

## Profile of Home Healthcare Patients and Evaluation of Health Service Provided to Patients-Istanbul Province Example

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### Abstract

**Aim:** Examining the profiles of home health patients and evaluating the service are effective in improving patient outcomes, reducing hospitalizations and reducing health care costs. The aim of this study is to determine the profile of home health patients and to evaluate the health services provided to the patients.

**Method:** The research is a descriptive retrospective study. This research was made by scanning the files of 21 410 patients who received service from the home health services unit in Istanbul, Turkey in 2022.

**Results:** In the study, 67.48% of the patients receiving home health services were women and 55.10% were between the ages of 66-85. In the study, it was seen that 45.18% of home health patients had neurological and psychiatric diseases, 23.57% had endocrine diseases and 18.45% had cardiovascular diseases. In the services provided, it was determined that patient examination was first (43.89%), patient education practices were second (27.55%) and blood sampling (9.76%) were applied in third place.

**Conclusion:** Most of the home health patients are women and elderly patients. It is recommended that the education program services given to home care patients should be increased and that education programs should be prepared in accordance with the patient profile and about the most common chronic diseases, with the feature of improving the prognosis. In order to achieve the desired goal in home care services, it is recommended to develop care protocols and guidelines

**Keywords:** Home healthcare, patient, health.

### Özgün Araştırma Makalesi (Original Research Article)

**Geliş / Received:** 23.05.2023 & **Kabul / Accepted:** 10.07.2023

**DOI:** <https://doi.org/10.38079/igusabder.1301138>

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**ETHICAL STATEMENT:** Before starting the study, permission was obtained from the Clinical Research Ethics Committee of Health Sciences University, Istanbul Training and Research Hospital, with the decision dated 10.02.2023 and numbered 34.

## **Evde Sağlık Hastalarının Profili ve Hastalara Verilen Sağlık Hizmetinin Değerlendirilmesi- İstanbul İli Örneği**

### **Öz**

**Amaç:** Evde sağlık hastalarının profillerinin incelenmesi ve hizmetin değerlendirilmesi hasta sonuçlarını iyileştirmede, hastane yatışlarını azaltmada ve sağlık bakım maliyetlerini düşürmede etkilidir. Bu çalışmanın amacı evde sağlık hastalarının profilinin belirlenmesi ve hastalara verilen sağlık hizmetlerinin değerlendirilmesidir.

**Yöntem:** Araştırma tanımlayıcı retrospektif bir çalışmadır. Türkiye'nin İstanbul ilinde 2022 yılında evde sağlık hizmetleri biriminden hizmet alan 21.410 hasta dosyası taranarak yapılmıştır.

**Bulgular:** Araştırmada evde sağlık hizmeti alan hastaların %67,48'i kadın ve %55,10'u 66-85 yaş aralığındadır. Yapılan çalışmada evde sağlık hastalarının %45,18'i nörolojik ve psikiyatrik hastalıkları, %23,57'sini endokrin hastalıkları ve %18,45'ini kardiyovasküler hastalıkları olduğu görülmüştür. Verilen hizmetlerde ilk sırada hasta muayenesi (%43,89), ikinci sırada hasta eğitim uygulamaları (%27,55) ve üçüncü sırada kan alma işleminin (%9,76) uygulandığı saptanmıştır.

**Sonuç:** Evde sağlık hastalarının çoğu kadın ve yaşlı hastalardır. Evde bakım hastalarına verilen eğitim programı hizmetlerinin artırılması gerektiği ve eğitim programlarının hasta profiline uygun ve en sık görülen kronik hastalıklar hakkında, prognozu iyileştirici özellikte hazırlanması önerilmektedir. Evde bakım hizmetlerinde istenen hedefe ulaşabilmek için bakım protokollerinin, rehber ve kılavuzların geliştirilmesi önerilmektedir.

**Anahtar Sözcükler:** Evde sağlık hizmeti, hasta, sağlık.

### **Introduction**

There has been an increase in chronic diseases with the prolongation of the average lifespan of individuals and the increase in the elderly population. The increase in the number of elderly individuals with chronic diseases has revealed the need to provide qualified health services, and this need has revealed the importance of home health services that provide health care in the comfort of home. Home health services is described as a care model supporting the elderly, disabled and people with chronic diseases in their environment, enabling them to adapt to social life, ensuring their integration in the society by continuing their lives in a peaceful and happy manner, reducing the burden of caregivers, providing physiological, psycho-social services to patients and their families and includes medical support services and social services<sup>1-3</sup>. In the Regulation No. 25751 on the Delivery of Home Care Services, which entered into force in our country in 2005, home care service is defined as "providing care, health and follow-up services to the sick people within the framework of the recommendations of the physicians, in the environment where they lived with their families, by the health team in a way that all their medical needs, including physiotherapy, rehabilitation and psychological treatment, will be met". It has been emphasized that home health services should be provided by specialized staff and with a

multidisciplinary approach in order to divide the care into parts and to ensure the continuity of preventive, therapeutic and rehabilitative care<sup>4</sup>. For this reason, it is necessary to strengthen and support the health team within the home health service and to create a care system in this way<sup>5</sup>.

It has been determined as the basic philosophy of care services that individuals who are in need of care shall receive health and care services by specialist professionals without being cut off from their social and family lives and without burdening their family members. In this way, it is seen that the transition from the institutional care model to the home care model, which is a community-based care model, has been achieved<sup>6</sup>. It is important to determine the profiles of the patients to be provided with home health services and their needs in order to increase the quality of care in home health services, to create care protocols and guidelines, and to create care models.

Looking at the studies in the literature, in the study conducted by Çatak et al. (2012)<sup>7</sup>, the mean age of 140 home health patients was 79.6 years, the most common diseases were hypertension (48.1%) and stroke (39.8%), and the services provided were 46.3% examination and drug treatment, 26.9% were examination and drug treatment, 14.8% were injection, catheter insertion and wound care. Işık et al. (2016)<sup>8</sup> determined that 41.5% of 214 home health patients were between the ages of 61-80, and the most frequently provided services were injection, catheter insertion, wound care (67.7%). Mueller et al. (2019)<sup>9</sup> found that 84.2% of the patients were 65 years and older in a retrospective study conducted in Switzerland on home health patients. Nadarević-Štefanec et al. (2011)<sup>10</sup> in their study in Croatia found that 28.9% of the patients had circulatory system patients, Kouta et al. (2015)<sup>11</sup> reported that diabetes was the most common in patients, Dawani et al. (2014)<sup>4</sup> have determined that with the highest rate of 41.5%, the patients had heart diseases.

In this study, it was aimed to determine the profile of home health patients and to evaluate the health services provided to the patients. In this way, the deficiencies of the home health service will be revealed and the studies that can be done to increase the quality of the service will be revealed.

## **Material and Methods**

**Study Design:** The research was conducted in a descriptive retrospective design.

**Sample of the Research:** No sample selection was made in the study. The files of all patients who received service from the home health services unit of a training and research hospital in Turkey in 2022 were scanned. In total, 21 410 patient files were accessed.

**Data Collection Method:** Between 01 March and 01 April 2023, files of 21410 patients who received home health services in 2022 from the hospital's data processing unit were scanned.

**Data Collection:** While collecting the data, the patient file form was used for the data requested to be accessed in the patient file. Patient file form consists of 4 (four) questions, including patient's age, gender, service provided, and diagnosis of disease.

**Data Analyses:** IBM SPSS Statistics 22.0 program was used for statistical analysis in the study. While evaluating the study data, in addition to descriptive statistical methods (percent).

**Ethical Considerations:** Before starting the study, permission was obtained from the Clinical Research Ethics Committee of Health Sciences University İstanbul Training and Research Hospital, with the decision dated 10.02.2023 and numbered 34.

## Results

Files of 21410 patients who received service from the home health services unit in 2022 were reviewed retrospectively. As a result of the screening, it was determined that 67.48% of the patients were women, 55.10% were between the ages of 66-85; 28.11% were aged 86 years and over and 10.33% were between the ages of 46-65 (Table 1).

**Table 1.** Personal characteristics of home health patients (n=21410)

	n	%
<b>Gender</b>		
<b>Female</b>	14 447	67.48
<b>Male</b>	6 963	32.52
<b>Age</b>		
<b>0-1 months</b>	-	-
<b>1 month -2 years old</b>	25	0.12
<b>3-18 years old</b>	418	1.95
<b>19-45 years old</b>	940	4.39
<b>46-65 years old</b>	2 212	10.33
<b>66-85 years old</b>	11 797	55.10
<b>86+ years old</b>	6 018	28.11

Of home health care patients, it was determined that 45.18% of them had neurological and psychiatric diseases, 2.56% had muscle diseases, 4.61% had hematological and oncological diseases, 4.82% had lung and respiratory system diseases, 18.45% had cardiovascular diseases, 23.57% had endocrine diseases and 3.40% of them had orthopedics and traumatology diseases (Table 2).

**Table 2.** Disease diagnoses of home health patients (n=21410)

	<b>Diseases</b>	<b>n</b>	<b>%</b>
<b>Neurological and psychiatric diseases</b>	Parkinson	685	3.20
	CVD*	3 719	17.37
	Alzheimer's disease	2 857	13.34
	Demantia	506	2.36
	Epilepsy	490	2.29
	Motor neuron disease	122	0.57
	Multiple sclerosis	156	0.73
	Depression	361	1.69
	Others	778	3.63
	<b>Total</b>	<b>9 674</b>	<b>45.18</b>
<b>Muscle diseases</b>		<b>548</b>	<b>2.56</b>
<b>Hematological and oncological diseases</b>		<b>987</b>	<b>4.61</b>
<b>Lung and respiratory system diseases</b>	COPD**	854	3.99
	Bronchial asthma	176	0.82
	Pulmonary hypertension	3	0.01
	<b>Total</b>	<b>1 033</b>	<b>4.82</b>
<b>Cardiovascular diseases</b>	Arrhythmia	570	2.66
	Atherosclerotic coronary artery disease	656	3.06
	Hypertension	7 595	35.47
	Heart valve disease	7	0.03
	Heart failure	1 191	5.56
	Coronary artery disease	661	3.09
	Venous circulation disorder	30	0.14
	Severe edema due to venous and lymphatic drainage disorder	15	0.07
	Others	3 225	15.06
	<b>Total</b>	<b>3 950</b>	<b>18.45</b>
<b>Endocrine diseases</b>	Diabetes	3 798	17.74
	Hyperlipidemia	192	0.90
	Hyperthyroidism	5	0.02
	Obesity	40	0.19

	Others	1 011	4.72
	<b>Total</b>	<b>5 046</b>	<b>23.57</b>
<b>Orthopedics and Traumatology diseases</b>	Pressure sores	590	2.76
	Discopathy	14	0.07
	Amputation of the extremities	3	0.01
	Gonartrosis in the extremities	37	0.17
	Cox arthrosis	2	0.01
	Osteomyelitis	2	0.01
	Osteoporosis	67	0.31
	Spine fracture	13	0.06
	Others	-	-
	<b>Total</b>	<b>728</b>	<b>3.40</b>

\* cerebro-vascular disease

\*\* chronic obstructive pulmonary disease

The services provided by home health services to patients are shown in Table 3. Considering the services provided, it was determined that patient examination (43.89%) was the first order, educational practices were the second (27.55%), and blood collection was the third (9.76%) (Table 3).

**Table 3.** Services provided to home health patients (n=95456)

<b>Services provided</b>	<b>n</b>	<b>%</b>
<b>Patient examination</b>	41 894	<b>43.89</b>
<b>Consultation</b>	3 144	3.29
<b>Health board report (Medical Device)</b>	2 759	2.89
<b>Health board report (Treatment)</b>	516	0.54
<b>Specialist physician report (Pharmaceutical)</b>	410	0.43
<b>Enteral hyperalimentation follow-up</b>	273	0.29
<b>IM injection</b>	92	0.10
<b>Bladder catheter application</b>	2 108	2.21
<b>Nasogastric tube application</b>	247	0.26
<b>Subcutaneous injection</b>	68	0.07

<b>Suture removal</b>	65	0.07
<b>Burn medical dressing</b>	12	0.01
<b>Wound medical dressing</b>	1 667	1.75
<b>Steam treatment</b>	1	0.00
<b>Physical therapy applications</b>	4 201	4.40
<b>Rehabilitation applications</b>	2 374	2.49
<b>Psychiatric applications</b>	3	0.00
<b>Patient education practices</b>	26 301	<b>27.55</b>
<b>Blood collection for examination</b>	9 321	9.76

## Discussion

In a society where the expected life expectancy is prolonged, the elderly population and chronic diseases increase, it is important to evaluate home care services and make necessary improvements and provide quality service. This will contribute to improving patient outcomes, reducing hospitalizations, reducing health care costs, using hospital bed capacities more efficiently, and avoiding the risk of infection due to hospitalizations.

In the study, it was determined that 67.48% of the patients receiving home health services were women. In a study examining the profile of elderly patients receiving home health services in Burdur in our country, 67.6% of the patients were found to be women<sup>7</sup>. In another study conducted in our country, it was determined that 63.8% of the patients who needed home care were women<sup>12</sup>. The prolongation of life expectancy in women compared to men and the increasing burden of chronic diseases on women's health<sup>13</sup> may be among the reasons why the majority of home health care recipients are women.

In the study, 55.10% of the patients who received home health services were 66-85 years old, 28.11% were 86 years old and over. It has been found in the literature that most of the home visits are made to patients over the age of 60<sup>4,7-9,12</sup>. It is emphasized that the elderly population is increasing in the world and in our country, and chronic diseases are increasing accordingly<sup>14,15</sup>. It is thought that the increase in chronic diseases seen with old age causes more elderly people to need home care services. The results of the study are similar to the results of other studies.

In this study, 45.18% of home health patients were neurology patients. In the study conducted by Karaman et al., they found that the highest rate of 51.16% among home health patients was neurology patients. The result of this study supports the literature result<sup>16</sup>.

18.45% of home health patients have cardiovascular diseases. Cardiovascular diseases take the first place among the causes of death in the world and in our country. As the expected life expectancy increases and the aging rate in societies increases, the incidence of cardiovascular diseases and the burden it brings increase<sup>17,18</sup>. In this study, it was observed that cardiovascular diseases constitute the highest burden in home health services.

It was determined that home health patients were provided with patient examination (43.89%) in the first place, educational practices (27.55%) in the second, and blood collection (9.76%) in the third. In a study conducted in Turkey, it was determined that 46.3% of the services provided to home care patients were patient examinations<sup>7</sup>. In another study conducted in our country, it was found that patients receiving home health services benefited less from physician examination, medication and referral services to health institutions, and they needed care services more<sup>8</sup>. In a study conducted in Sydney, it was determined that 78% of home care patients received intravenous drug therapy and 11% received services related to postoperative drainage management<sup>9</sup>. In studies evaluating the profile of home care patients and the service provided, it was determined that the patient education programs were not questioned, but the care provided by the physician and nurse was evaluated. Adequate and qualified education programs can be effective in improving patient outcomes and reducing hospitalizations. It is seen in the research that the education programs provided are not sufficient. There is a need for more studies evaluating the adequacy and quality of education programs in home health services.

### **Ethical Considerations**

Before starting the study, permission was obtained from the Clinical Research Ethics Committee of Health Sciences University İstanbul Training and Research Hospital, with the decision dated 10.02.2023 and numbered 34. All rights of the participants were respected and the principles of voluntariness and confidentiality were taken into consideration.

### **Conclusion**

It is thought that increasing the education programs given to home health patients will be effective in improving patient outcomes, reducing hospitalizations, reducing health care costs, using hospital bed capacities more efficiently and preventing the risk of infection due to hospitalizations. It would be beneficial to prepare patient education programs for the health needs of the elderly and to improve the prognosis of common chronic diseases. In order to achieve the desired goal in home health services, it is recommended to develop care protocols and guidelines.

### **Acknowledgements**

The authors sincerely thank all of the participants who participated in this study.

### **Conflict of Interests**

The authors declare no conflict of interests.

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