MAS JAPS 7(Özel Sayı): 1222–1233, 2022

MAS Journal of Applied Sciences
Uygulamalı Bilimler Dergisi
ISSN: 2757-5675
masjaps.com

DOI: http://dx.doi.org/10.5281/zenodo.7469791

Araştırma Makalesi / Research Article

An Assessment of the Family Functionality of Orthopedics Clinic In-Patients

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Geliş Tarihi (Received): 08.11.2022 **Kabul Tarihi (Accepted)**: 10.12.2022

Abstract

The present study was conducted with an aim to determine the family functioning of the patients hospitalized in orthopedics clinic. Type of this study is cross-sectional. Data were collected from 281orthopedics patients. Sociodemographic form and ***Assessment of Strategies in Families Scale*** were used. The majority of patients (92.2%) needed care. The respective percentages of individuals who reported that they felt insufficient, hopelessness, anger, decreased sexual activity, and separation from the society were 52.7%, 32.0%, 39.5%, 17.8%, and 29.9%. There was a statistically significant difference between the mean score of ASF-E scale and the educational status, marital status, family type, family crisis in the last year, sharing the feelings about the condition, and experiencing role tension of the individuals involved. Activities of daily living of individuals with orthopedic condition were limited and they needed a great deal of care.

Keywords: Family, family health, family members, nursing care, hospitalization

INTRODUCTION

Family functionality is essential for the well-being and health of the individual/family. Family members would have to change their functions/behaviors and adapt to change in order to find a new balance during such processes that deteriorate the family balance as the birth of a baby, divorce, an acute or chronic illness of one of the family members, and retirement (Åstedt-Kurki et al., 2001a). Effectiveness of family functions is very important in adapting to the new event in the family. Effective family functions are providing emotional education/change, communication, doing things together, each member helping to the other, and being a competent parent for children. Ineffective family functions are lack of care, hostility and violence, loss/absence of communication and avoidance of being together, family members refusing to help each other, and parents neglecting their responsibilities (McCreary and Dancy, 2004). An acute or chronic disease of one of the family members affects family functionality. This leads to various physical and mental problems such as stress, headache, change in blood pressure, stomach pain, pallor, nervousness, depression on other members of the family. These problems also affect family competence as regards patient care and support. Even if the family functions are adequate, the disease in one of the family members temporarily causes weakness in the family (Åstedt-Kurki et al., 2001b., Golics et al., 2013a). The family may have the potential to eliminate the negative effects of the condition, as well as well as contributing in worsening of disease process. In our country, the number of inpatients in orthopedics clinics of the public hospitals is 431.595 (Turkey Ministry of Health, Report, 2017). Studies suggest that fractures (arm, leg, hip) take the first place among the reasons of receiving health care services at home (Işık et al., 2016; Ibrahim et al., 2018). While some of the orthopedic patients completely recover, some of them will have to continue their lives with loss of function. Studies have shown that approximately one-fifth of discharged patients are re-hospitalized within the next 30 days (Flippo, 2015). Corey (2015) asserts that the family is constituted by a meaningful whole with functionality rather than the sum of the roles of the individuals that make up it. Lewis et al (1990) defines functionality, or health, as the ability the families perform their functions at the expected level. Physical conditions are also described as a life crisis. Emergence of any threats against the physiological and psychological integrity of the person can turn the condition into a crisis. The condition of one family member affects the balance of the entire family system (Golics et al., 2013a; Golics et al., 2013b). Orthopedic conditions cause loss or limitation of individuals' mobility to a large extent. In this case, the individual has an increased need for the family. Increased family support increases the quality of life of an individual (Longo et al., 2020; Zhang and Liu, 2001). Orthopedic problems in terms of organ loss or limitation lead to an increase in the need for care. In this case, families play a key role in maintaining daily life activities and quality of life of individuals. Studies suggest that especially in the case of chronic diseases, family support for patients may be negatively affected in terms of communication (Kes, 2009) and spiritual interest (Pınar, 2006) and that patients may have problems with their families (Kaya and Demir, 2013). Many factors influence the outcome of care for chronic illness. Families are the most important support of the individuals with

chronic illness. Studies have shown that family functions are highly effective in different situations. Therefore, nurses must play a positive role in the development and maintenance of this partnership (Lise et al., 2019). While nurses play an important role in the protection of individuals from diseases and provide them with care (Quality, 2010), they should provide individuals and families with the best healthcare but not for solving all their problems, and ensure that individuals gain the ability to manage their conditions (Schulman-Green et al., 2012). International Family Nursing Association, recommends the use of theoretical models for family assessment and intervention. The Assessment of Strategies in Family-Effectiveness (ASF-E), developed by Friedeman, is one of these theoretical models and it is used to assess functionality or health of families (Lise et al., 2019). Nurses determine the needs of families that adapting their changing situation due to illness by using Friedemann's "Systemic Organization Theory" and provide appropriate support to them (Pıerce, 1997; Friedemann, Mouch and Racey, 2002). ASF-E has been widely used in families from several countries by nursing researchers in several countries (The United States, Mexico, Finland, Germany, Switzerland, Colombia, Chile) (Lise et al., 2019). Whether the family is healthy or non-healthy depends on its socio-economical characteristics, services and facilities in the society, genetical features of the family, personalities, dynamic structure of the intrafamily relations. Nurses should maintain a mutually beneficial approach between the individual and the family during the provision of health services (planning, implementation, evaluation). Family plays an important role in ensuring the health and well-being of individuals within the family. At the same time, it is important to strengthen the family during the services related to the recovery/maintenance of the individual's health. The individual and the family significantly affect each other's processes, especially in the case of illness. Just as deterioration of the individual’s health affects the family dynamics in a significant way, the deterioration of the family dynamics affects the individual’s health. Nurses should consider the role to be assumed by both the individual and the family in this process as well as maintaining the health of the individual. For this reason, it is predicted that the study will contribute to the maintenance of positive family dynamics during the diseases. This study was performed to determine the family functionality of the patients hospitalized in orthopedics clinic. Accordingly, answers were sought to the following question: -Is family functionality affected by orthopedic diseases?

MATERIAL and METHODS

The study adopted a descriptive and cross-sectional design. The study population consisted of inpatients at the Orthopedics Clinic of the Hospital in Denizli between January 15, 2018 and March 30, 2019. The sample included patients, who could be communicated and who voluntarily agreed to participate (n=281). The data collection form created by the researchers consisted of two parts. The first part consisted of socio-demographic information (19 questions- gender, educational status, marital status, type of family, crisis in the family in the previous year etc.) and 13 questions regarding the inpatients (the characteristics of individuals' condition, duration of the condition, daily activity limitation, the ability of individuals to receive support etc.) based on literature (Bayramova and Karadakovan, 2004;

Coates, 2017). The second part included the "Assessment of Strategies in Families- Effectiveness Scale (ASF-E)". Developed by Friedemann on the basis of Systemic Organization Theory. Instrument development and testing for validity and reliability of the English ASF-E have been previously reported. The newest version of the 20-item English language ASF-E includes four subscale for family stability, growth, control and spirituality/ connectedness. Likert-scale was used fort he items (1-low effectiveness; 3-high effectiveness) (Friedemann, 1995; Friedman, 2018). The minimum value is 20 points and the total maximum value of the instrument is 60 points. Please note that the general classification is as follows: high level of family effectiveness, with scores between 48 and 60; intermediate level of family effectiveness, with scores between 34 and 47, and low efficiency of family functioning, with scores between 20 and 33 points (Lise et al., 2019). The Cronbach's alpha value was found to be 0.85 in the validity and reliability analysis of the original scale. This scale was adapted to Turkish by Altuğ Özsoy et al. Cronbach alpha reliability coefficient was determined to be 0.82 for the scale (Altuğ Özsoy, et al., 2008). SPSS program was used for data analysis. Non-parametric tests (Mann Whitney U test and Kruskal Wallis Variance Analysis) were used to compare socio-demographic variables with ASF-E scores in the analysis. For the purposes of the research the following permissions were obtained: permission of Pamukkale University Ethics Committee (5596-08), permission for use of the scale (Altuğ Özsoy, et al., 2008), and application permission from Pamukkale University Hospitals Central Directorate. The participants were informed about the purpose of the study and their informed consent was obtained prior to data collection.

RESULTS

The results provided that 49.1% of the participants were women, mean of age 51.86±20.76, 58.0% were primary school graduates, 64.8% were married. The majority were nuclear families (80.1%). The total mean score of the ASF-E was 48.36±5.31 and the mean item score was 2.41±.26. Mean item scores of the subscales of stability (27.78±3.43), growth (17.30±2.25), control (20.59±2.53), and spirituality (27.78±3.43). There was a statistically significant difference between the ASF-E mean score and the educational status of the individuals involved in the study ($\chi 2=8.344$ $p=.039$). As a result of further analysis, the difference was found to be between illiterate individuals and university graduates (U=280.000, $p=.006$). It was determined that 74.0% of the participants experienced a family crisis (illness, death, divorce, unemployment, pregnancy, marriage, retirement, financial problems) during the previous year. There was a statistical difference between the ASF-E scale mean score and the status of having a family crisis in the previous year (U=6114.500 $p=.013$) (Table 1).

Table 1. Distribution of ASF-E mean score by the sociodemographic characteristics (n=281)

	n	(%)	x̄	*p*	*Post Hoc*
Gender					
Female	138	(49.1)	48.46±5.43	U =9486.000	
Male	143	(50.9)	48.27±5.21	*p=.575*	
Educational status					
Not literate	59	(21.0)	47.36±5.41	χ^2=8.344	Between not literate and university ***p*=.006**
Elementary School Graduate	163	(58.0)	48.51±5.29	***p*=.039**	
High school graduate	42	(14.9)	48.00±5.49		
University	17	(6.0)	51.35±3.77		
Marital Status					
Married	182	(64.8)	49.01±4.79		
Widow	40	(14.2)	47.35±6.18	χ^2=5.056	
Single	559	(21.0)	47.07±5.95	*p*=.080	
Type of family					
Nuclear family	225	(80.1)	48.85±5.18		
Patriarchal extended family	26	(9.3)	46.81±5.18	χ^2=11.234	*p*>.05
Temporary extended family	21	(7.5)	47.38±3.82	***p*=.011**	
Fragmented family	9	(3.2)	42.89±8.05		
Crisis in the family in the previous year					
Yes	208	(74.0)	47.91±5.41	U=6114.500	
No	73	(26.0)	49.66±4.83	***p*=.013**	

Percent of fourty-two of the orthopedics clinic inpatients included in the study had a problem with lower extremities. The rate of patients with a condition duration of 0-3 months was 48.64±5.30. Furthermore 92.9% of individuals reported that their daily life activities were limited **(Table 2).**

Table 2. Distribution of the ASF-E mean score by the characteristics of individuals' condition (n=281)

Condition-related characteristics	n	(%)	x̄	*p*
Condition				
Upper extremity	36	(12.8)	47.78±4.42	
Lower extremity	118	(42.0)	48.60±6.09	
Hip	59	(21.0)	48.98±4.63	χ^2=7.091
Vertebral	12	(4.3)	47.50±5.88	*p=.313*
Multi-trauma	18	(6.4)	49.33±4.20	
Amputation	13	(4.6)	47.23±4.16	
Other (diabetic foot, osteosarcoma, arthrit etc)	25	(8.9)	46.92±5.04	
Duration of the condition				
0-3 months	152	(54.1)	48.64±5.30	
4-6 months	27	(9.6)	47.44±4.78	χ2=2.717
7-12 months	8	(2.8)	50.25±3.28	*p*=.437
1 year and above	94	(33.5)	48.02±5.61	
Daily activity limitation				
Doing housework	38	(13.5)	47.26±5.9	
Commuting	20	(7.1)	49.30±6.04	
Self-care	38	(13.5)	48.11±5.38	
Doing housework, commuting and self-care	83	(29.5)	47.93±4.70	χ2=4.772
Doing housework and self-care	83	(29.5)	49.06±5.03	*p=.573*
Commuting and self-care	13	(4.6)	48.31±6.72	
No limitation	20	(7.1)	48.65±5.53	

A review of the social support status of the orthopedics inpatients provided that, 59.8% of the participants had resources to receive financial assistance in case of need. In addition, the majority of the patients (92.2%) receive help for care. These requirements were largely met within the family (38.1% children, 27.8% spouses, 20.0% parents) and more than half of them needed support even when on medication. There was a difference between the ASF-E mean score and the state of sharing individuals' feelings (pain, disability, etc.) ($\chi2$=14.188, *p*=.001). In further analysis, this difference was found to be significant between those, who shared their feelings, and those, who partially shared (U=5149.00, *p*=.001) **(Table 3)**.

Table 3. Distribution of ASF-E mean score by (n=281)

	n	(%)	x̄	*p*	*Post Hoc*
Family has a source to receive financial aid in case it is needed					
Yes	168	(59.8)	48.76±5.05	U=8517.500	
No	113	(40.2)	47.77±5.65	*p=.144*	
People who meet their care needs					
Spouse	78	(27.8)	49.09±4.59		
Mother	46	(16.4)	47.98±4.96	$\chi2$=2.291	
Father	10	(3.6)	48.70±4.99	*p=.808*	
Child	107	(38.1)	48.38±5.48		
Neighbor, relative, friend	21	(7.5)	46.52±7.37		
None	19	(6.8)	48.05±5.65		
Needs help of others while on medication					
Yes	153	(54.4)	48.50±4.99	U=9649.000	
No	128	(45.6)	48.20±5.69	*p=.833*	
Sharing the feelings about the condition (pain, insufficiency, etc.)					
Yes	177	(63.0)	48.25±5.09	$\chi2$=14.188	Between yes
No	25	(8.9)	46.44±6.12	***p*=.001**	and partly
Partly	79	(28.1)	46.99±5.16		***p*=.001**

NOTE: * More than one option is marked.

DISCUSSION

Orthopedic conditions mostly require help for self-care (Dal, Bulut and Demir, 2012). In this study, it was found that almost all of the patients received help for care and this was mostly provided by children and spouses. In a study on caregivers of orthopedic patients, Koç (2013) found that more than half of the caregivers (69.6%) were children and spouses. Similarly, the situation is not different in individuals with a chronic disease (Selçuk and Avcı, 2016). In the study of "Living with a spouse with chronic illness-the challenge of balancing", patients' spouses reported that the condition affects their lives too much (Pınar, 2006; Eriksson, 2019). Nurses should support the family members in the course of the condition and in subsequent rehabilitation period in order the patient can achieve maximum health status after the condition. It is also important for continuity of family processes to rapidly increase the daily life activities of the individual to the maximum achievable level (Koç, 2013). Studies point out that orthopedic problems are among the top causes of hospitalization in the elderly population (Erdil and Bayraktar, 2010; Savcı and Bilik, 2014). Literature

provides that approximately one third elderly individuals with hip fractures (65 years and older) experience another hip fracture within one year after discharge (Centers for Disease Control and Prevention (CDC) 2019; Erdil and Çelik, 2019). Nurses should provide emotional, social, and developmental support to the family as well as the individual in case of illness. Diseases disrupt the individual's balance (Mete, 2008). Bettelli (2011) identifies functional situations as "the ability to perform one's tasks and meet the complex social roles required by daily living activities (ADLs). Functional status deteriorated by orthopedic conditions adversely affects the quality of life of individuals. In this case, they are in an increased need for family support. In our study, almost all of the individuals reported that the condition limited their daily activities. It takes a long time for orthopedic patients to return performing their daily life activities and restore their life quality levels (7 Ibrahim et al., 2018). Most of these conditions limit or completely inhibit the functions of the individual. Koç (2013) found that 91.2% of orthopedic patients had needs associated with movement, 62% associated with hygiene, and 30.8% associated nutrition. In their research, Selçuk and Avcı (2016) identified that the need for personal hygiene ranked the first among the daily life activities in terms of need for care in chronic diseases. Işık et al, (2016) found in their study on individuals receiving home care services that 40.2% of the service recipients were dependent, 21.0% were semi-dependent and needed "care" the most according to the Daily Living Activities (ADLs) index. This research reveals the individuals' need for psychological support as well. In the study of Kes (2009), it was found that families were able to solve physiological problems more easily compared to the psychological problems, and they proved to be inadequate in terms of communication and social support. Aydın and Dişcigil (2017) found that approximately two-thirds of the patients who receive care services at home felt isolated from life. The fact that chronic disease requires long-term treatment and care, causes more hopelessness as experienced by the individual by adversely affecting the familial roles (Arslan and Şekir, 2016) and social life of the individual. Nurses should be aware of the psychosocial problems that may arise in chronic diseases and play a role in the management of these problems (Özdemir, 2013). This study found that family functioning is more negatively affected in those, who stated that they have had depression. Literature suggests that support is essential for psychosocial adaptation in case of chronic illness and thus it has been recommended that the coping skills of patients and their families should be improved (Yıldırım and Gürkan, 2010). In their study of patients receiving home care; Kouta et al. (2015) found that half of the patients did not receive care, but they needed to talk to someone, share their feelings and thoughts, and receive support. In this study, it was mostly the family members, who provided social support to individuals. Nearly half of the patients stated that they shared their feelings with their children. Friedemann et al. (2002) suggests that there is a requirement for mutual sharing/communication among family members in order to establish a sense of belonging. In chronic diseases, none of the family members are satisfied with the role change (Lee et al., 2004). Nurses should provide support for increasing adaptation and coping skills associated with life changes caused by diseases in individuals and families (Akpınar and Ceran, 2019). In Systemic Organization

Theory, it is emphasized that family members' agreement on new role distribution for the interpersonal system is very important for the purposes of providing physical care and emotional support to the patient (Pıerce, 1997). The treatment of chronic diseases and complications also causes significant economic difficulties for the individual and the family (Karadakovan and Eti Aslan, 2010; Akpınar and Ceran, 2019). The fact that chronic diseases lead to an increase in health expenditures by requiring continuous monitoring, laboratory tests, and frequent use of medications etc., to loss of labor, and to high mortality rates, is associated with higher costs for the society as an important health problem in terms of the sustainability of the health system (Tezcan et al., 2005; WHO, Noncommunicable Diseases Country Profiles 2011; Zuhur and Özpancar, 2017). In most low- and middle-income countries, chronic diseases have an even greater impact. Both the individual and the national economy are adversely affected. Compared to wealthy people, low-income people are more susceptible to disease and die as a result (Ministry of Health & General Directorate of Basic Health Services, Turkey, 2011). In our study, more than half of the patients stated that the family itself was the source for financial assistance in case of need. In the case of chronic illness, the balance of the entire family is altered. Resources available for families are very important in restoring a new balance, therefore nurses should make the family aware of support systems (Wennick and Hallström, 2006). A qualitative study of Korean families found that siblings and colleagues provided both social and economic support in the medical care of the sick individual (Karadakovan and Eti Aslan, 2010). Simpson et al. (2006) suggest that "nurses have an important role to play for families can understand the condition well and develop positive behaviors against the disease and conditions”. Nurses should provide training and consultancy for patients with chronic illness can perform self-care (Coates, 2017). In our country, these needs have been tried to be met especially by the firstdegree relatives due to the lack of sufficient units to provide services to individuals with chronic diseases in their homes. In the present study, it was found that children had excessive responsibility in many areas within the family. Today, there are changes in the dynamics of family and society and the need for support resources increases. It is recommended that caregivers should not “provide long-term care" in terms of family dynamics (Selçuk and Avcı, 2016).

CONCLUSION

Orthopedic conditions limit daily activities of individuals and bring economic and social burden to families. Thus, there is a need to establish support groups that can help the family with coping with the adverse effects of the condition and developing new strategies. At this point, nurses can advise the family both in reducing the economic and social burden of conditions on families and reaching out to social institutions. Nurses can identify the knowledge and skills families need to care for patients and provide appropriate support. They can also enable families to communicate with other families who are experiencing a similar situation. In addition, nurses can provide information about the institutions that families can apply for their needs (health needs, social, economic, psychological, etc.) and how they can contact with these institutions.

ACKNOWLEDGEMENTS

This research was presented at the 2nd International 3rd National Congress of Public Health Nursing (7-9 January 2021). Researchers would like to thank Prof. Dr. Süheyla Altuğ Özsoy for kindly allowing the use of the scale.

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