Determining the Disability Levels of Women with Migraines in their Daily Life Activities

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Abstract

Introduction: This study aimed to determine the disability levels of women with migraines in their daily life activities and the factors that affect them.

Methods: This descriptive study included 65 outpatient women who were diagnosed with migraines in the neurological polyclinic of a hospital in the city of Erzurum. The study data were obtained using a questionnaire about their introductory characteristics and the Migraine Disability Assessment Scale.(MIDAS). The data were analysed using SPSS 18.

Results: The study found the total mean MIDAS score of women with migraines to be 10.66 ± 11.46.   The study showed that there was a statistically significant difference ($p < .05$) between the total MIDAS scores and education levels. The mean scores of women with higher education were significantly higher than the mean scores of women who had only attended primary or high school. Analysis of the women's' functional disabilities due to migraines determined of the women 33.8% suffered no or quite low loss, 26.2% suffered low loss, 23.1% suffered moderate loss, and 16.9% suffered severe loss.

Discussion and Conclusions: The study revealed that women experience medium level disability in their daily life activities. It was also determined that women experience more medium-level disability due to migraines in their daily life activities with increasing educational status. The results showed that determining the disability levels of women with migraines in their daily life activities is important for planning and implementing the required nursing interventions to increase women's independence in those activities.

Key Words: migraine, women, daily life activities, disability. .

Introduction

Migraines, the second most common type of headache after tension-type headaches, are a chronic disease characterized by repetitive headache attacks lasting 4-72 hours (Tulek, 2014). Migraine attacks are generally characterized as moderate or severe, one-sided, throbbing and pressure sensation headaches (Robbins and Lipton, 2010).

Current data shows that the migraine-type headaches are an important health problem. It is estimated that nearly 10% of the world's population are diagnosed with migraines, and the disease is most common in the Europe at the rate of 15% (Stovner et al., 2007). A large amount of money is spent on the diagnosis and treatment of migraines in Europe, and migraines are a high cost neurological problem (Goadsby, 2007, Mett and Tfelt-Hansen, 2008). The frequency of migraines occurrence varies in different societies, and the disease is more common in women than men (Mett and Tfelt-Hansen, 2008). It was found that migraine has a lifetime prevalence of 16% in Turkey, with a rate of 10.9% in males and 21.8% in females (Tulek, 2014). Migraines are more common in women probably because of genetics and fluctuating estrogen levels (Robbins and Lipton, 2010). Migraines have been correlated with some psychiatric and emotional prob(Boru et al., 2005)lems, and psychiatric comorbidity increases in migraines with aura (Mett and Tfelt-Hansen, 2008).

Migraine is an important disease because it is especially common in women and young adults, occurs frequently in Turkey and the world,

causes workforce loss by adversely affecting social and professional life and affects daily life activities. Thus, the disease should be emphasized (Boru et al., 2005, Baykan et al., 2007, Dowson et al., 2002).

Disability and performance loss are important problems for patients with migraines. The World Health Organization reported that migraine is ranked 19th among health problems that cause disability, and that the time spent treating migraine patients is equal to the time spent treating quadriplegic patients (Menken et al., 2000). Moderate or severe pain that affects daily life activities is encountered in approximately 70% of migraine cases (D'Amico et al., 2004).

Migraine not only affect the job or school performances of patients, but also impair domestic and social activities (Bussone et al., 2004). Some patients report that they cannot continue to work during migraine attacks, while others report that they can continue working, but their productivity falls by more than 50% (Bussone et al., 2004, D'Amico et al., 2004).

The purpose of the migraine treatment and care is to reduce pain, to alleviate patients' anxiety, to give patients relief, to get them to understand treatment methods, to ensure their ability to cope with chronic headaches and to increase quality of their lives (Becker et al., 2015). Inadequate treatment and care will lead more frequent migraine attacks and cause disabilities.

The MIDAS was developed to measure migraine patients' disability and is a commonly used evaluation method to determine migraine-related disability in the last three months. The MIDAS is regarded as a reliable scale to measure the severity of migraine and determine treatment strategies in studies conducted in Turkey (Ertas et al., 2004, Gedikoglu et al., 2005).

A review of the literature showed that various studies (Gul, 2011, Domac et al., 2012, Kılıç et al., 2012, Bigal et al., 2003) that assess the effects of migraine headaches on daily life activities have been conducted, but to researchers' knowledge, there is a limited number of studies that examine the disability levels of female migraine patients in daily life activities (Ulusoy et al., 2014).

This study is based on the assumption that patients will perform daily life activities more independently and comfortably, become more productive and have a higher quality of life

thanks to health care services provided by determining the effect of migraines on women's daily life activities. This descriptive study was performed to determine the disability levels of women with migraines in their daily life activities.

Materials and Method

Participants

This study was conducted using the descriptive research method to determine the disability levels of women with migraines in their daily life activities. The study sample included female outpatients diagnosed with migraine headaches according to the International Headache Society (IHS) criteria in the neurology polyclinic of a state hospital located in the city of Erzurum. Sixty-five female migraine sufferers who were eighteen or older, diagnosed with migraine at least six months ago and had no other chronic disease affecting their daily life activities were included in the study sample. These patients participated voluntarily and were met by chance when the researcher was in the hospital.

Data Collection

The data was collected using the introductory identification form and the Migraine Disability Assessment Scale (MIDAS).

The Patient Information Form: This form, developed by the researchers, has 10 questions about the introductory characteristics of women with migraines such as age, marital status, educational background, migraine type and duration of diagnosis.

The Migraine Disability Assessment Scale (MIDAS): The MIDAS questionnaire was developed by Stewards et al. in 1999 (Stewart et al., 1999). Its validity and reliability analyses were performed by Ertas et al. (Ertas et al., 2004) in Turkey and updated by Gedikoglu et al. (Gedikoglu et al., 2005).

The MIDAS is an easily applicable and comment-free scale developed for migraines. It measures the disability level by the total number of missed days due to headache in school or paid work, in household work, and family, social, or leisure activities and days with substantially reduced productivity in the last three months. MIDAS scores of 0-5 points indicate patients who experience little or no disability in their daily life activities (Grade I). Scores of 6-10 points indicate patients who experience mild

disability in their daily life activities (Grade II). Scores of 11-20 points indicate patients who experience moderate disability in their daily life activities (Grade III), scores of 21 or more points indicate patients who experience severe disability in their daily life activities (Grade IV).

The Ethical Principles of the Study and its Implementation

The data collection tools were administered after obtaining permissions from the hospital administration and the participants. Ethical principles were taken into consideration. The researchers gathered forms from the patients in face-to-face meetings. The data collection tools were administered using face-to-face interviews in an appropriate room in the polyclinic to women diagnosed with migraine by a specialist neurologist.

Data Assessment

The study results were assessed using SPSS 18 software. Means, frequency distributions, the Mann-Whitney U test and the Kruskal Wallis analysis of variance were used for statistical analysis. The threshold for statistical significance was $p<0.05$.

Results

Of women with migraines included in the study sample (n: 65), 75.4% were married, 66.2% were primary school graduates, and 81.5% were housewives. Of the patients, 52.3% had median income levels, 40% were diagnosed with migraines for 1-5 years, and 75.4% experienced migraine without aura. Of them, 64.6% were on medication, 35.4% had a history of at least five attacks during the last six months, and 58.5% had not been diagnosed with another chronic disease. Their mean age was 38.08±12.45 (Table 1).

The study found the total mean MIDAS score of women with migraines to be 10.66±11.46. The study showed that there was a statistically significant difference ($p<.05$) between total MIDAS points and education levels and that mean scores of women who received higher education were significantly higher than mean scores of women who had only attended primary or high school. The study found that there was no statistically significant difference between the women's MIDAS mean scores and their age, marital status, working and income status,

migraine type, medication, attack frequency and comorbidity status ($p>.05$).

The analysis of the participants' disability levels in functional activities due to migraines determined that of the women, 33.8% suffered no or quite low loss, 26.2% suffered low loss, 23.1% suffered medium loss and 16.9% suffered serious loss (Table 2).

Discussion

This study was conducted to determine the disability levels of women with migraines in daily life activities and is discussed here along with the relevant literature.

The researchers used the MIDAS questionnaire in this study to determine the disability levels of women due to migraines in daily life activities. We used this questionnaire because it is short, easily scored, and its validity and reliability analyses were already performed (Ertas et al., 2004). The study found the total mean MIDAS score of women with migraines to be 10.66±11.46. A total of 11-20 points in MIDAS assessment showed that a person experience moderate level (Grade III) disability in daily life activities. Dikmen et al. conducted a study and found the mean MIDAS score to be 16.5±10.08 (Dikmen et al., 2015).

The literature reports that migraine headache pain is generally moderate or severe, adversely affects normal activities and deteriorates the life quality of individuals and their relatives [11]. High levels of disability in daily life activities due to migraine headaches cause workforce loss, reduced production and higher treatment expenses (Edmeads et al., 2001).

The study showed that there was a statistically significant difference between total MIDAS scores and education levels, and that mean scores of women who had received higher education were significantly higher than mean scores of women who had attended only primary or high school. Gul and Mollaoglu's study found a significant relationship between the educational background of migraine patients and their disability levels, and they reported that the level of migraine disability also increases with increasing educational status (Gul, 2011). This finding is similar to those of the present study.

Table 1. Some introductory characteristics of women with migraines by their MIDAS scores

Introductory characteristics (N=65)	N	%
Marital status		
Married	49	75.4
Single	16	24.6
Educational status		
Primary School	43	66.2
High School	11	16.9
Higher Education	11	16.9
Employment status		
Employed	12	18.5
Unemployed (housewife)	53	81.5
Income level		
Low	26	40.0
Median	34	52.3
High	5	7.7
Duration of diagnosis		
6-12 months	8	12.3
1-5 years	26	40.0
6-10 years	13	20.0
11 years and more	18	27.7
Migraine type		
With aura	16	24.6
Without aura	49	75.4
Medication		
Yes	42	64.6
No	23	35.4
Attack frequency		
Once	8	12.3
Twice	10	15.4
Three times	8	12.3
Four times	16	24.6
Five times	23	35.4
Comorbidity status		
Yes	27	41.5
No	38	58.5

MIDAS: the Migraine Disability Assessment Scale

Table 2: The Disability Levels of Women with Migraines in Daily Life Activities

MIDAS (Migraine Disability Assessment Scale)	n	%
Grade I: little or none (0-5 days)	22	33.8
Grade II: mild (6-10 days)	17	26.2
Grade III: moderate (11-20 days)	15	23.1
Grade IV: severe (21 or more days)	11	16.9

However, unlike the present study, Ulusoy et al.(Ulusoy et al., 2014) determined that disability level decreases with increasing educational status. With increasing educational status, the rate of professional employment would be higher and occupational status would be better in comparison with poorly educated women, so their functional levels were also gradually higher. Thus, more disabilities may be experienced because women are expected to perform more productively with increasing educational status.

This study did not find a significant relationship between age, marital status, diagnosis duration, type of migraine, frequency of attacks and the MIDAS mean score. Unlike this study, Domac et al. found a statistically significant relationship between the MIDAS score average and age (Domac et al., 2012). A previously conducted study of this issue did not find a statically relationship with introductory characteristics such as marital status, disease duration and aura features, like the present study (Gul, 2011). In Turkey, while Donmez et al. (Donmez et al., 2008) did not determine a relationship between the frequency of pain and the MIDAS scores in their studies, Ertas et al.(Ertas et al., 2004)[12] and Domac et al. (Domac et al., 2012) found a positive correlation between the frequency of pain and the MIDAS scores.

This study found that, in the past three months, of the women with migraines, only 33.8% experienced little or no disability, but 66.2% experienced higher levels of disability (26.2%: low level loss, 23.1%: moderate level loss, and 16.9%: severe level loss). Another study similarly found that only 24.1% of migraine patients experienced little or no disability in performing daily life activities in the past three months, but 75.9% of the patients had higher levels of loss [20]. A study in France of MIDAS scores determined that of patients, 72.3% experienced no or little disability (Grade I), 15.1% experienced mild disability (Grade II), 8.1% experienced moderate disability (Grade III), and 4.4% experienced severe disability (Grade IV)(Henry et al., 2002).

Conclusion

This study determined that migraine disease limits women's daily life activities at a medium level, and with increasing educational status women also experience more disabilities while performing daily life activities.

In line with the study results, determining the effects of migraine headache on women's daily life activities is important for planning and implementing the required nursing interventions to encourage patients to perform their own activities independently. The study also suggested development studies about coping skills for migraine to women with migraines due to an increase in disability in daily life activities with increasing educational status.

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