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An evaluation of the effect on depression and anxiety levels of the frequency of providing informing to the relatives of patients treated in intensive care unit

Yoğun bakım ünitesinde tedavi gören hastaların yakınlarının bilgilendirilme sıklığının depresyon ve anksiyete düzeylerine etkisinin değerlendirilmesi

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Abstract

Aim: Treatment in the Intensive Care Unit (ICU) is a stressful experience, not only for the patient but also for their family. The aim of the study was to investigate the effects on anxiety and depression levels of the relatives of patients in ICU who were given information once a day or three times a day by the same physician.

Methods: In this cross sectional study the relatives of the patients hospitalized in the ICU of two university hospitals were randomly separated into two groups. Group 1 comprised 50 individuals closely related to patients in the ICU and they were given information about the patient once a day. Group 2 comprised 49 individuals closely related to patients in ICU and they were given information 3 times a day at 4-hour intervals. After 7 days, all the participants in Groups 1 and 2 completed the Beck Depression Inventory (BDI) and the Penn State Worry Questionnaire (PSWQ).

Results: The BDI points of Group 1 were determined to be statistically significantly higher than those of Group 2 (p<0.01). The PSWQ points of Group 1 were determined to be statistically significantly higher than those of Group 2 (p<0.023).

Conclusion: By providing information to the relatives of patients 3 times a day rather than once a day created confidence that the patient was being well cared for, involvement with physician in the decision-making process and the feeling that the physician could be reached, thereby strengthening the physician- family relationship. This leads to lower rates of anxiety and depression.

Keywords: Intensive care unit, Relatives of patients, Depression, Anxiety

Öz

Amaç: Yoğun bakım ünitesi (YBÜ)'nde tedavi görmek sadece hastalar için değil aynı zamanda hastaların aileleri için oldukça stresli bir deneyimdir. Bu çalışma ile hasta yakınlarının aynı hekim tarafından günde bir defa bilgilendirilmesi ile günde üç defa bilgilendirilmesinin endişe ve depresyon düzeyleri üzerine etkisini araştırmayı amaçladık.

Yöntemler: Bu kesitsel çalışmada iki üniversite hastanesinin YBÜ'lerinde yatan hasta yakınları randomize olarak iki gruba ayrılmıştır. Birinci gruptaki 50 hasta yakınına günde bir defa bilgi verilirken ikinci gruptaki 49 hasta yakınına 4 saat ara ile günde 3 defa bilgi verilmiştir. 7. Günün sonunda aynı hasta yakınlarından Beck depresyon ölçeği (BDÖ) ve Penn state endişe ölçeği (PSEÖ) doldurmaları istenmiştir.

Bulgular: Günde bir defa bilgilendirilen hasta yakınlarının BDÖ puanları günde 3 defa bilgilendirilen gruba göre anlamlı derecede yüksekti (p<0,01). Günde bir defa bilgilendirilen hasta yakınlarının PSEÖ puanları günde 3 defa bilgilendirilen gruba göre anlamlı derecede yüksekti (p=0,023).

Sonuç: Hasta yakınlarına günde bir defa bilgi vermek yerine üç defa bilgi vermek hasta yakını-hekim güven ilişkisini güçlendirerek, hasta yakınlarının hastaya iyi bakıldığından emin olmalarına, hekimin ulaşılabilir olduğunu hissetmelerine neden olmaktadır. Hekimle hasta yakını ilişkisinin güçlenmesi kaygı ve depresyon oranlarının daha düşük olmasını sağlamaktadır.

Anahtar kelimeler: Yoğun bakım ünitesi, Hasta yakını, Depresyon, Anksiyete

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Introduction

Treatment in the Intensive Care Unit (ICU) is a stressful experience, not only for the patient but also for their family. A severe life-threatening situation for the patient can cause negative effects on the family. Assurance that the treatment administered to the patient in ICU is sufficient is one of the most important factors in reducing the concerns of relatives. There are studies in literature that have measured emotional, somatic, cognitive and motivation-based symptoms of relatives in depression or that have evaluated how they feel at a specific time or in a specific condition independently of the situation in which they are in [1,2]. However, to the best of our knowledge, there has been no study that has examined the effect on anxiety and depression of the frequency of giving information. While there is a previous study that has reported no statistically significant relationship between the anxiety of relatives and the support given in terms of information about the patient, another study emphasized that lack of information was the primary cause of anxiety [1,3]. It has also been reported that the most important needs of family members were to receive sufficient information and to feel that the hospital staff were interested in the patient [4].

Anxiety and depression scales can be used to determine the specific needs of the patient's relatives and to observe changes in the emotional state of the relatives. The Beck Depression Inventory (BDI) is a self-reporting scale formed from the data obtained from clinical observations not based on a specific institution, which measures emotional, somatic, cognitive and motivation-based symptoms in depression. The Penn State Worry Questionnaire (PSWQ) was developed in 1990 as a scale to evaluate the general tendency to pathological anxiety.

The aim of the current study was to investigate the effects on anxiety and depression levels of the relatives of patients in ICU who were given information once a day or three times a day by the same physician.

Materials and methods

Approval for this cross sectional study was granted by the Local Ethics Committee (Local ethics committee approval number: 2017-KAEK-189-2018.04.25-04).The relatives of patients hospitalized in the ICU of two university hospitals were randomly separated into two groups. Group 1 comprised 50 individuals closely related to patients in the ICU and they were given information about the patient once a day, which was the normal practice in both university hospitals. Group 2 comprised 49 individuals closely related to patients in ICU and they were given information 3 times a day at 4-hour intervals. After 7 days, all the participants in Groups 1 and 2 completed the BDI and PSWQ. The scales were evaluated by a psychiatrist blinded to the study. Exclusion criteria were length of stay in ICU <7 days, alcohol or substance abuse, cognitive impairment, a known psychiatric disease, the use of any psychotropic drug with anxiolytic or antidepressant properties for any reason other than psychiatric disease, or refusal to participate in the study. The scales were completed by the relatives while the patient was

alive, and in cases where the patient got dead in ICU, those relatives were not included in the study.

Statistical analysis

Statistical analyses of the study data were performed using SPSS v22.0 software (Statistical Package for the Social Sciences, IBM Inc., Chicago, IL, USA). The sociodemographic data were evaluated with descriptive statistical methods. The distribution of the groups was assessed using the Kolmogorov-Smirnov test. In the comparison between two independent groups of quantitative variables with normal distribution, the t-test was used, and for variables not showing normal distribution, the Mann Whitney U-test was applied. A value of $p < 0.05$ was accepted as statistically significant.

Results

The 50 participants in Group 1 who were given information once a day comprised 28 (56%) females and 22 (44%) males with a mean age of 39.60±9.9 years, and education level of university in 16 (32%) cases, high school in 22 (44%) and middle school in 12 (24%).

The 49 participants in Group 2 who were given information three times a day comprised 26 (53%) females and 23 (47%) males with a mean age of 41.60±5.91 years, and education level of university in 14 (28.5%) cases, high school in 21 (42.8%) and middle school in 14 (28.5%) (Table 1). The BDI points of Group 1 were determined to be statistically significantly higher than those of Group 2 ($p < 0.01$). The PSWQ points of Group 1 were determined to be statistically significantly higher than those of Group 2 ($p < 0.023$) (Table 2).

Table 1: Sociodemographic Data of the Relatives of Patients

	Group 1 information given once a day (n=50)	Group 2 information given 3 times a day (n=49)
Age(years) (mean±SD)	39.60±9.91	41.60±5.91
Gender Female	28 (56%)	26 (53%)
Male	22 (44%)	23 (46.9%)
Level of Education	University 16 (32%)	University 14 (28.5%)
	High school 22 (44%)	High school 21 (42.8%)
	Middle school 12 (24%)	Middle school 14 (28.5%)

n: number of cases, SD: standard deviation

Table 2: Beck Depression Inventory Points and Penn State Worry Questionnaire

	Group 1 information given once a day (n=50) Median (min- max)	Group 2 information given 3 times a day (n=49) Median (min- max)	u	p
Beck Depression Inventory	23 (11-63)	12 (2-35)	277	<0.01
	mean±SD	mean±SD	t	p
Penn State Worrry Questionnaire	43.32±10.48	37.92±12.71	2.309	0.023

n: number of cases, SD: standard deviation, min: minimum, max: maximum

Discussion

In almost all countries, ICU are units with defined visiting times, with their own internal rules, and the ICU personnel on one side and relatives of the patient on the other side [5]. To see a family member in ICU because of a life-threatening disease, who is unconscious and cannot communicate, can increase levels of anxiety and depression in relatives of the patient. When a family member is admitted to ICU, relatives experience emotions such as shock, uncertainty, denial, anger, hopelessness, hope, guilt, worry and fear which create emotional, cognitive and social stress [6,7]. The most important factor causing this is the possibility of losing a family

member. Appleyard et al reported that the most significant cause of worry for the family is not having confidence in the care given to the patient [1]. Chaitin et al. [8] emphasized that for the satisfaction of the relatives of the patient, the most important factors were the physician's interest in the patient, not giving conflicting information, allocating sufficient time to give information, the accessibility of the ICU team, providing continuous care, effective listening to the patient and their family, and providing emotional support in the decision-making process. In the current study, that the anxiety and depression rates of the group who were given information 3 times a day were low can be considered to be associated with confidence that the doctor was interested in the patient, knowing that the physician could be reached and decreasing the feeling of uncertainty about the medical status of the patient with frequent information.

In a study by Lautrette et al. [9], with meetings of family members of patients lost in ICU and providing informative brochures, the incidence of anxiety, depression and post-traumatic stress disorder in family members was seen to decrease dramatically. In the current study, the relatives of patients who were lost in ICU were not included in the study. However, despite the continuation of a critical disease status, the anxiety and depression points of the group given more information were significantly low.

In a prospective study by Myhren et al. [10], the relatives of patients were seen to be highly satisfied in respect of communication, but the satisfaction of communication with doctors was determined to be at a significantly lower level than the satisfaction of communication with nurses. The reason for this is that under daily working conditions, the relatives of the patients encounter nurses more often and can establish direct communication. In the current study, the physicians meeting the relatives at least 3 times a day rather than once a day was seen to have positive effects on their emotional status.

There are several studies in literature that have investigated the requirements of the relatives of patients in ICU. These studies have reported the most important requirements to be the receipt of sufficient information and to feel that the ICU personnel are interested in the patient [11]. In the current study, the low rates of anxiety and depression in the group given information 3 times a day could be due to assurance that sufficient interest was being taken in the patient because they were given sufficient information.

This study have some limitations as having been used self-report scale in the evaluation of the patients, not having been used structured psychiatric interview, having been designed as cross sectional study and not having known the anxiety and depression levels of the patients' relatives before our study period.

In conclusion, the results of this study showed that by providing information to the relatives of patients 3 times a day rather than once a day created confidence that the patient was being well cared for, involvement with physician in the decision-making process and the feeling that the physician could be reached, thereby strengthening the physician-family relationship. As the relatives of the patient feel emotionally better with the strengthening of the physician-family relationship, this leads to lower rates of anxiety and depression.

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