Measuring Grief Symptoms in Cancer Patients: The Reliability and Validity Study of the Turkish Version of Prolonged Grief Disorder Scale

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SUMMARY

Objective: The need to grieve is not limited to losses due to the deaths of significant others but also arises in reaction to various life events that result in a sense of loss. Grief is argued to be a universal and natural reaction also in face of life-threatening illnesses. Cancer is a phenomenon that has to be examined in terms of grief reactions since it involves multiple losses. The aim of the current study is to test the reliability and validity of the Turkish version of the Prolonged Grief Disorder Scale-Patient Form (PG-12-Patient Form), which is used to measure grief symptoms in cancer patients.

Method: Following the finalization of the Turkish form, the scale was applied to a sample of participants composed of 250 outpatients diagnosed with cancer. The participants were also presented with the Hopelessness Scale and the Illness Related Subjective Appraisals Scale for the purpose of examining criterion validity.

Results: Principle components analysis revealed that the forced one-factor solution explaining 46% of the variance was satisfactory and gave a clearer factor structure than the dimensional solution. The Cronbach's alpha internal consistency was found to be 0.88. The total scores obtained from the scale were found to have significant positive relationships with the scales that were used to test criterion validity.

Conclusion: The results provide evidence suggesting that the Turkish version of PG-12-Patient Form is a reliable and valid tool to measure grief symptoms in cancer patients.

Keywords: Prolonged Grief Disorder Scale, Patient Form, Cancer, Grief, Validity, Reliability

INTRODUCTION

Grief is defined as the 'psychological, social and somatic reactions to the perception of loss' (Rando 1984). The sense of loss could be related to the death of a loved one and could also be experienced as a result of losing any kind of object, relationship, or purpose that one values (e.g., Allison & Meyer 1988, Haber 1990, Lewandowski et al. 2006, Sharkin & Knox 2003). Grief is thereby not a reaction that arises only after the losses incurred by death (Blatner 2000), but is a process that can be experienced in the aftermath of every kind of life event that arouses a sense of loss in the individual (Kraybill-Greggo et al. 2005, Papa et al. 2014).

Grief is argued to emerge as a universal and natural reaction in the face of life-threatening illnesses (Hall 2011). Ahlström (2007) reports that life-threatening illnesses encompass various physical, emotional, and social losses such as the loss of bodily functions, loss of relationships and roles, loss of an independent life, loss of dreams with regard to life and future, loss of efficacy, and loss of identity. It is stated that the sense of losing one's life when combined with the aforementioned losses may lead a person into a severe grief process (Matzo et al. 2003).

The pioneering work of Elizabeth Kübler-Ross (1969) with terminally ill patients has brought the phenomena of loss and

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grief to the agenda of the field of psycho-oncology. It has been highlighted that cancer, characterized as a 'living-dying experience' (Muzzin et al. 1994), is a phenomenon that needs to be addressed in terms of grief reactions due to the multiple losses it elicits (Kacel et al. 2011); however, this issue has largely remained an understudied field. While the great majority of the existing literature focuses on grief experienced by the caregivers of the patients (before or after the loss) (e.g., Bouchal et al. 2015, Lichtenthal et al. 2011, Thomas et al. 2014, Tomarken et al. 2008), studies examining the process experienced by the cancer patients themselves, which is conceptualized as 'preparatory grief' or 'anticipatory grief' in certain publications, are limited to a few examples (Cheng et al. 2010, Jacobsen et al. 2010, Maciejewski & Prigerson 2012, Mystakidou et al. 2006, Trevino et al. 2013, Tsilika et al. 2009).

Preparatory or anticipatory grief is defined as the grief "that the terminally ill patient has to undergo in order to prepare himself for his final separation from this world" (Kübler-Ross 1969) or as 'the total set of cognitive, affective, social and cultural reactions to expected death, over past, present and anticipated losses' (Cheng et al. 2010). In this process, individuals may manifest symptoms such as social withdrawal, sleep disturbances, and poor appetite together with severe sorrow (Friedman 2012, Waldrop 2006). The fact that these symptoms are, to a large extent, similar to symptoms of depression makes it difficult to distinguish the grief reaction from depression (Green and Austin 1993, Worden 2008). As an extension of this, researchers trying to understand the personal experiences of individuals diagnosed with cancer in terms of psychological outcomes of the illness have largely evaluated psychological adjustment through depression (e.g., Hopko et al. 2007, Philip et al. 2013, Walker et al. 2014). However, the study conducted by Jacobsen et al. (2010) with cancer patients has revealed that grief symptoms manifested by these patients constitute a different structure than depression; and pointed out that assessments based solely on the diagnostic criteria of major depression will overlook approximately two-thirds of the grief phenomena. The researchers underline the fact that the possible emergence of grief symptoms in cancer patients should not be ruled out (Lacey 2011). Grief is a normal reaction shown in the face of loss; however, it may progress toward a complicated and disruptive state when it goes unresolved (Zisook & Shear 2009), and the symptoms may even reach a point in which they meet the diagnostic criteria of the mental disorder that will be included in ICD-11 under the title of Prolonged Grief Disorder (Prigerson et al. 2009). The key criterion in distinguishing 'prolonged grief', which was previously called 'complicated grief', from normal grief, is the severity and duration of the symptoms. Additionally, prolonged grief symptoms are accompanied by a marked distress and loss of function unlike in the state of normal grief (Prigerson & Jacobs 2001, Prigerson et al. 2008). Even at six months following the loss, the grieving individual experiences a serious difficulty in accepting the loss, and the traumatic stress arising out of the loss continues. The intense feeling of longing directed at the lost one becomes the center of one's life. The grieving individual believes that his/her life has ended with this loss and his/her pain will never subside (Maercker & Lalor 2012). The studies indicate that grief symptoms constitute a risk factor in terms of deaths by suicide or other reasons (Helsing & Szklo 1981) and point to the relationship of severe or prolonged grief with psychological and physical impairments. There are research findings stating that the grieving process may pose a risk in terms of adaptation problems in patients with cancer as well (Mystakidou et al. 2009). Therefore, grief reactions should be followed carefully, and the risk of encountering negative outcomes should be minimized. In the international literature, there are various measurement tools for the purpose of assessing grief symptoms (for an overview see: Tomita & Kitamura 2002). There are also scales developed (Balcı Çelik 2006) or adapted (Ayaz et al. 2014, Selvi et al. 2011) for this purpose in the national literature. However, almost all of these scales aim to measure the grief experienced by the bereaved following the loss of a loved one. It draws attention to the fact that the subjective experiences of cancer patients have not been adequately addressed. There are two scales to fill this gap. The first one is 'Preparatory Grief in Advanced Cancer Patients Scale' (PGAC; Mystakidou et al. 2005, 2008), and the second one is 'Prolonged Grief Disorder Scale-Patient Form' (Jacobsen et al. 2010). The Prolonged Grief Disorder Scale stands out between the two scales since it was developed more recently and has taken the latest developments in the literature regarding prolonged grief and the suggested criteria for DSM-V and ICD-11 (Prigerson et al. 2009) into consideration. It will be useful to briefly mention here the recent studies that have been conducted using the Prolonged Grief Disorder Scale-Patient Form. The study by Jacobsen et al. (2010) identified a significant positive association between grief symptoms in cancer patients and major depression, the wish to die, and mental health service use. These findings refer to the association between grief symptoms and psychiatric morbidity. Trevino et al. (2013) revealed that as the social support perceived by cancer patients increases, grief symptoms decrease. By focusing particularly on 'emotional numbness', one of the grief symptoms, Maciejewski & Prigerson (2012) have put forward suggestions with regard to end-of-life care for cancer patients.

The purpose of this study is to test the use of the Prolonged Grief Disorder Scale-Patient Form in the Turkish population. In accordance with this purpose, it is aimed to examine the factor structure of the scale, test its validity and reliability, and conduct explanatory analyses addressing the differences in terms of gender and duration of illness by using the scale scores.

METHOD

Sample

The sample was composed of 250 outpatients diagnosed with cancer. The average age of the participants was 55.8 years (age range 20-88, SS=12.96). The socio-demographic characteristics of the participants are presented in detail in Table 1.

Table 1. Socio-Demographic Characteristics of the Participants

Socio-demographics	N	%
Gender		
Female	169	67.6
Male	81	32.4
Level of Education		
Primary school	61	24.6
Secondary School	28	11.3
High School	80	32.3
University or higher	71	28.6
SES		
High	22	8.9
Middle	194	78.2
Low	32	12.9
Working Status		
Working	44	17.6
Not working	186	74.4
Quit due to illness	20	8.0
Cancer Type		
Prostate	9	3.7
Lymphoma	13	5.4
Lung	41	17.0
Breast	72	29.9
Gastric	11	4.6
Colon	12	5.0
Ovarian	16	6.6
Pancreas	12	5.0
Others (leukemia, liver, brain, bowel, bladder, skin, kidney, testicle)	66	22.6
Duration of Illness	**(range:1-144 m, $\bar{X}$=22.6)**	
1-6 months	122	49.2
7-12 months	61	24.6
13-48 months	48	19.2
49 months and over	17	6.9

Instruments

Along with the Prolonged Grief Disorder Scale-Patient Form, this study used a form prepared to collect socio-demographic data and Illness Related Subjective Appraisal Scale and Beck Hopelessness Scale so as to assess the criterion validity of the scale.

Prolonged Grief Disorder Scale-Patient Form (PG-12-Patient Form): This scale, which was developed by a group of researchers led by Prigerson to measure grief symptoms and was previously called Inventory of Complicated Grief (Prigerson et al. 1995, Prigerson & Jacobs 2001), is now called Prolonged Grief Disorder Scale upon the inclusion of the Prolonged Grief Disorder diagnosis in the classification suggested for ICD-11 (Thornicroft & Patel 2014). The scale has been reviewed by taking into account the diagnostic criteria suggested for prolonged grief disorder by Prigerson et al. (2009), and it has separate forms adapted for cancer patients (PG-12-Patient Form; Jacobsen et al. 2010), for the caregivers of cancer patients (PG-12-Caregiver Form; Prigerson et al. 2009), and for the individuals who have lost a loved one (PG-13; Prigerson et al. 2009). The PG-12-Patient Form, which is used to assess the emotional experiences and grief reactions of cancer patients with regard to the losses that the illness leads to, consists of 12 items assigned points through a Likert-type scale (for items 1-4, 1=not at all, 5=several times a day; for items 5-12, 1=not at all, 5=overwhelmingly). The increase in the total score obtained from the scale indicates an increase in grief symptoms. When the factor structure was examined so as to test the validity of the scale, it was found that the items cluster under one factor. The Cronbach's alpha internal consistency for the scale was found to be 0.86 (Jacobsen et al. 2010).

Illness Related Subjective Appraisals Scale-Adult Form: The original form of the scale was designed to be used with children and adolescents with chronic illnesses (α=0.86) (Gökler 2008), and the Turkish version was adapted for adult cancer patients by Gökler et al. (in process). The scale, which assesses the subjective perceptions of individuals diagnosed with cancer regarding their illnesses, consists of three subscales, namely 'anxiety' (α=0.81), 'impairment of daily functioning' (α=0.84), and 'hardship of the illness and its treatment' (α=0.76). The scale is composed of 7 items, and each item is scored with a range of 0-2 on a 3-point scale. The high score obtained from the scale indicates that the individual's perception of the illness becomes negative. The fact that the scale shows significans composed of 20 items. The individual is asked to answer 'yes' for the statements that apply to him/her and 'no' for the statements that do not apply to him/her. The scores that can be obtained from the scale range from 0 to 20. A high score obtained from the scale indicates high levels of hopelessness. The validity and reliability study of the Turkish version was carried out by Seber et al. (1993); and The Cronbach's alpha internal consistency was found to be .86 and the test-retest reliability was found to be 0.74. The criterion validity of the scale was tested by looking at its association with the Beck Depression Scale scores and a significant association ($p<.001$) was identified among the total scores at a level of 0.65. The Cronbach's alpha for the sample in this study was found to be 0.55.

Procedure

In the first step, the necessary permissions from the authors who developed the Prolonged Grief Disorder Scale-Patient Form were obtained. Afterwards, three clinical psychologists who are fluent both in Turkish and English translated

the items included in the scale into Turkish. The translated articles were assessed by independent judges, who had a full command of both languages and who worked in the mental health field, through a comparison with the original form. The items of the Turkish version of the form were arranged by taking into account all the suggestions. A clinical psychologist who had a full command of both languages made the back translation of the translated articles. The following assessment revealed that the original items overlapped with the back-translated items. The Turkish version was thereby finalized.

The data collection process started in February 2014 with the approval of Bahçeşehir University Committee for Scientific Research and Publication Ethics. The study was conducted in two hospitals in Istanbul after obtaining the necessary permissions from the hospital administrations and lasted for 6 months. In this process, cancer patients receiving outpatient care were given informed consent forms and were also verbally informed about the purpose of the study, the principle of confidentiality, and the principle of voluntary participation. The scales were applied to the patients who agreed to participate in the study when they were in the hospital for chemotherapy.

Statistical Analysis

All statistical analyses were carried out with the 19th version of Statistical Package for Social Sciences (SPSS). The internal consistency of PG-12-Patient Form was assessed by calculating the Cronbach's alpha coefficient. Principle components analysis was conducted to examine the factor structure of the scale. The relationship of the PG-12-Patient Form with other scales was examined through Pearson correlation analysis. Independent-samples t-test was also conducted to determine whether PG-12-Patient Form scores differed in terms of gender and duration of illness.

RESULTS

Validity Findings

The Factor Structure of the Scale: The Kaiser-Meyer-Olkin value, which was used to assess the adequacy of the data set for factor analysis, was found to be 0.09, and the result of the Barlett test (p=0.000) revealed that there was a significant difference. It was thereby determined that the data set was adequate for factor analysis. A principal components analysis with promax rotation was carried out to assess the factor structure of the 12 items included in the PG-12-Patient Form; it was seen that the items clustered under three factors whose eigenvalues were larger than 1, explaining 64.5% of the variance. However, given the fact that the original scale had a single factor and the items did not present a significant conceptual structure when distributed among three separate factors, the analysis was repeated by restricting it to one-factor. The single factor solution explained 46% of the variance.

Table 2. Item Loadings of the Prolonged Grief Disorder Scale (PG-12)-Patient Form Items

	Factor
Item 5	.80
Item 10	.80
Item 8	.78
Item 9	.74
Item 2	.74
Item 4	.70
Item 3	.67
Item 6	.67
Item 1	.60
Item 11	.59
Item 7	.57
Item 12	.31
Explained Variance	45.92%

In the literature, it is stated that a factor loading of 0.30 is adequate for the inclusion of an item in the scale, and values equal to or greater than 0.60 indicate high factor loading (Kline 1994). As a result of the analysis, it was seen that all items had adequate factor loadings and all items apart from item 12 had high factor loading. The items included in the PG-12-Patient Form are presented in Table 2 with their factor loadings.

Criterion Validity: The correlations among the scores that were obtained from the Hopelessness Scale and Illness Related Subjective Appraisals Scale were looked at so as to determine the criterion validity of the PG-12-Patient Form. As seen in Table 3, the total score of PG-12-Patient Form showed a significant positive relationship with the total scores obtained from both scales and the subscales of the Hopelessness Scale.

Reliability Findings

A reliability analysis was conducted to examine the internal consistency of the PG-12-Patient Form. The Cronbach's alpha internal consistency of the PG-12-Patient Form was found to be 0.88.

The item-total correlation test was used for item analysis. The item-total correlation test score is, in general terms, expected to be greater than 0.20 and not to be negative (Büyüköztürk 2004, Özdamar 1999). The analysis revealed that item 12 had the lowest correlation with the total score (r=0.25), and the correlations of the other items with the total score ranged between 0.48 and 0.73 (Table 4).

The split-half reliability coefficients determined by calculating the correlations between the first 6 items and the last 6

Table 3. Pearson Correlations between PG-12 and Beck Hopelessness Scale (BHS) and Illness Related Subjective Appraisals Scale (IRSAS)

	1	2	3	4	5	6
(1) PG-12-Total	(.88)	.34*	.60*	.37*	.59*	.41*
(2) BHS-Total		(.55)	.25*	.16**	.20*	.24*
(3) IRSAS-Total			(.83)	.75*	.80*	.82*
(4) IRSAS- Imp. of daily funct.				(.84)	.32	.59*
(5) IRSAS-Anxiety					(.81)	.45*
(6) IRSAS- Hardship of illness/treatment						(.76)

*p<0.01, **p<0.05 BHS: Beck Hopelessness Scale; IRSAS: Illness Related Subjective Appraisals Scale; PG-12: Prolonged Grief Disorder Scale
Values in parentheses represent the internal consistency coefficients of the scales.

Table 4. Item Total Correlations of the Prolonged Grief Disorder Scale (PG-12)-Patient Form

PG-12	Item-Total Correlations	Cronbach's alpha if item deleted
Item 11	0.49	0.88
Item 7	0.48	0.88
Item 10	0.72	0.87
Item 9	0.67	0.87
Item 6	0.59	0.87
Item 5	0.73	0.86
Item 8	0.70	0.87
Item 2	0.67	0.87
Item 4	0.62	0.87
Item 3	0.59	0.87
Item 1	0.54	0.87
Item 12	0.25	0.89

Table 5. Comparisons of PG-12 Total and Subscale Scores in Terms of Gender and Duration of Illness

	PG-12 X	Total Score sd
Female (n=169)	30.84	10.02
Male (n= 81)	28.03	9.69
< 6 months (n=122)	29.06	10.18
> 6 months (n= 126)	30.71	9.63
Total (n=250)	29.93	9.98

PG-12: Prolonged Grief Disorder Scale

items of the scale, and between the odd and even items were found to be 0.83 and 0.90, respectively.

The Comparison of PG-12-Patient Form Scores in Terms of Gender and Duration of Illness

An independent-samples t-test was conducted to examine whether there was a difference in PG-12-Patient Form total scores in terms of gender and duration of illness. The results of the analysis revealed that there was a statistically significant difference in terms of the gender of the participants with regard to the PG-12-Patient Form score [$t(248) = 2.09$, $p < 0.01$]. The results suggested that the grief symptoms of women (X=30.84, SS=10.0) are more severe when compared to those of men (X=28.03, SS=9.7). No significant difference was found in terms of grief symptoms between the patients diagnosed with cancer less than 6 months ago (n=122) and patients diagnosed with cancer more than six months ago (n=126). The comparisons of the PG-12-Patient Form scores in terms of gender and duration of illness are shown in Table 5.

DISCUSSION

Recent studies revealed findings stating that being diagnosed with a life-threatening illness could lead to grief symptoms (Cheng et al. 2010, Jacobsen et al. 2010, Maciejewski & Prigerson 2012, Mystakidou et al. 2006, Trevino et al. 2013, Tsilika et al. 2009), and the 'preparatory' grief observed in patients emerges as a significant concept both in terms of clinical assessment and treatment (Crunkilton & Rubins 2009). It is important that standardized instruments are incorporated into the national literature in order to advance research in this field and to help the discussion of the issue in intercultural scientific platforms.

On these grounds, this study was conducted to adapt the Prolonged Grief Disorder Scale-Patient Form, which is used to measure grief symptoms in cancer patients, into Turkish.

The information with regard to the reliability of the scale was acquired by calculating the Cronbach's alpha coefficient, the item-total correlation test score, and the split-half reliability coefficient. Sources indicate that the internal consistency of a scale is considered high if the Cronbach's alpha coefficient is greater than 0.80 (George and Mallery 2003). When the analysis results are assessed in line with this criterion, it is seen that the Turkish form of the scale has high internal consistency like the original form. All the coefficients yielded by the item-total correlation analyses are above the minimum values and statistically significant. The results of the split-half reliability analysis also indicate that the scale is a reliable instrument.

To test the reliability of the scale, its factor structure was primarily examined. It was observed that the forced one-factor solution presented a better factor structure than the dimensional solution both in conceptual terms and also in demonstrating consistency with the original scale.

In order to test the criterion validity, the correlations of the PG-12-Patient Form scores to two variables that are suggested

by the literature to be related with grief symptoms were examined. The first variable was illness perception. Illness perception is defined as the cognitive representations of their illnesses formed by the individuals whose health is threatened due to an illness (Benyamini 2011). It is reported that negative illness perception is related to various outcomes in terms of psychological adjustment such as depression, anxiety, and reduced quality of life (Ibrahim et al. 2011, Kocaman Yildirim et al. 2013, Timmers et al. 2008). The second variable addressed in assessing the criterion validity was the hopelessness level. In the literature, it has been pointed out that the relationship of grief symptoms in cancer patients to hopelessness level is even greater than its relationship with depression (Mystakidou et al. 2008). In accordance with the previous findings, the grief symptoms measured by using the PG-12-Patient Form demonstrated a significant positive correlation with the subjective perceptions of cancer patients regarding their illness and their hopelessness levels in the present study as well. These findings present evidence regarding the criterion validity of the PG-12-Patient Form. However, when the correlation coefficients are considered, it draws attention to the fact that the PG-12-Patient Form scores' association with illness perceptions is higher than its association with hopelessness level.

When the scores obtained from the PG-12-Patient Form were compared with regard to the gender of the participants, it was found that women experienced grief symptoms more severely than men. This result is similar to previous research findings (e.g., Ferrario et al. 2004) in that it indicates that women are more prone to risk in terms of grief-related adaptation difficulties. Since the validity-reliability study of PG-12-Patient Form and the inferential analyses used to make comparisons in terms of gender and duration of illness were conducted with the same sample, the results concerning group differences should be accepted as preliminary and examined in detail in future research.

In brief, when its factor structure, the adequacy of the validity and reliability coefficients, and the anticipated associations of the scores obtained from the scale with various variables are considered, it is seen that the Turkish version of the PG-12-Patient Form is a valid and reliable instrument for measuring grief symptoms in cancer patients. Since there has not been a proper instrument for the assessment of grief symptoms in patients diagnosed with a life-threatening illness in the national literature, it has not been possible to produce systematic studies based on scientific data in this field up to now. The Turkish adaptation of the Prolonged Grief Disorder-Patient Form is considered to fill this gap in the literature and it is hoped that it will provide the opportunity to test new research questions that will contribute to the understanding of grief incurred by the losses the illness leads to. Considering that this is the very first reliability and validity study of the scale in a non-Western country, this study also enables us to reach an intercultural outcome about the PG-12-Patient Form's being a valid and reliable tool to be used in measuring grief symptoms in cancer patients.

It is believed that the PG-12-Patient Form will contribute to clinical practice as well. The experts working in the field of psycho-oncology are expected to be able to assess the grief process in cancer patients more effectively. The use of the scale will provide benefits in following-up the symptoms in the course of time, in identifying and supporting the patients with persistent and distressing symptoms, and particularly in distinguishing grief symptoms from depression or anxiety during palliative care and thereby determining the proper treatment for the patient.

However, there are a few important points that one needs to pay attention to while using the scale. The first issue concerns the fact that the PG-12-Patient Form was not designed to differentiate the normal grief process from pathological grief. Even though the scale has the clinical practicality that may provide important clues in understanding how cancer patients experience the grief process, it does not serve the purpose of diagnosing a patient. The second related issue, as pointed out by Jacobsen et al. (2010), is the fact that the prolonged grief disorder diagnostic criteria have not been defined for cancer patients (or patients with other life-threatening illnesses) yet. The Prolonged Grief Disorder is distinguished from normal grief process by the duration of symptoms (lasting more than 6 months), their severity, and their effect on the level of functionality (Prigerson et al. 2008). The emergence of grief symptoms generally begins with a distinct loss experience. In the case of cancer, however, the index event that first triggered the perception of loss in the individual (whether it is the deterioration of health before the diagnosis, the actual diagnosis of cancer, or learning that the illness progresses into the terminal phase, etc.) is uncertain. In conjunction with this, it is difficult to determine where normal grief ends and prolonged grief begins. For example, in this study, the cancer diagnosis was taken as the index event that triggered the perception of loss, and the participants were divided into two groups in accordance with the duration of diagnosis (group 1: participants who were diagnosed with cancer less than 6 months prior; group 2: the participants who were diagnosed with cancer more than 6 months prior), and the severity of their grief symptoms were compared. The findings indicated that there was no statistically significant difference between the two groups. This finding supports the suggestion of Jacobsen et al. (2010) that criteria other than duration of symptoms should be defined so as to settle on the pathological grief diagnosis in cancer patients.

A limitation of this study concerns the fact that the sample of the study consisted of outpatients who received treatment in two private hospitals in Istanbul. Even though the cosmopolitan characteristic of Istanbul increases the chance of

representing different socio-cultural groups, it is difficult to assert that the sample completely reflects the Turkish culture. It is important that new studies are conducted so as to test the psychometric properties of the scale with samples that are representative of the different groups in Turkey. Additionally, 80% of the individuals who were asked to participate in the study agreed to be a part of it. Hence, it should not be disregarded that the individuals who agreed to participate in the study and the individuals who did not may demonstrate differences in terms of loss perception and experience of the grief process, and the results may be biased in that respect. The fact that women were represented more in the sample when compared to men is also an important issue that needs to be taken into consideration while interpreting and generalizing the results.

Although the PG-12-Patient Form was originally designed to be used in cancer patients, it could be easily adapted to other life-threatening illnesses. The analyses conducted for cancer patients reveal strong psychometric properties, which in turn encourage testing the validity and reliability of the scale for other patient populations. Consequently, this study, which involves the adaptation of the PG-12-Patient Form to be used in Turkey, introduces a valid and reliable measurement instrument to the literature, and it is considered to prove functional in bringing the phenomenon of preparatory grief caused by life-threatening illnesses to the agenda of the mental health field.

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