Evaluation of the Relationship between Major Depressive Disorder and Bereavement Symptoms in Elderly Patients Who Present Either to Psychiatry or Family Medicine

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ABSTRACT

Introduction: We aimed to determine the level of bereavement and depression symptoms among elderly patients who experience the loss of a significant other and the relationship between depressive symptoms and bereavement symptoms.

Methods: The study sample consisted of elderly adults who lost a significant other at least 6 months prior to the submission time. Participants were recruited from patients who presented to either the psychiatry or family medicine outpatient unit of a Training and Research Hospital. Cognitive functions were assessed using Standardized Mini Mental Examinations for Educated and Uneducated People (SMME/SMME-U). Participants were excluded from the study if their SMME or SMME-U scores were lower than 23 points. To assess the severity of depressive and bereavement symptoms, the Geriatric Depression Scale (GDS) and Core Bereavement Items (CBI) scales were used, respectively.

Results: Overall, 33 out of 67 individuals (49.2%) who presented to the psychiatry unit and 7 out of the 43 individuals (16.3%) who presented to the family medicine unit were diagnosed with major depressive disorder (MDD). CBI scale score means were higher in the MDD groups than in the non-depressive groups ($p=0.012$ and $p=0.001$, respectively). CBI scores were significantly correlated to acute ($p=0.047$) and chronic stress ($p=0.007$) in the psychiatry group and to chronic stress in the family medicine group ($p=0.001$).

Conclusion: Probing loss experiences and reactions to them can be important to understand depression, to evaluate its symptoms, and to help manage the relevant symptoms. Considering the significant contributions of bereavement to depressive symptom severity in elders, interventions specific to bereavement symptoms should not be ignored.

Keywords: Elderly, depression, bereavement, psychiatry, cognitive function

INTRODUCTION

Major depressive disorder (MDD) is a very common disorder worldwide; large-scale studies report a prevalence of 13% (1). Because the occurrence of MDD in the elderly differs to some extent compared to that seen in adulthood, studies investigating the prevalence of MDD in the elderly population report different results, and it is seen at a prevalence of approximately 5% within any given period of time (2). The number of studies investigating MDD in the elderly population in Turkey is limited; an extensive study reported that the prevalence of MDD is approximately 18% and that most patients did not receive psychiatric treatment (3). Biological, psychological, and social problems seen in the elderly lead to increased development of MDD (4).

One of the most common of these problems is the loss of a loved one, which is an important risk factor for the development of MDD (5). In widowed patients who lost their spouses at an advanced age, psychiatric symptoms and deterioration in the general health status in the forthcoming period were observed more frequently than in patients who did not experience this loss (6). Bereavement and adaptive and non-adaptive symptoms due to bereavement are considered to be an important risk factor for MDD (5); however, increased severity or decreased functionality has not been observed when bereavement is seen concurrently with MDD (7). Because this condition has a significant effect on mortality and morbidity, early diagnosis and treatment has an important role (8).

It was reported that the experience of loss is higher than 50% in individuals older than 65 years of age, particularly in women, and that the prevalence of the experience of loss increases significantly with advanced age (9). Our information on the co-existence of symptoms of bereavement and MDD in the elderly is limited. Most of our information on the co-existence of bereavement and depressive disorder is from studies including non-elderly patients. When studies conducted in this field were reviewed, in a community sample, the prevalence of complicated grief (CG) was 9% among individuals who lost a loved one (10). However, comorbidity of CG was found to be 18% in patients with MDD (7). Studies with patients presenting to outpatient psychiatric clinics reported a prevalence of CG as high as 33%-34% (11,12). In our study, we analyzed the prevalence of depressive disorder and symptoms of bereavement among individuals who presented to two separate units (psychiatric and family medicine outpatient units).

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Because social withdrawal, grief, and increased depressed mood are symptoms shared by both bereavement and MDD, it is difficult for most clinicians to make a diagnosis of MDD in individuals experiencing bereavement, to differentiate the symptoms, and to make a connection between them (13). This confusion regarding the diagnosis of MDD and bereavement was included in the DSM-IV diagnosis classification under exclusion criteria. In criterion E, loss of a loved one within the last 2 months is considered to be an exclusion criterion for MDD (14). As a result of the studies and assessments in this field, the DSM-V removed bereavement from the exclusion criteria for the diagnosis of MDD. This suggests that the boundaries between bereavement and depressive disorder are not clear. Some authors reported that MDD should be distinguished regardless of time (15), and bereavement should be classified as a separate diagnosis (16).

Complicated grief is defined as the presence of lasting severe and resistant acute symptoms related to experience of loss, although a period of 6–12 months have passed after the experience of loss, and the presence of extreme and discomforting thoughts, feelings, and behaviors as a result of the loss (17). In the literature, the Inventory of Complicated Grief (ICG), which determines CG based on non-adaptive symptoms and uses a cutoff score to make a diagnosis of CG, is used (18). We used the Core Bereavement Items (CBI), which measures bereavement at a non-adaptive level and is used to determine the level of bereavement (19). The purpose of using this scale was to measure adaptive and non-adaptive bereavement symptoms, rather than making a diagnosis of CG dicotomically (CB is present or not). On the other hand, because there are uncertainties regarding the diagnosis of CG, we believed that measuring more common symptoms of bereavement would be more appropriate to avoid this uncertainty.

When studies and interpretations in this field were reviewed, it was found that there are no clear boundaries between symptoms of bereavement and MDD, that symptoms of bereavement are not noticed unless probed, and that co-existence of depression and bereavement has an important place in the follow-up and treatment of MDD. Our purpose in this study was to determine the prevalence and severity of MDD and the severity of bereavement symptoms in patients older than 65 years of age who lost a loved one and presented to either psychiatric or family medicine units and to evaluate the relationship between MDD and bereavement.

METHODS

Subjects

Patients older than 65 years of age who presented to either the family medicine or psychiatric out-patient units of Hasköy District Polyclinic, which is a part of the Ministry of Health Dışkapı Yıldırım Beyazıt Training and Research Hospital, between January 2012 and April 2012 were recruited consecutively.

At baseline, the Mini Mental Test was conducted for individuals recruited for the study to determine their mental state. Those with MMT scores lower than 23 were not included in the study. A total of 43 patients who presented to the family medicine unit and 67 patients who presented to the psychiatric unit participated in the study.

Among the individuals who participated in the study, those who lost a loved one at least 6 months ago or longer were included in the study. The reason why the time period of at least 6 months was specified for the study is that this is the required time for the level of bereavement to become adaptive (17,18). Overall, 22 (32.9%) of the patients who presented to the psychiatric unit lost their child, 26 (38.7%) lost their spouse, 14 (20.9%) lost their sibling, and 5 (7.5%) lost a loved one other than these.

In total, 11 (25.5%) of the patients who presented to the family medicine unit lost their child, 14 (32.6%) lost their spouse, and 18 (41.9%) lost their sibling. Five (7.5%) of the patients who presented to the psychiatric unit described experiences of loss lasting between 6 and 12 months, 16 (23.9%) between 1 and 5 years, and 46 (68.6%) longer than 5 years. Six (14.0%) of the patients who presented to the family medicine unit described experiences of loss lasting between 6 and 12 months, 6 (14.0%) between 1 and 5 years, and 31 (72.0%) longer than 5 years.

Psychiatric examination was performed, and the Structural Clinical Interview For DSM-IV Axis I Disorders (SCID-I) was administered to all of the individuals who participated in the study. After psychiatric examination, a data form including socio-demographic characteristics was administered. Individuals who participated in the study were requested to fill out the Depression Scale for the Elderly (DSE) and the Core Bereavement Items (CBI) scale. The tests were read to illiterate subjects by a physician associate at the family medicine unit. Psychiatric examinations of the individuals who participated in the study were performed by a psychiatrist. Other data collection tools were applied by 1 family physician, 1 psychiatrist, and 2 family physician associates. For each patient who participated in the study, approximately 45–60 min were spared. Participation in the study was on a volunteer basis, and the Helsinki declaration was complied with. All patients provided informed consent for the study.

Data Collection Tools

Sociodemographic Data Form: This form contained questions relating to gender, education, marital status, previous employment, whether there is someone providing care at home, presence of a chronic disease, and monthly income. Additionally, questions were asked relating to topics such as the presence of a short-term stress factor (presence of a negative life event within the last 3 months), presence of a long-term stress factor (presence of a negative life event for longer than 3 months and continuing), first-degree family history of psychiatric disorder, history of presentation to a psychiatric ward, duration of the experience of loss, degree of relativity to the lost loved one(s), and whether the experience of loss was of a sudden or expected nature.

Geriatric Depression Scale (GDS): This screening questionnaire, which was developed by Yesavage et al. (20), consists of 30 questions evaluating the past week. The questions in the scale are yes or no questions, and the score ranges between 0 and 30. The Turkish validity and reliability study of this scale was conducted by Sağduyu (21) (test-retest consistency, $r=0.87$; internal consistency Cronbach $\alpha=0.72$). In this form of the scale, which has been adapted for Turkey, the cutoff is 13/14, and from this cutoff, the sensitivity is reportedly 0.90 and the specificity is 0.97.

Core Bereavement Items (CBI): CBI is a scale that is filled out by the participant and is commonly used in the time period after the loss of a loved one. The scale, developed by Burnet et al. (19) in 1997, assesses the severity of bereavement in individuals who have lost a loved one. The scale consists of three categories that analyze images and thoughts about the lost loved one and the status of acute separation and grief. The scale includes 17 questions using a 4-point Likert scale. The total score of the scale varies from 0 to 51. The original of the scale was administered to 158 adults with experience of loss, and the Cronbach α coefficient was found to be 0.91. A Turkish validity and reliability study was conducted by Selvi et al. (22), and the internal consistency Cronbach α value was found to be 0.94.

Standardized Mini-Mental State Test for the Educated and the Uneducated (SMMT/SMMT-E): The scale, developed by Folstein et al. (23), is used in the assessment of cognitive disorders. Orien-

tation, registration, attention-calculation, recall (memory), and language tests are evaluated. The cutoff score of the test was accepted as 23. The SMMT and SMMT-E used in the study were edited by Güngen et al. (24).

Structural Clinical Interview for DSM-IV Axis I Disorders (SCID-I): This is a structured clinical interview form developed by Spitzer et al. (25) to diagnose DSM-IV Axis-I disorders. A Turkish validity and reliability study was conducted by Özkürkçügil et al. (26)

Statistical Analysis

Data obtained from the study were analyzed using the Statistical Package for the Social Sciences (SPSS Inc; Chicago, IL, USA) 16.0 program, which is used to perform statistical analyses in the social sciences. The sociodemographic characteristics of the elderly patients who presented to either the psychiatric or family medicine ward were analyzed as independent variables, and the Standardized Mini Mental Test for the Educated and the Non-Educated (SMMT/SMMT-E) scores were analyzed as dependent variables. In the study, percentage, standard deviation, mean, and t analyses were conducted depending on the nature of the variables, and the minimum level of significance was accepted as 0.05.

RESULTS

The individuals who participated in the study were assessed in two groups: those who presented to the family medicine unit and those who presented to the psychiatric unit. The mean age of the 43 people who presented to the family medicine unit was 70.6 ± 5.2 years. Twenty-two (51.2%) of the participants were female and 21 (48.8%) were male. Thirty-three (76.7%) were married and 10 (23.3%) were widowed. Thirty-two (74.4%) were literate and 11 (25.6%) were illiterate. The mean age of the 67 people who presented to the psychiatric unit was 71.9 ± 5.2 years. Fifty-four (80.6%) of them were female and 13 were male (19.4%). Thirty-five (52.2%) were married and 32 (47.7%) were widowed. Thirty-three (49.2%) were literate and 34 were illiterate (50.8%). Table 1 shows the other answers to the questions on the sociodemographic data form. When the two groups were compared by sociodemographic data, being female, low level of education, being widowed, exposure to long-term stress, and previous history of psychiatric presentation were significantly higher in patients who presented to the psychiatric unit than those who presented to the family medicine unit ($p=0.001$, $p=0.009$, $p=0.010$, $p=0.032$, and $p<0.001$, respectively).

As seen in Table 2, both groups were internally assessed according to sociodemographic data in terms of CBI scale and GDS. In the group of elderly patients who presented to the psychiatric unit, mean CBI scale scores were statistically significantly higher in the presence of short-term and long-term stress ($p=0.047$ and $p=0.007$, respectively). Mean GDS scores were statistically significantly higher in women ($p=0.006$), the illiterate ($p=0.050$), non-pensioners ($p=0.004$), in the presence of short-term stress ($p=0.029$), in the presence of long-term stress ($p=0.003$), and in those with a sudden experience of loss ($p=0.042$). In the group of elderly patients who presented to the family medicine unit, mean CBI scale scores and mean GDS scores were statistically significantly higher in the presence of long-term stress ($p=0.001$ and $p=0.022$).

The scores of the CBI scale, GDS, and mini mental test used in the study for both groups are compared in Table 3. Mean CBI scale scores were 16.5 ± 12.3 in those who presented to the psychiatric unit and 10.1 ± 11.4 in those who presented to the family medicine unit, and a statistically significant difference was not found ($p=0.009$). Mean GDS scores were 18.1 ± 5.3 in those who presented to the psychiatric unit and 10.8 ± 6.7 in those who presented to the family medicine unit, and a statistically

Table 1. Comparison of the demographic data of patients admitted to the psychiatry and family medicine outpatient departments

	Psychiatry	Family medicine	p
Age (years)	71.9±5.2	70.6±5.2	0.083
Sex			
Female	54 (80.6%)	22 (51.2%)	0.001
Male	13 (19.4%)	21 (48.8%)	
Literate			
Yes	33 (49.2%)	32 (74.4%)	0.009
No	34 (50.8%)	11 (25.6%)	
Marital status			
Married	35 (52.2%)	33 (76.7%)	0.010
Widowed	32 (47.8%)	10 (23.3%)	
Retirement			
Yes	33 (49.2%)	27 (62.8%)	0.167
No	34 (50.8%)	16 (37.2%)	
Have a home care person			
Yes	11 (16.4%)	6 (13.9%)	0.730
No	56 (83.6%)	37 (86.1%)	
Chronic disease			
Yes	57 (85.1%)	37 (86.1%)	0.899
No	10 (14.9%)	6 (13.9%)	
Short-term stress			
Yes	22 (32.8%)	10 (23.3%)	0.285
No	45 (67.2%)	33 (76.7%)	
Long-term stress			
Yes	45 (67.2%)	20 (46.5%)	0.032
No	22 (32.8%)	23 (53.5%)	
Psychiatric disorders in family			
Yes	18 (26.9%)	9 (20.9%)	0.485
No	49 (73.1%)	34 (79.1%)	
Previous psychiatric history			
Yes	51 (76.1%)	10 (23.3%)	<0.001
No	16 (23.9%)	33 (76.7%)	
Sudden experience of loss			
Yes	23 (34.3%)	9 (20.9%)	0.297
No	44 (65.7%)	34 (79.1%)	

significant difference was not found ($p=0.001$). Mean mini mental test scores were 25.2 ± 2.5 in those who presented to the psychiatric unit and 26.7 ± 3.1 in those who presented to the family unit. Mini mental test scores were statistically significantly higher in those who presented to the psychiatric unit ($p=0.011$).

A correlation analysis of GDS and CBI scale scores was made for patients who presented to either unit. The Pearson correlation value for patients who presented to the psychiatric unit was found to be 0.380 ($p=0.003$).

Table 2. Internal assessment of both groups by sociodemographic data in terms of CBI scale and GDS

	Psychiatry				Family medicine			
	CBI		GDS		CBI		GDS	
	Mean±SD	p	Mean±SD	p	Mean±SD	p	Mean±SD	p
Sex								
Female	17.5±12.5	0.188	19.0±5.2	0.006	11.7±13.9	0.367	12.2±7.0	0.132
Male	11.5±10.6		14.5±4.5		8.5±9.6		9.3±5.6	
Literate (education)								
Yes	15.5±12.8	0.516	16.8±4.8	0.050	10.2±11.4	0.933	10.6±6.9	0.708
No	17.6±12.0		19.4±5.6		9.9±12.0		11.4±4.8	
Marital status								
Married	13.8±12.8	0.118	18.7±4.8	0.373	9.6±10.6	0.570	9.7±5.7	0.051
Widowed	18.9±11.6		17.5±5.9		12.0±14.6		14.3±7.8	
Retirement								
Yes	13.3±11.3	0.055	16.2±5.5	0.004	9.8±11.6	0.821	10.8±7.1	0.999
No	19.6±12.8		20.0±4.5		10.6±11.5		10.8±5.5	
Have a home care person								
Yes	18.1±13.1	0.709	19.1±4.6	0.530	11.6±8.6	0.734	14.5±8.4	0.134
No	16.3±12.4		17.9±5.5		9.9±11.9		10.2±6.0	
Chronic disease								
Yes	17.6±12.8	0.148	18.4±5.2	0.268	10.1±10.9	0.909	11.0±6.5	0.552
No	11.4±9.1		16.4±6.0		10.7±15.9		9.3±6.0	
Short term stress								
Yes	21.6±13.9	0.047	20.1±5.2	0.029	13.7±12.7	0.271	11.7±5.9	0.627
No	14.5±11.2		17.1±5.2		9.1±11.0		10.5±6.7	
Long term stress								
Yes	19.6±12.6	0.007	19.4±5.3	0.003	16.2±13.7	0.001	13.2±7.3	0.022
No	10.3±9.5		15.4±4.4		4.9±5.3		8.7±4.9	
Psychiatric disorders in family								
Yes	21.1±15.4	0.121	20.2±5.2	0.055	12.0±13.0	0.595	12.8±7.7	0.312
No	15.1±11.1		17.4±5.3		9.6±11.7		10.3±6.1	
Previous psychiatric history								
Yes	16.1±12.3	0.553	18.3±5.6	0.697	9.3±10.2	0.790	12.6±5.0	0.325
No	18.5±13.2		17.7±4.7		10.4±12.0		10.2±6.8	
Sudden experience of loss								
Yes	19.0±11.8	0.472	20.1±5.0	0.042	18.2±13.3	0.191	12.5±7.0	0.660
No	16.5±12.3		17.0±5.7		12.3±10.3		11.2±7.4	
MDD								
Yes	18.40±14.78	0.012	19.3±4.2	0.003	18.39±15.28	0.001	16.2±6.8	0.002
No	8.81±6.52		13.0±6.7		7.43±8.55		8.9±5.2	
CBI: core bereavement items; GDS: geriatric depression scale; SD: standard deviation; MDD: major depressive disorder								

Table 3. Comparison of CBI scale, GDS, and mini mental test scores used in the study for both groups

	Psychiatry	Family medicine	p
Core Bereavement Items (Mean±SD)	16.5±12.3	10.1±11.4	0.009
Geriatric Depression Scale (Mean±SD)	18.1±5.3	10.8±6.7	<0.001
Mini Mental Test (Mean±SD)	25.2±2.5	26.7±3.1	0.011
Major Depressive Disorder (n, %)	33 (%49.2)	7 (%16.3)	<0.001
SD: standard deviation			

The Pearson correlation value for patients who presented to the family medicine unit was found to be 0.365 ($p=0.016$).

Geriatric Depression Scale scores of patients who presented to either ward were accepted as a dependent variable, and regression analysis was performed to evaluate their relationship to CBI scale scores. In patients who presented to the psychiatric unit, CBI scale and geriatric depression scale scores were found to be significantly definitive ($F=6.59$, $df=1$, $p=0.013$, adjusted $R^2=0.078$). In patients who presented to the family medicine unit, CBI scale and GDS scores were found to be significantly definitive ($F=5.78$, $df=1$, $p=0.021$, adjusted $R^2=0.102$).

DISCUSSION

Although the co-existence of bereavement and MDD is seen very frequently, uncertainties remain about the boundaries of the two psychopathologies (15,16). Particularly, our information on the co-existence of these two psychopathologies in the elderly is limited. In this study, we aimed to evaluate the relationship between the diagnosis of MDD and the severity of depressive and bereavement symptoms in people older than 65 years of age who lost a loved one within the last 6 months and who presented to either a family medicine or psychiatric outpatient unit.

When the sociodemographic data of the patients who presented to either unit were assessed, being female, being illiterate, loss of spouse, and exposure to long-term stress were significantly higher in those who presented to the psychiatric unit than those who presented to the family medicine unit. Similarly, a large-scale study reported a high rate of females and a low level of education in patients who presented to the psychiatric unit (27). In a study of widowed patients, it was reported that psychiatric presentation and psychotropic medication use were significantly higher in widowed patients than in non-widowed subjects (28) and, similarly, that natural life events (losses and health problems) and challenges were an important risk factor in the occurrence and recurrence of MDD in the elderly (29).

The most important restrictive factors for the studies investigating MDD in the elderly appear to be the high prevalence of cognitive disorders in these patients and the small number of instruments to measure depressive disorder (30). With regard to cognitive disorder, we did not include patients with a mini mental test score of 23 or higher in our study. The GDS and CBI scales were used as supportive tools to measure the symptoms of MDD and bereavement. In our study, we found that MMT scores of patients who presented to the psychiatric unit were significantly lower than those who presented to the family medicine unit. Although the co-existence of depressive disorder and cognitive disorder in the elderly is clearly demonstrated in studies conducted in this field, how these two conditions affect each other has not been clarified (31,32).

The GDS scores of patients who presented to the psychiatric unit were significantly higher than those of patients who presented to the family medicine unit. It was found that being female, being illiterate, being a non-pensioner, the presence of short-term stress, the presence of long-term stress, and the sudden nature of the experience of loss in those who presented to the psychiatric unit increased the GDS scores and diagnosis of MDD significantly. In those who presented to the family medicine unit, only the presence of long-term stress and GDS scores and MDD diagnosis were significantly higher. When studies in this field in the literature were reviewed, it was seen that among risk factors of MDD observed in the elderly, being a female (30), low level of education (33,34), and negative life events and life challenges (29,35,36) are effective, and the sudden and unexpected nature of the experience of loss is closely related to the severity of depressive symptoms and general health status (37). In the group that participated in the study, being a pensioner appears to be associated with good socioeconomic status and being educated. Our study is consistent with the results of the studies conducted in this field.

When we evaluated the relationship between CBI scale scores and socio-demographic data in both groups that participated in our study, the CBI scale scores were significantly higher only in patients who described an acute and chronic stress factor. Patients who describe symptoms of bereavement may have higher susceptibility to stress or may have difficulty coping with stress. Comorbidity of disorders related to anxiety is observed frequently, particularly in individuals with complicated grief (38,39). However, separation anxiety and avoidant personality traits, which are closely associated with stress, were found to be higher in these individuals (40). The type of loss experience and reaction to loss may appear as a post-traumatic stress disorder; this reaction to stress is called traumatic grief (41,42). However, it was reported that patients with a co-existence of MDD and complicated grief are exposed to long-term life events more frequently, and social support is lower in these individuals (43).

In our study, 33 (49.2%) of the patients who presented to the psychiatric unit and 7 (16.3%) of those who presented to the family medicine unit were diagnosed with MDD. CBI scale scores were statistically significantly higher in patients with a diagnosis of MDD than in those without a diagnosis of MDD in both groups of patients. In the elderly, the prevalence of MDD is reportedly 25% 2–7 months after the experience of loss, whereas the prevalence of MDD is reportedly 15% 13 months after the experience of loss (44). However, the fact that the prevalence of complicated grief after the experience of loss in the general population is reportedly 2.4%–24.6% shows that it is closely associated with cultural difference (45,46). On the other hand, there is a significant relationship between the degree of relativity to the lost loved one and the occurrence of bereavement (47). Because of these complicating factors in the assessment of bereavement, we evaluated the severity of the bereavement rather than making a diagnosis of complicated grief. In epidemiologic studies, the prevalence of complicated grief ranges between 9% and 20% (43,48,49). In the literature, one study investigating complicated grief where psychiatric patients were monitored on an outpatient basis reported that more than half of the patients lost one or more of their relatives, and one-third of them had moderate or severe complicated grief (7,12,50). The findings in our study support the fact that a high rate of co-existence of MDD and bereavement may apply to the elderly as well.

The GDS and CBI scale scores of patients who presented to the psychiatric unit were significantly higher than those of patients who presented to the family medicine unit. This finding shows that depressive and bereavement symptoms are severe in patients who present to a psychiatric unit. This result may be associated with the fact that patients present to

a psychiatric unit present primarily for depressive complaints. In studies with patients with complicated grief, it was found that these individuals had many psychopathologies, such as deterioration in autobiographical memory (51), decrease in problem solving skills (52), increased neuroticism, and insecure attachment (53). Similarly, individuals with MDD have been shown to have impaired cognitive functions, increased neuroticism, insecure attachment, and impaired social problem solving (54,55,56,57). These characteristics may give rise to the thought that diagnoses of MDD and complicated grief have similar psychopathologies. The DSM-V has recently been finalized with endophenotypical characteristics. The fact that these two psychiatric conditions have common endophenotypical characteristics may support the omission of bereavement from the exclusion criteria of MDD diagnosis. However, in regression analysis of patients presenting to either family medicine or psychiatric units, CBI scores significantly predict GDS scores. This result suggests that bereavement and depressive symptoms are closely associated.

Because our study investigates symptoms of MDD and bereavement in the elderly and was conducted at two different outpatient units, we believe that it represents a contribution to the literature. The limitations of our study include the fact that the sample size is small, that there is no homogeneity in terms of the lost loved one (only spouse or only child), that the sample group is located in one region only (district polyclinic), that the experience of loss is limited to at least 6 months or longer, and that there is no observational study.

In conclusion, our study found that symptoms of bereavement were significantly higher in patients with a diagnosis of MDD who presented to either psychiatric or family medicine wards than in those without a diagnosis of MDD. Additionally, the level of bereavement in patients who presented to either unit was significantly higher in the presence of stress. Probing experiences of loss and assessing reactions to the experience of loss have an important place in the diagnosis and follow-up of MDDs in the elderly. Moreover, identifying symptoms of bereavement may be useful in the management of stress. We believe that developing programs specific to the elderly and increasing social support factors may be preventive in improving community mental health.

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