



Evaluation of Patients Receiving Home Health Services

Salih Metin^{ID}

Bursa Provincial Health Directorate Public Hospitals Services Presidency, Bursa Turkey

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ABSTRACT

Objectives: In this study, it is aimed to determine the health status of the patients who need home health services in Bursa, and to contribute to the accurate and effective planning of home health services according to this analysis.

Methods: The universe of this descriptive cross-sectional study consists of individuals over the age of 16 who are registered in the home health services unit of Bursa Ali Osman Sönmez Oncology Hospital. No sample was selected in the study, and all patients in the last year were evaluated. The data were taken from the patient information forms in the computer environment.

Results: Between July 2022 and July 2023, 655 patients who requested home health services were reached. The mean age of the patients was determined as 82.4. It was observed that 57% (n = 373) of the patients were female and 43% (n = 282) were male. As a result of the evaluation according to the Barthel Index, 66 (9.3%) of the patients were fully dependent, 482 (67.6%) were severely dependent, 165 (22.9%) were moderately dependent and 2 (0.3%) was found to be mildly dependent.

Conclusion: The prolongation of life expectancy at birth, the most important public health problem that we will encounter in our developing world with new diagnoses and treatments, is the increasing number of patients over 65 years of age, with more than one chronic disease and in the fragile group who need care. Each service to be provided to the vulnerable group will help the person to take care of himself/herself, and will reduce the burden of caregivers.

Keywords: Home care services, public health, family medicine practice

In parallel with the developments in technological, scientific and medical fields, there are many changes in the way of providing services to patients. As a concept, home health care services are mostly a medical service, although they include personal care services at home [1]. As an approach, home health care services include protecting and improving the health of people and, when necessary, intervening without the

need for long rehabilitation services when the health condition deteriorates, providing medical care to reintegrate the person into society [2].

Home health service in our country, in the Regulation on the Delivery of Home Care Services published in the Official Gazette dated 10.03.2005 and numbered 25751; It is defined as “providing health and care and follow-up services to patients in line with



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Address for correspondence

Salih Metin, MD., Assoc.Prof, T.C. Ministry of Health Bursa Provincial Health Directorate Public Hospitals Services Alaadin District, 16000, Bursa, Turkey.
E-Mail: slhmtn@hotmail.com

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the recommendations of physicians, in the environment they live with their families, by the healthcare team in a way that meets their medical needs, including rehabilitation, physiotherapy, and psychological treatment” [3].

Age groups to which home health services are directed; Although there are mostly elderly patients aged 65 and over who need chronic and long-term care, this group includes babies and children of all ages with chronic diseases. With home health services, all these featured groups can receive multi-faceted care services under safe home conditions. In addition, home health services can be provided in order to enable terminal cancer patients to spend their last days of life better [4].

On the other hand; The increasing cost of health services in hospitals, the continuing need for care after discharge, the aging of the society and the emergence of various health needs due to old age cause the population in need of home health services to increase [5]. As a result of people preferring home health services more, the frequency of going to the hospital and the duration of hospitalization are decreased [6].

Reduction of the side effects that may occur due to hospitalization, the fact that the family and friends of the person do not adhere to the hospital routine when they want to visit, and the appropriate patients benefit from health services in this way without leaving the home environment they are used to and love, reducing the occupancy of hospital beds and reducing the costs of tertiary care hospitals and the tertiary care costs of the patients in need. It facilitates access to services [7].

In this study, it is aimed to provide a detailed analysis of the reasons for the need for home health services of patients in the province sample and to contribute to the correct and effective planning of home health services according to this analysis.

METHODS

Data were obtained by examining the physical and electronic files of 655 patients selected by the Simple Random Sampling Method among the patients who received service from the Home Health Services Coordination Center affiliated to the Bursa Provincial Health Directorate Public Hospital Services Presidency. During the study period, the number of patients registered to the Center was 18,718.

The health status of the patients was examined

during the period of July 2022-July 2023. In these analyzes, variables such as demographic characteristics of patients (age, gender), number of visits, addiction levels, disease diagnoses, nutritional status, vaccination rates, incidence of constipation, urinary tract infection and decubitus ulcer, and medical devices used were examined. The study was planned as retrospective, descriptive and cross-sectional, and numerical variables were summarized as ‘mean \pm SD’, categorical variables as number and ratio (%).

Dependence levels of the patients were evaluated with the Barthel Activities of Daily Living Index, a scale used to measure the performance of individuals in activities of daily living. The scale was developed by Barthel and Mahoney in 1965 and modified by Shah *et al.* in 1992. It was adapted into Turkish by Küçükdeveci *et al.*, and its internal consistency was found to be 0.93 and 0.88 [8].

The index evaluates ten different activities of daily living. These life activities; nutrition (10 points), transition from wheelchair to bed and from bed to wheelchair (15 points), self-care (5 points), toilet activities (10 points), bathing activities (5 points), walking on a flat surface (15 points), stairs going up and down (10 points), dressing (10 points), bowel care (10 points) and bladder care (10 points) [9].

Prior to the study, approval was obtained from Bursa Provincial Health Directorate Scientific Research Commission (Committee Approval dated 25.08.2023 and numbered 2023/8).

RESULTS

The mean age of the patients was determined as 82.4. While the mean age for women is 83.2, it is 81.5 for men (Table 1). It was observed that 57% (n = 373) of the patients were female and 43% (n = 282) were male (Table 1).

As a result of the evaluation according to the Barthel Index, 66 (9.3%) of the patients were fully de

Table 1. Sociodemographic information of home health care patients

Gender	Ratio
Female	57% (n = 373)
Male	43% (n = 282)
The average age	Number
Female	83,2
Male	81,5

Table 2. Dependence status of home health care patients

Dependence status	Number
Severely dependent	67.8% (n = 482)
Mildly-Moderate dependent	23% (n = 163)
Fully dependent	9.2% (n = 66)

pendent, 482 (67.6%) were severely dependent, 165 (22.9%) were moderately dependent and 2 (0.3%) was found to be mildly dependent (Table 2).

In the study, the most common disease diagnoses were; Alzheimer's/dementia (48.9%), hypertension (31.6%), heart diseases (21.4%) and DM (11.6%) were found.

When the past records of 655 patients included in the study were examined, the total number of visits made from the date all patients started to receive service until 2020 was 4,524 (Table 4). It was determined that 67 of 655 patients had a permanent disability report. It was determined that 316 of the patients died during the research period (Table 4).

33 (5%) patients could not be fed orally and 230 (35%) patients were fed with formula supplementation. The number of patients with decubitus ulcer was 20 (3%).

Of the 655 patients participating in the study, 46 use at least one medical device. The distribution of 46 people using medical devices according to the devices they use is as follows; The walker uses 10 people, an air bed for 15 people, a wheelchair for 8 people, an oxygen cylinder for 15 people, and a ventilator for 3 people (Graph 1).

Among the patients participating in the study, the number of people who had flu vaccine was 4, and the number of people who had pneumococcal vaccine was 4.

Table 3. Chronical disease status of home health care patients

Chronical disease	Number
Hypertension	207
Diabetes mellitus	76
Alzheimer's disease/Dementia	320
Cancer	25
Heart diseases	140
Chronic Obstruktive Pulmonary Disease	27
Osteoporosis	40
Cerebrovascular disease	57
Epilepsy	10

Table 4. number of visits and Disability report in home health care patients

Number of visits	4524
Disability report	655
Death	316

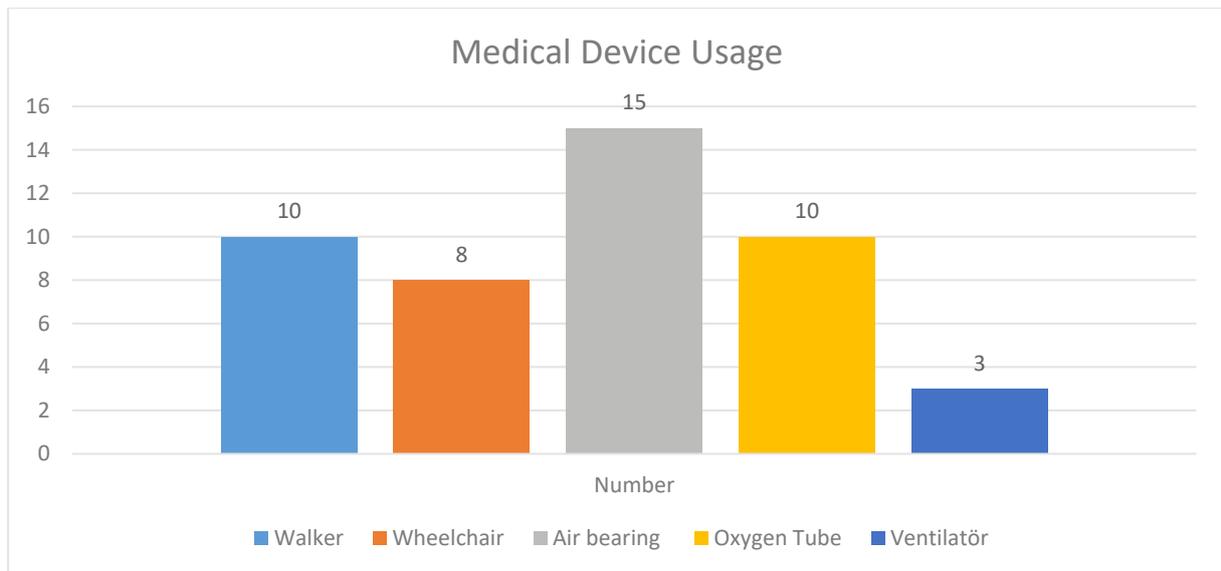
DISCUSSION

The high average age of the group needing home care brings along many chronic diseases and moderate-to-advanced addiction levels. In our study, it was found that mildly moderately dependent 23% (n = 163), severely dependent 67.8% (n = 482), and fully dependent 9.2% (n = 66). When the literature of our country was reviewed, it was found that it was 37.3% moderate and advanced in one study, 61.2% fully dependent, and 8%, advanced 20%, fully dependent 37% in another study [7, 10]. It is possible that the level of addiction varies between studies and may be affected by multifactorial causes such as age group, chronic diseases and cancer status of the population under consideration.

When evaluated in terms of mean age in our study, the mean age of patients receiving home health services in this study was found to be 82.3. Looking at the literature, the mean age was found to be 79.6 years, similar to our study [10, 11]. In our study, gender weight was found to be in favor of women with a frequency of 57% (n = 373). Similarly, in previous studies, it was reported that patients receiving home care were predominantly female [10, 12].

The most common chronic diseases in our study were; Alzheimer's/dementia in 35.4%, hypertension in 22.9% and cerebrovascular diseases in 8% (Graphic 2). In a previously reported study, the frequency of chronic diseases was cerebrovascular accident (21.40%), hypertension (15.20%) and Alzheimer's disease (12.20%) [10]. In another study, 20.80% of the patients who received home health services had cerebrovascular disease [13]. Neurological diseases appear to be the cause of general disability in patients receiving home care services.

Malnutrition leads to malnutrition and accompanying biopsychosocial problems. This situation causes sarcopenia and thus loss of resistance in the frail group, falls, prolongation of the healing time, and development of decubitus ulcer [14]. According to the findings of our study, 5% (n=33) of the patients cannot be fed orally and 35% (n = 230) of them take nutritional supplements. Looking at the literature, in a

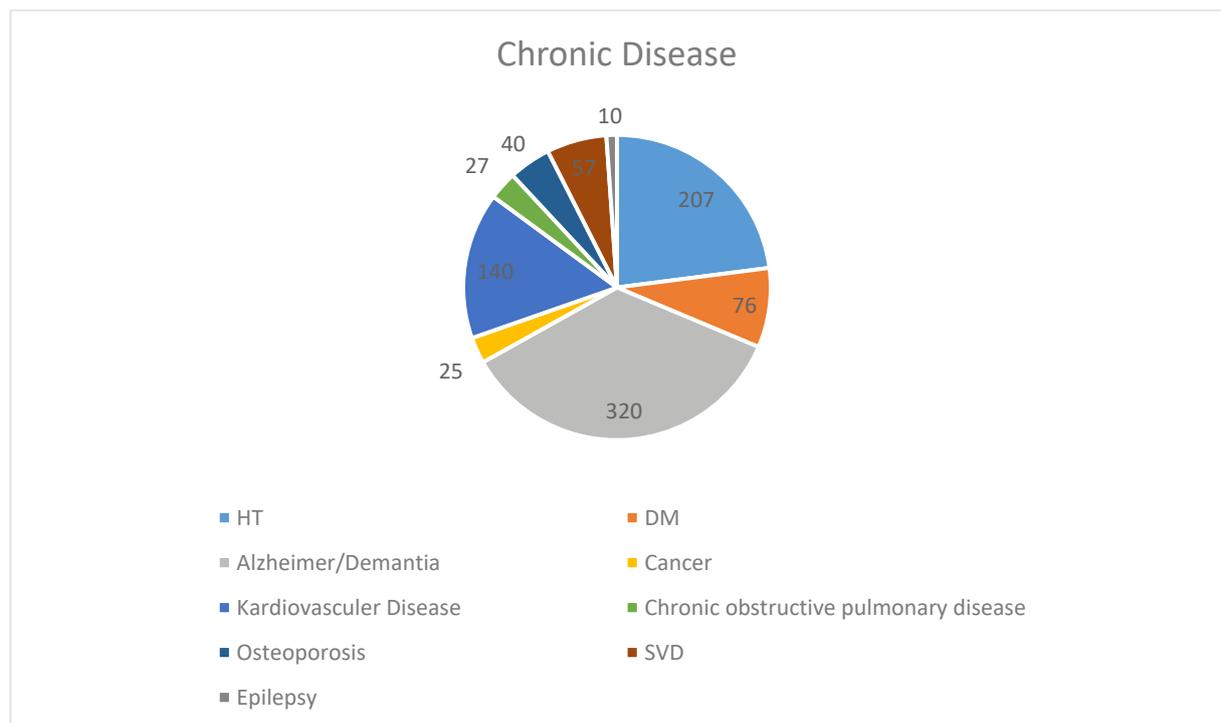


Graph 1. Medical device usage of home health care patients

study, 7% of the patients could not be fed orally and 32% of them took nutritional supplements [7]. Another study found the rate of patients who could not be fed orally as 33% [15]. In another study, 10.5% of patients were fed enterally [16]. In home care patients, close follow-up is important in terms of the fact that nutritional status follow-up invites many negativities.

In our study, the incidence of pressure ulcers in patients receiving home health services was found to be

3% (n = 20). When we look at the literature of our country, the rate of pressure sores in similar groups has been reported with a wide margin of 12-37% [7, 15-17]. Looking at the world literature, it was stated in a study that one out of every three patients receiving home health care needed wound care, and 37% of them had decubitus ulcers (18). Compared to other studies on home care patients in our country, the incidence of decubitus ulcer among patients in this study



Graph 2. Chronical disease status of home health care patients

was found to be lower than in other studies [7, 15-17]. Considering that decubitus ulcers, malnutrition, infection status and quality of care are affected by many factors, it is clear that groups with larger patient populations are needed.

There is a free immunization service in our country for individuals over 65 years of age with chronic diseases [19]. In our study, 0.6% (n = 4) with pneumococcal vaccine, 0.6% [n = 4] with influenza vaccine in the last 1 year, and in a study conducted in Samsun, 35 (6.5%) patients received influenza vaccine and only 2 (0.5%) the patient had pneumococcal vaccine; In a study conducted in Ankara, the rates of getting the influenza vaccine were 22.03%, while the rates of getting the pneumococcal vaccine were 6.44% [10, 20]. Our study shows similarity with other studies in our country in terms of pneumococcal immunization and lower than other studies in terms of influenza. In order to spread free preventive services to the entire population, a lot of work falls on the primary care and family medicine.

The most frequently provided medical services are home health services, patient visits by the home health team and wound dressing. Patients were visited an average of 2.8 times per year. In a previous study conducted in Samsun, it was reported that the frequency of visits was 2.5 per year, similar to our study [10]. Our study is similar to the literature.

CONCLUSION

The prolongation of life expectancy at birth, the most important public health problem that we will encounter in our developing world with new diagnoses and treatments, is the increasing number of patients over 65 years of age, with more than one chronic disease and in the fragile group who need care. Each service to be provided to the vulnerable group will enable the person to take care of himself/herself and hold on to life and will reduce the burden of caregivers. Home health services are carried out by health professionals at home, where the person will feel psychologically comfortable. It is important to carry out studies that depict the general of our country, such as this study, in terms of determining the need and expectation of home health services. Home health care, which is one of the best examples for the effective use of health resources, should also be evaluated in terms of easing the workload of the 2nd and 3rd steps.

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For the frequency of home care visits, more than 2 visits per year are within the quality standards of the Ministry of Health, and it is admirable that the frequency of home health visits in Bursa is well above the target value. We would like to thank the whole team, especially in the presence of Bursa Provincial Health Director Dr.Fevzi YAVUZYILMAZ, for the support given by the home health services coordination center, which is affiliated to the Bursa provincial health directorate.

Ethical Approval

For the protocol of the study, permission was obtained from the Bursa Provincial Health Directorate with the letter dated 25.08.2023 and numbered 222981783.

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