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# Investigation of Rational Drug Use and Health Perception Levels of Caregivers for Individuals with Chronic Diseases: A Hospital Example

# Kronik Hastalığı Olan Bireylere Bakım Verenlerin Akılcı İlaç Kullanımı ve Sağlık Algısı Düzeylerinin İncelenmesi: Bir Hastane Örneği

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**ABSTRACT**

**Objective:** This research aimed to determine the investigation of rational drug use and the health perception level of caregivers for individuals with chronic diseases.

**Materials and Methods:** This descriptive study was conducted at the public hospital in Şırnak city centre between December 2022 and February 2023. The sample of the study consisted of 242 caregivers. The research data were gathered from the socio-demographic characteristics form, the rational drug use scale, and the health perception scale. In addition to descriptive analysis, independent t-test, ANOVA, correlation, and regression analysis were used in statistical analysis.

**Results:** The average age of caregivers is 39.25±12.45, the average age of patients requiring care is 64.73±12.50, and the patient care duration is 3.39±2.03 years. Rational Drug Use Scale mean score was 37.29±5.62, Health Perception Scale mean score was 40.14±7.93, and there was a positive significant correlation between the Rational Drug Use and Health Perception mean scores ($p<0.01$). Their socio-demographic characteristics significantly affect caregivers' rational drug use and health perception ($p<0.05$).

**Conclusions:** It was determined that caregivers had a moderate level of rational drug use and health perception. As a result, caregivers are an essential component of healthcare services, and health education should be provided.

**Keywords:** Chronic diseases, caregivers, health perception, nursing, rational drug use

**ÖZ**

**Amaç:** Bu çalışma, kronik hastalığı olan bireylere bakım verenlerin akılcı ilaç kullanımı ve sağlık algı düzeylerinin incelenmesi amacıyla yapıldı.

**Materyal ve Metot:** Tanımlayıcı tipte olan çalışma, Aralık 2022-Şubat 2023 tarihleri arasında Şırnak şehir merkezindeki bir devlet hastanesinde gerçekleştirildi. Araştırmanın örneklemini, 242 bakım verici oluşturdu. Araştırma verileri sosyo-demografik özellikler formu, Akılcı İlaç Kullanımı Ölçeği ve Sağlık Algısı Ölçeği kullanılarak toplandı. İstatistiksel analizde tanımlayıcı analizin yanı sıra bağımsız t-testi, ANOVA, korelasyon ve regresyon analizi kullanıldı.

**Bulgular:** Bakım verenlerin yaş ortalaması 39,25±12,45, bakım gerektiren hastaların yaş ortalaması 64,73±12,50 yıl, hasta bakım süresi ise 3,39±2,03 yıldır. Akılcı İlaç Kullanımı Ölçeği puan ortalaması 37,29±5,62, Sağlık Algısı Ölçeği puan ortalaması 40,14±7,93 olup, Akılcı İlaç Kullanımı ile Sağlık Algısı puan ortalamaları arasında pozitif yönde anlamlı bir korelasyon vardı ($p<0,001$). Bakım vericilerin sosyo-demografik özellikleri akılcı ilaç kullanımını ve sağlık algısını önemli ölçüde etkilemektedir ($p<0,05$).

**Sonuç:** Bakım verenlerin akılcı ilaç kullanımı ve sağlık algısının orta düzeyde olduğu belirlendi. Sonuç olarak bakım vericiler sağlık hizmetlerinin vazgeçilmez bir bileşenidir ve sağlık eğitimi verilmelidir.

**Anahtar Kelimeler:** Akılcı ilaç kullanımı, bakım vericiler, hemşirelik, kronik hastalıklar, sağlık algısı

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## INTRODUCTION

Chronic illnesses are recognised as one of the most significant barriers to sustainable development in the twenty-first century. Chronic illnesses, which account for more than two-thirds of all annual fatalities (nearly 41 million), are among the primary causes of disability worldwide.[1] Approximately 40 million caregivers, both official and unofficial, assist adults with limited daily tasks. However, most caregivers are unprepared to provide adequate support, and little is known about caregivers.[2] This state is difficult for nurses who have a close relationship with patients and caregivers and may cause difficulties in care treatments.[3] Because caregivers provide support to patients both in their daily needs and in-hospital services, their responsibilities may differ, which can lead to an additional workload.[4]

The predictive factors of caregiving burden are related to both the patient and the caregiver. Considering the contribution of medical and non-medical factors to health, a significant portion of the roles of caregivers who assist in healthcare activities involve medication management. This responsibility is the most common task reported by caregivers.[5] Promoting medication adherence in the medication regimen taken by caregivers highlights the importance of rational drug use.[6] Rational drug use is an important problem as it leads to unnecessary drug consumption exceeding 40% in our country, as well as in underdeveloped and developed countries.[7]

Health perception, an important aspect of rational drug use, is vital for psychological wellness and treatment maintenance. Health perception, which is directly relevant to the process both for the patient and the caregiver, is a subjective reflection of an individual's emotions and thoughts.[8] The literature states that the workload of caregivers may lead to them perceiving their health status as bad.[9]

Various studies have shown that caregiving is difficult and troublesome and that it negatively affects the caregiver's habits, lifestyle, and social environment.[9,10,11] Research conducted with both caregivers and non-caregiving family members has shown that the caregiver group is at higher risk compared to others, experiencing depression, emotional issues, and cognitive challenges.[9,10]

Rational drug use and health perception of caregivers, which constitute one of the important components of the health dimension, are very important. However, no study has been found in the literature examining the level of rational drug use and health perception of caregivers. However, nurses play an important role in determining rea drug use and health perception. [11]

This study aimed to examine the level of rational drug use and health perception of caregivers.

## MATERIALS AND METHODS

***Ethics Committee Approval:*** This study was approved by the Ethics Committee of Şırnak University (Date: 28/11/2022, decision no:2022-E.53117), institutional permission from the Local Health Authority (Date: 13/12/2022, decision no: E-51440246-856). Rules stated in the Helsinki Declaration were followed throughout the research process. The consent of the participants was obtained.

***Study Design and Participants:*** This research was conducted according to the descriptive type. The scope of the study encompassed the caregivers of patients in a state hospital's internal illnesses, cardiology and physiology and rehabilitation clinic due to chronic illnesses located in a province centre. When calculating the sample size of the study through strength analysis, it was calculated to be 196 individuals at an error level of 0.05, 80% strength and 0.95 reliability range. Accordingly, the study survey was completed by 242 willing participants. The research was carried out between December 2022 and February 2023 in a public hospital in the Şırnak region. Research data was collected by researchers. The purpose of the study was explained to each caregiver by the researchers. The questionnaires were administered to caregivers who volunteered to participate in the study via face-to-face interviews in the clinical setting of the researchers. The questionnaires took about seven to ten minutes to complete. None of the caregivers sought to leave the research or refused to complete the questionnaire. *Inclusion Criterion:(*i) are aged 18 or over, (ii) have no hearing or seeing problems, (iii) have no verbal communication problems, (iv) are comfortable in a physical and psychological context, (v) took care of the patient through the illness process for a long time (at least 6 months), (vi) took care of patients that had chronic illnesses (heart failure, strokes, rheumatic illnesses, chronic obstructive pulmonary disease, cancer, diabetes), (vii) individuals that agreed to take part in the study. *Exclusion Criterion:* (i) had an illness duration shorter than 6 months, (ii) took care of disabled individuals, (iii) were unwilling to participate in the study.

***Dependent and independent variable:*** The independent variables of this research are gender, age, age of the patient, marital status, child status, education status, work status, economic status, chronic illness story, regular medicine use, distance to a healthcare organisation, proper medicine use, closeness to the patient, living together with the patient, the existence of other people caring for the patient, caregiving experience status, applications in the caregiving process to the patient, care duration. The dependent variable is the Rational Drug Use Scale and Health Perception Scale.

***Data collection:*** The data was acquired using the socio-demographic characteristics, Rational Drug Use Scale, and Health Perception Scale developed by researchers based on literature information. The researchers created an 18-question form based on their evaluation of the literature (age, age of the patient, education level, Duration of patient care, etc.) [6,7,11]

***Rational Drug Use Scale:*** This scale, developed by Demirtaş et al.[12,] has 21 points. The scale's estimation point is 34 points, and persons with 35 points or higher are considered to know rational drug use. The Cronbach alpha value of the scale is 0.78. The Cronbach alpha value in our study is 0.76.

***Health Perception Scale:*** This scale, developed by Diamond et al.[13] and subjected to a Turkish reliability and validity study conducted by Kadioğlu and Yildiz,[14] consists of 15 points and four subdimensions (control centre, self-realisation, certainty, importance of health). The lowest score that can be obtained from the scale is 15. The highest score is 75. The assessment comprises four distinct subcategories: Control Center (with a potential range of 5 to 25), Self-Awareness (ranging from 3 to 15), Certainty (ranging between 4 and 20), and Importance of Health (with scores varying from 3 to 15). The scale's Cronbach alpha value is 0.77. The Cronbach alpha value in our study is 0.82.

***Statistical Analysis:*** The data from the study were analysed using the SPSS 22.0 package application. Numbers, percentage distribution, and standard deviation were used to show depicter variables. Normal distribution appropriateness was determined through the Kolmogorov-Smirnov Z test. Independent t-tests, one-way ANOVA, Pearson correlation, and regression tests were supplemented with descriptive statistics (such as percentage, frequency, mean, and standard deviation, as well as maximum and minimum) to assess the collected data in this study. Variables with a statistically significant level of $p<0.10$ in univariate analyses were compared using linear regression analysis. The significance value was admitted as $p<0.05$.

## RESULTS

Among the caregivers who participated in the research, the average age of caregivers (39.25±12.45), the average age of patients requiring care (64.73±12.50), and the patient care duration is 3.39±2.03 years. 62.8% of caregivers are female, 39.2% of them are primary school graduates, 80.6% of them do not have any chronic illnesses, 82.6% of them do not regularly use a medicine, 33.1% of them are daughters of their respective caretakers, 81.0% of them live in the same environment as the patient, 56.6% do not have anyone else caring for the patient, 52.1% are experienced caregivers, and 40.5% assist the caregiver in more than one area (hospital processes, medication administration, nutrition support, housework, and personal sanitation and hygiene) (Table 1).

**Table 1.** Sociodemographic properties of caregivers.

| Characteristics | | n (%) |
|---|---|---|
| **Gender** | Female | 152 (62.8) |
| | Male | 90 (37.2) |
| **Marital Status** | Married | 145 (59.9) |
| | Single | 97 (40.1) |
| **Child Status** | Does not have children | 104 (43.0) |
| | Does have children | 138 (57.0) |
| **Education Status** | Illiterate | 78 (32.2) |
| | Primary School | 95 (39.2) |
| | Highschool and above | 69 (28.6) |
| **Work status** | Working | 33 (13.6) |
| | Not working | 209 (86.4) |
| **Economic Status** | Bad | 18 (7.5) |
| | Average | 124 (51.2) |
| | Good | 100 (41.3) |
| **Chronic illness story** | Exists | 47 (19.4) |
| | Does not exist | 195 (80.6) |
| **Regular medicine use** | No | 200 (82.6) |
| | Yes | 42 (17.4) |
| **Distance to a healthcare organisation** | <10 minutes | 117 (48.3) |
| | <20 minutes | 73 (30.2) |
| | > 20 minutes | 52 (21.5) |
| **Proper medicine use** | No | 54 (22.3) |
| | Yes | 188 (77.7) |

**Table 1.** Continue.

| | | |
|---|---|---|
| **Closeness to patient** | Sibling | 26 (10.7) |
| | Partner | 34 (14.0) |
| | Daughter | 80 (33.1) |
| | Son | 43 (17.8) |
| | Other (Caregivers, mother, or father) | 59 (24.4) |
| **Living together with the patient** | Yes | 196 (81.0) |
| | No | 46 (19.0) |
| **Existence of other people caring for the patient** | Yes | 105 (43.4) |
| | No | 137 (56.6) |
| **Caregiving experience status** | Yes | 126 (52.1) |
| | No | 116 (47.9) |
| **Applications in the caregiving process to the patient** | Hospital processes + Medicine Getting + Shopping | 17 (7.0) |
| | Cleanliness and hygiene + Housework | 18 (7.4) |
| | Hospital Processes + Medicine Giving + Feeding + Personal Cleanliness and Hygiene + Housework | 66 (27.3) |
| | Hospital Processes + Medicine Taking + Material Support | 43 (17.8) |
| | Hospital Processes + Medicine Taking + Feeding + Personal Cleanliness and Hygiene + Housework + Material Support | 98 (40.5) |
| **Characteristics** | | **Mean±SD** |
| **Age** | | 39.25±12.45 |
| **Age of patient** | | 64.73±12.50 |
| **Duration of patient care takes years** | | 3.39±2.03 |
| **TOTAL** | | 242 (100.0) |

An examination of Table 2 reveals that caregivers' Rational Drug Use Scale total point averages and Health Perception total point averages show a weak positive association (r=0.341, p<0.01). Caregivers' Rational Drug Use Scale total point averages had a statistically significant weak positive connection (r=0.304, p<0.01; r=0.258, p<0.05) with their Health Perception Scale Certainty and Health Importance sub-dimensions. The overall point averages of caregivers on the Rational Drug Use Scale did not demonstrate a statistically significant difference with the sub-dimensions of the Health Perception Control Center and Self Awareness Scale (p> 0.05) (Table 2).

**Table 2.** The relationship between caregivers' Rational Drug Use Scale and the Health Perception Scale and its sub-dimensions points.

| Scales and Their Sub-Dimensions | Mean±SD | Rational Drug Use Scale (37.29±5.62) |
|---|---|---|
| Health Perception Scale | 40.14±7.93 | r=0.341** |
| Control Center Dimension | 13.10±4.46 | r=-0.158 |
| Certainty Dimension | 11.24±3.40 | r=0.304** |
| Health Importance Dimension | 7.60±2. 92 | r=0.258* |
| Self-Awareness Dimension | 8.18±2.52 | r=0.166 |

**p<0.01, *p<0.05, r: bivariate correlation

When the independent variables of the participants were compared with the Rational Drug Use score, it was found that men (t=-4.857, p=0.001), <25 age group (F=3.643; p=0.007), singles (t=-2.904; p=0.007), university students and above among those with education level (F=21.993; p=0.001), among those without children (t=2.963; p=0.003), among those employed (t=2.458; p=0.015), and among those with regular medication use (t=2.682; p=0.009). , the Rational Drug Use Scale score is statistically significantly higher in those who use medication with the recommendation of a physician (t = -3.142; p= 0.002) and in those who live with the patient ( t = 1.977; p=0.049) (Table 3).

When the independent variables and the Health Perception score of the participants were compared, there was a significant difference between men (t=-3.017, p=0.003), patients aged <25 years (F=4.905; p=0.001), patients aged 31-40 years (F=6.815; p<0.001), among singles (t=-5.187; p=0.001), among those with university education or higher (F=14.003; p<0.001), among those without children (t=4.845; p<0.001), and among those taking medication with the recommendation of a physician (t=-4.522; p<0.001), the sons of the caregiver (F=6.544; p<0.001), and those whose care period was less than 1 year (f=2.396; p=0.038) had a statistically significant higher Health Perception Scale score (Table 3).

**Table 3.** The comparison of the socio-demographic characteristics of caregivers with the Rational Drug Scale and the Health Perception Scale (n=242).

| Characteristics | | Rational Drug Use Scale | Health Perception Scale |
|---|---|---|---|
| **Gender** | Female | 36.47±5.05 | 38.32±7.08 |
| | Male | 38.80±6.22 | 43.21±8.35 |
| | Test* | t=-4.857 | t=-3.017 |
| | p | **0.001** | **0.003** |
| **Age** | <25 age | 39.41±6.40 | 42.95±6.70 |
| | 26-30 age | 37.52±4.47 | 39.80±8.25 |
| | 31-35 age | 36.55±5.41 | 37.50±8.98 |
| | 36-40 age | 37.38±6.11 | 39.63±8.68 |
| | >41 age | 34.94±4.81 | 39.26±6.77 |
| | Test** | F=3.643 | F=4.905 |
| | p | **0.007** | **0.001** |
| **Age of patient** | <30 age | 33.50±1.22 | 38.67±1.63 |
| | 31-40 age | 39.63±7.28 | 47.00±10.37 |
| | 41-50 age | 40.11±7.25 | 41.67±5.98 |
| | 51-60 age | 36.85±7.20 | 32.31±7.63 |
| | \|>61age | 37.75±5.52 | 40.13±7.44 |
| | Test** | F=1.612 | F=6.815 |
| | p | 0.174 | **0.001** |
| **Marital status** | Married | 36.49±5.18 | 38.08±7.61 |
| | Single | 38.60±6.03 | 43.21±7.41 |
| | Test* | t=-2.904 | t=-5.187 |
| | p | **0.004** | **0.001** |
| **Child status** | Does not have children | 38.55±5.88 | 42.86±7.29 |
| | Does have children | 36.42±5.25 | 38.09±7.79 |
| | Test* | t=2.963 | t=4.845 |
| | p | **0.003** | **0.001** |
| **Educational status** | Illiterate | 36.86±4.04 | 39.72±6.49 |
| | Primary School | 39.06±5.81 | 43. 42±8.83 |
| | Highschool and above | 40.63±6.98 | 43.57±7.00 |
| | Test** | F=10.138 | F=14.003 |
| | p | **0.001** | **0.001** |
| **Work status** | Working | 39.55±5.62 | 42.42±6.34 |
| | Not working | 36.99±5.55 | 39.78±8.10 |
| | Test* | t=2.458 | t=1.793 |
| | p | **0.015** | 0.074 |
| **Regular medicine use** | Yes | 37.69±5.84 | 40.02±7.68 |
| | No | 35.67±4.08 | 40.71±9.09 |
| | Test* | t=2.682 | t=-0.519 |
| | p | **0.009** | 0.604 |
| **Proper drug uses** | No | 35.08±5.60 | 35.77±7.84 |
| | Yes | 37.90±5.53 | 41.27±7.43 |
| | Test* | t=-3.142 | t=-4.522 |
| | p | **0.002** | **0.001** |
| **Closeness to patient** | Sibling | 37.67±4.89 | 39.67±12.37 |
| | Partner | 33.50±1.00 | 32.25±2.50 |
| | Daughter | 43.50±3.54 | 37.53±0.07 |
| | Son | 39.42±7.35 | 45.77±8.14 |
| | Other (Caregivers, mother, or father) | 37.09±6.42 | 35.91±7.84 |
| | Test** | F=1.201 | F=6.544 |
| | p | 0.303 | **0.001** |
| **Living with patient** | Yes | 37.68±5.80 | 40.06±8.43 |
| | No | 35.87±4.54 | 40.46±5.34 |
| | Test* | 1.977 | -0.304 |
| | p | **0.049** | 0.761 |
| **Number of caregivers** | Yes | 36.42±5.54 | 40.15±8.30 |
| | No | 37.97±5.58 | 40.01±7.67 |
| | Test | -2.141 | 0.127 |
| | p | **0.033** | 0.899 |
| **Care duration** | <1 years | 39.02±6.26 | 42.38±8.04 |
| | 1-3 years | 37.38±5.95 | 41.73±5.94 |
| | 3-5 years | 38.32±5.03 | 42.08±6.83 |
| | >5 years | 36.58±3.75 | 39.95±6.65 |
| | Test** | F=1.498 | F=2.396 |
| | p | 0.191 | **0.038** |

*: Independent t test, **One Way ANOVA (Post Hoc Tukey); p<0.01

Variables that were statistically significant after univariate analysis underwent evaluation via linear regression analysis. The independent variables that were included are Gender, Age, Age of patient, Marital status, Child status, Education status, Regular drug use, Proper drug use, and Closeness to the patient. The results showed that these independent variables explained 12.1% of the change in Rational Drug Use and 24.8% of the difference in Health Perception (Adj.$R^2$:0.121, F=4.307 p<0.001; Adj.$R^2$: 0.248, F=8.939, p<0.001; respectively) (Table 4).

**Table 4.** Regression analysis of the sociodemographic characteristics of the caregivers and Rational Drug Use and Health Perception scale.

| | **Rational Drug Use Scale** | | | | | **Health Perception Scale** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Unstandardised-Coefficients** | | **Standardised Coefficients** | | | **Unstandardised-Coefficients** | | **Standardised Coefficients** | | |
| | B | Std. Error | Beta | t | Sig. | B | Std. Error | Beta | t | Sig. |
| **(Constant)** | 33.825 | 7.298 | | 4.635 | **0.001** | 10.069 | 9.520 | | 1.058 | 0.291 |
| Gender | 2.397 | 0.779 | 0.207 | 3.079 | **0.002** | 4.875 | 1.016 | 0.298 | 4.799 | **0.001** |
| Age | -0.065 | 0.043 | -0.144 | -1.494 | 0.136 | 0.032 | 0.057 | 0.050 | 0.558 | 0.578 |
| Marital status | -0.488 | 1.922 | -0.043 | -0.254 | 0.800 | 3.969 | 2.507 | 0.246 | 1.583 | 0.115 |
| Child status | -0.096 | 1.943 | -0.009 | -0.050 | 0.960 | .851 | 2.534 | 0.053 | 0.336 | 0.737 |
| Education status | 1.732 | 0.609 | 0.299 | 2.842 | **0.005** | 3.338 | 0.795 | 0.408 | 4.198 | **0.001** |
| Regular drug use | -0.562 | 1.036 | -0.038 | -0.543 | 0.588 | 3.912 | 1.351 | 0.187 | 2.895 | **0.004** |
| Proper drug use | -0.485 | 0.532 | -0.078 | -0.913 | 0.362 | -0.813 | 0.693 | -0.093 | -1.173 | 0.242 |
| Closeness to patient | -0.301 | 0.360 | -0.086 | -0.836 | 0.404 | -0.322 | 0.469 | -0.065 | -0.687 | 0.493 |
| | R | $R^2$ | Adj. $R^2$ | F | p | R | $R^2$ | Adj. $R^2$ | F | p |
| | 0.396[a] | 0.157 | 0.121 | 4.307 | **0.001** | 0.528[a] | 0 .279 | 0.248 | 8.939 | **0.001** |

B: unstandardised coefficients; Std Error: standard error; Beta: standardised coefficients; R2: determination coefficient; Adj. $R^{2:}$ Adjusted determination coefficient, F: Anova; p<0.05.

## DISCUSSION AND CONCLUSION

Caring for individuals with chronic illnesses for a long duration impacts caregivers' physical and mental health, psychological well-being, and medical status.[15] This state is very important both in terms of caregivers and the correct treatment of caretakers. This study was conducted to determine the relationship between rational drug use and health perception, and the results are discussed here in light of the relevant literature. In our study, it was determined that caregivers have a medium level of rational drug use. In another study researching the rational drug use of different generations, it was stated that the participants (n:407) demonstrated medium rational drug use levels.[16] A cross-sectional study conducted by Graham et al.[17] stated that the rational drug use levels of caregivers were found to be low. In the research conducted by Demirtaş et al.[18] the average score derived from the rational drug use scale was reported as 33.6±6.2, while in the study conducted by Işık,[19] the mean score on the rational drug use scale was 38.20±3.99. In the study conducted by Kuloğlu et al.[20] with 719 parents, it was determined that the participants' knowledge level regarding rational drug use was high. The conclusions of this finding are similar to the literature.

Another finding of the study is that individuals under 25, males, and those with a high school education or higher and with a single marital status tend to have higher scores on rational drug use. Demirtaş et al.[18] conducted a study on rational drug use in adults, which found that individuals under 30, women, and those with higher education had a higher incidence of rational drug use. Zheng et al.[21] concluded in their study that advanced age is a risk factor that decreases drug knowledge. On the other hand, Sema et al.[22] in their study, in which they evaluated rational drug use in two health centers using WHO/INRUD Essential Drug Use Indicators, it was stated that gender did not affect rational drug use. Differences in study results may be associated with regional differences in education and the roles attributed to women.

Another finding in our study determined that caregivers have a medium level of positive health perception. da Rocha et al.[23] determined that the caregivers of elderly individuals (n=30) feel a medium level of positive health perception. Or and Kartal[24] study stated that caregivers perceive their health status to be positive. Research findings have indicated a link between one's marital status and their self-reported health. Specifically, separated or married individuals are more likely to experience poor health

compared to never-married individuals.[25,26] Additionally, caregivers' positive health perceptions were associated with the presence of another caregiver, fewer caregiving hours, and living with the patient.[27,28] It has also been stated that as the duration of care increases, the well-being of the caregiver decreases, and low health perception negatively affects the well-being of the caregiver.[29] These results highlight the importance of psychosocial control in caregivers.

Caregivers' positive health perception and degree of participation in medication-related activities are also one of the most important factors affecting their performance. In our study, it was found that as caregivers' level of rational drug use increased, their perception of health increased. Kırılmaz and Doğanyiğit,[30] in their study examining the relationship between self-medication use and the health belief model (n=384), stated a positive and weak relationship between individuals' rational drug use and their health belief levels. In the literature, it was stated that those with good medication compliance had higher health perception scores.[28,29] The implications of this finding are similar to the literature.

In conclusion, it is observed that as caregivers' health perceptions increase, rational drug use also increases. Research findings also underscore the importance of considering sociodemographic factors in enhancing rational drug use and health perception among caregivers. For this reason, it may be recommended to periodically evaluate caregivers' rational drug use and health perceptions and provide health education. The current study has some strengths and limitations. The strengths of our study include the fact that no research includes Rational Drug Use and Health Perception, which are data collection tools in the study, together with caregivers, and that this study is a community-based study and has high generalizability. The limitation of the current study is that first since it was limited only to caregivers who applied to a public hospital in a certain region, other individuals in the region could not be visited. Secondly, caregivers' subjective data were included in the evaluation of the health perception and rational drug use scale. The results of the study can only be generalized to the region where the study was conducted.

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