

Evaluation of Nursing Functions In Home Health Services: A Retrospective Study

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Received: 02.08.2021

Accepted: 11.10.2022

ABSTRACT

Objective: This study aimed to evaluate the nursing functions of home health services.

Methods: The study was planned retrospectively and descriptively in a state hospital's Home Health Care Unit. The study sample consists of all files of patients who received home health services between 16.01.2019 and 16-07.2019. Data Registration Form and Nursing Functions Evaluation Form were used in collecting the data. Kolmogorov-Smirnov test to test compliance with normal distribution in data analysis, descriptive statistics such as frequency, percentage, arithmetic mean, t-test and Mann Whitney U test in independent groups of 2, One-way ANOVA (Post-hoc Tamhane's T² test if the difference between groups was significant) and Kruskal-Wallis test were used in groups of 3.

Results: As a result of the data analysis, it was determined that there is a statistically significant difference between the independent, semi-dependent, and dependent function scores applied by nurses in patients with diabetes, recent operations, and heart failure ($p < 0.05$). Also, a statistically significant difference was found in the nursing function scores applied in individuals who need palliative care and dieticians, use medical devices or assistive devices, and are fed enterally by tube ($p < 0.05$). A significant positive relationship was found between the mean score of independent nursing functions and the frequency of home visits. ($r = 0.142$, $p < 0.05$).

Conclusion: As a result of this study, it was determined that semi-dependent functions are used more for nursing practices. It is thought that the interventions implemented by nurses will be more visible with the development of nursing registration systems in home health services.

Keywords: Home health care, nursing functions

1. INTRODUCTION

Home healthcare is an important healthcare model that is constantly growing (1). This model supports the elderly, physically or mentally disabled, chronically ill, or in the process of recovery in their environment and helping individuals adapt to social life and continue their lives happily and peacefully (2). In addition, within the scope of home health services, examination, test, analysis, treatment, medical care, and rehabilitation services are provided to individuals in their home environment. Training and consultancy services are provided on the care processes of the individual's disease and the correct use of medical devices and equipment that should be used at home. In this way, people can get the periodic care they need from a professional healthcare team (3).

Chronic or malignant diseases and dependency and disability due to these diseases increase the need for home healthcare services (4). Especially individuals with chronic diseases aged

65 and over constitute a group in which home healthcare services are predominantly provided, as they need long-term care (5). In a study conducted on the subject, it was found that 31.7% of the individuals who received home health care after intensive care were between the ages of 60-79, and 47.5% were 80 years old and above (6). In the study of Işık et al. (2016), it was found that 41.5% of the patients receiving home care were between the ages of 61-80, while 30.7% were 81 years old and above (7). Also, studies in the literature report that the most common chronic diseases in individuals receiving home healthcare services are cerebrovascular diseases, diabetes, hypertension, cardiovascular diseases, Alzheimer's, and malignancy (8,9,10). In this context, individuals who experience limitations in their daily life activities due to chronic diseases and treatment methods need nursing care (11).

Nursing care is among the home health services that individuals and families need most (12). The home care nurse evaluates the individual with physical, emotional, social, and spiritual dimensions and provides home care services for the individual and family in line with the health-promoting, protective, therapeutic, and rehabilitative nursing diagnoses (13). Nursing diagnoses obtained by observation, interview, and physical evaluation methods are problems that nurses are authorized to diagnose and treat independently. In other words, they are independent functions used in nursing care. In addition, home care nurses also have semi-dependent and dependent functions based on physician directives (14). However, there are studies in the literature on the subject that describe health services such as urinary catheter care at home, pressure sore care, post-operative care, and the need for information (15,16,17,18,19), but there is no study that addresses the nursing practices of nurses who have contributed to almost all of these services and have the most roles in home care of the patient (20). By using their independent, semi-dependent and dependent functions. Therefore, it is thought that the study conducted on the subject will make significant contributions to the literature. Also, the study results are expected to reveal some points in planning home healthcare services, especially in determining the functions of nurses and job descriptions. This study was planned retrospectively and descriptively to evaluate nursing functions in home healthcare services.

Research Questions

-Is there a difference between independent, semi-dependent, and dependent nursing function scores according to the participants' illnesses?

– Is there a difference between independent, semi-dependent, and dependent nursing function scores according to the participants' different care and support needs?

-Is there a relationship between home visit frequency, daily living activities, number of illnesses, age variables, and nursing function scores?

2. METHODS

This study aimed to evaluate the nursing functions in the delivery of home health services. The research was planned retrospectively and descriptively in the Home Health Care Unit of a state hospital. Completed in 2015, the hospital has a 72-bed capacity: three nurses and a physician work in the home healthcare unit. The unit makes approximately 12 home visits per day. The number of registered patients benefiting from home health services between 16.01.2019 and 16.07.2019 is 384. The files of all these patients were examined and included in the study.

Ethical Considerations

Before starting the research, necessary permissions were obtained from the Sakarya University Non-invasive Ethics Committee of a Medical Faculty (Number: 71522473/050.01.0433, Date: 03.07.2019). Ethical principles of the Declaration of Helsinki were taken into account in the study.

2.1. Participants and Sample

The universe of the study consists of the files of individuals who receive service from the home health services unit of the hospital where the research is conducted and who are registered in the electronic information system of the unit. The study sample consists of all patients who received home healthcare services in the last six months. According to the date they received the service, the patients were listed from the old to the latest date, and 384 files, which are the entire population, were included in the sampling.

2.2. Instruments

The data were collected with the Data Registration Form and the Nursing Functions Evaluation Form.

Data Registration Form

The data registration form was prepared using the hospital's data collection forms for the patient and family for home healthcare. There are a total of 21 questions in the data registration form about the patient's age, gender, date of the home visit, the date of the previous visit, how often the home visit was made, the reason for the application, the patient's illnesses, the patient's medical care, nursing service, rehabilitation care, social support, palliative care, psychological support, the need for a dietician, the drugs used, the post-op period, dependency in daily life activities, the use of any medical device, the evaluation of the nutritional status, who meets the personal needs of the patient and the reason why the patient is excluded from home health care follow-up.

Nursing Functions Evaluation Form

This questionnaire form has been prepared by using international and national sources (21,22,23) the Regulation on the Delivery of Home Care Services (2005), and the Nursing Regulation which prepared by experts in the field of nursing (2011) to group the independent, semi-dependent and dependent functions of nurses. In selecting the nursing functions included in the evaluation form, the interventions that nurses can implement within the scope of home health care and in the home environment were considered. A table was created by dividing nursing interventions applied at each home visit into independent (17), semi-dependent (7), and dependent function (4) groups. The records of each patient receiving service from home healthcare services were checked, interventions made by nurses during home visits

were marked on the form in any category of independent, semi-dependent and dependent functions. In each home visit, the function category of the interventions performed by the nurses was determined, and a score was given to each. After scoring, individual total numbers were calculated for each of the independent, semi-dependent, and dependent functions. Accordingly, a nurse's high score in any dependent, semi-dependent and independent nursing functions indicates that the nursing functions with high scores are more likely to be displayed in home care. The total number of nursing functions (dependent, semi-dependent and independent) is taken into account in this form. A score of zero indicates that no service is provided for the relevant nursing function.

2.3. Data Collection

The data were taken from the patient records registered in the electronic information system of the hospital's home health services unit. In collecting the data, a healthcare professional working in home health services opened the database of the hospital and was with the researcher until the data collection was completed. During the collection of data, attention has been paid to the protection of personal information.

2.4. Statistical Analysis

Licensed SPSS 20.0 (Statistical Package for Social Sciences) package program was used for statistical analysis. To test the conformity of the data to a normal distribution, the Kolmogorov-Smirnov p-value was required to be greater than 0.05, and the skewness and kurtosis values to be in the range (-2) and of (+2). In the analysis of the data, descriptive statistics such as frequency, percentage, arithmetic mean, t-test and Mann Whitney U test in independent groups of 2, One-way ANOVA in groups of 3 (Post-hoc Tamhane's T^2 test if the difference between groups is significant) and Kruskal-Wallis test were used $p < 0.05$ was considered statistically significant. Spearman correlation analysis was performed to determine the relationship between variables. In terms of correlation coefficients, 0.00-0.19 was interpreted as no or negligible relationship, 0-0.24 no relationship/too weak relationship, 0.25-0.49 weak-moderate relationship, 0.50-0.74 strong relationship, 0.75-1.00 very strong relationship.

3. RESULTS

3.1. Participant Characteristics

83.1% of the participants in the study are 65 years old, and above, 62% are women. 41.4% of home visits are made once a month. Those who receive care services; 33.6% applied to the home care unit for general examination, 1.7% periodic care, 12.3% blood collection, 12.2% dressing, 10.2% catheter change, 7.3% treatment, 19.8% education, 2% diaper report, 1% other reasons.

For individuals receiving home care services; 7.9% had stroke, 5% cancer, 9% Alzheimer's, 13.5% diabetes, 19.1%

hypertension, 6.4% past operation, 13.2% heart failure, 2% kidney failure, 23.9% have other diseases, and 71.2% have more than one disease.

97.9% of the participants stated that they needed medical care, 99.7% nursing service, 34.7% rehabilitation, 9.5% social support, 8.2% palliative care, 17.5% psychological support, 5.4% dietician. 14.1% of the people in the study were in the post-op period, 46.5% were semi-dependent on daily life activities, 94.9% were fed orally, 17% were using medical devices or assistive devices, and 70.2% were cared for by their family. 67.2% of those who were excluded from the home care follow-up system were excluded due to death.

3.2. Comparison of Nursing Functions Mean Scores

Table 1 shows the comparison of the mean scores of independent, semi-dependent, and dependent nursing functions according to the diseases of the participants. Accordingly, no statistically significant difference was found between the mean independent, semi-dependent, and dependent nursing function scores in stroke, cancer, Alzheimer's, hypertension, kidney failure, and other diseases ($p > 0.05$). A statistically significant difference was found between the independent, semi-dependent and dependent function mean scores applied by nurses in patients with diabetes, recent operations, and heart failure ($p < 0.05$). According to this result, the mean score of semi-dependent nursing functions in patients with diabetes is higher than in patients without diabetes, the mean score for independent and dependent nursing functions in patients who have recently undergone surgery is higher than in patients who have not undergone an operation, the mean score for dependent nursing functions is higher in patients with heart failure than in patients without heart failure, and the difference between the means was found to be statistically significant ($p < 0.05$) (Table 1).

In Table 2, a comparison of the mean scores of independent, semi-dependent, and dependent nursing functions according to some characteristics of the participants is presented. Accordingly, no statistically significant difference was found between the mean scores of independent, semi-dependent, and dependent nursing functions applied to patients needing medical care, nursing service, rehabilitation, social support, and psychological support ($p > 0.05$). As a result of the analysis, it was found that the mean scores of independent and semi-dependent nursing functions applied to individuals in need of palliative care were higher than those who did not need palliative care, the mean score of independent nursing function in individuals who need a dietician is higher than those who do not need a dietician, the mean score of semi-dependent nursing function was higher in individuals using medical devices or assistive devices compared to those who did not use, the mean score of semi-dependent nursing function was higher in individuals fed enterally with tube than in individuals fed orally and the difference between the mean scores was found to be statistically significant ($p < 0.05$) (Table 2).

Table 1. Comparison of independent, semi-dependent and dependent nursing functions mean scores according to participants' diseases (n=384)

	Independent Nursing Function Score $\bar{X} \pm SD / Q_2(Q_1-Q_3)$	Semi-Dependent Nursing Function Score $\bar{X} \pm SD / Q_2(Q_1-Q_3)$	Dependent Nursing Function Score $\bar{X} \pm SD / Q_2(Q_1-Q_3)$
Stroke			
Yes	9.00(9.00-10.00)	0.00(0.00-1.00)	0.76±0.77
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.72
t/z	-1.958	-0.337	0.336
p-value	0.050	0.736	0.737
Cancer			
Yes	9.00(9.00-9.25)	0.00(0.00-1.00)	0.79±0.72
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.73
t/z	-1.898	-0.645	0.523
p-value	0.058	0.519	0.602
Alzheimer's			
Yes	9.00(9.00-10.00)	0.00(0.00-1.00)	0.84±0.77
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.70±0.72
t/z	-1.717	-0.332	1.454
p-value	0.086	0.740	0.147
Diabetes			
Yes	9.00(9.00-10.00)	0.00(0.00-1.00)	0.74±0.69
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.75
t/z	-0.365	-3.614	0.229
p-value	0.715	0.000	0.819
Hypertension			
Yes	9.00(9.00-10.00)	0.00(0.00-1.00)	0.70±0.67
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.75±0.77
t/z	-0.120	-1.020	-0.576
p-value	0.904	0.308	0.565
Past Operation			
Yes	10.00(10.00-10.50)	0.00(0.00-1.00)	0.40±0.63
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.78±0.73
t/z	-6.553	-1.350	-3.639
p-value	0.000	0.177	0.000
Heart failure			
Yes	9.00(9.00-10.00)	0.00(0.00-0.00)	0.85±0.73
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.68±0.73
t/z	-0.423	-0.177	2.122
p-value	0.672	0.859	0.035
Kidney failure			
Yes	9.00(9.00-9.50)	0.00(0.00-1.00)	0.65±0.61
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.73±0.74
t/z	-0.969	-1.186	-0.479
p-value	0.332	0.236	0.632
Other			
Yes	9.00(9.00-10.00)	0.00(0.00-0.00)	0.74±0.71
No	9.00(9.00-10.00)	0.00(0.00-1.00)	0.72±0.75
t/z	-0.327	-1.039	0.238
p-value	0.744	0.299	0.812

Only mean and standard deviation are given in parametric tests.

It was found that the mean score of the independent nursing function applied in patients who need post-op care was higher than those who did not need post-op care, and the mean score of dependent nursing function was lower, and a statistically significant difference was found between the mean scores (p<0.05) (Table 2).

A statistically significant difference was found between the independent and semi-dependent nursing functions

score averages in the daily living activities of the individuals according to their dependency status. According to this result, it was found that individuals who are fully dependent on daily living activities have higher mean scores compared to individuals who are semi-dependent and independent, and it was found to be statistically significant (p<0.05) (Table 2).

Table 2. Comparison of independent, semi-dependent and dependent nursing functions mean scores according to different care and support needs of the participants (n=384)

	Independent Nursing Function Score X±SD/Q ₁ (Q ₁ -Q ₃)	Semi-Dependent Nursing Function Score X±SD/Q ₁ (Q ₁ -Q ₃)	Dependent Nursing Function Score X±SD/Q ₁ (Q ₁ -Q ₃)
Need for Medical Care			
Yes	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.72
No	9.00(9.00-9.75)	0.00(0.00-1.00)	1.00±1.20
U/t	-0.909	-0.855	-0.650
p-value	0.363	0.392	0.536
Need for Rehabilitation			
Yes	9.00(9.00-10.00)	0.00(0.00-0.00)	0.73±0.76
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.73±0.72
U/t	-0.079	-0.048	-0.082
p-value	0.937	0.962	0.935
Need for Social Support			
Yes	10.00(9.00-10.00)	0.00(0.00-0.50)	0.65±0.68
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.74±0.74
U/t	-1.320	-0.073	-0.713
p-value	0.187	0.941	0.476
Need for Palliative Care			
Yes	10.00(9.00-10.00)	0.00(0.00-1.00)	0.78±0.71
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.73±0.73
U/t	-2.204	-2.827	0.414
p-value	0.028	0.005	0.679
Need for Psychological Support			
Yes	9.50(9.00-10.00)	0.00(0.00-1.00)	0.78±0.69
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.74
U/t	-1.447	-0.564	0.613
p-value	0.148	0.573	0.540
Need for Dietitian			
Yes	10.00(9.00-10.00)	0.00(0.00-1.00)	0.95±0.74
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.73
U/t	-2.239	-0.959	1.437
p-value	0.025	0.338	0.151
Need for Post-op Care			
Yes	10.00(10.00-11.00)	0.00(0.00-0.00)	0.45±0.69
No	9.00(9.00-10.00)	0.00(0.00-1.00)	0.78±0.73
U/t	-7.222	-1.493	-3.054
p-value	0.000	0.135	0.002
Dependency Status in Activities of Daily Living			
Fully dependent ^a	10.00(9.00-10.00)	0.00(0.00-1.00)	0.76±0.78
Semi dependent ^b	9.00(9.00-10.00)	0.00(0.00-0.00)	0.71±0.74
Semi dependent ^c	9.00(9.00-9.50)	0.00(0.00-0.00)	0.73±0.61
KW/F	16.239/*a>b,c	22.056/*a>b,c	0.226
p-value	0.000	0.000	0.798
Use of Medical Devices or Assistive Devices			
Yes	9.00(9.00-10.00)	0.00(0.00-1.00)	0.80±0.79
No	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.72
U/t	-0.161	-2.511	0.891
p-value	0.872	0.012	0.373

	Independent Nursing Function Score X±SD/Q ₂ (Q ₁ -Q ₃)	Semi-Dependent Nursing Function Score X±SD/Q ₂ (Q ₁ -Q ₃)	Dependent Nursing Function Score X±SD/Q ₂ (Q ₁ -Q ₃)
Evaluation of the Patient's Nutritional Status			
Oral	9.00(9.00-10.00)	0.00(0.00-0.00)	0.72±0.72
Enteral with tube	10.00(9.00-10.00)	0.00(1.00-1.00)	1.00±0.80
U/t	-1.714	-3.749	-1.702
p-value	0.087	0.000	0.089
The Person Who Meets Their Personal Needs			
Patient ^a	9.00(9.00-10.00)	0.00(0.00-0.00)	0.61±0.65
Family ^b	9.00(9.00-10.00)	0.00(0.00-0.50)	0.77±0.75
Caregiver ^c	9.00(9.00-10.00)	0.00(0.00-1.00)	0.74±0.73
KW/F	4.195	8.429/ ^{a,b,c}	1.830
p-value	0.123	0.015	0.162

Only mean and standard deviation are given in parametric tests, U: Mann-Whitney U Test, t: t-test, F: Anova, KW: Kruskal-Wallis Test, *Post-Hoc Tamhane's T2 Test

Table 3. Correlations of home visiting frequency, activities of daily living, number of diseases, age variables and nursing functions mean scores (n=384)

	Frequency of Home Visit	Dependency Status in Activities of Daily Living	Number of Diseases	Age
Independent Nursing Function Score				
r _s	0.142	-0.204	0.045	0.016
p-value	0.005*	0.000**	0.380	0.748
Semi-Dependent Nursing Function Score				
r _s	0.024	-0.216	0.065	0.026
p-value	0.640	0.000**	0.201	0.616
Dependent Nursing Function Score				
r _s	0.029	-0.004	0.055	0.038
p-value	0.564	0.939	0.281	0.454

*p<0.05, **p<0.001

A statistically significant difference was found between the mean scores of the semi-dependent nursing function applied according to the person who meets the participants' personal needs. Accordingly, it was found that the mean score of semi-dependent nursing functions applied to the person whose personal needs are met by the caregiver is higher than the individuals whose personal needs are met by himself and his family, and there was a statistically significant difference between the mean scores (p<0.05) (Table 2).

3.3. Correlations of Home Visit Frequency, Activities of Daily Living, Number of Diseases, Age Variables, and Nursing Function Scores

In the study, no significant relationship was found between the mean score of dependent nursing function and the frequency of home visits, daily living activities of the participants, the number of illnesses, and age variables (p>0.05). While a positive, too weak, and significant relationship was found between the mean score of independent nursing functions and the frequency of home visits, a negative, too weak, and

statistically significant relationship was found with daily living activities (p<0.05). It was found that there is a negative, too weak and significant relationship between independent and semi-dependent nursing functions mean scores and the variable of addiction status in activities of daily living (p<0.05).

4. DISCUSSION

Nurses play a key role in providing home care services as effective healthcare team members (11). Nursing practices are very necessary and important in the home care of the individual in special periods of life such as old age, infancy, pregnancy, chronic diseases, after-surgery / post-discharge care and treatment, palliative care, ensuring that the daily life activities of addicted individuals are carried out and when there are health problems (24). As a result of the analysis made in this study, important findings were obtained that contribute to the development of strategies for determining the functions of nurses and increasing nursing practices in home health care.

The study found that nurses performed more semi-dependent functions in patients with diabetes than in patients without diabetes. Akaltun and Ersin (2016) emphasized the importance of educational activities, which are among the independent functions of nurses. Ergün and Sivrikaya (2012), on the other hand, reported the necessity of applying dependent and independent nursing functions by home care nurses to evaluate and support patients and caregivers in the process of diabetes control at home, such as causes of insulin use, correct insulin applications, appropriate site selection, dose adjustment and administration time, complications, individual monitoring of complications, providing appropriate storage conditions and exercise (26). O'Reilly (2005) emphasizes the importance of supporting patients with diabetes receiving home care more by preparing education, counseling, and patient-specific care plans, which are among the independent functions of nurses rather than semi-dependent functions (27).

The study found that independent and dependent nursing functions were applied more in patients who had a recent operation than those who did not have an operation. To develop a comprehensive nursing care plan for the home care of patients undergoing surgery; Determining postoperative complications, characteristics of incision wound, treatment, pain severity, limitations regarding daily life activities, special care needs, and nutritional status of the patient, additionally, training and counseling services, providing care and coordination of care are among the nursing functions (28). In this study, it was observed that nurses highlighted their dependent and independent functions during home visits to patients after surgery, such as wound care, administration of medications according to the treatment plan, vital signs follow-up, and helping patients in daily life activities.

The study determined that nurses used their dependent functions more in patients with heart failure, such as taking blood, administering the patient's medications according to the treatment plan, and making an appointment for the individual for examination, tests, and treatment planning for the transfer. In the literature, the importance of providing qualified nursing care for patients with heart failure is emphasized, and the importance of self-care of patients, symptom monitoring, treatment compliance, and patient and family education are emphasized (29,30). According to the study results, although it was determined that nurses use their dependent functions more in patients with heart failure, it is thought that the interventions performed are not fully documented due to the lack of registration.

The study determined that nurses use their independent and semi-dependent functions more in patients who need palliative care than those who do not need palliative care. Nurses are expected to manage acute symptoms such as pain and constipation in palliative care patients receiving home care services and provide wound care, parental medication, and psychosocial support to patients/relatives (31, 32). In the study of Schroeder and Lorenz (2018), the importance of providing patient-specific counseling and care coordination,

symptom management, end-of-life care, medication, and managing the needs of daily life activities by the nurses who provide palliative care at home is emphasized. Sijabata et al. (2019) state that nurses who provide palliative care at home need to adopt a holistic and inclusive approach in terms of psychological, social, and spiritual aspects, but they are more interested in patients' physical ailments and treatments(33).

The study determined that individuals who receive home healthcare services need dependent and semi-dependent nursing interventions, especially for dietitians and nutritional problems. In the study of Işık et al. (2016), it was reported that the highest rate of dependency in daily living activities was nutrition activity with 48.6% (7). In the literature, it was found that nursing interventions related to education, mediation of patients / patient relatives and caregivers, assessment of nutritional status, enteral nutrition, feeding catheter problems, and catheter infections were applied to individuals receiving home care services (34,35,36,37).It is important that the home care nurse educates the patient receiving home care service or caregiver and that the patient is evaluated with a multidisciplinary approach at regular intervals under the coordination of the nurse.

The study found that 17% of the patients receiving home care were using medical devices or assistive devices, and semi-dependent functions for nurse practices were used more in these patients. The functions of home care nurses include helping and guiding individuals for the correct and safe use of devices or tools in care and treatment (38,39). In the literature, it is reported that nurses should evaluate the problems in patients in the intensive care class within the scope of home care by using the semi-dependent and independent functions related to the musculoskeletal system, the need for assistive devices such as crutches and wheelchairs, dependence on the bed and using an air mattress, and the problems experienced by the individual and the family (40).

A statistically significant relationship was found between the study's independent nursing function score and home visit frequency variables. Patients' care needs, dementia, depression, and recurrent acute diseases are thought to effectively determine the frequency of home visits (41). Nadarevic-Stefanec et al. (2011) reported that 30.6% of individuals receiving home care services received intensive care service and 54.2% received minimum health care, and the total number of visits per patient ranged from 4 to 720 (42). Öztürk and Toprak (2018) stated that a patient was visited an average of 6.54 times a year, as the age increased the number of visits by the home health unit increased to 4 and above, that there was no significant difference between patients with 4 or more visits by the home health unit and emergency visits and deaths; however, there is a significant relationship between diagnoses and frequency of visits (43). It is stated that while there are 3 or fewer visits in patients with Alzheimer's, 4 or more visits occur in those with essential hypertension and endocrine disorders. In the study of Bouman et al. (2007), it was reported that home

care nurses made eight visits to the elderly in 18 months and some social, psychological, physiological problems were detected in individuals and that they carried out counseling and training activities, which are among the independent functions of nurses, for these problems (44).

As a result of the study, a statistically significant difference was found between the mean scores of independent, semi-dependent and dependent functions applied by nurses in patients with diabetes, recent operations, and heart failure. A significant positive relationship was found between the mean score of independent nursing functions and the frequency of home visits and a negative relationship with daily living activities. Also, a statistically significant difference was found in the nursing functions of individuals in need of palliative care and dietitian, using medical devices or assistive devices, and fed enterally by tube.

5. CONCLUSION

As a result of the study, it was observed that there was a statistically significant difference in the nursing functions applied to patients with diabetes, recent surgery, heart failure, palliative care and dietitian need, using medical devices or assistive devices, and tube-fed enterally. In addition, it was determined that semi-dependent functions for nursing practices are used more. A positive correlation was found between the mean score of independent nursing functions and the frequency of home visits and a negative correlation with activities of daily living. Based on the results of the study, it can be suggested that nurses should use more independent functions such as training, counseling, mediation, orientation, and leadership. It is thought that this will have positive results on the prolongation of hospitalization, mortality, morbidity, and quality of life of the patient. It is considered important to rearrange the record-keeping systems for nursing interventions within the scope of home healthcare services because it is seen that independent nursing interventions are not included in the registries, and more records of dependent nursing practices are kept. It is thought that the interventions implemented by nurses will be more visible with the development of nursing registration systems in home healthcare services.

Acknowledgment: This article has been awarded with the second oral presentation prize in the 3rd International Home Care Congress organized online in collaboration with İstanbul Kent University, Faculty of Health Sciences, Department of Nursing, Turkey and the University of Primorsca Faculty of Health Science, Slovenia and Home Care Association, Turkey on 09-12-November-2021

REFERENCES

- [1] Çolak R, Işık AH, Yiğit TA. New method for routing in home health care services. *Brain* 2019; 10(4): 14-27.
- [2] Önder T, Anuk T, Kahramanca Ş, Yıldırım AC. Evaluating socio-demographic and medical conditions of patients under homecare service. *Dicle Medical Journal*. 2015;42(3):342-345.
- [3] Yılmaz M, Sametoğlu F, Akmeşe G, Tak A, Yağbasan B, Gökçay S, Sağlam M, Doğanılmaz D, Erdem S. In-Home health services as an alternative form of presentation of patient care. *Istanbul Medical Journal* 2010; 11(3): 125-132.
- [4] Çayır Y. Home health care. *Turkish Journal of Family Medicine and Primary Care* 2020;14(1):147-152.
- [5] Eser U. Integration of home care and palliative care. *Clinical Medicine Family Medicine*. 2016; 8(3): 45-47.
- [6] Özgünay ŞE, Akça F, Karasu D, Kılıç İ. The relationship between patient care burden and empathy in caregivers of intensive care unit survivors. *JARSS*. 2019; 27(1): 15-21.
- [7] Işık O, Kandemir A, Erişen MA, Fidan C. Profile of patients who use home care health services and evaluation of provided service. *Hacettepe Sağlık İdaresi Dergisi*. 2016; 19(2):171-186.
- [8] Yörük S, Çalışkan T, Gündoğdu H. Determining the reasons for taking care of and the services provided for the elderly individuals age 65 and over who take care from the balıkesir state hospital home care unit. *Balıkesir Health Sciences Journal*. 2012;1(1): 12-15.
- [9] Çubukçu M. Falling risk assesment in home care patients. *Turkish Journal of Family Practice*. 2018;22(2): 50-57.
- [10] Erkan H, Altuntaş M. Evaluation of care burden for the patients receiving home health care. *Ankara Medical Journal*. 2019;19(3):591-601.
- [11] Sezer A, Demirbaş H, Kadioğlu H. Home care nursing: Professional competencies and education standards. *Florence Nightingale Journal of Nursing* 2015;23(2): 160-165.
- [12] Dawani HA, Hamdan-Mansour AM, Ajlouni AT. Users' perception and satisfaction of current situation of home health care services in Jordan. *Health*. 2014;6 (7): 549-558.
- [13] Cimete G. Evde bakım hemşireliği. *Türk Yoğun Bakım Dergisi*. 2008;6(4).(Turkish)
- [14] Taylan S, Alan S, Kadioğlu S. Roles of Nursing and Autonomy. *HEMAR-G*. 2012;14(3): 66-74.
- [15] Akdemir N, Bostanoğlu H, Yurtsever S, Kutlutürkan S, Kapucu S, Özer ZC. Needs of home care services for the bed ridden patient's problems living in their home. *Dicle Medical Journal* 2011;38(1):57-65.
- [16] Çatak B, Kılınc AS, Badıllıoğlu O, Sütlü S, Sofuoğlu AE, Aslan D. Profile of elderly patients who use health services in their homes and in-home care. *Turkish Journal of Public Health* 2012;10(1): 13-21.
- [17] Karaman D, Kara D, Atar YN. Care needs and disease states of individuals, who home health care services are provided evaluating: example of Zonguldak province. *Gümüşhane University Journal of Health Sciences* 2015; 4(3):347-359.
- [18] Ohashi K, Adachi A, Hosoda T. A Survey on home care needs of patients with hematological diseases. *Europe PMC*. 2019;46(1): 157-160.
- [19] Urbieté L, Lesauskaitė V, Macijauskienė J. Discharge planning and home care needs assessment for older patients in a nursing hospital. *Medicina* 2020;56(60): 2-12.
- [20] Gümüş R, Sarıbaş S. Analysis of home health care services provided by health ministry of Turkey in Diyarbakır and its districts in 2015. *International Journal of Health Management and Strategies Research* 2017;3(1): 17-27.
- [21] Velioglu P, Babadağ K. Hemşirelik ve Gelişimi Tarihi, Eskişehir: Açıköğretim Yayınları, 1992. (Turkish)
- [22] Sundberg CS. *Fundamentals of Nursing*. 2nd. Ed., Boston: Jones and Bartlett Publishers, 1989

- [23] Lindeman CA, McAthie M. *Fundamentals of Contemporary Nursing Practice*. USA: W.B. Saunders Company. 1999.
- [24] Humphrey CJ, Nuzzo MP. *Transitioning Nurses to Homecare*. Horris, M. D. (Ed.). *Handbook of Home Health Care Administration*. Jones And Barlett Publisher. India 2009; 515-528.
- [25] Akaltun H, Ersin F. Determining the attitude and behavior of the diabetic patients that receive home care. *DEUHFED* 2016; 9(4):126-133.
- [26] Ergün S, Sivrikaya S. Home care applications and management in children with type 1 diabetes. *Balikesir Journal of Health Sciences* 2012;1(2):90-94.
- [27] O'Reilly CA. Managing the care of patients with diabetes in the home care setting. *Diabetes Spectrum* 2005;18(3):162-166.
- [28] Bilik Ö. Travel to home from the clinic: Home care of the surgery patients. *Journal of Ege University Nursing Faculty* 2017;33(1):114-127.
- [29] Kasapoğlu ES, Enç NA. Guide for the nurses in care management of heart failure. *Journal of Cardiovascular Nursing* 2017;8(16):35-44
- [30] Tsuchihashi-Makaya M, Matsuo H, Kakinoki S, Takechi S, Kinugawa S, Tsutsui H; J-HOMECARE Investigators. Home-based disease management program to improve psychological status in patients with heart failure in Japan. *Circ J*. 2013;77(4):926-33.
- [31] Kebudi R, Çakır FB, Gultekin M. Palliative care to the cancer patient in Turkey. In: Silbermann M (eds) *Palliative Care to the Cancer Patient* New York: Nova Science Publishers 2014;193-210.
- [32] Şahan Uslu F, Terzioğlu F. Palliative care education and organization in the world and Turkey. *Cumhuriyet Nursing Journal* 2015;4 (2):81-90.
- [33] Sijabata M, Dahliaa D, Waluyoa A. Experiences of palliative care nurses in providing home-based care for patient with advanced cancer. *Enfermeria Clinical* 2019; 29(2):413-417.
- [34] Schneider SM, Pouget I, Staccini P, Rampal P, Hebuterne X. Quality of life in long-term home enteral nutrition patients. *Clinical Nutrition* 2000;19(1):23-28.
- [35] Visvanathan R, Macintosh C, Callary M, Penhall R, Horowitz M, Chapman I. The nutritional status of 250 older Australian recipients of domiciliary care services and its association with outcomes at 12 months. *Journal of the American Geriatrics Society* 2003;51:1007-1011.
- [36] Nordin N, Kamaruzzaman SB, Chin AV, Poi PJH, Tan MP. A descriptive study of nasogastric tube feeding among geriatric inpatients in Malaysia: Utilization, complications, and caregiver opinions. *Journal of Nutrition in Gerontology and Geriatrics* 2015;34(1):34-49.
- [37] Lim ML, Yong BYP, Mar MQM, Ang SY, Chan MM, Lam M, Chong NCJ, Lopez V. Caring for patients on home enteral nutrition: Reported complications by home carers and perspectives of community nurses. *J Clin Nurs*. 2018;27(13-14):2825-2835.
- [38] Nagai H et al. Present situation of home care and roles of nurses at Tokyo Women's. Medical University – through the 5 – year home care support activities. *Gan To Kagaku Ryoho*. 2003;30(1):176-179.
- [39] Warren ML. An inter disciplinary ventilator-dependent patients to home. *J Nurs Care Qual*. 2004;19(1):67-73.
- [40] Düzükaya SD, Bozkurt G. Home care of intensive care patients. *Journal of Intensive Care Nursing* 2012;16 (1):21-28.
- [41] Liebel DV, Friedman B, Watson NM, Powers BA. Which components of a primary care affiliated home visiting nurse program are associated with disability maintenance/improvement? *Home Health Care Serv Q*. 2012;31(2):155-80.
- [42] Nadarevic-Stefanec V, Malatestinic D, Mataija-Redzovic A, Nadarevic T. Patient satisfaction and quality in home health care of elderly Islanders. *Collegium Antropologicum* 2011;35(2):213-216.
- [43] Öztürk GZ, Toprak D. Evde sağlık hizmetleri birimine kayıtlı hastaların sosyo-demografik özellikleri ve sunulan sağlık hizmetlerinin değerlendirilmesi. *The Medical Bulletin of Sisli Etfal Hospital* 2018;52(1):41-46. (Turkish)
- [44] Bouman A, Van Rossum E, Nelemans P, Kempen G, Knipschild P. Effects of intensive home visiting programs for older people with poor health status: A systematic review. *BMC Health Service Research*. 2008;8(74):1-11.

How to cite this article: Şener Ş, Cingil D, Göger S. Evaluation of Nursing Functions In Home Health Services: A Retrospective Study. *Clin Exp Health Sci* 2022; 12: 897-905. DOI: 10.33808/clinexphealthsci.970160