

# Alexithymia in Depressive, Anxiety, Somatoform, and Psychotic Disorders: A Comparative Study

## Depresif, Anksiyete, Somatoform ve Psikotik Bozukluklarda Aleksitimi: Karşılaştırmalı Bir Çalışma

Arzu YILDIRIM,<sup>1</sup> Rabia HACIHASANOĞLU AŞILAR,<sup>1</sup> Tuba Hale CAMCIOĞLU,<sup>2</sup> Ergün SEVİNÇ<sup>3</sup>

### SUMMARY

**Objectives:** This study aimed to compare the prevalence of alexithymia and determine the differences in structure in patients with depressive, anxiety, somatoform, and psychotic disorders.

**Methods:** The study was performed between April and May 2013 with outpatients who were diagnosed with depressive (n=99), anxiety (n=76), somatoform (n=37), and psychotic (n=45) disorders under the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (American Psychiatric Association 2000) and who were being monitored and treated at the outpatient psychiatry clinic of Erzincan State Hospital. The data were collected by two psychiatrists using the face-to-face interview method, which employed a questionnaire and the 20-item Toronto Alexithymia Scale (TAS-20), in the outpatient clinic environment.

**Results:** Alexithymic construct was found in 55.6% of the psychotic patients, 45.9% of those with somatoform disorders, 43.4% of those with anxiety, and 51.5% of the depressive patients. The TAS-20 average scores were significantly higher in psychotic patients. The Difficulty Identifying Feelings subscale average scores were found to be significantly lower in patients with somatoform disorders (p<0.01). Additionally, the TAS-20 average scores in men, young, those with low education were significantly higher (p<0.001).

**Conclusion:** The study demonstrated that all patient groups had alexithymic construct; however, the prevalence of alexithymia was higher in depressive and psychotic patients. Psychiatric nurses can help in improving patients' quality of life through psychosocial interventions aiming at improved recognition, identification and description of feelings, communication skills and insight.

**Keywords:** Alexithymia; anxiety disorder; depressive disorder; psychiatric nurse; psychotic disorder; somatoform disorder.

### ÖZET

**Amaç:** Bu araştırma depresif, anksiyete, somatoform ve psikotik bozukluğu olan hastalarda aleksitimi sıklığını karşılaştırmak ve yapı farklılığını belirlemek amacıyla yapılmıştır.

**Gereç ve Yöntem:** Araştırma Erzincan Devlet Hastanesi Psikiyatri Polikliniği'nde DSM-IV-TR (Amerikan Psikiyatri Birliği 2000) ölçütlerine göre depresif (n=99), anksiyete (n=76), somatoform (n=37) ve psikotik (n=45) bozukluk tanısı alan ve ayaktan izlenen hastalar ile Nisan-Mayıs 2013 tarihleri arasında yürütülmüştür. Veriler iki psikiyatri uzmanı tarafından poliklinik ortamında soru formu ve Toronto Aleksitimi Ölçeği (TAÖ-20) kullanılarak yüz yüze görüşme yöntemi ile toplanmıştır.

**Bulgular:** Depresif hastaların %51.5'inde, anksiyete bozukluğu olanların %43.4'ünde, somatoform bozukluğu olanların %45.9'unda ve psikotik bozukluğu olanların ise %55.6'sında aleksitimik yapı; TAÖ-20 puan ortalamasının psikotik hastalarda önemli düzeyde yüksek; Duyguları Tanımada Zorluk alt boyutu puan ortalamasının ise somatoform bozukluğu olan hastalarda önemli düzeyde düşük olduğu belirlenmiştir (p<0.01). Ayrıca TAÖ-20 puan ortalamasının erkeklerde, genç ve eğitim yılı düşük olanlarda önemli düzeyde yüksek olduğu bulunmuştur (p<0.001).

**Sonuç:** Psikotik ve depresif hastalarda aleksitimi sıklığının daha yüksek olduğu görülmekle birlikte bütün hasta gruplarında aleksitimik yapının olduğu belirlenmiştir. Psikiyatri hemşireleri duyguları tanıma, tanımlama, ifade etme, iletişim becerileri ve içgörü geliştirmeyi amaçlayan psikososyal müdahaleler yoluyla hastaların iyileşmesinde önemli katkı sağlayabilirler.

**Anahtar sözcükler:** Aleksitimi; anksiyete bozukluğu; depresif bozukluk; psikiyatri hemşiresi; psikotik bozukluk; somatoform bozukluk.

### Introduction

Alexithymia has been defined as the inability to recognize

feelings and express them. It has been described as emotional emptiness, imagination or fantasy life, difficulties in interpersonal communication, lack of positive emotions, and high level of negative emotions.<sup>[1-3]</sup> Today it is suggested that genetic and environmental factors play a role in the occurrence and prevalence of alexithymia. In twin studies, it was stated that some aspects of characteristics can be genetic by their nature, while other basic characteristics such as difficulty in identifying emotions can be affected by environmental conditions.<sup>[4]</sup>

First, alexithymic features were regarded as being associated with psychosomatic disorders. However, studies found that alexithymic communication style is not only peculiar

<sup>1</sup>Department of Nursing, Erzincan University School of Health, Erzincan

<sup>2</sup>Department of Psychiatry, Bakırköy Dr. Sadi Konuk Training and Research Hospital, İstanbul

<sup>3</sup>Department of Psychiatry, Kocaeli State Hospital, Kocaeli

**Correspondence (İletişim):** Dr. Arzu YILDIRIM.  
**e-mail (e-posta):** yildirimarzu25@hotmail.com

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to psychosomatic disorders but also occurs in various mental disorders such as schizophrenia and depressive disorder (DD), somatoform disorder (SD) and anxiety disorder (AD)<sup>[1,5]</sup> and in healthy individuals.<sup>[6]</sup> In a study conducted with 2018 Finnish people in general population by administering the 20-item Toronto Alexithymia Scale (TAS-20) and Beck Depression Inventory (BDI) to them, the alexithymia prevalence was found to be 32.1%.<sup>[7]</sup> In another study conducted with 5454 individuals in the general population of Finland, the alexithymia prevalence was found to be 9.9%.<sup>[8]</sup> In Turkey, a study conducted with 300 healthy individuals, most of whom (77%) were university students and graduates, reported that 20% of these individuals showed alexithymic symptoms.<sup>[9]</sup> It is stated that alexithymia can play a key role in regulating emotions because individuals have difficulty in describing and expressing their own emotional state and divergent emotion processing and inadequate thinking skill.<sup>[10]</sup> A study found that individuals with alexithymic characteristics had more difficulties in emotional regulation and mental problems compared with nonalexithymic individuals.<sup>[11]</sup> It is stated that in schizophrenia, implicit emotional regulation mechanisms can be associated with a disconnection between self-evaluation, awareness, and experiences of individuals.<sup>[10]</sup> Emotion recognition and description are a necessity in emotional regulation. Successful emotional regulation skill is crucial for mental, social, and physical health. It is stated that alexithymia is an important vulnerability factor in the development of mental disorder,<sup>[12]</sup> it is associated with poor physical health outcomes,<sup>[4]</sup> it should be regarded as an important risk factor in various medical and mental problems associated with low quality of life,<sup>[13]</sup> and it causes a social isolation and restricted life because the communication and contact needs of individuals cannot be fulfilled.<sup>[14,15]</sup> Therefore, it is important for nurses to be able to define alexithymia adequately and adopt effective health care methods in terms of mental, social, and pathological processes that accompany or develop. Psychiatric nurses significantly contribute through group activities to structuring and maintaining attempts to provide and maintain motivation in raising awareness and gaining endurance for feelings and demonstrating skills of describing them.<sup>[14]</sup>

Differences in alexithymic features are not known adequately because direct comparisons between various mental disorders are insufficient. Studies conducted by Leweke et al. (2012) and Subic-Wrana et al. (2005) examined the correlation between alexithymia and depressive, anxiety, adaptation, somatoform, obsessive-compulsive, and eating disorders.<sup>[3,12]</sup> Bankier et al. (2001) conducted a direct comparative assessment of alexithymia in patients with somatoform, panic, obsessive compulsive, and depressive disorders through considering the multidimensionality of alexithymic structure.<sup>[5]</sup>

Although alexithymia has been examined with different samples in Turkey,<sup>[16-18]</sup> no comparative study has been performed between groups diagnosed with various mental disorders. The aims of this study were to compare the prevalence of alexithymia and determine the differences in structure in patients with depressive, anxiety, somatoform, and psychotic disorders. Answers were sought for the following key questions:

1. Does any difference exist between diagnosis groups in terms of prevalence and structure of alexithymia?
2. Do the descriptive characteristics of patients with respect to their disorders affect alexithymia?

## Materials and Method

### Sample

This comparative and descriptive study was conducted between April and May 2013 with a total of 257 outpatients diagnosed with depressive (major depressive, n=79; dysthymia, n=7; disorder not otherwise specified, n=13), anxiety (panic, n=18; generalized anxiety disorder, n=26, obsessive compulsive, n=17; disorder not otherwise specified, n=17), somatoform (conversion, n=14; hypochondriasis, n=3; disorder not otherwise specified, n=16; undifferentiated, n=4), and psychotic (schizophrenia, n=35; schizoaffective, n=7; delusional disorder, n=3) disorders according to the criteria of Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) (American Psychiatric Association 2000)<sup>[19]</sup> in the psychiatry clinic of Erzincan State Hospital. No sampling method was used in the present study. Patients who met the inclusion criteria of the present study on the specified dates were included in the study.

### Inclusion and Exclusion Criteria of the Study

The inclusion criteria of the study were as follows: being an outpatient diagnosed with depressive, anxiety, somatoform, and psychotic disorders according to the criteria of DSM-IV-TR;<sup>[19]</sup> being aged between 18 and 65 years; and volunteering to participate in the study. The exclusion criterion of the study was being diagnosed with any physical disorder (hearing, speech disorder), neurological disorder, mental disability, and additional psychiatric diagnosis.

### Process

The data of the study were collected by two psychiatrists using the face-to-face interview method. This employed a questionnaire, the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), for verifying diagnoses and the Toronto Alexithymia Scale (TAS-20) in the outpatient clinic environment in 15–20 min.

### Data Collection Tools

Questionnaire Form: It consisted of five questions that

defined the descriptive (sex, age, year of education) characteristics of the patients and their characteristics about the disorder (the diagnosis and duration of the disorder).

*Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)*: It is a semi-structured clinical interview form for major DSM-IV Axis I disorders, which was developed by First et al. (1996).<sup>[20]</sup> It was adapted into Turkish by Çorapçıoğlu et al. in 1999.<sup>[21]</sup>

*Toronto Alexithymia Scale (TAS-20)*: TAS-20 is a measurement tool commonly used currently for measuring alexithymia. It was developed by Bagby et al. (1994). It was adapted into Turkish by Güleç et al. (2009). It is a 5-point Likert-type self-assessment scale consisting of three subdimensions. Difficulty Identifying Feelings (TAS-1; items 1, 3, 6, 7, 9, 13, and 14) is defined as the difficulty in specifying feelings and distinguishing them from somatic sensations accompanying emotional arousal. Difficulty Describing Feelings (TAS-2; items 2, 4, 11, 12, and 17) is defined as the difficulty in conveying one's own feelings to others. Externally Oriented Thinking (TAS-3; items 5, 8, 10, 15, 16, 18, 19, and 20) is defined as the presence of externally oriented cognitive structure and the weakness of introverted thinking and imagination. The 4<sup>th</sup>, 5<sup>th</sup>, 10<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> items of the scale are reverse scored. For TAS-20, the lowest score value is regarded as "51," and the highest score value as "59." The high scores indicate a high-level alexithymic structure.<sup>[22,23]</sup>

### The Variables of the Study

The descriptive (sex, age, year of education) characteristics of the patients and their characteristics about the disorder (the diagnosis and duration of the disorder) constituted independent variables, while the Toronto Alexithymia Scale (TAS-20) mean scores constituted dependent variables.

### Ethical Principles

Before starting the present study, the ethical approval (dated March 20, 2013 and numbered 02/03) from Erzincan University Ethics Committee and a written permission from Erzincan State Hospital and an informed consent from the patients were obtained.

### Statistical Analysis

The suitability of data to normal distribution was assessed using Shapiro-Wilk test. The descriptive characteristics were indicated as numbers, percentages, and mean values. The differences between groups were compared using one-way analysis of variance (ANOVA) and chi-square test. Since the TAS-20 total and TAS-3 subscale mean scores were normally distributed, the parametric (ANOVA) tests were used, while nonparametric (Kruskal-Wallis variance analysis) tests were used because the TAS-1 and TAS-2 subscale mean scores were not normally distributed. To determine the source of

difference, Tukey's honest significant difference (HSD) and Mann-Whitney U tests were used for advanced analysis.<sup>[24,25]</sup>

The effect and importance of variables such as age, sex, year of education, and duration of disorder on the TAS-20 total and subscale mean scores were determined using multiple linear regression analysis. The statistical analyses were conducted using the SPSS package program version 22.0, and the significance level was regarded as  $p < 0.05$ .

## Results

### Descriptive and Disorder Characteristics of Patients

The study found that 64.6% ( $n=64$ ) of the patients with depression disorder (DD), 69.7% of the patients with anxiety disorder (AD) ( $n=53$ ), all of the patients with somatoform disorder (SD) ( $n=37$ ), and 33.3% of the patients with psychotic disorders (PD) ( $n=15$ ) were females, and the difference between groups was significant ( $p < 0.001$ ). The mean ages of patients with DD, AD, SD, and PD were found to be  $41.4 \pm 14.2$ ;  $36.3 \pm 12.2$ ;  $47.3 \pm 7.3$  and  $41.7 \pm 14.7$ , respectively. According to Tukey's HSD analysis, the patients with AD constituted the youngest group and those with SD formed the oldest group ( $p < 0.05$ ). The year of education was found to be  $7.7 \pm 4.4$  in the patients with DD,  $9.0 \pm 4.3$  in those with AD,  $5.2 \pm 3.0$  in those with SD, and  $5.78 \pm 4.3$  with PD. The patients with SD constituted the group with the lowest year of education ( $p < 0.005$ ). The mean duration of disorder was found to be  $4.9 \pm 6.2$  in the patients with DD,  $6.5 \pm 8.5$  in those with AD,  $8.4 \pm 5.2$  in those with SD, and  $10.5 \pm 5.3$  in those with PD. The patients with PD were found to constitute the group with the longest duration of disorder ( $p < 0.001$ ). Of the patients ( $n=257$ ) included in the sample according to the criteria of DSM-IV-TR, 38.5% ( $n=99$ ) were diagnosed with DD, 29.6% ( $n=76$ ) with AD, 14.4% ( $n=37$ ) with SD, and 17.5% ( $n=45$ ) with PD (Table 1).

### TAS-20 Scores

In the present study, the highest total TAS-20 scores were found in the patients with PD ( $60.11 \pm 6.75$ ). The scores in patients with DD, AD, and SD were  $58.43 \pm 11.54$ ,  $56.82 \pm 11.40$ , and  $55.35 \pm 9.67$ , respectively. A significant difference was found in the TAS-20 mean score between the groups. In the advanced analysis, this difference was found in the group with PD. A significant difference was found in the Difficulty Identifying Feelings subscale mean score between groups. In the advanced analysis, this difference was found in the group with SD ( $p < 0.01$ ). Moreover, 51.5% of the patients with DD, 43.4% of those with AD, 45.9% of those with SD, and 55.6% of those with PD were found to have an alexithymic state (Table 2).

### Multiple Regression Analysis Results of TAS-20 With Certain Variables

The results of multiple regression analysis conducted with

**Table 1.** Descriptive and disorder characteristics of patients

Characteristics	Depressive disorder (n=99)	Anxiety disorder (n=76)	Somatoform disorder (n=37)	Psychotic disorder (n=45)	Test $\chi^2$ , F	p
Sex (number)					34.8	0.001*
Female	64	53	37	15		
Male	35	23	—	30		
Age, year (mean $\pm$ SD)	41.4 $\pm$ 14.2	36.3 $\pm$ 12.2	47.3 $\pm$ 7.3	41.7 $\pm$ 14.7	1.4	0.034*
Education, year (mean $\pm$ SD)	7.7 $\pm$ 4.4	9.0 $\pm$ 4.3	5.2 $\pm$ 3.0	5.8 $\pm$ 4.3	2.4	0.002**
The duration of disorder (year) (mean $\pm$ SD)	4.9 $\pm$ 6.2	6.5 $\pm$ 8.5	8.4 $\pm$ 5.2	10.5 $\pm$ 5.3	2.4	0.001**

\* $\chi^2$ : Chi-square; \*p<0.01; \*\*F: ANOVA, \*\*p<0.01. SD: Standard deviation.

**Table 2.** TAS-20 score differences between the diagnosis groups (n=257)

TAS-20	Depressive disorder (n=99)	Anxiety disorder (n=76)	Somatoform disorder (n=37)	Psychotic disorder (n=45)	Test $\chi^2$ , KW F	p
Alexithymia, n (%)	51 (51.5)	33 (43.4)	17 (45.9)	25 (55.6)	15.5	0.015*
TAS-1 (mean $\pm$ SD)	21.27 $\pm$ 6.28	21.24 $\pm$ 6.88	17.97 $\pm$ 4.84	22.44 $\pm$ 3.83	16.9	0.001**
TAS-2 (mean $\pm$ SD)	15.72 $\pm$ 5.04	14.18 $\pm$ 5.09	15.24 $\pm$ 3.65	15.07 $\pm$ 3.00	5.1	0.166**
TAS-3 (mean $\pm$ SD)	21.44 $\pm$ 5.01	21.39 $\pm$ 5.00	22.14 $\pm$ 3.27	22.60 $\pm$ 5.00	0.8	0.474***
Total TAS-20 (mean $\pm$ SD)	58.43 $\pm$ 11.54	56.82 $\pm$ 11.40	55.35 $\pm$ 9.67	60.11 $\pm$ 6.75	18.7	0.001***

TAS-1: Difficulty Identifying Feelings; TAS-2: Difficulty Describing Feelings; TAS-3: Externally Oriented Thinking.

\* $\chi^2$ : Chi-square; \*\*KW: Kruskal-Wallis variance analysis, \*\*p<0.01; \*\*\*F: ANOVA, \*\*\*p<0.01.

**Table 3.** Correlation of patients' TAS-20 scores with certain variables

	Variables	B	Std. error	B	t	p	
TAS-20	(Stable)	63.957	3.643	-	17.554	<0.001	R <sup>2</sup> =0.16
	Sex	7.157	1.454	.292	4.923	<0.001	F=12.091
	Age	-.209	.059	-.250	-3.573	<0.001	p<0.001
	Year of education	-.904	.179	-.346	-5.036	<0.001	
	Duration of disorder	.150	.091	.102	1.651	>0.05	
TAS-1	(Stable)	21.497	1.999	-	10.753	<0.001	R <sup>2</sup> =0.05
	Sex	2.362	.798	.187	2.960	<0.005	F=3.311
	Age	-.041	.032	-.095	-1.276	>0.05	p<0.05
	Year of education	-.257	.098	-.190	-2.609	<0.05	
	Duration of disorder	-.020	.050	-.026	-.395	>0.05	
TAS-2	(Stable)	20.159	1.488	-	13.544	<0.001	R <sup>2</sup> =0.09
	Sex	.790	.594	.082	1.330	>0.05	F=6.245
	Age	-.092	.024	-.279	-3.838	<0.001	p<0.001
	Year of education	-.332	.073	-.323	-4.525	<0.001	
	Duration of disorder	.004	.037	.007	.101	>0.05	
TAS-3	(Stable)	22.552	1.604	-	14.063	<0.001	R <sup>2</sup> =0.01
	Sex	.655	.640	.066	1.024	>0.05	F=0.616
	Age	-.026	.026	-.077	-1.019	>0.05	p>0.05
	Year of education	-.073	.079	-.069	-.929	>0.05	
	Duration of disorder	-.013	.040	-.022	-.328	>0.05	

a model consisting of variables and TAS-20 scores, which were found to display a statistically significant correlation, showed that sex, age, year of education, and duration of disorder were independent-explanatory variables.

Among the specified independent variables, the ones that complied with the model are shown in Table 3. According to these results, sex, age, year of education, and duration of disorder were found to show a low-level significant correlation

with TAS-20 (R<sup>2</sup>=0.16; p<0.001). The regression model explained the change in TAS-20 at the rate of 16%. According to the regression coefficients ( $\beta$ ), the importance order of variables was found to be year of education, sex, age, and duration of disorder. Sex and age were found to be major factors for TAS-20 and duration of disorder to be insignificant.

A low-level significant correlation was found between the Difficulty Identifying Feelings subscale mean score, and

sex, age, year of education, and duration of disorder ( $R^2=0.05$ ;  $p<0.05$ ). The model explained the change in Difficulty Identifying Feelings at the rate of 5%. The importance order of variables was found to be year of education, sex, age, and duration of disorder. Year of education and sex were found to be major factors for the Difficulty Identifying Feelings, and age and duration of disorder to be insignificant factors.

A low-level significant correlation was found between sex, age, year of education, duration of disorder, and Difficulty Describing Feelings ( $R^2=0.09$ ;  $p<0.001$ ). The model explained the change in Difficulty Describing Feelings at the rate of 9%. The importance order of the variables was found to be year of education, age, sex, and duration of disorder. Year of education and age were found to be major factors for the Difficulty Describing Feelings, and sex and duration of disorder to be insignificant factors.

No significant correlation was found between the Externally Oriented Thinking subscale mean score, and sex, age, year of education, and duration of disorder ( $R^2=0.01$ ;  $p>0.05$ ). In other words, these variables were found not to be significant variables for Externally Oriented Thinking.

## Discussion

This study examined the differences between four basic mental disorder groups in terms of the prevalence of alexithymia and alexithymic structure. In the present study, the TAS-20 total score and alexithymia prevalence were found to be higher in the psychotic and depressive patients. A considerable part of all patient groups showed alexithymic structure. The total alexithymia mean score was found to be significantly high in the psychotic patients, while the Difficulty Identifying Feelings subscale mean score was found to be significantly low in the patients with SD. These results answer the first question of the present study. In a study conducted by Son et al. (2012) on 388 patients with DD, SD, AD, and PD, the TAS-20 total score and prevalence of alexithymia were found to be  $58.6\pm11.0$ , 42.4%;  $55.7\pm10.7$ , 35.9%;  $57.8\pm10.8$ , 33.3% and  $55.6\pm13.6$ , 35.3%, respectively. In the same study, the alexithymia level of patients with depressive disorder was found to be high; the total TAS-20 mean scores were found not to show any significant difference between groups, and the Difficulty Describing Feelings mean score was found to be significantly high in depressive disorder. It is stated that patients with depressive disorder can have more difficulty identifying their feelings objectively because they use emotional prevention strategies to cope with feelings such as guilt and ambivalence compared with other patient groups.<sup>[1]</sup> The high level of alexithymia in depressive disorder supports the result of the present study.

In a study comparing schizophrenic patients and healthy controls, the TAS-20 total score was found to be signifi-

cantly high ( $52.3\pm13.47$ ) in schizophrenic patients.<sup>[26]</sup> It is stated that anhedonia, blunted affect, and alogia, which are among the deprivation symptoms in schizophrenia, hide the alexithymic features. It is also suggested that alexithymia is not associated with deprivation symptoms, and it is independent from schizophrenia and has a separate structure.<sup>[27]</sup> In a meta-analysis and review study, it was stated that the high level of alexithymia was associated with poor emotional awareness, that most of the schizophrenic patients showed divergent expression and emotion processing, and this situation could be in the form of conscious and implicit processes. Also, schizophrenia was found to have a negative relationship with emotion management and cognitive reassessment, while a positive relationship was found between experiential avoidance and alexithymia.<sup>[10]</sup> Maggini et al. (2003) stated that difficulty in comprehending the meaning of words and finding it adequate can be a personality dimension associated with alexithymia and that it can be associated with a depressive state in schizophrenia.<sup>[28]</sup>

In a study conducted by Duddu et al. (2003) to assess alexithymia in patients with depressive and somatoform disorders and healthy individuals, the total TAS-20 scores were found not to make any significant differences between depressive and somatoform disorders (62.5 and 60.4, respectively). It was reported that depressive patients had more difficulty expressing their feelings.<sup>[29]</sup> The present study showed that the relatively low results found in patients with SD were consistent with the findings of Duddu et al. (2003). In their study conducted with a total of 1461 patients with depressive, anxiety, adaptation, somatoform, and eating disorders, Leweke et al. (2012) found a significantly increased alexithymic structure (26.9%) in depressive disorder compared with other diagnosis groups and reported that the Difficulty Describing Feelings subscale was significantly associated with depressive disorder.<sup>[12]</sup> They explained that the high level of alexithymia in depressive patients may be caused by negative self-perception or emotional restriction. In a study conducted with a total of 234 patients, the Difficulty Identifying Feelings subscale was found to be associated with depressive and somatoform disorder and the Difficulty Describing Feelings subscale only with depression.<sup>[5]</sup> Motan and Gençöz (2007) stated that the alexithymia subdimensions showed a significant and positive correlation with depression and anxiety.<sup>[30]</sup> Karukivi et al. (2014) reported that alexithymia showed a significant and positive correlation with anxiety.<sup>[31]</sup> Also, Aydın et al. (2013) reported that alexithymic features (34.1%) were observed in depressive patients.<sup>[32]</sup> Subic-Wrana et al. (2005) found no significant difference between the TAS-20 mean scores of patients with depressive, anxiety, somatoform, obsessive-compulsive, adaptation, and eating disorders.<sup>[3]</sup> It is thought that the sociodemographic, cultural, and disorder

characteristics of patients might have affected the present study results, that alexithymia can be a common structure between psychotic and depressive disorders, and that the Difficulty Identifying Feelings subscale can determine the distinction between psychotic and somatoform disorders, and other mental disorders.

In the present study, the TAS-20 mean score was found to be significantly high in male, young patients, and those with low year of education; the Difficulty Identifying Feelings subscale mean score was found to be significantly high in male patients and those with low year of education; and the Difficulty Describing Feelings subscale was found to be significantly high in young patients and those with low year of education. These results provide answer for the second question of the present study. A study conducted on a general population found that males showed significantly more alexithymic characteristics (11.9%) than females did (8.1%), and that alexithymia was associated with increasing age and low educational background.<sup>[8]</sup> In a study conducted by Pasini et al. (1992), it was reported that increasing age and low educational background increased significantly the level of alexithymia, that sex did not affect the total TAS score, but the Difficulty Identifying Feelings subscale score was higher in females.<sup>[33]</sup> In a study conducted by Honkalampi et al. (2000), the alexithymia prevalence was found to be 12.8% in males and 8.2% in females,<sup>[7]</sup> similar to the findings of other studies. Thus, being male, young, and having low educational background can be determinative factors in alexithymia.

The fact that alexithymic individuals are deprived of the connection between emotion and thought, use primitive defense mechanisms, and tend to show impulsive behavior is important for treatment methods to follow.<sup>[6]</sup> Therapeutic attempts such as cognitive behavioral therapy, which help in emotional regulation, emotional tolerance, and psychological flexibility and provide the feeling of effectiveness in caring about individuals' own experiences can be valuable for individuals showing alexithymic features to face and cope with their responses effectively.<sup>[4,14]</sup> Psychiatric nurses who have advanced practice role and functions can provide services directly to their counselees. These nurses are professionals who have received advanced education about therapy and also experienced their own therapy to gain insight about their own professional and personal behaviors.<sup>[34]</sup> In this respect, psychiatric nurses can help individuals with alexithymic structure gain skills in emotional awareness, describing emotions and empathy, and increasing their insight.

## Conclusion

In conclusion, this comparative study showed the correlation of alexithymic features with different diagnosis groups and differences in its structure. It is thought that comparing

with depressive patients showing psychotic characteristics in studies to assess alexithymia in psychological disorders can contribute significantly to examining alexithymia structure.

## Limitations of the Study

The first limitation of the study is the fact that the most common disorders in the classification of DSM-IV-TR were compared and variables peculiar to the disorder that can affect the presence of alexithymia could not be examined properly. The second limitation of study is that comparative data were not presented because a control group could not be constituted from healthy individuals.

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