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The Relationship Between Emotion Regulation Difficultıes And Alexithymia In Nurses: A Sectional Study

Hemşirelerde Duygu Düzenleme Güçlüğü ve Aleksitimi Arasındaki İlişki: Kesitsel Bir Çalışma

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ABSTRACT

Objective: This study aims to determine the relationship between emotion regulation difficulties and alexithymia in nurses, as well as the influencing factors.

Materials and Methods: In this descriptive and cross-sectional study, data were collected between October 2023 and March 2024 from 112 nurses working at a tertiary training and research hospital located in the Eastern Black Sea region, using the Personal Information Form, the Difficulties in Emotion Regulation Scale–Short Form, and the Toronto Alexithymia Scale.

Results: The mean total score of the nurses on the Toronto Alexithymia Scale was found to be 48.46±9.46, and the mean total score on the Difficulties in Emotion Regulation Scale-Short Form was 35.88±1.02. A moderately positive and statistically significant difference was found between the total scores of the Toronto Alexithymia Scale and the Difficulties in Emotion Regulation Scale-Short Form (t:0.621; p<0.05). The total scores of the Toronto Alexithymia Scale and the Difficulties in Emotion Regulation Scale-Short Form were found to be statistically significant based on the participants' satisfaction with their profession (p<0.05).

Conclusions: It was determined that the nurses experienced a moderate level of difficulty in emotion regulation and had a moderate level of alexithymia. A positive relationship was observed between nurses' levels of difficulty in emotion regulation and their levels of alexithymia. It has been determined that nurses who perform their profession with enthusiasm exhibit lower levels of alexithymia and fewer difficulties in emotion regulation.

Keywords: Alexithymia, difficulty in emotion regulation, emotıon regulation

ÖZ

Amaç: Bu araştırmada hemşirelerde duygu düzenleme güçlüğü ve aleksitimi arasındaki ilişki ve etkileyen faktörlerin belirlemesi amaçlanmıştır.

Materyal ve Metot: Tanımlayıcı ve kesitsel tipte yapılan bu çalışmada veriler Ekim 2023-Mart 2024 tarihleri arasında Doğu Karadeniz bölgesinde üçüncü basamak bir eğitim ve araştırma hastanesinde çalışan 112 hemşire ile Kişisel Bilgi Formu, Duygu Düzenleme Güçlüğü Ölçeği-Kısa Form ve Toronto Aleksitimi Ölçeği kullanılarak toplanmıştır.

Bulgular: Hemşirelerin Toronto Aleksitimi Ölçeği düzeyi toplam puan ortalaması 48,46±9,46 ve Duygu Düzenleme Güçlüğü Ölçeği-Kısa Form düzeyi toplam puan ortalaması 35,88±1,02 olarak bulunmuştur. Toronto Aleksitimi Ölçeği ile Duygu Düzenleme Güçlüğü Ölçeği-Kısa Form toplam puan düzeyleri arasında pozitif yönde orta düzeyde istatistiksel olarak anlamlı bir fark saptanmıştır (t:0,621; p<0,05). Toronto Aleksitimi Ölçeği ile Duygu Düzenleme Güçlüğü Ölçeği-Kısa Form toplam puanlarının kişilerin mesleklerini gerçekleştirmede memnuniyet durumlarına göre istatistiksel olarak anlamlı olduğu belirlenmiştir (p<0,05).

Sonuç: Hemşirelerin orta düzeyde duygu düzenleme sorunu yaşadıkları ve orta düzeyde aleksitimik oldukları tespit edilmiştir. Hemşirelerin duygularını düzenlemede güçlük yaşama düzeyleri ile aleksitimi düzeyleri arasında pozitif bir ilişki gözlemlenmiştir. Mesleğini severek yapan hemşirelerin aleksitimi düzeylerinin ve duygu düzenleme güçlük düzeylerinin düşük olduğu saptanmıştır.

Anahtar Kelimeler: Aleksitimi, duygu düzenleme, duygu düzenleme güçlüğü

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INTRODUCTION

Individuals frequently encounter various situations or events in daily life that may elicit emotional reactions. In response to such circumstances, they typically employ a range of strategies to regulate or maintain control over their emotions.[1] Emotion regulation is defined as a goal-oriented and motivational process used to describe individuals' decisions regarding how their emotions will be managed.[2] The process model of emotion regulation outlines the sequential steps individuals use to regulate their emotions, including situation selection, situation modification, attentional deployment, cognitive change, and response modulation.[3] Enhancing emotion regulation skills may enable individuals to produce more effective solutions.[4] Consciously or unconsciously, individuals attempt to regulate their emotions in order to reduce the discrepancy between their current emotional state and the state they desire.[5]

In the nursing profession, emotion regulation skills may alter the effects of stressful events.[6] Individuals who can effectively recognise, express, and regulate their emotions are reported to be more successful in coping with stress and emotional experiences.[7] Alexithymia, first observed as a personality trait in clinical psychosomatic patients, refers to difficulties in identifying, describing and expressing emotions.[8] Nurses are particularly vulnerable to the adverse psychological effects of alexithymia, which is characterised by challenges in recognising and articulating emotions.[9] Although nurses may experience negative emotions such as disgust, anger, and frustration while interacting with patients, they often attempt to regulate these emotions due to their passion for their work or their commitment to their institutions.[10] A decline in nurses' capacity for emotional adjustment may impair their ability to navigate the highly interpersonal dynamics inherent in nursing practice and may increase their risk of developing alexithymia.[11] Alexithymia and difficulties in emotion regulation are key psychological determinants of career sustainability in the nursing profession. Clarifying the relationship between these two factors may provide a preliminary basis for developing targeted intervention programs.[12]

In this context, the present study aimed to investigate the relationship between emotion regulation difficulties and alexithymia among nurses.

MATERIALS AND METHODS

Ethics Committee Approval: Ethical approval for the study was obtained from the Trabzon University Social and Human Sciences Scientific Research and Publication Ethics Committee (Date: 17.08.2023, decision no: 2023-8/1.4), and permission to conduct the study was granted by the institution where the research was carried out (August 21, 2023; Permission No:2300047318). In addition, participants were informed about the purpose of the study, confidentiality and privacy principles, and their right to withdraw from the study at any time, after which both verbal and written informed consent were obtained. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Study Design: This research employed a descriptive and cross-sectional study design.

Population and Sample: The study population consisted of nurses, and the sample included nurses working at a tertiary hospital in Trabzon. The sample size was determined using a power analysis conducted with the G*Power software. In this analysis, the study by Karaismailoğlu et al. (2021)[13] was used as a reference, and with a 95% confidence interval, an effect size of 0.50, and a statistical power of 80%, the minimum sample size was calculated as 95. In this study, a potential dropout rate of 10% was considered, and to maintain the reliability of the results against data loss, a total of 112 participants meeting the inclusion criteria were recruited. Purposive sampling was chosen because the study targeted nurses who met specific criteria, such as being actively employed at the institution, being accessible during the research period, and voluntarily agreeing to participate. The achieved sample size exceeded the minimum determined by the power analysis, providing adequate statistical power to support the study findings.

Data Collection: The data for this study were collected through face-to-face interviews with nurses by a clinical specialist nurse working at the hospital, under appropriate conditions. Each interview lasted approximately 20 minutes.

Data Collection Tools: In this study data were collected using the "Personal Information Form", "the Difficulties in Emotion Regulation Scale–Short Form", and "the Toronto Alexithymia Scale".

Personal Information Form: This form consisted of 9 questions designed to collect descriptive characteristics of the nurses.

Difficulties in Emotion Regulation Scale–Short Form (DERS-16): The scale is a 16-item short form of the original scale developed by Gratz and Roemer (2004)[14] and adapted by Bjureberg et al. (2016)[15] It consists of five subscales: "Awareness," "Goals," "Impulse," "Strategies," and "Nonacceptance." Items are scored on a 1–5 Likert scale, with total scores ranging from 16 to 80. Higher scores indicate greater difficulties in emotion regulation. The Turkish adaptation of the scale reported a Cronbach's alpha of 0.92,[16] and in the present study, Cronbach's alpha was found to be 0.83, indicating high reliabi-

lity.

Toronto Alexithymia Scale (TAS): The scale was developed by Bagby, Parker, and Taylor (1985)[17] It consists of 20 items and three subscales: "Difficulty Identifying Feelings (TAS-1)," "Difficulty Describing Feelings (TAS-2)," and "Externally-Oriented Thinking (TAS-3)." Items are scored on a 1–5 Likert scale, with items 4, 5, 10, 18, and 19 reverse-scored. Higher total scores indicate a greater tendency toward alexithymia. The Turkish adaptation by Güleç et al. (2009) reported a Cronbach's alpha of 0.78,[18] and in the present study, Cronbach's alpha was calculated as 0.80, indicating high reliability.

Statistical Analysis: All data were recorded and analyzed using SPSS (Statistical Package for Social Sciences) for Windows, version 22. Prior to analysis, assumptions required for selecting appropriate tests (parametric or non-parametric) were evaluated. The Kolmogorov-Smirnov test was used to assess the normality of the distribution. Data were considered to be normally distributed if their skewness and kurtosis coefficients were within ±2.0. The skewness values of the TAS scale and its subscales range from 0.17 to 0.66, and the kurtosis values range from 0.03 to 0.30. The skewness values of the DERS scale and its subscales range from 0.44 to 1.29, and the kurtosis values range from 0.14 to 1.42. According to these results, the data show a normal distribution. Independent-sample t-tests were used to compare two independent groups, while one-way analysis of variance (ANOVA) was applied for comparisons involving more than two groups. Pearson correlation analysis was conducted to examine relationships between numerical variables. A significance level of 0.05 was used to determine statistical significance. For reliability assessment, internal consistency was evaluated using Cronbach's alpha. Reliability coefficients were interpreted as follows: $0.00 \leq \alpha < 0.40$ (unreliable), $0.4 \leq \alpha < 0.60$ (low reliability), $0.60 \leq \alpha < 0.80$ (moderately reliable), and $0.80 \leq \alpha < 1.00$ (highly reliable). Cronbach's alpha values for the TAS scale and its subscales range from 0.60 to 0.86. Cronbach's alpha values for the DERS-16 scale and its subscales range from 0.73 to 0.90. These results indicate that the scales have moderate to high reliability.

RESULTS

As shown in Table 1, 89.29% of the nurses who participated in the study were female, and 70.54% were married. Regarding educational level, 62.50% of the nurses held a bachelor's degree. In terms of work shifts, 63.39% of the nurses worked on a rotational (shift) basis. Regarding the units in which they worked, 33.93% of the nurses were employed in internal medicine units, while 23.21% worked in emergency and intensive care units. Additionally, 48.21% of the nurses reported being satisfied with their profession. The participants' mean age was 33.13±7.40 years, the mean professional experience was 10.65±7.61 years, and the average weekly working hours were 45.40±8.30 hours.

As shown in Table 2, the skewness and kurtosis values indicating the normality of the subscales and total scores of the TAS and DERS-16 scales are presented. For variables found to be significant in the Kolmogorov-Smirnov test ($p<0.05$), skewness and kurtosis values were within ±2.0, indicating that the data did not deviate excessively from a normal distribution; therefore, analyses were conducted using parametric tests. The TAS and DERS-16 scores were found to have acceptable to high reliability.

Table 1. Demographic characteristics of the nurses (n=112).

Variable	Group	Data
Gender, n (%)	Male	12 (10.71)
	Female	100 (89.29
Marital Status, n (%)	Single	33 (29.46)
	Married	79 (70.54)
Educational Level, n (%)	Associate Degree (2 years)	24 (21.43)
	Bachelor's Degree (4 years)	70 (62.50)
	Graduate Degree (6–8 years)	18 (16.07)
Unit of Work, n (%)	Emergency Department / Intensive Care Unit	26 (23.21)
	Surgical Unit	22 (19.64)
	Internal Medicine Unit	38 (33.93)
	Outpatient Clinic	26 (23.21)
Shift Type, n (%)	Shift / On-Call	71 (63.39)
	Day Shift	41 (36.61)
Job Satisfaction, n (%)	Satisfied	54 (48.21)
	Not Satisfied	26 (23.21)
	Undecided	32 (28.57)
Age (years), Mean±SD		33.13±7.40
Professional Experience (years), Mean±SD		10.65±7.61
Weekly Working Hours, Mean±SD		45.40±8.30

n: number of participants: %: percentage; SD: standard deviation.

Examination of the skewness and kurtosis coefficients of the scale scores revealed values within the ±2 range, suggesting a normal distribution. The mean TAS score was 48.46±9.46, and the mean DERS-16 score was 35.88±1.02.

A statistically significant difference was found between the overall TAS and DERS-16 scores and participants' satisfaction with their profession ($p<0.05$). According to the Bonferroni multiple comparison test, a difference was observed between the groups, showing that participants who reported being satisfied with their profession had significantly lower overall TAS and DERS-16 scores compared to those who were not satisfied or undecided (Table 3).

A moderate, positive, and statistically significant correlation was observed between the total scores of the Toronto Alexithymia Scale and the total scores of the Difficulties in Emotion Regulation Scale ($r=0.621$, $p<0.05$). In contrast, no statistically significant relationships were found between age ($p>0.05$), years of professional experience ($p>0.05$), or weekly working hours ($p>0.05$) and the scale scores (Table 4).

Table 2. Reliability analysis of TAS and DERS-16 scale scores.

Variable	Min-Max	Mean±SD
TAS – Difficulty Identifying Feelings	7.00-31.00	15.26±5.47
TAS – Difficulty Describing Feelings	5.00-20.00	11.58±3.17
TAS – Externally-Oriented Thinking	13.00-30.00	21.63±3.37
TAS	27.00-72.00	48.46±9.46
DERS – Awareness	2.00-10.00	3.73±1.59
DERS - Goals	3.00-15.00	8.14±2.73
DERS - Impulse	3.00-15.00	6.38±3.06
DERS - Strategies	5.00-25.00	11.38±4.76
DERS - Nonacceptance	3.00-15.00	6.23±2.97
DERS -16	16.00-80.00	35.88±12.93

TAS: Toronto Alexithymia Scale; DERS: Difficulties in Emotion Regulation Scale–Short Form; SD: standard deviation; Min: Minimum value; Max: Maximum value.

Table 3. Comparison of scale scores according to educational level and job satisfaction.

Variable	Group	n	Mean±SD	F	p		n^2
	Associate Degree	24	49.79±10.5				
TAS	Bachelor's Degree	70	47.87±8.95	0.40	0.67		
	Graduate Degree	18	49.00±9.85				
	Associate Degree	24	36.21±14.5				
DERS -16	Bachelor's Degree	70	35.26±12.5	0.29	0.75		
	Graduate Degree	18	37.83±14.5				
	Satisfied [1]	54	44.04±7.12				
TAS	Not Satisfied[2]	26	55.00±10.75	16.58	**0.00***	Difference 1<2,3	0.23
	Undecided [3]	32	50.63±8.12				
	Satisfied [1]	54	32.02 11.07				
DERS -16	Not Satisfied[2]	26	45.62±14.65	11.93	**0.00***	Difference 1<2	0.18
	Undecided [3]	32	34.47±10.43				

TAS: Toronto Alexithymia Scale; DERS: Difficulties in Emotion Regulation Scale–Short Form; n: number of participants; SD: standard deviation; F: ANOVA test value; p: significance value; $p<.05$; $\eta^2<0.06$ → Small effect; $0.06\leq \eta^2<0.14$ → Medium effect; $\eta^2 \geq 0.14$ → Large effect.

Table 4. Findings on the relationships between scale scores.

Variable	1	2	3	4	5
Age (1)	1	0.15	-0.164	-0.022	-0.029
Professional Experience (2)	0.915**	1	-0.179	-0.025	-0.088
Weekly Working Hours (3)	-0.164	-0.179	1	0.118	0.169
TAS (4)	-0.022	-0.025	0.118	1	0.621**
DERS-16 (5)	-0.029	-0.088	0.169	0.621**	1

TAS: Toronto Alexithymia Scale; DERS: Difficulties in Emotion Regulation Scale–Short Form; *: $p< 05$; **: $p<.01$: r: Pearson correlation coefficient Correlation strength: $\pm1\leq r\leq\pm0.7$ → Strong relationship; $\pm0.7<r\leq\pm0.3$ → Moderate relationship; $\pm0.3<r\leq\pm0$ → Weak relationship

DISCUSSION AND CONCLUSION

In this study, the relationship between emotion regulation difficulties and alexithymia among nurses was examined.

It was determined that the nurses included in the study exhibited moderate levels of alexithymia and experienced a moderate degree of difficulty in regulating emotions. A significant positive correlation was found between nurses' levels of alexithymia and their difficulty in emotion regulation. In the literature review, both national[13,19-21] and international[9,22,23] studies were examined, and similar findings were observed, indicating that nurses experience alexithymia and difficulties in emotion regulation. Investigations into how emotion regulation becomes impaired indicate that individuals with high levels of alexithymia tend to use avoidant, suppressive, and low cognitive reappraisal strategies.[24,25] The concepts of alexithymia and emotion regulation may be of particular importance in terms of the professional life of nurses, who work in a care- and individual-oriented manner, as well as the impact of their work on their personal well-being. Studies conducted on nurse samples indicate that nurses tend to have high levels of alexithymia, and that alexithymia is associated with burnout and anger.[20,21,26] Despite the numerous stressors inherent in the nursing profession, nurses are expected not only to express their emotions in an empathetic, attentive, and compassionate manner while on duty, but also to control negative emotions such as anger, distress, sadness, and frustration, and to enhance their emotion regulation skills.[27,28] Acquiring the ability to regulate emotions adequately and appropriately may protect nurses against the risk of alexithymia.

Furthermore, the study revealed that performing the nursing profession with genuine enjoyment may have a positive effect on emotion regulation skills and serve as a protective factor against alexithymia. A study conducted in China reported that the intense workload, high mortality rates, and the process of providing care to terminally ill patients may lead to alexithymia, depression, and other psychological problems among nurses as a result of occupational stress and the working environment.[29] Emotion regulation skills enable individuals to generate goal-directed, timely and appropriate responses rather than reacting impulsively, regardless of the intensity or significance of emotional events.[30] Based on these findings, it can be inferred that performing one's profession with enthusiasm may evoke positive emotions in individuals and facilitate constructive emotional regulation in the workplace.

The most significant limitation of the present study is its cross-sectional design, which means that the data reflect the participants' states at a single point in time. Moreover, due to the cross-sectional nature of the study, the relationships between variables could only be examined at a correlational level, and causal conclusions could not be drawn. Additionally, the fact that the data were collected from participants working in a single province limits the generalisability of the findings.

In conclusion, this study found that nurses exhibited moderate levels of alexithymia and moderate difficulties in emotion regulation. Furthermore, a significant positive relationship was found between alexithymia and difficulties in emotion regulation. It was concluded that performing the nursing profession with genuine enjoyment may have a positive effect on emotion regulation skills and may serve as a protective factor against alexithymia. Based on the findings of the present study, psychosocial support programmes aimed at improving nurses' emotion regulation skills may be implemented. Additionally, individual or group-based support programmes and counselling services may be provided by psychiatric nurses for nurses experiencing difficulty in emotion regulation and alexithymia. Considering the importance of the concepts of alexithymia and emotion regulation, it is recommended that nurses' emotional states be routinely evaluated by psychiatric nurses during their professional duties. Future studies may focus on identifying the emotional challenges experienced by nurses according to the units in which they work. A detailed examination of nurses' emotional difficulties may form the basis for clinical practices aimed at integrating emotion regulation approaches into routine mental health support processes provided to nurses.

Ethics Committee Approval: Ethical approval for the study was obtained from the Trabzon University Social and Human Sciences Scientific Research and Publication Ethics Committee (Date: 17.08.2023, decision no: 2023-8/1.4). The participants were informed about the purpose of the study, confidentiality and privacy principles, and their right to withdraw from the study at any time, after which both verbal and written informed consent were obtained. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Conflict of Interest: No conflict of interest was declared by the authors.

Author Contributions: Concept–EB, KÖK; Supervision–AÇ, EB; Materials–EB, KÖK; Data Collectionand/or Processing–KÖK; Analysis and/or Interpretation–EB, AÇ; Writing-EB, AÇ.

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