The effect of Alexithymia level on communication skills in intensive care nurses

Ibrahim Salih Palazoglu [1], Ondokuz Mayıs University, Institute of Graduate Education, Department of Emergency Nursing, Samsun 55200, Turkey.

Esra Danaci, Bulent Ecevit University, Ahmet Erdogan Vocational School of Health Services, Zonguldak 67000, Turkey.

Zeliha Koc, Ondokuz Mayıs University, Faculty of Health Sciences, Samsun 55200, Turkey.

Abstract

This research was carried out as a descriptive study to determine the effect of alexithymia level on communication skills in intensive care nurses. The research was carried out between 15/02/2023-01/06/2023 with the participation of 105 nurses working in the intensive care units of a university hospital. The data were collected by using a 17-question information form prepared by the researcher in line with the literature, which determines the socio-demographic and communication skills of the nurses, and the Toronto Alexithymia Scale and the Health Professionals Communication Skills Scale. The conformity of the data to normal distribution was evaluated by Shapiro-Wilk and Kolmogorov Smirnov tests. Kruskal Wallis test, Mann Whitney U test, One-Way Analysis of Variance, and independent sample t-test were used in data analysis. In line with the findings obtained from this study, it was determined that intensive care nurses with high levels of alexithymia had low communication skills.

Keywords: Alexithymia; communication; communication skills; nurse; intensive care.

* ADDRESS FOR CORRESPONDENCE: İbrahim Salih Palazoğlu, Master's student, Nineteen May University Institute of Graduate Education Department of Emergency Nursing Master's Program, Samsun 55200, Turkey,
E-mail address: ispalazoglu@gmail.com

1. Introduction

Nursing is a professional profession in which holistic care based on continuous interaction and mutual relationships is carried out. Nurses' ability to provide effective, continuous, and high-quality care is possible by creating, developing, and conveying feelings of effective communication with people. It is extremely important for effective communication that nurses, who are in intense professional communication with individuals of all ages, socioeconomic and cultural levels, trust and empathize with individuals in initiating, maintaining, and finalizing communication. Effective communication between the nurse and the patient increases patient satisfaction and quality of care by positively affecting the individual's coping with and adapting to the disease [1].

In the nursing profession, where interpersonal interaction is at the forefront, understanding and transferring emotions, empathizing, and communication skills are extremely important. An ineffective relationship and communication style between the patient and the nurse can lead to serious problems in the continuity of the patient's care, inappropriate treatment approaches, and possible harmful consequences for the patient [2]. Intensive care units, which provide vital and specialized life support, especially for critical patients, have high workloads and complex working environments [3] (. Intensive care nurses care for patients with long-term and complex treatments, and often face severe trauma and death events [4]. Therefore, the possibility of intensive care nurses experiencing mental health problems such as alexithymia is quite high [5,6] .

Alexithymia is a condition in which individuals cannot perceive their own and other people's emotions. The term, first used by Sifneos [7], refers to a psychological structure characterized by difficulties in understanding, defining, and expressing one's own emotions. Alexithymia interrupts interpersonal relationships by causing a lack of empathy and anxiety, compulsive behaviors [8]. This situation prevents nurses from determining the needs of individuals and reduces their communication skills [9,10].

1.1. Purpose of the study

This research was carried out to determine the effect of alexithymia level on communication skills in intensive care nurses. Alexithymia levels in their communication skills will be determined in line with the information to be obtained from this study and appropriate strategies will be developed. Answers to the following questions were sought.

- alexithymia and communication skills of intensive care nurses?
- the alexithymia and communication skill levels of intensive care nurses?
- intensive care nurses' alexithymia levels and communication skills?

2. Material and methods

2.1. Participants

This descriptive and relationship-seeking research was carried out between 15/02/2023 and 01/06/2023 with the participation of nurses working in the intensive care units of a university hospital. The sample selection method was not used in the study and it was aimed to reach the entire population (n=109). The research was carried out with the participation of 105 volunteer intensive care nurses who agreed to participate in the study between the specified dates.

2.2. Data collection tools

In this study, data were collected by using a 17-question information form that determines the socio-demographic and communication skills of nurses, prepared by the researcher in line with the literature, and the Toronto Alexithymia Scale and the Health Professionals Communication Skills Scale. The questionnaire was tested with a preliminary application in a group of 10 people and the nurses who participated in the pilot study were not included in the sample.

2.2.1. Toronto Alexithymia Scale

Toronto Alexithymia Scale was developed by Bagby et al. [11] and adapted into Turkish by Güleç et al. [12] . This five-point Likert-type scale consists of 3 sub-dimensions: Difficulty in Recognizing Emotions, Difficulty in Expressing Emotions, and Expressive Thinking, and 20 items. The total score on the scale varies between 20-100. High scores on the scale indicate a high alexithymic level. The Cronbach's alpha value of the scale was 0.78 in total, the Cronbach's alpha value for the difficulty in recognizing emotions sub-dimension was 0.80, the Cronbach's alpha value for the difficulty in verbalizing emotions was 0.57, and the Cronbach alpha value for the Expressive thinking sub-dimension was 0.63. In this study, the Cronbach's alpha value of the scale was determined as 0.83.

2.2.2. Health Professionals Communication Skills Scale

The Health Professionals Communication Skills Scale was developed by Leal-Costa et al. [13] and adapted into Turkish by Mendi et al. [14] . This scale is a six-point Likert scale (1 = Rarely, 2 = Occasionally, 3 = Sometimes, 4 = Normal, 5 = Very often, 6 = Most of the time) and has 4 subscales: empathy, informative communication, respect, and social skills. dimension and consists of 18 items. High scores on the scale indicate that health professionals have good communication skills. The Cronbach's alpha coefficients of the scale were reported as 0.77, 0.78, 0.74, and 0.65 for the Empathy, Informative Communication, Respect, and Social Skills dimensions, respectively. In this study, the scale Cronbach's alpha coefficients were determined as 0.96, 0.87, 0.93, and 0.74 for the Empathy, Informative Communication, Respect, and Social Skills dimensions, respectively.

2.3. Ethical consideration

Ethics committee approval (Number: 267546, Decision No: 04.07) was obtained from the University's Social and Human Sciences Ethics Committee before starting the study. After the nurses participating in the study were informed about the study and their informed consent was obtained, the data were started to be collected by the researchers.

2.4. Data collection procedure

It was explained to the nurses that the decision about whether to participate in the research was entirely their own and that the data to be collected from this study would only be used within the scope of the research. To collect data, ethics committee permission from the institution and informed consent from the nurses included in the study were obtained. The data collection time took approximately 15-20 minutes.

2.5. Data analysis

The data obtained in this study were analyzed using the IBM SPSS 25 package program. Normality test of quantitative data Shapiro Wilk and Kolmorogov It was studied by Smirnov. Kruskal Wallis test, Mann Whitney U test, independent sample t-test, and One-way analysis of variance test were used for data analysis. The reliability of the scales used was analyzed with Cronbach Alpha. Quantitative data were presented as median (minimum-maximum), while qualitative data were presented as frequency (percentage). The significance level was taken as $p < 0.05$.

3. Results

Of the nurses participating in the research, 56.2 % were women, 43.8% were men, 60% were married, 56.2% had a bachelor's degree, 92.4% had a nuclear family, 61.9% had income equal to their expenses, % 61 of them worked in the third level intensive care unit, 47.6% of them worked in the intensive care unit for 1-5 years, 56.2% liked their job, 44.8% were satisfied with the service they worked in, 76.2% received training on communication during their vocational training. and 50.5% of them received training in communication after graduation. The mean age of the nurses was 30.9 ± 6.3 (Table I).

TABLE I
DISTRIBUTION OF NURSES' SOCIO-DEMOGRAPHIC AND COMMUNICATION SKILLS (N=105)

Features		n	%
Age groups (30.9 ± 6.3)	20-29 years	56	53.3
	30-39 years	39	37.1
	40 years and older	10	9.5
Gender	Woman	46	43.8
	Male	59	56.2
marital status	Married	63	60.0
	Single	42	40.0
Educational status	Health Vocational High School	11th	10.5
	associate degree	19	18.1
	License	59	56.2
	Degree	14	13.3
	Doctorate	2	1.9
Family type	Extended family	8	7.6
	Nuclear family	97	92.4
Income status	Income less than expenses	22	21.0
	Income equals expense	65	61.9
	Income more than expenses	18	17.1
Level of intensive care practiced	step 1	10	9.5
	2nd digit	31	29.5
	3rd digit	64	61.0
Year of Study (8.8 ± 5.9)	1-5 years	36	34.3
	6-10 years	37	35.2
	11-15 years	21	20.0
	16 years and above	11th	10.5
Years of work in intensive care (6.6 ± 4.9)	1-5 years	50	47.6
	6-10 years	38	36.2
	11 years and above	17	16.2
The state of liking the profession	I love	59	56.2
	I don't love	17	16.2
	I'm undecided	29	27.6
Satisfaction with the service received	I am satisfied	47	44.8
	I am partially satisfied	45	42.9
	I am not satisfied	13	12.4
The status of receiving education related to communication during vocational education	Yes	80	76.2
	No	25	23.8
Post-graduation education related to communication	Yes	53	50.5
	No	52	49.5

The total mean score of the Toronto Alexithymia Scale of the nurses was 50.2 ± 10.6 and the median score was 13. The mean and standard deviation values of Difficulty in Recognizing Emotions, Difficulty in Expressing Emotions, and Expressive Thinking, which are sub-dimensions of the Toronto Alexithymia Scale, were determined as 13.2 ± 4.4, 12.5 ± 3.3, and 21.9 ± 3.9, respectively (Table II).

TABLE II

MEAN, STANDARD DEVIATION, AND MEDIAN SCORE VALUES OF TORONTO ALEXITHYMIA SCALE TOTAL SCORE AND SUB-DIMENSION SCORES

Toronto Alexithymia Scale	Mean ± SD	Median (Min-Max)
Difficulty Recognizing Your Emotions	13.2 ± 4.4	13 (6 - 30)
Difficulty Putting Your Feelings into Words	12.5 ± 3.3	12 (5 - 25)
Expressive Thinking	21.9 ± 3.9	23 (12 - 39)
Total	50.0 ± 10.6	49 (28 - 99)

The mean score of the Nurses' Health Professionals Communication Skills Scale was 84.3 ± 19.3 and the median score was 90. Empathy, Informative Communication, Respect, and Social Skills sub-dimensions of Health Professionals' Communication Skills Scale mean and standard deviation values were determined as 24.5 ± 6.0, 27.3 ± 6.4, 14.8 ± 3.5 and 16.7 ± 4.5, respectively (Table III).

TABLE III

HEALTH PROFESSIONALS' COMMUNICATION SKILLS SCALE THE MEAN, STANDARD DEVIATION, AND MEDIAN SCORE VALUES OF THE TOTAL SCORE AND SUB-DIMENSION SCORES

Health Professionals Communication Skills Scale	Mean ± SD	Median (Min-Max)
Empathy	24.5 ± 6.0	26 (6 - 30)
Informative Communication	27.3 ± 6.4	29 (9 - 36)
Respect	14.8 ± 3.5	16 (6 - 18)
Social Skill	16.7 ± 4.5	17 (4 - 24)
Total	83.4 ± 19.3	90 (25 - 108)

Health professionals' communication skills according to the Toronto Alexithymia Scale scores of the nurses participating in the study were determined by the marital status (p=0.024), years of working in the intensive care unit (p=0.026), vocational training (p=0.046) and post-graduate-education-in-communication (p=0.024). It was determined that the Toronto Alexithymia Scale total score values of the single nurses, who worked between 1-10 years and did not receive training on communication during vocational training and after graduation were higher (Table IV).

TABLE IV

COMPARISON OF NURSES ' SOCIO-DEMOGRAPHIC AND WORKING LIFE CHARACTERISTICS AND TORONTO ALEXITHYMIA SCALE TOTAL SCORE VALUES

Features		Median (Min-Max) Mean ± SD	test value p
Age groups	20-29 years	49.5 (31-99)	χ^2= 1,163
	30-39 years	50 (28-70)	p = 0.559
	40 years and older	46 (32-80)	
Gender	Woman	49.1 ± 10.6	t = -0.683
	Male	50.6 ± 10.6	p = 0.496
marital status	Married	48.0 ± 9.3	t = -2.294
	Single	52.8 ± 11.8	**p = 0.024**
Educational status	Health Vocational High School	49 (31-57)	
	associate degree	50 (40-65)	χ^2= 4,534
	License	48 (28-99)	p = 0.339
	Degree	51 (39-80)	
	Doctorate	63 (56-70)	
Family type	Extended family	52.5 (28-80)	L= 351.5

	Nuclear family	49.0 (31-99)	p = 0.659
Income status	Income less than expenses	50 (28-66)	χ^2= 2.143 p = 0.342
	Income equals expense	50 (33-75)	
	Income more than expenses	44 (32-99)	
Level of intensive care practiced	step 1	57.2 ± 21.3	F=2.613 p = 0.078
	2nd digit	49.2 ± 9.8	
	3rd digit	49.2 ± 8.1	
Year of Study	1-5 years	50 (31-99)	χ^2= 5,563 p =0.135
	6-10 years	50 (28-66)	
	11-15 years	47 (32-70)	
	16 years and above	44 (32-80)	
Years of work in intensive care	1-5 years	49.5 (31-99)B	χ^2= 7,336 **p = 0.026**
	6-10 years	50 (28-80)B	
	11 years and above	43 (32-68)A	
The state of liking the profession	I love	48 (28-80)	χ^2= 3.481 p =0.175
	I don't love	47 (32-64)	
	I'm undecided	51 (34-99)	
Satisfaction with the service received	I am satisfied	48 (31-99)	χ^2= 1.553 p = 0.460
	I am partially satisfied	50 (32-80)	
	I am not satisfied	49 (28-56)	
The status of receiving education related to communication during vocational education	Yes	48 (28-99)	L=735 **p = 0.046**
	No	54 (33-66)	
Post-graduation education related to communication	Yes	47.6 ± 8.2	t = -2.285 **p = 0.024**
	No	52.3 ± 12.2	

χ 2: Kruskal Wallis Test Statistic, U: Mann-Whitney U Test Statistic, F: One Way ANOVA Test Statistic, t: Student's t-Test Statistic

It was determined that the total score of the Health Professionals Communication Skills Scale of the nurses participating in the study differed according to the years of working in the intensive care unit (p=0.019). Health Professional Communication Skills of Nurses Working for 11 Years or more. It was determined that the total score on the scale was higher than the score of the nurses who worked between 6 and 10 years (Table V).

TABLE V
COMPARISON OF NURSES' SOCIO-DEMOGRAPHIC AND WORKING LIFE CHARACTERISTICS AND HEALTH PROFESSIONALS' COMMUNICATION SKILLS SCALE TOTAL SCORE VALUES

Features		**Median (Min-Max) Mean ± SD**	**test value p**
Age groups	20-29 years	90 (35-105)	χ^2= 2008 p = 0.366
	30-39 years	92 (25-108)	
	40 years and older	87 (36-108)	
Gender	Woman	92.5 (36-108)	U=1138 p = 0.157
	Male	88 (25-108)	
marital status	Married	91 (25-108)	U=1189 p =0.380
	Single	88.5 (35-103)	
Educational status	Health Vocational High School	90 (42-103)	χ^2= 2.152 p = 0.708
	associate degree	91 (28-103)	
	License	89 (25-108)	
	Degree	92.5 (70-108)	
	Doctorate	94.5 (91-98)	
Family type	Extended family	88 (35 - 100)	L=381 p = 0.933
	Nuclear family	90 (25 - 108)	

Income status	Income less than expenses	88 (25-101)	χ^2= 2,488
	Income equals expense	92 (35-108)	p = 0.288
	Income more than expenses	88.5 (67-103)	
Level of intensive care practiced	step 1	87.5 (25-96)	χ^2= 1.850
	2nd digit	89 (36-108)	p = 0.396
	3rd digit	91.5 (28-108)	
Year of Study	1-5 years	91.5 (25-105)	χ^2= 7.122
	6-10 years	84 (28-108)	p = 0.068
	11-15 years	92 (42-103)	
	16 years and above	88 (36-108)	
Years of work in intensive care	1-5 years	90 (25-105)EU	χ^2= 7,973
	6-10 years	86 (28-108)A	**p = 0.019**
	11 years and above	93 (72-108)B	
The state of liking the profession	I love	91 (28-108)	χ^2= 1.928
	I don't love	90 (35-103)	p = 0.381
	I'm undecided	85 (25-108)	
Satisfaction with the service received	I am satisfied	91 (28-105)	χ^2= 0.471
	I am partially satisfied	90 (40-108)	p = 0.790
	I am not satisfied	88 (25-103)	
The status of receiving education related to communication during vocational education	Yes	91 (28-108)	U = 877.5
	No	89 (25-103)	p = 0.356
Post-graduation education related to communication	Yes	91 (25-108)	U= 1321.5
	No	88.5 (35-105)	p = 0.717

χ 2: Kruskal Wallis Test Statistic, U: Mann-Whitney U Test Statistic

A weak negative correlation (r=-0.231, p= 0.0018) was found between the Toronto Alexithymia Scale and the Health Professionals Communication Skills Scale. It was determined that nurses with high alexithymia levels had low communication skills (Table VI).

TABLE VI
RELATIONSHIP BETWEEN THE TORONTO ALEXITHYMIA SCALE AND HEALTH PROFESSIONAL COMMUNICATION SKILLS SCALE

	Health Professionals Communication Skills Scale
Toronto Alexithymia Scale	r = -0.231
	p = 0.018

r: correlation coefficient

4. Discussion

The findings obtained in this study, which was conducted to determine the effect of intensive care nurses' alexithymia levels on their communication skills, were discussed in line with the relevant literature.

The total mean score of the Toronto Alexithymia Scale of the nurses was determined as 50.2 ±10.6. Considering that the total score that can be obtained from the scale varies between 20 and 100, it can be said that the alexithymia levels of the nurses are low. In the study conducted by Özsaban [9] which supports the research findings, it is reported that the total score of alexithymia of intensive care nurses is 51.4±10.7 and a quarter of the nurses show Alexithymic characteristics. In addition, in another study conducted by Yazıcı et al. [15], it was determined that the total score of the nurses on the Toronto Alexithymia Scale was 51.89±10.01 and that the nurses experienced mild Alexithymia.

It was determined that the total score of the Toronto Alexithymia Scale scores of the nurses participating in the study differed according to the marital status of the nurses, the years of working

in the intensive care unit, and the educational status of the nurses during and after vocational education; It was determined that the Toronto Alexithymia Scale total score values of the single nurses, worked between 1-10 years, and did not receive training on communication during vocational training and after graduation were higher. Supporting the research findings, in a study by Nan et al. [5], in which they examined the frequency of alexithymia and related factors in intensive care nurses, there was a statistically significant relationship between the marital status and working year of the nurses and their alexithymia scores; It is stated that nurses who are single /divorced and working less than five years have high alexithymia levels. In the study conducted by Karaismailoğlu et al. [2], it was determined that there was a relationship between the educational status of communication skills and the total score of the Toronto Alexithymia Scale, according to the research findings, and that the alexithymia scores of the nurses who did not receive training were higher.

The mean score of the Nurses' Health Professionals Communication Skills Scale was determined as 84.3 ± 19.3. Considering that the total score that can be obtained from the scale varies between 18-108, it can be said that the professional communication skills of the nurses are at a high level. In a study conducted by Karaismailoğlu et al. [2], it was reported that the total mean score of communication skills of nurses was 98.09±9.66. Communication is more important in intensive care units, where care is given to individuals who have a sudden onset, life-threatening disease, or who are expected to develop such a disease, compared to other units [16] . It is thought that it is extremely important for the nurse to have high communication skills, to use communication skills effectively, and to understand the patient correctly for quality and effective nursing care [17].

It was found that the total score of the Health Professionals Communication Skills Scale of the nurses participating in the research differed according to the years of work of the nurses in the intensive care unit; It was determined that the total score of the Health Professionals Communication Skills Scale of the nurses who worked for 11 years or more was higher than the score of the nurses who worked between 6-10 years. When the literature is examined, it is reported that the communication skills of nurses who have worked in the intensive care unit for 20 years or more and who choose to work in the intensive care unit themselves are high [18-21] . In a study examining the communication skills of nurses working in the intensive care unit, it was determined that there was no relationship between the duration of working in the intensive care unit and communication skills [16].

In this study, there was a weak negative correlation between the Toronto Alexithymia Scale and the Health Professionals Communication Skills Scale; It was determined that nurses with high alexithymia levels had low communication skills. In line with the research findings, Karaismailoğlu et al. [2] also reported that there is a negative relationship between nurses' alexithymia scores and their communication skills.

5. Conclusion

Nursing is a care-oriented profession that is carried out in a team approach. Nurses need to be in constant communication with both the patient and their teammates in their work environment. It is thought that nurses with high alexithymia levels have difficulty expressing their feelings, which will cause communication difficulties.

In this study, the total mean score of the Nurses' Toronto Alexithymia Scale was 50.2 ± 10.6 and the Nurses' Health Professionals Communication Skills Scale total score was 84.3 ± 19.3. There was a weak negative correlation between the Nurses' Toronto Alexithymia Scale and the Health Professionals Communication Skills Scale; It was determined that the communication skills of the nurses with high alexithymia levels were low. In line with the findings of this study, nurses need to recognize their own emotions, express them correctly, and develop strategies to increase their emotional awareness so that they can maintain effective communication skills with patients and teammates.

References

[1] B. Sancar, & D. Aktas, "The relationship between levels of Alexithymia and communication skills of nursing students," *Pakistani Journal of Medical Sciences*, vol. 35, no. 2, p. 489, 2019. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6500809/

[2] D. Karaismailoglu, N. Kulakaç, & D. Çilingir, "Level of alexithymia and its effect on communication skills in operating room nurses: The example of the Eastern Black Sea Region," *Gumushane University Journal of Health Sciences*. Vol. 10, no. 1, pp. 81-87, 2021.

[3] D. A. N. Xin, Y. Huang, R. E. N. Jian-Hua, T. I. A. N. Ya-Lin, & H. E. Ya-Lin, "Professional Nursing Practice Environment and Work Engagement: The Mediating Roles of Self-Efficacy and Achievement Motivation," *Journal of Nursing Research*, vol. 31, no. 4, p. e285, 2023. https://journals.lww.com/jnr-twna/fulltext/2023/08000/professional_nursing_practice_environment_and_work.6.aspx

[4] T. T. Olaleye, T. M. Christianson, & T. J. Hoot, "Nurse burnout and resiliency in critical care nurses: A scoping review," *International Journal of Africa Nursing Sciences*, vol. 17, p. 100461, 2022. https://www.sciencedirect.com/science/article/pii/S2214139122000683

[5] R. Nan, L. Ma, H. Yan, Y. Zhang, J. Pei, H. Chen, X. Wang, & X. Dou, "Prevalence and associated factors of alexithymia in intensive resort unit nurses," *Nursing Open*, pp. 1–9, 2023. https://onlinelibrary.wiley.com/doi/abs/10.1002/nop2.1689

[6] J. Xie, M. Liu, Z. Zhong, Q. Zhang, J. Zhou, L. Wang... & A. S. Cheng, "Relationships among character strengths, self-efficacy, social support, depression, and psychological well-being of hospital nurses," *Asian Nursing Research*, vol. 14, no. 3, pp. 150-157, 2020. https://www.sciencedirect.com/science/article/pii/S1976131720300451

[7] P.E. Sifneos, The prevalence of 'alexithymic'characteristics in psychosomatic patients. *Psychotherapy and psychosomatics*, Vol *22*, no. 2-6, pp.255-262, 1973.

[8] S. Mersin, Ö. İbrahimoğlu, H. Saray Kılıç, & B. Bayrak Kahraman, "Social media usage and alexithymia in nursing students," *Perspectives in Psychiatric care*. Vol. 56, no. 2, pp. 401-408, 2020. https://onlinelibrary.wiley.com/doi/abs/10.1111/ppc.12448

[9] A. Özsaban, "Investigation of the Relationship between Alexithymia, Empathy, and Burnout Levels in Intensive Care Nurses during the COVID-19 Pandemic Process," *Online Journal of Health Sciences (OTJHS),* vol. 7 no. 3, pp. 356-363, 2022. https://dergipark.org.tr/en/pub/otjhs/issue/72336/1033467

[10] L. C. Rink, T. O. Oyesanya, K. C. Adair, J. C. Humphreys, S. G. Silva, & J. B. Sexton, "Stressors Among Healthcare Workers: A Summative Content Analysis," *Global Qualitative Nursing Research*, vol. 10, p. 23333936231161127, 2023. https://journals.sagepub.com/doi/abs/10.1177/23333936231161127

[11] R.M. Bagby, G.J. Taylor, & J.D.A. "Parker, the twenty-item Toronto Alexithymia Scale: II. Convergent, discriminant, and concurrent validity," *J Psychosom Res,* vol. 38, pp. 33-40, 1994.

[12] H. Güleç, S. Köse, M.Y. Güleç, S. Çitak, C. Evren, J. Borckardt, & K. Sayar, "Reliability and factorial validity of the Turkish version of the 20-item Toronto alexithymia scale (TAS-20)," *psychiatry and clinical Psychopharmacology*. Vol. 19, no. 3, p. 214, 2009. http://www.psikofarmakoloji.org/pdf/19_3_2.pdf

[13] C. Leal-Costa, S. Tirado-González, J. Rodríguez-Marín, & C.J. Vander-Hofstadt-Roman, "Psychometric properties of the health professional's communication skills scale (HPCSS)," *International Journal of Clinical Health psychology,* vol. 16, no. 1, pp. 76–86, 2016. https://doi.org/10.1016/j.ijchp.2015.04.001 .

[14] O., Mendi, N. Yildirim, and B., Mendi, "Cross-cultural adaptation, reliability, and validity of the Turkish version of the health professionals communication skills scale," *Asian Nursing Research*, Vol. 14, no. 5, pp.312-319, 2020.

[15] H. G. Yazıcı, F. Kahraman, & E. Karabulut, "Alexithymia and Depression Levels of Nurses Working in the Emergency Department: A Cross-sectional Study," *Online Turkish Journal of Health Sciences,* vol. 7, no. 2, pp. 202-208, 2022.

[16] S. Guler, E. Dirgar, B. Kaplan, S. Avcı, & Z. Çiğdem, "Evaluation of communication skills of intensive care nurses," *Journal of İnönü University Vocational School of Health Services,* vol. 9, no. 3, pp. 1014-1026, 2021. https://dergipark.org.tr/en/pub/inonusaglik/issue/65823/849931

[17] L. K. Jena, J. Sarkar, & S. Goyal, "Sense of courage: The mediating role of courage between emotional reflexivity and work-life integration among nurses in Indian hospitals," *International Journal of Nursing Sciences*, vol. 8, no. 3, pp. 318-324, 2021. https://www.sciencedirect.com/science/article/pii/S2352013221000648

[18] B.B. Kahraman, H. Bostanoğlu, "Determining the difficulties experienced by nurses working in internal diseases intensive care units in patient communication," *Anatolian Journal of Nursing and Health Sciences*. Vol. 15, no. 4, pp. 236-243, 2012.

[19] H. Kumcagiz, M. Yilmaz, S. Balci Celik, & I. Avci Aydin, "Communication skills of nurses: Samsun province example," *Dicle Medical Journal*. vol. 38, no. 1, pp. 49-56, 2011.

[20] T. Sari, & B. Ozkan, "Determining the communication skills of nurses working in intensive care and their approaches to situations where they have difficulties in patient care," *Journal of Intensive Care Nursing,* vol. 23, no. 2, pp. 64-72, 2019.

[21] X. Li, H. Chang, Q. Zhang, "Relationship between emotional intelligence and job well-being in Chinese clinical nurses: multiple mediating effects of empathy and communication satisfaction," *BMC Nursing,* vol. 20, pp. 144, 2021. https://doi.org/10.1186/s12912-021-00658-4