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Research Article

An Evaluation of Depression and Death Anxiety Level in Hospitalized Patients Because of Chronic Disease

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Abstract: This study aimed to determine the levels of depression, anxiety and death anxiety and to perform an assessment of the relationship between them on patients with some chronic diseases**.** The working group consisted of 200 (71.9%) patients who were diagnosed with renal failure, diabetes, various malignancies and other diagnoses except these diseases. Hospital Anxiety -Depression Scale and Templer Death Anxiety Scale was used in this study. Death anxiety levels were higher in women and in patients with social support. There was a positive relationship between diabetic patients' disease duration and death anxiety. There was a relationship between scores obtained from the Anxiety Scale and the Death Anxiety Scale in patients with malignancy and diabetic patients. In conclusion, Giving information to patients about the methods of coping with depression and death anxiety and assisting them to express their feelings about diseases will be helpful.
Keywords: Depression, Death, Anxiety, Chronic disease, Hospital.

INTRODUCTION

Death is loss of the self-renewal ability of living organisms, and the ending of a life is due to the loss of function of one or more of the vital organs [1]. Death anxiety is defined as fear with more intense anxiety and feelings of worry because of the unpredictability of what will result from the process of death or after death. In various cultures and religions, the effect of thoughts of death in human life is likely to be different [2].

Death refers to an absence for some people; for others it might be the beginning of eternal life [3]. To maintain balance of the psychological structure of the individual, it is important to determine the limits of the death idea. Excessive and disproportionate thoughts of death can adversely affect this balance negatively [3]. It is known that abnormal attitudes developed towards death make it more difficult to adapt to the environment by increasing levels of anxiety [4].

About two-thirds of deaths occurring all over the world occur due to chronic diseases [5]. In addition to the increase in the prevalence of chronic diseases, the increase in life expectancy may result in individuals living longer periods with the reality of death. There is a close association between death anxiety and age, gender, personality traits, socio-cultural factors, developmental process, religious beliefs, and the presence of disease [6]. Death anxiety levels may vary depending on if individuals are caught up in a life-threatening disease, if the prognosis of this disease is unknown, a lack of adequate improvement despite treatment, pain duration of the disease and thoughts of death and life [7]. Some studies reported that death anxiety is not increased at all times among individuals with any disease. Some researchers reported that the level of death anxiety is higher among patients with mental disorders such as depression and anxiety; on the other hand, researchers also reported a smaller death anxiety level among patients with chronic diseases such as hemodialysis and cancer [8, 9].

This study aimed to determine the levels of depression, anxiety and death anxiety and to perform an assessment of the relationship between them on patients who were hospitalized in Eskisehir Osmangazi University Medicine Faculty Hospital Internal Medicine Service.

METHODOLOGY

This descriptive study was performed on patients who were hospitalized in Eskisehir Osmangazi University Medicine Faculty Hospital Internal Medicine service between January 9, 2012 and June 9, 2012. The total number of beds is 92 in the Internal Medicine Service. During the study, a total of 278 patients were treated there. Of these study patients, 200 patients (71.9%) stayed in the hospital for at least 3 days.

The questionnaire form that was prepared utilizing the literature consisted of two parts [8, 10-12]. The first part of the questionnaire included the individuals' socio-demographic characteristics (age, gender, education level, employment status, marital status, family income, social security status, family type, smoking and alcohol consumption, duration of disease, history of prior hospitalization, history of another disease requiring continuous drug use, social support status, status of being companion and visitors). The second part of the questionnaire included the Hospital Anxiety and Depression Scale (HADS) and the Templer Death Anxiety Scale (TDAS).

Before starting work, 2011/149 dated and numbered approvals were taken for the Ethics Committee of Osmangazi University School of Medicine. After obtaining permission from Department of Internal Medicine and Hospital management, patients were informed about the purpose and subject of the study in their rooms.

In this study, the HADS that developed by Zigmond and Snaithwas used for the assessment of anxiety and depression [13]. In Turkey, the validity and reliability study was conducted by Aydemir [14]. The two sub-scale scores can range between 0-21, and the level of anxiety and depression increases with increasing points. The cut-off points for the anxiety and depression subscales are 10/11 and 7/8, respectively. Accordingly, the patients with scores at these cut-off points are considered to be at risk.

The TDAS was used for the assessment of death anxiety. This scale was developed by Templer [15]. In Turkey, the validity and reliability study was performed by Akca and Köse [16]. The scale consists of 15 articles in the form of true-false answers that measure the anxiety and fear of one's own death and the risk of death. The scale scores can range from 0-15 by giving "1 point" to the correct option of substances subjected to scoring. Levels of death anxiety increase with increasing scores obtained from the scale.

Statistical analysis was performed with the IBM SPSS Statistics software (version 20.0). The statistical analysis was carried out using Spearman Correlation Analysis, Kruskal-Wallis and Mann Whitney U tests.

RESULTS

The mean age of the participants was 50.98±15.81 (range 18-87); 92 (44.0%) of the participants were male and 108 (56.0%) were female. In this study, it was determined that 55.5% (n = 111) of the patients have depression and 34.5% (n = 69) of the patients have anxiety. The mean score that the study patients obtained from the TDAS was 8.02±2.45 (from 0 to 13). The distribution of TDAS scores obtained from patients according to some of the socio-demographic characteristics is shown in Table 1.

The distribution of death anxiety levels according to some habits of patients and some characteristics associated with diseases is given in Table 2.

The mean duration of participants' disease was 6.73 ± 8.18 years (range 0.1-31). There was a positive relationship between diabetic patients' disease duration and death anxiety (r_s=0.250; p=0.025). The distribution of Death Anxiety Scale scores obtained from patients and disease duration are shown in Fig. 1.

There was no relationship found between scores obtained from the Depression Scale and Death Anxiety Scale (r_s=0.049; p=0.493).There was a positive relationship between scores obtained from the Anxiety Scale and Death Anxiety Scale (r_s=0.193; p=0.006). There was a relationship between scores obtained from the Anxiety Scale and Death Anxiety Scale in patients with malignancy and diabetic patients (respectively; r_s=0.267; p=0.016, r_s=0.458; p=0.050).The distribution of the patients' scores obtained from TDAS and HADS are shown in Fig. 2.

DISCUSSION

Today, one issue for which no remedy can be found despite diagnostic developments and improved medical treatment is death. Death anxiety is an absolute truth for all individuals that can lead to mental disorders such as depression and anxiety if this anxiety is excessive and continuous [3, 4].

Women generally have more intense emotions than men. Their reactions also become more intense in situations such as death and separation. Therefore, it is hypothesized that women experience more death anxiety [17]. Our study found that the level of anxiety of death among women was found to be significantly higher than men (p<0.05). Other researchers reported similar results [8, 18]. Benshoff *et al*. [17] and Top *et al*. [19] have reported that no difference was found between women and men in terms of death anxiety.

It is known that death anxiety levels of individuals are lower in advanced ages [17, 20]. One of the reasons could be that the increase in chronic diseases and psychosocial problems with increasing age and the resultant health maintenance problems can lead to deterioration of quality of life. In this study, there were no correlations between age groups of patients and their death anxiety level (p>0.05). This result can be explained by the small sample size of the study group.

Smoking and alcohol use are important behavioral risk factors in terms of preventable illness and death. Additionally, it is known that smokers experienced more anxiety [21]. This situation may lead individuals who have the habit of smoking and drinking alcohol to feel more death anxiety because they are more susceptible to disease. In this study, there was no

difference between patients who smoke and drink alcohol and those who do not in terms of death anxiety ($p>0.05$; for each one).

Patients with an adequate social support network of friends, spouses, relatives and health care workers may more easily cope with death anxiety [22]. In this study, there was no difference in terms of death anxiety between patients with companions and visitors during the hospitalization versus those who had none ($p>0.05$; for each one). However, the level of death anxiety was higher in patients who had social support ($p<0.05$).One reason that these patients experienced more intense feelings of death anxiety is the notion that their loved ones will be alone and unprotected after their death.

Diabetes that causes serious complications and death is a disease that can have mental and psychosocial effects despite being a disorder of the endocrine system. The anxiety and depression becomes even more apparent as the duration of illness increases (10). In this study, death anxiety levels in diabetic patients was found to increase with the duration of the illness ($p<0.05$). Similar results have been reported by Almawi *et al*. [23].

Some studies report a significant relationship between death anxiety and depression (9, 11). However, in our study, there were no correlations between the level of death anxiety and depression ($p>0.05$). This result may be because the study group with severe depression regards death as a method of giving meaning to life and as a salvation from life, not as an element of concern. Bahar at al. found no relationship between depression and level of death anxiety [24].

With the absence of definitive treatment and the serious results of diabetes and some malignancies, patients can feel intense anxiety about death. In our study, it was found that levels of anxiety in patients with diabetes and malignancy increase with increasing levels of death anxiety ($p<0.05$; for each one). Some studies have reported similar results [11, 25].

Table 1: The distribution of Templer Death Anxiety Scale scores obtained from patients according to some socio-demographic characteristics

Sociodemographics	**n**	**Templer Death Anxiety Scale Score** Median (min-max)	**Statistically analysis ;** z/KW; p
Sex			
Female	108	9.0 (0.0-13.0)	2.932; 0.003
Male	92	8.0 (0.0-12.0)	
Age group			
≥34	39	8.0 (0.0-13.0)	1.482; 0.830
35-44	27	9.0 (3.0-12.0)	
45-54	39	9.0 (0.0-12.0)	
55-64	53	8.0 (1.0-13.0)	
≥65	42	8.5 (3.0-11.0)	
Education level			
Illiterate	29	8.0 (3.0-12.0)	3.787; 0.151
Primary/secondary school	117	9.0 (0.0-13.0)	
High school and over	54	8.0 (0.0-12.0)	
Employment status			
Unemployment	55	8.0 (0.0-12.0)	0.689; 0.491
Employment	145	9.0 (0.0-13.0)	
Marital status			
Married	155	8.0 (1.0-13.0)	0.256; 0.880
Unmarried	22	8.0 (1.0-13.0)	
Widowed	23	9.0 (3.0-11.0)	
Family type			
Nucleus	35	7.0 (0.0-13.0)	4.197; 0.123
Large	155	9.0 (0.0-13.0)	
Fragmented	10	7.5 (6.0-11.0)	
Family income status			
Bad	19	9.0 (5.0-10.0)	3.337; 0.189
Middle	118	8.0 (0.0-13.0)	
Good	63	9.0 (0.0-12.0)	
Social insurance status			
No	16	7.0 (1.0-11.0)	1.576; 0.115
Yes	184	8.0 (0.0-13.0)	
Total	200	8.0 (0.0-13.0)	

Table 2: The distribution of death anxiety levels according to some habits of patients and some characteristics associated with diseases

Some habits of patients and some characteristics associated with diseases	**n**	**Templer Death Anxiety Scale Score** Median (min-max)	**Statistically analysis** z/KW; p
Smoking			
No	155	9.0 (0.0-13.0)	1.799; 0.072
Yes	45	8.0 (0.0-12.0)	
Alcohol consumption			
No	188	8.0 (0.0-13.0)	1.064; 0.287
Yes	12	8.0 (3.0-11.0)	
Reason of hospitalization			
Renal failure	51	8.0 (4.0-13.0)	1.045; 0.790
Diabetes Mellitus	81	9.0 (0.0-12.0)	
Various malignancies	18	8.5 (6.0-11.0)	
Others	50	8.0 (0.0-13.0)	
History of another disease requiring continuous drug use			
No	97	8.0 (0.0-13.0)	0.424; 0.672
Yes	103	8.0 (1.0-12.0)	
History of prior hospitalization			
No	37	8.0 (0.0-12.0)	0.312; 0.755
Yes	163	8.0 (0.0-13.0)	
Status of being companion during the hospitalization			
No	99	8.0 (1.0-13.0)	0.888; 0.374
Yes	101	9.0 (0.0-13.0)	
Status of being visitors during the hospitalization			
No	37	8.0 (0.0-11.0)	1.246, 0.213
Yes	163	8.0 (0.0-13.0)	
Social support status			
No	67	8.0 (0.0-13.0)	2.026; 0.043
Yes	133	9.0 (0.0-13.0)	
Total	200	8.0 (0.0-13.0)	

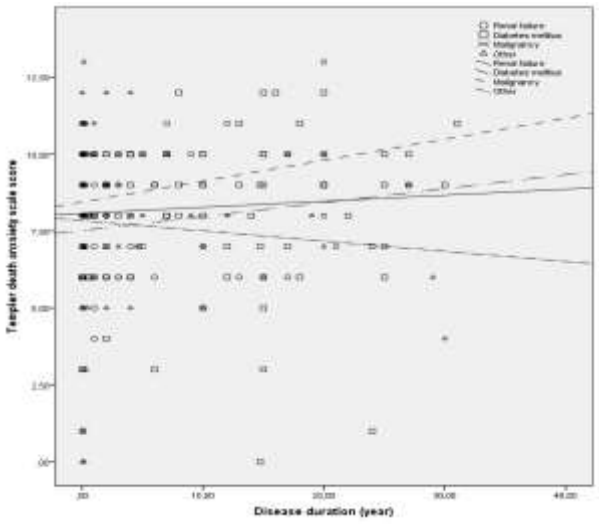

Fig. 1: The distribution of Death Anxiety Scale scores obtained from patients' disease duration

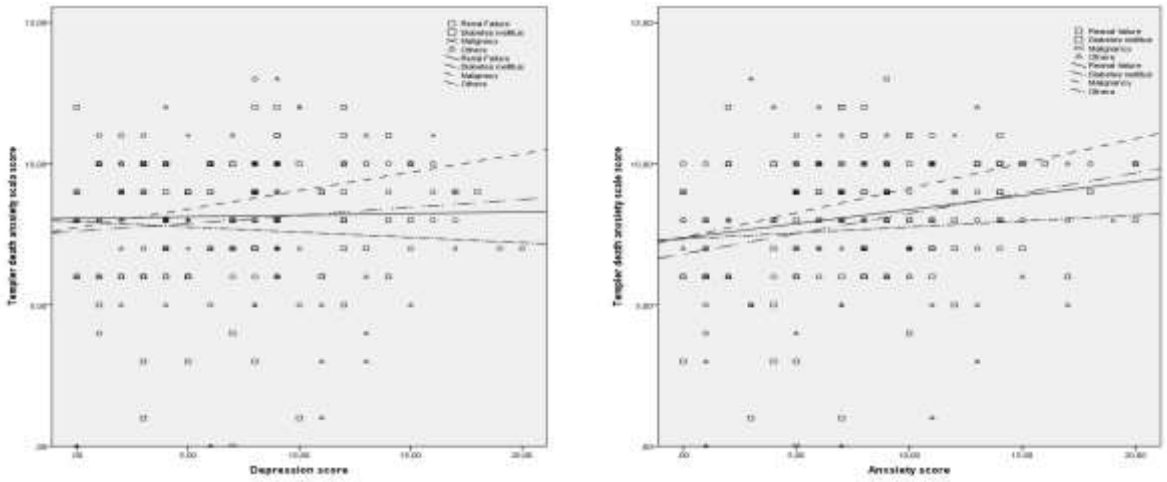

Fig. 2: The distribution of the patients' scores obtained from the Death Anxiety Scale and Depression Scale-Anxiety Scale

CONCLUSION

Death anxiety and depression are a major health problem in patients with chronic disease. Especially in diabetic patients, death anxiety increases with increased levels of anxiety and with increased duration of disease. It is important that physicians and nurses are better trained about mental health problems that may occur in hospitalized patients due to chronic diseases. Giving information to patients, especially about the methods of coping with depression and death anxiety and helping them to express their feelings about their disease, should be provided.

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