Cyprus Turkish Journal of Psychiatry & Psychology Vol.5 Issue.1
Doi:10.35365/ctjpp.23.1.04

RESEARCH ARTICLE / ARAŞTIRMA YAZISI

The Turkish Adaptation of Nonverbal Immediacy Scale-Self Report

Sözsüz İvedi Yakınlık Ölçeği- Özbildirim Formunun Türkçeye Uyarlanması

Sözen İnak Gönyeli[1]

Abstract:

The purpose of this study is to translate into Turkish the Nonverbal Immediacy Scale-Self-Report Form (NIS-STr)which was developed with the purpose of measuring nonverbal immediacy approaches and to conduct the validity and reliability study of the scale. The research data were collected from 390 undergraduate students studying in different departments and classes of different faculties of Near East University on the basis of purposive sampling method. In order to examine the construct validity of the scale, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed. In order to analyse the reliability of the scale, Cronbach's alpha test and Split-Half test were performed, and item-total correlations of the scale were examined.The Kaiser-Meyer-Olkin (KMO) coefficient of the nonverbal Immediacy Scale was found to be 0.952 and the Bartlett Test of Sphericity chi-square value was found to be 6361,626. As a result, it was determined that 43.463% of the total variance was explained. It was found out that the factor loads of the items in the scale ranged between -0.78 and 0.76. The mean square root of approximate errors (RMSEA) value was found to be 0.057. According to the reliability analysis of the scale, the Cronbach alpha coefficient was found to be 0.947, the inter-halves correlation coefficient was 0.886, the Spearman-Brown coefficient was 0.939 and the Guttman split-half coefficient was 0.937. As a result of theanalyzes, NIS-STr was found to be valid and reliable.

Keywords: Nonverbal Immediacy, Nonverbal Immediacy Scale, Communicator Style Scale, Validity, Reliability

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Date of Received/Geliş Tarihi: 14.10.2022, **Date of Acceptance/Kabul Tarihi:** 06.03.2023, **Date of Online Publication/Çevirimiçi Yayın Tarihi:** 06.03.2023

Citing/Referans Gösterimi: İnak-Gönyeli, S. (2023). The Turkish Adaptation of Nonverbal Immediacy Scale-Self Report, *Cyprus Turkish Journal of Psychiatry & Psychology, 5(1): 34-43*

Öz:

Bu çalışmanın amacı, sözsüz ivedi yakınlık yaklaşımlarını ölçmek amacıyla geliştirilen Sözsüz İvedi Yakınlık Ölçeği-Öz Bildirim Formu'nun (NIS-STr) Türkçe'ye çevrilmesi ve ölçeğin geçerlik ve güvenirlik çalışmasının yapılmasıdır. Araştırma verileri, amaçlı örnekleme yöntemine göre X üniversitesinde farklı fakültelerinin farklı bölüm ve sınıflarında öğrenim gören 390 lisans öğrencisinden toplanmıştır. Ölçeğin yapı geçerliğini incelemek için açımlayıcı faktör analizi (AFA) ve doğrulayıcı faktör analizi (DFA) yapılmıştır. Ölçeğin güvenirliğini araştırmak için Cronbach's alpha testi ve Split-Half testi yapılmış ve ölçeğin madde-toplam korelasyonlarına bakılmıştır. Sözsüz ivedi Yakınlık Ölçeği'nin Kaiser-Meyer-Olkin (KMO) katsayısı 0.952, Bartlett Küresellik Testi ki-kare değeri 6361.626 olarak bulunmuştur. Sonuç olarak toplam varyansın %43.463'ünün açıklandığı belirlenmiştir. Ölçekte yer alan maddelerin faktör yüklerinin -0.78 ile 0.76 arasında değiştiği tespit edilmiştir. Yaklaşık hataların ortalama karekökü (RMSEA) değeri 0.057 olarak bulundu. Ölçeğin güvenirlik analizine göre Cronbach alfa katsayısı 0.947, yarılar arası korelasyon katsayısı 0.886, Spearman-Brown katsayısı 0.939 ve Guttman iki yarım katsayısı 0.937 olarak bulunmuştur. Yapılan analizler sonucunda SİYÖ geçerli ve güvenilir bulunmuştur.

Anahtar Kelimeler: Sözsüz İvedi Yakınlık, Sözsüz İvedi Yakınlık Ölçeği, iletişimci Biçimleri Ölçeği

Introduction

Interpersonal communication is divided into two classes. Verbal and Nonverbal Communication. Nonverbal communication is also called 'body language' (Dökmen, 2005; Cangil, 2004). Cangil (2004) considers body language as important for the transfer of emotional information in interpersonal communication and states that only speech content can be transferred through speech. According to Mehrabian's (1965) study, approximately 7% of the transmitted message is referred to as verbal feelings, 38% voice tone-related feelings, and 55% facial expressions. One of two different sources states that 93% of communication is transmitted by nonverbal behavior, while another emphasizes that 60-65% of communication is transmitted by nonverbal behavior (Lapakko, 2007; MEGEP, 2015). For this reason, in order for the message conveyed to be understood correctly, verbal and nonverbal messages and the environment should be evaluated in conjunction (Cangil, 2004).

In his studies in the field of verbal immediacy, Mehrabian realizes that nonverbal communication is more effective in transferring emotions, and the concept of Nonverbal Immediacy gained importance (Richmond et al., 2003; Mehrabian, 1965). Mehrabian defines immediacy as 'the interaction strategy used to increase proximity with the person we communicate with (Baringer and McCroskey, 2000). It expresses that the gestures and mimics we use while talking affect the meaning of the message to be conveyed (Mehrabian, 1965; 1971;1972).

According to Immediacy's principle ‘people feel a preference for people and things they like, prefer or consider them. However, they tend to avoid things they don't like, stay away or not prefer them’. According to this view, internal effects create immediate behaviors. What attracted researchers' attention was the immediate effect during communication between people (Richmond et al., 2003).

Mehrabian's concept of nonverbal immediacy has attracted the attention of researchers working in the field of nonverbal communication. The researchers who worked on the concept had a disagreement with Mehrabian in the process and interpreted the concept of Immediacy differently. Unlike Mehrabian, other researchers have chosen to focus on the immediate impact of close communication on others (Richmond et al., 2003). McCroskey and Richmond dealt with the consequences of communication behavior rather than the psychological effects and argued that ‘immediate closeness leads to pleasure’. According to this principle, using more immediacy behavior leads to more tolerance in the other, allowing it to consider and evaluate him/her. These two principles essentially use the principle of mutual causality (Mehrabian, 1965; Richmond et al, 2003). Mehrabian's early work led Gorham (1988) to measure nonverbal communication. Here, Gorham centered on the part “what kind of things do people say” and wanted to examine what teachers said to students, but the results did not come up to his expectations.

Mottet and Richmond (1997) became other names who attempted to work on verbal immediacy. However, they did not reach the validity and reliability coefficients. The Scale of Behavioral Indicators of Immediacy has reached a large usage area since it coincides with other scales (Andersan et al., 1979). Also, Gorham and Zakahi (1990) developed the 14-item Nonverbal Immediacy Measure which was found to be highly valid. This scale has been used to date. Based on the foregoing, Richmond, McCroskey and Johnson developed Nonverbal Immediacy Scale in 2003. Therefore, there are only a few scales which measure nonverbal immediacy.

What led us to this research is our belief that nonverbal immediacy behaviors are important in the clinical setting. The reference to verbal interaction in the clinical setting is at a considerable level. However, given that most of the nonverbal behaviors are unconsciously expressed, they can have a more precise meaning about the patient's emotional state and attitude. Nonverbal behaviors that contribute significantly to interpersonal communication in the psychotherapeutic environment can be ignored. Although listening carefully is the basis of psychotherapy, nonverbal behavior can provide clues about additional diagnosis and treatment. In summary, paying attention to nonverbal behavior in psychotherapy can alert the

psychotherapist to emotional situations that may otherwise escape attention (Foley and Gentile, 2010).

The aim of the study is to translate the Nonverbal Immediacy Scale-Self-Report form into Turkish, to perform validity and reliability analyzes and to obtain a viable form in clinical practice. Therefor, it is aimed to measure clues about body language in individuals with symptoms at psychopathological level. The name of the scale in Turkish usage will be referred to as SİYÖ.

Methods

Permission was obtained from the developer of the scale, Richmond, McCroskey and Johnson before adaptation. It was then translated into Turkish by 2 instructors who had a good command of the English language. Subsequent translation was performed by 2 experts who did not have any knowledge about the scale. Afterwards, the expert evaluation form of the scale was prepared comparatively in two languages and cultural equivalence was ensured by the experts who had mastered the English and Turkish language.

Participants
The research data were collected from 390 undergraduate students studying in different departments and classes of different faculties of the Near East University by using Stratified Objective sampling technique, which is one of the purposive sampling methods. This sampling method was preferred in order to obtain in-depth information and to allow comparison between different subgroups (buyukozturk, 2013).

Measures

Nonverbal Immediacy Scale (NIS) - Self Report
The scale developed by Richmond, McCroskey, Johnson (2003) is a collection of scales previously conducted in the Nonverbal Immediacy field. The NIS consists of two forms. One is the self-report form and the other is the observer report. Both forms consist of 26 similar items. 13 positive and 13 negative items were created for each scale. On a 5-point Likert scale, 3, 4, 5, 7, 8, 9, 11, 18, 20, 23, 24, 25, and 26 which are the negative items were added to the previous analysis results. The validity and reliability of the scale were studied on 3 different groups. The NIS Alpha reliability coefficient was .90. It consist eight different nonverbal behavior. The high score obtained from the scale indicates that the level of using nonverbal immediacy behaviors is high and the low score indicates that the level of using these behaviors is low (Richmond et al., 2003; Küçük and İspir, 2017; Aydın et al., 2013; Norton, 1978).

Communicator Style Measure(CSM)
The 51-item Communicator Style Measure developed by Norton (1978) was formed by compiling items with a high correlation coefficient from a 102-item questionnaire. The scale was revised in 1983 to make it more up-to-date and to eliminate deficiencies. The scale was modified in terms of factor distribution by 10 factors (friendly, effective, relaxed, controversial, relevant, precise, nonverbal, dramatizing, clear, dominant) consisting of 4 items and 1 factor (communicator image) consisting of 5 items. Finally it attained its original form with 6 additional items (Dursun and Aydın, 2011).

Dursun and Aydın (2011) removed the 13th, 7th, 39th and 44th items with low reliability coefficients for the scale prepared in 1983 and obtained a valid and reliable (RMSEA: 0.044) Communicator Style Measure with 11 factors and 47 items.

Analysis of Data and Results
Statistical Package for Social Sciences (SPSS) 24.0 and AMOS 21.0 software were used in the statistical analysis of the data. Cronbach alpha internal consistency analyzes of the entire scale and its sub-dimensions were performed in reliability analyzes. In addition, item total and sub-scale total score correlation coefficients demonstrated the reliability of the scale. Exploratory and confirmatory factor analyzes were conducted to reveal the construct validity of the scale.

Exploratory Factor Analysis (EFA)
EFA was used to examine the factor structure of the scale. Before proceeding to the EFA, the convenience of the data set was tested for factor analyses. In this context, it was examined whether the NIS-STr form showed a multivariate normal distribution and as a result, it was found that it followed a multivariate normal distribution. Kaiser-Meyer-Olkin (KMO) coefficient and Barlett's sphericity tests were used to examine the convenience of the exploratory material.

Table 1. NIS-STr KMO and Bartlett Test results

		Values
KMO	KMO Coefficient	0,952
Bartlett Test	Chi-square value	6361,626
	Degree of Freedom	325
	p	0,000

Table 1 shows that the KMO coefficient of the NIS-STr was 0.952. Bartlett's Test of Sphericity was found that the calculated chi-square value of the test was 6361,626 and it was statistically significant ($p < 0.05$). Therefore, it was found that the NIS-STr was convenience for EFA.

Table 2. EFA findings of NIS-STr

1. I use my hands and arms to gesture while talking to people.	0,76
2. I touch others on the shoulder or arm while talking to them.	0,74
3.I use a monotone or dull voice while talking to people.	-0,78
4. I look over or away from others while talking to them.	-0,68

5. I move away from others when they touch me while we are talking.	-0,67
6. I have a relaxed body position when I talk to people.	0,74
7. I frown while talking to people.	-0,58
8. I avoid eye contact while talking to people.	-0,64
9. I have a tense body position while talking to people.	-0,61
10. I sit close or stand close to people while talking with them.	0,72
11. My voice is monotonous or dull when I talkto people.	-0,70
12.I use a variety of vocal expressionswhen I talk to people.	0,70
13. I gesture when I talk to people.	0,75
14. I am animated when I talk to people.	0,63
15.I have a bland face expressions when I talk to people.	-0,51
16. I move closer to people when I talk to them.	0,61
17. I look directly at people while talking to people.	0,63
18. I am stiff when I talk to people.	-0,52
19. I have a lot of vocal variety when I talk to people.	0,69
20. I avoid gesturing while I am talking to people.	-0,70
21. I lean toward people when I talk to them.	0,61
22. I maintain eye contact with people when I talk to them.	0,68
23. I try not to sit or stand close to people when I talk with them.	-0,52
24. I lean away from people when I talk to them.	-0,68
25.I smile when I talk to people.	0,66
26. I avoid touching people when talk to them.	-0,50
Eigenvalue (λ)	**11,30**
Explained variance	**43,463**

Table 2 shows the eigenvalues. In order to examine the factor structure of the NIS-STr, Principal Components method was used in the EFA and varimax transformation was applied to the data set.

When Table 2 was examined, it was found that the NIS-STr was a single factor with an eigenvalue of more than one and 43.463% of the total variance was explained. For factor loadings of the items was determined that some items had positive factor loadings whereas some others had negative factor loadings.A factor load can be negative or positive, and the negative factor load refers to the inverse relationship of the factor with positively charged substances (Kline, 1994) and the factor loadings of a substance on a factor is enough to be at least 0.30 (Tabachnick and Fidell, 2013). As a result of the data obtained, it is observed that the factor loads of the items belonging to NIS-STr vary between -0.78 and 0.76.Since there were no items below ± 0.30 in the scale, it was not necessary to exclude any item. Therefore, it was concluded that NIS-STr is a single-factor scale in parallel with the original scale, consisting of items with negative and positive factor loadings.

Confirmatory Factor Analysis

After the factor structure of NIS-STr was determined, CFA was performed to confirm the conformity of the factor structure of the scale and to reveal the relationships between the factors.

Figure 1.NIS-STr confirmatory factor analysis path diagram

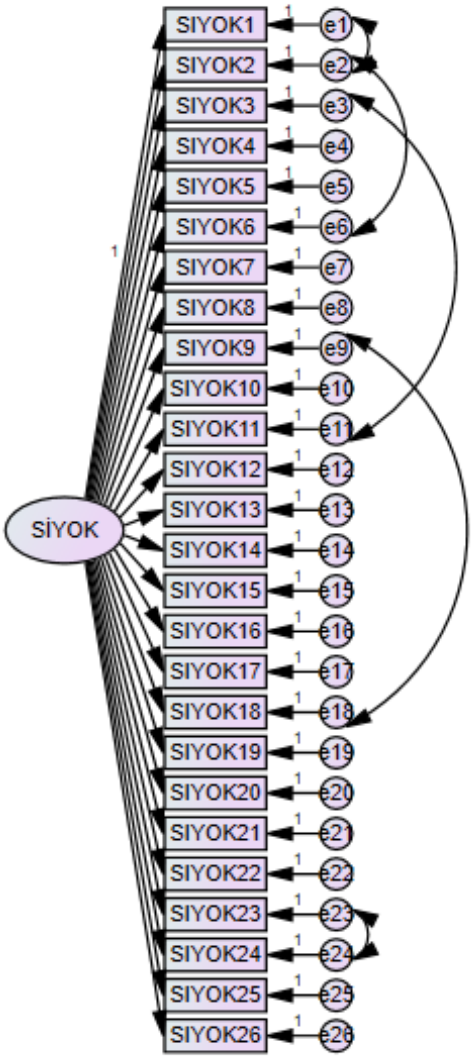

Figure 1, confirmatory factor analysis path diagram of NIS-STr is given. It was found that the scale had a good fit without discarding any items from the single-factor and 26-item scale determined by EFA.

Table 3. Goodness of fit indices of NIS-STr

Index	Value	Limit value	Fit
χ^2/sd	2,259	3-5	Perfect
GFI	0,951	0,90-0,95	Perfect
NFI	0,940	0,90-0,95	Acceptable
CFI	0,981	0,90-0,95	Perfect
RMSEA	0,057	0,5-0,8	Perfect

When the CFA fit index values of NIS-STr in Table 3 are examined, it is seen that χ^2 / sd is 2.259. According to the values, it can be stated that NIS-STr has a perfect fit in terms of χ^2 / sd.

The Goodness Fit Index (GFI), Normed Fit Index (NFI) and Comparative Fit Index (CFI) values of NIS-STr values ranged from 0.940- 0.981 and this values indicates perfect fit.

When the root mean square error (RMSEA) value of the scale specified in Table 3 is examined (RMSEA: 0.057), it is understood that NIS-STr has an acceptable fit in terms of RMSEA.

As a result of all the statistical analyzes regarding the construct validity, it was determined that the NIS-STr was suitable for all fit indices and the construct validity of the scale was ensured.

Criterion Related Validity

The criterion related validity of NIS-STr checked with CSM which the Trukish adaptation studies done before. The validity of NIS- STr and criterion related scales are evaluated with Pearson Corelation statistical analysis.

Table 4. Pearson Corellation Between Communicator Style Measure and NIS- Self Report Turkish Version

		NIS- STr
Friendly	r	0,340
	p	0,000*
Impression leaving	r	0,238
	p	0,000*
Relaxed	r	0,047
	p	0,388
Contentious/argumentative	r	-0,007
	p	0,903
Attentive	r	0,199
	p	0,000*
Precise	r	0,109
	p	0,045*
Animated/ expressive	r	0,435
	p	0,000*
Dramatic	r	0,240
	p	0,000*
Open	r	0,205
	p	0,000*
Dominant	r	0,206
	p	0,000*

***p<0,05**

Table 4 shows the results of the Pearson test which was conducted to determine the relationship between the NIS-STR and Communicator Style Measure scores of the students included in the research.

When Table 4 is examined, it can be seen that significant and positive correlations areseenbetweenNIS-STRscores of students who participated in the research and the scores they obtained from friendly, impression leaving, attentive, precise, nonverbal communicating, dramatic, open and dominant sub-dimensions of the Communicator Style Measure($p<0,05$).

The correlations between NIS-STRscores of students and their scores obtained from friendly, impression-leaving, attentive, precise, dramatic, open and dominant sub-dimensions of the Communicator StyleMeasure is found as weak whereas the correlation with nonverbal communicating sub-dimension is found to be strong

Table 5. Comparison of NIS-STr Scores of Students

Group	**n**	$\bar{x}$	**s**	**t**	**p**
First %27	90	80,00	4,03	-37,874	0,000*
Last %27	90	105,24	4,87		

*p<0,05

Table 5 shows the results of the independent sample t-test, which was conducted to compare the scores of the first 27% of the students who got the lowest score from NIS-STR and the first 27% of the students who got the highest score.

According to the results of the analysis, the first 27% of the students with the lowest scores received an average of 8.0±4.03 points, while the first 27% of the students with the highest scores scored an average of 105.24 ±4.87. It is stated that this difference is statistically significant ($p<0.05$).

Reliability Analysis

In order to examine the reliability of NIS-STr, Cronbach alpha test and Split-Half test were performed and item-total correlations of the scale were examined.

Table 6. Cronbach's Alpha and Split-Half Test results of the Nonverbal Immediacy Scale

CronbachAlpha Test		0,947
Split-Half Test	**I. half CronbachAlpha** (13 items)	0,919
	II. half Cronbach Alpha (13 items)	0,877
	Inter-halves Correlat,on	0,886
	Spearman-Brown	0,939
	GuttmanSplit-Half	0,937

When Table 6 is examined, it is seen that the Cronbach's alpha coefficient of the NIS-STr was 0.947, and according to the Split-Half test result, the Cronbach's alpha coefficient was 0.919 for the first half of the scale and 0.877 for the second half. The correlation coefficient between halves was 0.886, the Spearman-Brown coefficient was 0.939, and the Guttman Split-Half coefficient was 0.937.

Table 7. Nonverbal Immediacy Scale Item-Total Correlations

	Item-Total
1. I use my hands and arms to gesture while talking to people.	0,715
2.I touch others on the shoulder or arm while talking to them.	0,691
3. I use a monotone or dull voice while talking to people.	0,754
4. I look over or away from others while talking to them.	0,652
5. I move away from others when they touch me while we are talking.	0,642
6. I have a relaxed body position when I talk to people.	0,696
7. I frown while talking to people.	0,556
8. I avoid eye contact while talking to people.	0,618
9. I have a tense body position while talking to people.	0,584
10. I sit close or stand close to people while talking with them.	0,672
11. My voice is monotonous or dull when I talk to people.	0,678
12. I use a variety of vocal expressions when I talk to people.	0,651
13. I gesture when I talk to people.	0,708
14. I am animated when I talk to people.	0,581
15. I have a bland face expressions when I talk to people.	0,487
16. I move closer to people when I talk to them.	0,563
17. I look directly at people while talking to people.	0,591
18. I am stiff when I talk to people.	0,502
19. I have a lot of vocal variety when I talk to people.	0,645
20. I avoid gesturing while I am talking to people.	0,679
21. I lean toward people when I talk to them.	0,563
22. I maintain eye contact with people when I talk to them.	0,642
23. I try not to sit or stand close to people when I talk with them.	0,499
24. I lean away from people when I talk to them.	0,656

25. I smile when I talk to people.	0,618
26. I avoid touching people when talk to them.	0,476

Considering the item-total correlations in Table 7, it was seen that the items in the scale had a high correlation with the total and ranged between 0.476 and 0.754. If item '3' was determined as the item with the highest correlation with the total, item 26 was determined as the item with the lowest correlation with the total.

According to the validity-reliability study findings mentioned above, the construct validity of the NIS-STr was found to be similar to the original scale and its reliability values were found to be extremely good. In this case, NIS-STr was determined as a valid and reliable measurement tool.

Gender and Age differences

In the NIS-self report developed by Richmond and McCroskey (2003), the lowest score obtained after the calculation of the reverse items was determined as 26 and the highest score was one 130. IntheoriginalstudyuponNIS-Self report, themean score of the scale was 87.57. In addition, it is shown thatthe total avarages cores obtained from the scale for women is between 92-112 range, the totalaveragescoreobtainedfor men is 83 -104 range. As a result of this study, the average scores between men and womenobtainedforNIS-STrareshown in Table 8, and the average scores determined by age groups are shown in Table 9.

Table 8. The mean and the standard deviations of scale scores according to sex

Sex	N	X	S	Min	Max	sd	t	p
Female	194	93,5361	9,77208	65,00	117,00	354	2.39	.017
Male	162	91,0494	9,71188	57,00	112,00			

*p<0.05

In Table 8 it is seen that, while the lowest score of the female participants was 65 and the highest was 117, the total scores of the male participants ranged from 57 to 112. A statistically significant difference was found between male and female participants (p = .017). In other words, it can be said that female participants use nonverbal immediacy behavior more frequently than male participants.

Table 9. The mean and the standard deviations of scale scores according to age

	N	**X**	**S**	**Min**	**Max**
18-23	129	94,1705	9,40838	70,00	114,00
24-29	168	92,0476	10,20321	57,00	117,00
30- üstü	59	89,5593	8,85179	66,00	107,00

p<0.01

As seen in Table 9, the scale scores of the participantsweresignificantlydiffered in agegroups (p = 0.009). It was seen that the participants between the ages 18-23 received the scores between 70-114, the participants between the ages of 24-29 received a scores between 57-117 and those of the age of 30 and above scored between 66-107. In other words, it can be stated that the participants between the ages of 18-23 exhibited more nonverbal immediacy behaviors than other age groups.

Discussion

In this study, the NIS-Self-Report form (NIS-STr) developed by Richmond, McCroskey and Johnson was adapted to Turkish. The 26-item NIS-STr is a self-report scale. The scale aims to measure the frequency of using nonverbal immediacy behaviors.

NIS-STr is a scale translated into Turkish in 2009 by Erkuş and Günlü in order to use in studies with the title Nonverbal Communication Tendency Scale – Self-evaluation of which reliability and validity was analysed. In the scale, which was understood to have a single factor structure, they identified 16 items with a factor load above .40 and removed 10 items with a factor load below .40 from the scale. The Cronbach's Alpha coefficient was calculated as .89 (Erkuş & Günlü, 2009). The Cronbach's alpha coefficient of the Nonverbal Immediacy Scale was found to be 0.947. In addition to Cronbach's alpha test, the split-half test was applied to the scale.

The factor structure of the scale consisted of items with a single factor structure with negative and positive factor loads parallel to the original scale. Also, It was found that the scale had a good fit without excluding any items from the single-factor and 26-item scale determined by EFA.

In this study revaled that female participants use nonverbal immediacy behavior more frequently than male participants, it can be stated that participants between the ages of 18-23 exhibit more nonverbal immediacy behavior than other age groups. Similarly, on the website where the statistical characteristics of the scale are explained, it is stated that women get higher scores than men. However, according to the age-related analysis results, the scale scores were evaluated in the 13-60 age range. According to the results of the analysis, it is stated that the increase in

adolescence has a tendency to decrease in early adulthood and then rise again in older ages. Similarly, the results of the analysis regarding the gender differences obtained from NIS-STr showed that women scored higher than men and the 18-23 age range scale scores are similar to the original source.

In the original scale, the factor load of two items related to touch was found to be low, but in this study, the related items were found to be valid in terms of factor load. According to McCroskey et al. (1995), while individuals belonging to "intimate cultures" are considered to be people who stay closer, touch more and express more nonverbally while communicating, they cannot express the feelings of communities belonging to the "non-immediate / avoiding interaction" culture. It is stated that it consists of individuals who stay distant while communicating. McCroskey et al. Also state that societies living in hot climates - Mediterranean countries - tend to have warm relationships.

In another cross-cultural study, it is stated that societies belonging to the Eastern culture are more prone to establish immediate close relations at medium level (cited Aydın et al., 2013). Özmen (2011) in a study conducted by the United States, has been working with trainee teachers working in Japan and Turkey. The alpha reliability of the NIS tool was also examined for each culture in the study. Alpha reliability values of the scale were found to be high.

China, Turkey and the United States in a study conducted jointly, 26-point NIS-O (observer form) used and the Cronbach's Alpha coefficient of the scale was found to be significantly higher. In addition, in this study, seven factors were observed in the scale and it was found that 66.28% of the total variance was cumulatively explained (Aydın et al.2013).

Also, According to Frymier (1994) using facial expressions also affects how students feel about their teachers and the classroom environment. Teachers' emotions are conveyed through their faces, and they often unwittingly express their feelings about the student with facial expressions. It seems, it is a frequently used scale in the field of education to measure immediacy behaviors.

Conclusion and Recommendation

According to the findings, NIS-STr which will serve the above mentioned purpose is a valid and reliable measurement tool with single factor.

In the literature, it is striking that there are many studies focusing on teachers' non-verbal immediacy behaviors. Therefore, it can be looked at what kind of results will be obtained if the variables examined within the scope of the study are applied to the adolescent age group. The study can be repeated in sample groups with different age status and educational background. Thus, information about non-verbal momentary behaviors of individuals with different demographic variables can be obtained.

The study can be repeated in sample groups with different age status and educational background. Thus, information can be obtained on nonverbal immediate behaviors of individuals with different demographic variables.

Declarations

Ethics Approval and Consent to Participate
Approval was obtained with the decision number YDÜ/SB/2018/206 from the Near East University Faculty of Health Sciences Non-Interventional Research Ethics Committee and the date of 15.05.2020 for the research to be carried out.

Consent for Publication
Verbal consent was obtained from the pregnant women who volunteered to participate in the study.

Availability of Data and Materials
The data supporting the findings of this study are not publicly available due to restrictions on information that could compromise the privacy of research participants.

Competing Interests
The author declares that no competing interests in this manuscript.

Funding
Not applicable.

Authors' Contributions
Sİ formed the design of the study, conducted the data collection phase and analyzed the data. Sİ wrote the report of the research. All authors have read and approved the final version of the article.

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