Methods

Study Design

This research was intended to be a cross-sectional descriptive investigation and was conducted between February and March 2023 in Family Medicine Outpatient Clinic of a Health Sciences University. The study Kütahya Health Sciences University Rectorate Non-Interventional Clinical Research Ethics Committee Presidency (date: 11.01.2023, decision no: 2023/01-06). All participants who participated in the study approved the informed consent form.

A total of 264 people who met the inclusion criteria and volunteered were included in the study. Post-hoc power analysis calculated with G*Power 3.1 software was based on instrumental activities of daily living scale (IADL) scale scores [non-frail=7.60±0.84 (n=60), pre-frail=7.26 (n=128), frail=6.52, (n=76)]. Effect size Cohen's f=0.406 was calculated. When α error=0.05, total sample size=264, number of groups=3, Power (1-β)= 99% was obtained. In addition, all participants had comorbidities. Individuals with cognitive function to understand the questionnaires and scales and no communication barriers were included in the study, while fully dependent or semi-dependent patients and patients with progressive and severe cerebrovascular, cardiovascular and rheumatologic diseases were excluded. Based on the Frail scale, patients were categorized into three groups: Frail group, pre-frail group, and non-frail group.

Data Collection

A sociodemographic form questioning the age, gender, years of education and marital status of the patients was developed by us. The SARC-F and Frail scale to assess the frailty of patients, depression anxiety stress scale-21 (DASS-21) to assess the mood changes and presence of stress of patients, Katz daily living activities scale (Katz-ADL) and Lawton-Brody IADL were utilized to evaluate the patients' level of independence in their everyday activities.

SARC-F

The SARC-F questionnaire, which consists of five components (strength, walking assistance, chair lifting, stair climbing and falls), is used to identify people who may be at risk of developing sarcopenia. The total score of the scale ranges from 0 to 10. A score between 0-2 is given for each of the five components. A total score of 0-3 means healthy; 4 and above means at risk for sarcopenia. Bahat et al. (13) conducted the validity and reliability of this questionnaire in Turkey.

Frail Scale

The scale assesses weight loss, aerobic capacity, fatigue, muscle resistance and disease burden. The total score is between 0-5 points. Classification based on total score: 0 points= not frail, 1-2 points= pre-frail, 3-5 points= frail (14). Hymabaccus et al. (15) conducted the validity and reliability of this questionnaire in Turkey.

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DASS-21

The DASS-21 is a 21-item scale with 7 items for each subscale (depression, anxiety, and stress) and each item is scored on a 4- point Likert scale. As the DASS-21 is a short-form version of the DASS-42, the result is multiplied by two for each subscale. The assessment for anxiety (DASS-A) is as follows: >19- extremely severe, 19-15= severe, 14-10= moderate, 9-8= mild, 7-0= no anxiety. Evaluation for depression (DASS-D) is as follows: >27= extremely severe, 27-21= severe, 20-14= moderate, 13-10= mild, 9-0= no depression. The evaluation for stress (DASS-S) is as follows: >33= extremely severe, 33-26= severe, 25-19= moderate, 18-15= mild, 14-0= no stress. The Turkish validity and reliability of this questionnaire were performed by Yılmaz et al. (16).

Katz-ADL

The Katz-ADL index consists of 6 questions questioning the status of bathing, dressing, toileting, movement, excretion, and nutrition. According to the score obtained from the scale, 0-2 is classified as dependent, 3-4 as semi-dependent, and 5-6 as independent. The Turkish validity and reliability of this questionnaire were performed by Özkan Pehlivanoğlu et al. (17).

Lawton-Brody Instrumental Activities of Daily Living Scale

IADL is a questionnaire consisting of 7 questions about using the telephone, preparing food, shopping, doing daily housework, laundry, transport, and financial affairs. "1 point" if the individual performs the activities independently; if he gets help or cannot do it at all, he gets "0 points". The score range is 0-8. Low scores indicate a high level of dependency. The Turkish validity and reliability of this questionnaire were performed by Tel et al. (18).

Statistical Analysis

SPSS 26 (IBM®, Chicago, USA) was used for statistical analysis. Normal and abnormal distribution of the variables were analyzed with the "Shapiro-Wilk test". In descriptive statistics, mean and standard deviation were used for normally distributed numerical data and median (minimum-maximum) was used for non-normally distributed data. Nominal data were expressed as number and percentage and chi-square test was used in their analysis. Student's t-test; one-way ANOVA; Mann-Whitney U test; Kruskal-Wallis test were used in the analysis of numerical variables according to their distribution status and number of groups. P-value below 0.05 was considered statistically significant.

Results

The study included 264 participants. All participants were classified according to the Frail scale. There were 76 (28.8%) in the frail group, 128 (48.5%) in the pre-frail group and 60 (22.7%) in the non-frail group. The median age was 67 (65-80) years in the frail group, 71.5 (65-86) years in the pre-frail group and 67 (65-80) years in the non-frail group. When compared in terms of age, there was no significant difference between the pre-frail group and the frail group (p=0.057); however, the mean age

was significantly lower in the non-frail group compared to the other groups (p<0.05). Frail group was 78.9% female, pre-frail group was 54.7% female, non-frail group was 36.7% female. There was a significant difference between the groups in terms of gender and the female gender was significantly lower in the non-frail group compared to the other groups (p<0.05).

Pain duration was significantly lower in the non-frail group compared to the frail group (p<0.005). There was no statistically significant difference between the prefrail and frail group and between the non-frail group and the pre-frail group. Pain intensity at rest was significantly higher in the frail group than in the non-frail group or the pre-frail group (p<0.001 & p<0.001). When pre-frail and non-frail groups were compared, pain intensity at rest was significantly higher in the pre-frail group (p<0.001). Pain intensity with activity was significantly higher in the frail group than in the non-frail group or the pre-frail group (p<0.001 and p<0.001). There was no statistically significant difference between pre-frail and non-frail groups (p<0.001). The intensity of pain at night was significantly higher in the frail group than in the non-frail group or the pre-frail group (p<0.001 and p<0.001). There was no statistically significant difference between pre-frail and non-frail groups (p<0.001).

The sociodemographic conditions and pain characteristics of the participants according to their frailty are summarised in Table 1. There was a significant difference between the groups in terms of SARC-F scores in pairwise comparisons (p<0.001). The frail group's IADL and KATZ-ADL scores were significantly lower than those of the non-frail and pre-frail groups (p<0.001). DASS-21 total scores and DASS-D were significantly higher in the frail group than in the non-frail and pre-frail group (p<0.001 and p<0.001). DASS-A and DASS-S didn't show a significant difference between the frail group and the pre-frail group, while there was a significant difference in other group comparisons (p<0.001).

The distribution of questionnaire scores according to the frailty of the participants is shown in Table 2.

Pain frequency, duration, intensity and scale scores were compared according to gender based on frailty classification.

In both female and male, pain was found to occur every day in the group with frailty (p=0.014 and p=0.002). While there was no statistically significant difference between the groups in terms of pain duration in women, pain duration in the frail group in men was significantly higher than the other group comparisons. Again, pain intensity (at rest and at night) was significantly lower in the non-frail group compared to the other group comparisons in both genders (p<0.05). In both female and male, SARC-F score was significantly higher and IADL was significantly lower in the frail group compared to other group comparisons (p<0.05). Although there was no significant difference between frail and pre-frail in terms of DASS-21 total score and subscores in female, scale scores were lower in the non-frail group compared to other groups (p<0.05). In men, DASS-A and DASS-S scores were significantly lower in the non-frail group compared to the other groups, but no difference was

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observed in the comparison between prefrail and frail. There were significant differences between all groups in terms of DASS-21 total score and DASS-D subscore.

Scale comparisons based on frailty classification according to gender are shown in Table 3.

DISCUSSION

With the increase in the elderly population worldwide, geriatric syndromes such as frailty, depression, pain and other conditions that affect the quality of life have gained importance. Studies have also suggested that these geriatric syndromes are interrelated and result in a vicious circle of cause and effect with common pathogenetic mechanisms (19). Therefore, in our study, we examined the effects of frailty in the elderly on independence in activities of daily living, pain and mood changes.

Although there are differences between studies, the prevalence of frailty varies between 13-50% and increases with age, and differences can be seen according to gender and ethnicity (20,21). It can be said that the differences in the scale or cut-off

Table 1. Sociodemographic and pain characteristics according to their frailty

	Non-frail (n=60)	Pre-frail (n=128)	Frail n=76	p-value
Age (years)¥	69.63±4.93	71.43±5.09	73.15±6.13	A*B*C**
Gender¥¥				A*B*C*
Female	22 (36.7)	70 (54.7)	60 (78.9)	
Male	38 (63.3)	58 (45.3)	16 (21.1)	
Education level¥¥				A*B*C**
No education	2 (3.3)	24 (18.8)	12 (15.8)	
Primary school	36 (60)	84 (65.6)	60 (78.9)	
Middle-high school	14 (23.3)	12 (9.4)	2 (2.6)	
University	8 (13.3)	8 (6.3)	2 (2.6)	
Pain characteristics¥¥				
Pain frequency				A*B*C*
Every day	18 (40.9)	68 (63)	64 (84.2)	
Once a week	18 (40.9)	20 (18.5)	8 (10.5)	
Once a month	8 (18.2)	20 (18.5)	4 (5.3)	
Pain duration (year)¥	2.05 (0.41-15)	3 (0-40)	4.12 (0.12-30)	A**B*C*
Pain intensity (VAS)¥				
At rest	2 (0-5)	3 (0-9)	5 (0-8)	A*B*C*
At night	1 (0-7)	2 (0-9)	5 (0-9)	A*B*C*
With activity	5 (0-8)	5 (0-9)	7 (3-110)	A**B*C*

*p<0.05; **p≥0.05. ¥Median (minimum-maximum) - Kruskal-Wallis, ¥¥n (%) - chi-square
VAS: Visual analog scale, A: Comparison between non-frail and pre-frail, B: Comparison between non-frail and frail, C: Comparison between frail and pre-frail

Table 2. Distribution of questionnaire scores according to their frailty

	Non-frail (n=60)	Pre-frail (n=128)	Frail (n=76)	p-value
SARC-F¥	1 (0-5)	2 (0-7)	5.5 (1-10)	A*B*C*
KATZ-ADL¥¥	6±0	5.87±0.33	5.65±0.70	A*B*C*
IADL¥¥	7.60±0.84	7.26±1.12	6.52±1.69	A*B*C*
DASS-21¥	10 (0-36)	24 (0-74)	34 (0-106)	A*B*C*
DASS-A	2 (0-12)	6 (0-26)	7 (0-40)	A*B*C**
DASS-D	2 (0-16)	6 (0-26)	13 (0-32)	A*B*C*
DASS-S	4 (0-16)	8 (0-42)	10 (0-36)	A*B*C**

*p<0.05; **p≥0.05. ¥Median (min-max)-Kruskal-Wallis; ¥¥Mean SD-ANOVA
Katz-ADL: Katz activities of daily living scale, IADL: Lawton-Brody instrumental activities of daily Living scale, DASS-21: Depression anxiety stress scales-21, DASS-A: Depression anxiety stress scales-anxiety, DASS-D: Depression anxiety stress scales-depression, DASS-S: Depression anxiety stress scales-stress, A: Comparison between non-frail and pre-frail, B: Comparison between non-frail and frail, C: Comparison between frail and pre-frail, SD: Standard deviation

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Table 3. Distribution of survey scores by gender according to vulnerability classification				
Female	**Non-frail (n=18)**	**Pre-frail (n=62)**	**Frail (n=60)**	**p-value**
Pain frequency				A*B*C*
Every day	8 (44.4)	42 (67.7)	48 (80)	
Once a week	8 (44.4)	10 (16.1)	8 (13.3)	
Once a month	2 (11.1)	10 (16.1)	4 (6.7)	
Pain duration (year)¥	5 (0.58-15)	3 (0-40)	3.7 (0.12-30)	A**B**C**
Pain intensity (VAS)¥				
At rest	1.5 (0-5)	3 (0-9)	5 (0-8)	A*B*C**
At night	1 (0-7)	4 (0-9)	5 (0-9)	A*B*C**
With activity	6 (0-8)	6 (0-9)	7 (5-10)	A**B*C*
SARC-F¥	2 (0-5)	3 (0-7)	6 (1-10)	A**B*C*
KATZ-ADL¥¥	6±0	5.88±0.32	5.63±0.75	A**B*C**
IADL¥¥	7.54±0.91	7.31±0.95	6.46±1.79	A**B*C*
DASS-21¥	14 (0-32)	30 (2-74)	34 (0-106)	A*B*C**
DASS-A	2 (0-12)	8 (0-26)	9 (0-40)	A*B*C**
DASS-D	4 (0-16)	12 (0-30)	10 (0-36)	A*B*C**
DASS-S	4 (0-10)	10 (0-26)	15 (0-32)	A*B*C**
Male	**Non-frail (n=26)**	**Pre-frail (n=46)**	**Frail (n=16)**	**p-value**
Pain frequency				A*B*C*
Every day	10 (38.5)	26 (56.5)	64 (100)	
Once a week	10 (38.5)	10 (21.7)	0	
Once a month	6 (23.1)	10 (21.7)	0	
Pain duration (year)¥	1 (0.41-11)	3 (0.50-40)	4.75 (3-30)	A*B*C**
Pain intensity (VAS)¥				
At rest	2 (0-5)	2 (0-8)	3.5 (3-8)	A**B*C*
At night	2 (0-6)	1 (0-8)	5 (2-7)	A**B*C*
With activity	3 (0-8)	4.5 (0-8)	6.5 (3-8)	A**B*C*
SARC-F¥	0 (0-5)	2 (0-5)	4 (2-9)	A*B*C*
KATZ-ADL¥¥	6±0	5.86±0.34	5.75±0.44	A*B*C**
IADL¥¥	7.63±0.81	7.20±1.30	6.75±1.23	A**B*C**
DASS-21¥	8 (0-36)	16 (0-60)	26 (12-74)	A*B*C*
DASS-A	2 (0-10)	4 (0-20)	4 (0-22)	A*B*C**
DASS-D	2 (0-16)	4 (0-24)	12 (4-28)	A*B*C*
DASS-S	4 (0-16)	8 (0-42)	9 (4-28)	A*B*C**

*p<0.05; **p≥0.05. ¥Median (min-max)-Kruskal-Wallis; ¥¥Mean SD-ANOVA
Katz-ADL: Katz activities of daily living scale, IADL: Lawton-Brody instrumental activities of daily living scale, DASS-21: Depression anxiety stress scales-21, DASS-A: Depression anxiety stress scales-anxiety, DASS-D: Depression anxiety stress scales-depression, DASS-S: Depression anxiety stress scales-stress, A: Comparison between non-frail and pre-frail, B: Comparison between non-frail and frail, C: Comparison between frail and pre-frail, SD: Standard deviation

values used to determine frailty in studies affect the prevalence of frailty. In a study by Chong et al. (21) that evaluated 210 patients with the Frail scale, frailty prevalence was determined as 50%. In another study conducted on 11,344 individuals, the Frail index was used and frailty prevalence was found to be 30.4% (22). In the study of Bulut et al. (23), it was stated that the prevalence of frailty was 28.3% and it could be associated with increasing age. In our study, the prevalence of frailty was found to be 28.8%, which is consistent with the literature, and increased with age.

The frequency of multifaceted and persistent pain increases in later life. Untreated or inadequate treatment of pain reduces the quality of life of patients and has a negative impact on their activities of daily living. Pain is an important component

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of "the frailty syndrome". Although pain is frequently observed in frail individuals in clinical practice, it has not been adequately investigated in scientific studies (24,25). In our study, it was observed that resting, activity and night pain levels of frail elderly were higher than non-frail elderly. Pain may be an important cause of sarcopenia, functional dependence and mood disorders reported in frail elderly. Due to the cross-sectional design of our study, causality could not be assessed, but the effect of pain on frailty-related outcomes can be evaluated in future studies. With effective management of pain, the negative consequences on vulnerable individuals can be reduced.

Frailty is a multifactorial condition affecting many systems such as the endocrine system, cognitive functions, immunity and the musculoskeletal system. Malnutrition that occurs with advancing age and subsequent sarcopenia may lead to a decrease in exercise capacity and physical functions. Therefore, the elderly may become dependent in their daily life functions (26). The relationship between frailty and independence in activities of daily living has been examined in many studies in the literature and found to be related (27,28). Studies have shown that women become more dependent in their daily lives due to many reasons such as vitamin and mineral deficiencies developing due to nutritional disorders in advanced age, decreased bone mineral density, falls and fractures (29,30). In addition, the fact that osteoporosis is more common in women may lead to a higher prevalence of frailty in women. Therefore, in our study, female gender was more common in the frail group, while male gender was significantly higher in the non-frail group. In frailty studies, frailty is more common in the female gender than in the male gender in the population over 65 years of age (31). Similarly, in a meta-analysis of 240 studies, the prevalence of female gender was found to be higher in frail individuals (32).

Depression in geriatric individuals is one of the geriatric symptoms associated with increased frailty, mortality and morbidity. The rate of comorbidity in the senior population is 41.6% in those with anxiety symptoms and 44.2% in those with depressive symptoms (33). Many factors such as negative life experiences, bereavement, and illness can cause depression and anxiety. There are many studies in the literature showing the relationship between frailty and depression or anxiety (34,35). Zhao et al. (33) used the geriatric depression scale and the generalized anxiety disorder scale in their study and found that depression and anxiety were higher in frail individuals. In our study, depression, anxiety, and stress levels were evaluated in frail individuals with DASS-21, and it was found that depression, anxiety, and, in addition, stress levels in the frail group were significantly higher in accordance with the literature.

Study Limitations

Our study has some limitations. Our study was conducted with a relatively small sample size. In addition, the duration and duration of pain were questioned, but the affected area was not evaluated. No scale for pain type was used. Another limitation

is comorbidities. Exclusion criteria were strict to minimise the effects of comorbidity; however, these criteria were not very effective because the study population was elderly. In our study, all questionnaires were conducted through face-to-face interviews and only the levels of depression, anxiety and stress symptoms were determined. Therefore, a full psychometric evaluation study may be needed to better understand the mood of individuals. Future studies with larger sample sizes and more rigorous assessment of pain and comorbidities are needed.

Conclusion

As a result, independence in activity of daily life was found to be lower, and pain levels, negative mood changes and stress levels were higher in frail individuals in our study. The lower physical capacity of frail individuals may lead to increased hospital admissions and progression of existing chronic diseases. In addition, individuals may enter a vicious circle with the negative emotional state and social restriction it brings. Management of pain and frailty is important for the prognosis of old age. Questioning elderly patients with simple and easily applicable frailty scales in the outpatient clinic, early diagnosis of frailty and pain management are important for both the individual's morbidity and the country's economy.

Ethics

Ethics Committee Approval: The study Kütahya Health Sciences University Rectorate Non-Interventional Clinical Research Ethics Committee Presidency (date: 11.01.2023, decision no: 2023/01-06).

Informed Consent: All participants who participated in the study approved the informed consent form.

Footnotes

Authorship Contributions

Concept: Ç.Ö., H.T., Design: Ç.Ö., H.T., Data Collection or Processing: Ç.Ö., H.T., Analysis or Interpretation: Ç.Ö., Literature Search: Ç.Ö., H.T., Writing: H.T.

Conflict of Interest: No conflict of interest was declared by the authors.

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