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The adaptation of the Postpartum-Specific Anxiety Scale into the Turkish language

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ABSTRACT

Background: The Postpartum Specific Anxiety Scale (PSAS) is used as a descriptive instrument to measure anxiety.
Aim: The aim of this study was to examine the validity and reliability of the Turkish version of the PSAS.
Study Design: The study is of methodological design.
Methods: The study was conducted with 360 women who had given birth four months ago and presented at a Family Health Center. The validity analysis of the data was performed using the content validity index, exploratory factor analysis, confirmatory factor analysis, reliability analysis, Pearson's Moments Multiplication Correlation and Cronbach's Alpha Coefficient of Reliability. Correlation analysis, Cronbach's alpha analysis, and exploratory/confirmatory factor analysis were used in the evaluation of the data.
Results: To assess the consistency of the scale over time, test-retest measurements were taken in a two-week interval. In the analysis of the internal consistency of the PSAS, Cronbach's alpha coefficient of reliability was .90 for maternal competence and attachment anxieties, .89 for infant safety and welfare anxieties, .83 for practical infant care anxieties, .83 for psychosocial adjustment to motherhood, and .94 for the overall scale.
Conclusion: Our study has demonstrated that the Turkish version of the scale is a valid and reliable tool to use.

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Postpartum Specific Anxiety Scale; validity; reliability; postpartum; anxiety

Introduction

Pregnancy and childbirth for many women is a unique time of new beginnings. This period is at also a time when women feel the most fragile, both physically and emotionally. Postpartum mothers experience not only physical and hormonal changes but also a deeply set psychological process of transition. The process of passing from pregnancy to new motherhood is a very different experience for every woman. While some women may show extreme enthusiasm with feelings of unfettered love for their baby, others may find the period quite overpowering. The physical and psychological challenges that all mothers face may for some turn into depression or signal the onset of serious health

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problems that encompass anxiety (Demirkol, Simsek, Yilmaz, & Tamam, 2018; Erdem, Bucaktepe, Ozen, & Kara, 2010; Ustgorul & Yanikkerem, 2017). While numerous studies on postpartum depression have been added to the literature in recent years, the number of studies on postpartum anxiety is limited.

Postpartum anxiety is a normal reaction to the birth of a new baby. In fact, it is impossible to avoid anxiety in the presence of a newborn baby at home. Anxiety is one of the universal aspects of being a mother. Additionally in the postpartum period, women not only face the challenges of adjusting to the role of motherhood and caring for an infant but also are susceptible to high levels of anxiety in other aspects, such as experiencing a lack of social support. The prevalence of clinical postpartum anxiety symptoms is reported to be 12%-20% (Fallon, Halford, Bennett, & Harrold, 2016; Figueiredo & Conde, 2011; Paul, Downs, Schaefer, Beiler, & Weisman, 2013). The focus of postpartum anxiety is generally the newborn; besides concerns related to the newborn's welfare and safety, factors such as household responsibilities and financial issues underlie many aspects of anxiety. Additionally in this period, there is high comorbidity in terms of mood and anxiety disorders (Demirkol et al., 2018; Dennis et al., 2018; Umylny, German, & Lantiere, 2017; Ustgorul & Yanikkerem, 2017). Psychiatric issues that are observed during pregnancy and the postpartum have multidimensional adverse impacts on not only the mother and the newborn, but all the members of the family (Fallon, Halford, Bennett, & Harrold, 2018).

Because mental health is not routinely evaluated during the postpartum in many countries as yet, women suffering from mental health problems in this period are left to their own devices. In the few articles in the Turkish literature on postpartum anxiety (Donmez et al., 2017; Donmez, Yeniel, & Kavlak, 2014; Erdem et al., 2010; Yildiz & Akbayrak, 2014) it can be seen that various tools of measuring general symptoms of anxiety have been used. Anxiety specific to the postpartum period however should be assessed separately. Fallon et al. (2016) have developed and added the Postpartum-Specific Anxiety Scale (PSAS) to the literature for the assessment of postpartum anxiety. The PSAS is a measuring tool designed specifically for the evaluation of anxiety experienced in the postpartum period. The scale is a four-point Likert-type of measuring tool consisting of 51 items that assess "maternal competence and attachment anxieties", "infant safety and welfare anxieties", "practical infant care anxieties" and "psychosocial adjustment to motherhood." Higher scores on the scale are regarded as indicating more intense symptoms of anxiety.

This study addresses Turkey's need for a useful means of assessing and supporting postpartum women and their symptoms of anxiety specific to this period through the adaptation of the Postpartum-Specific Anxiety Scale (PSAS) into the Turkish language.

Material and Methods

This is a methodological study that was carried out in August 2018 – December 2018 with mothers applying to a Family Health Centre in Istanbul to have their 4-month-old infants receive a routine check-up and inoculations. The women were selected for inclusion in the study using the non-probability sampling technique from among those who consented to participating in the research, who understood and could communicate in Turkish, and had no physical or psychiatric condition that would prevent them from participating. Data were collected via the face-to-face interview technique. Since the recommendation for establishing sample size is to recruit a number of individuals that is 5–10 times the number of items in

a scale (Esin, 2014; Gozum & Aksayan, 2002), a minimum of 255 individuals, which was 5 times the number of items (51), were planned to be recruited into the sample group. However, considering possible losses, the sample size was ultimately brought up to 360, 7 times the number of items.

Data were collected with the Descriptive Information Form and the Postpartum-Specific Anxiety Scale (PSAS). *Descriptive Information Form*: This consists of questions regarding the participants' sociodemographic, obstetric-gynaecological and postpartum-specific features. *The Postpartum Specific Anxiety Scale*: Developed by Fallon et al. (2016), this scale is used to assess symptoms of postpartum anxiety. Permission was obtained from Victoria Fallon for the Turkish validation and reliability testing of the scale. The PSAS is in no way a diagnostic instrument. It is a tool that was developed for the purpose of screening postpartum women for symptoms specific to the period and to assess not the severity of the symptoms but their frequency. The original scale was developed and validated with mothers of 0–6-month-old infants. The PSAS contains items related to the anxiety and emotional discomfort that mothers feel with respect to their infants. Since the PSAS only reflects the experiences of women in the last 7 days, it can be applied more than once to follow up on changes that take place in the postpartum period. In the development and validation of the original form of the instrument, mothers were asked to answer the questions based on their experiences in the last 7 days. The instrument developed by Fallon et al. (2016) is a self-reporting, 51-item scale. Items 5, 15, 20, 26, 27, 32 and 46 in the original scale were removed from the Turkish version since the needed criteria for validity and reliability could not be attained; the study was then carried out on the basis of 44 items. The items in the scale were numbered consecutively from 1 to 44 after the mentioned original items were removed.

The Postpartum-Specific Anxiety Scale (PSAS):

Factor 1 Maternal competence and attachment anxieties: This factor consists of a total of 15 items numbered from 1 to 15.

Factor 2 Infant safety and welfare anxieties: This factor group consists of a total of 12 items numbered from 16 to 27.

Factor 3 Practical infant care anxieties: This factor group consists of a total of 11 items numbered from 28 to 38.

Factor 4 Psychosocial adjustment to motherhood: This factor group consists of a total of 6 items numbered from 39 to 44.

Each item on the scale is scored on the basis of 1 = Not At All, 2 = Not Very Often, 3 = Often and 4 = Almost Always. Items 5, 6, 8, 10, 11, 12, 15, 16, 17, 19, 21, 23, 27, 28, 31, 35, 36, 38, 39, 40, 41, 44 are reversely coded. All of the questions must be answered for a correct assessment. The highest possible score on the scale is 176. The higher scores on the scale indicate more intense symptoms of anxiety (Fallon et al., 2016).

Approval for the study was obtained from the Ethics Board of XXX University Health Sciences Institute (02.04.2018–114). Additionally, the purpose, methodology and the contributions expected from the study were explained to the women meeting the inclusion criteria who had willingly consented to participate.

The data collected were analyzed using the SPSS 21.0 package programme (SPSS Inc., Chicago, Illinois USA) and the SPSS Amos (Analysis of Moment Structures) 6.0 programme. In the analysis of the scale in terms of consistency over time, the test–retest method was used and Pearson's Correlation coefficient was calculated. The internal consistency of the scale was assessed using Pearson's moment correlation coefficient to find item-total correlation

coefficients and Cronbach's alpha reliability coefficient was employed to find the coefficient of internal consistency. The Lawshe technique was used to evaluate the experts' opinions on the scale's content validity, and Exploratory Factory Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used to evaluate construct validity.

Results

The mean age of the women in the study was 28.74 ± 5.96 (min:17, max:46); more than half (72.2%) had an education of 8 years or more. A large majority of the participants were members of a nuclear family (85.8%) and more than half (67.5%) had a level of income equal to their expenditure. A large majority of the participating women (87.2%) indicated they had a good relationship with their husbands; a small percentage (2.8%) was found to have received a psychiatric diagnosis prior to their pregnancy and another 1.9% received such a diagnosis at postpartum.

Language equivalence, content validity analysis

In order to assess the content validity of the instrument, the original English version of the PSAS was translated into Turkish by a faculty member who was a psychiatric nurse, a faculty member who was an obstetrics and gynaecology nurse, and an English instructor. The researchers reviewed the translated scale and collaborated in creating a Turkish text. This text was then evaluated by a Turkish teacher for linguistic suitability and comprehensiveness. In the next stage, the Turkish version of the scale was back translated blind into English by two individuals, one a faculty member who had completed a doctorate and lived abroad and the other an individual who was studying and living abroad. The back translation of the scale was re-translated into Turkish by a faculty member. This version was reviewed in terms of whether it had changed in meaning from the original scale and then the final form of the scale was drawn up.

Content analysis

After the linguistic equivalence of the scale was confirmed, the Turkish version was submitted to 14 experts for content validity analysis. The experts were asked to score each item on a scale between 1 and 5 (1 point: Inappropriate; 2 points: Slightly appropriate; 3 points: I'm undecided; 4 points: Appropriate; 5 points: Very appropriate). The differences in opinion among the experts were examined using the Lawshe technique and the data obtained from the experts were analysed using the Content Validity Index (CVI). Ultimately, the content validity index for the items was found to be 83%. At the end of the evaluations of the experts, the scale agreed upon was administered to 20 individuals outside of the study sample in a pilot study and needed revisions were made.

Item analysis

When the item-total score correlations of the 51 items were examined for the reliability testing of the PSAS, the reliability coefficient was found to range between 0.31 and 0.70 and it was seen that there was a positive and statistically significant correlation between the

item scores and the overall scale score ($p < 0.01$) (Table 1). The examination of the item-subscale total scores on each of the subscales of the PSAS showed that in Factor 1, Maternal competence and attachment anxieties, the reliability coefficients (Pearson's correlation) of the 15 items ranged from $r = 0.45$ to 0.70. In Factor 2, Infant safety and welfare anxieties, the reliability coefficients of the 12 items ranged from $r = 0.46$ to 0.70. In Factor 3, Practical infant care anxieties, the reliability coefficients of the 11 items ranged from $r = 0.39$ to 0.66. In Factor 4, Psychosocial adjustment to motherhood, the reliability coefficients of the 6 items ranged from $r = 0.50$ to 0.72. It was observed that all of the correlation coefficients for all of the items were positive and statistically significant ($p < 0.001$) (Table 1).

Internal consistency reliability coefficient

In the reliability analysis performed for the PSAS, it was noted that Cronbach's Alpha reliability coefficient for the subscale of Maternal competence and attachment anxieties was $\propto = 0.900$. Cronbach's alpha for Infant safety and welfare anxieties was $\propto = 0.890$; the coefficient for Practical infant care anxieties was $\propto = 0.835$, the coefficient for Psychosocial adjustment to motherhood was $\propto = 0.838$ (Table 2), while the coefficient for the overall scale was $\propto = 0.949$ (Table 1).

Test and retest

In testing the consistency over time of the Turkish version of the PSAS, the 360 women participating in the first assessment were invited to the Family Health Centre to respond to the scale for a second assessment. Only 70 women (19.44% of the participants) came back to the Family Health Centre two weeks later to respond to the questions on the scale. The test–retest measurements made two weeks apart were assessed with Pearson's Product Moment Correlation and the dependent samples t-test. When the correlation between the scores of the first and second administration of the PSAS and its subscales were examined using Pearson's correlation analysis, it was seen that the reliability coefficients for the difference between the two measurements of the scale and its four subscales ranged between .90 and .80, demonstrating a strong, positive, statistically and significantly high correlation ($p < 0.001$) (Table 2). When the mean scores of the participants' test and retests were compared using the Dependent samples t test, no statistically significant difference was found between the mean scores ($p > 0.05$, Table 2).

Construct validity

A confirmatory factor analysis was performed to verify that the factors were suitable for testing construct validity. The goodness of fit indices found in the four-factor CFA were chi-square = 4881.912 ($p = .000$), Degree of Freedom = 1218 ($X^2 = 4881.912$; df = 1218, X^2/df = 4.008), RMSEA = .092 ($p < .05$) CFI = .59, NNFI = .52, GFI = .59, AGFI = .55. The results of the confirmatory factor analysis for all of the items revealed that the standardised regression weight of 7 items were below .30 (items M5, M15, M20, M26, M27, M32, M46 in the original scale) and were therefore removed from the scale; the remaining 44 items were renumbered and subjected to another confirmatory factor analysis.

Table 1. PSAS subscales item-subscale total score correlations (n = 360).

	Item-Subscale Total Score Correlation Coefficients		Item-Total Score Correlation Coefficients		Cronbach's Alpha
Scale Subscales and Items	r	P	r	p	∝
Factor 1 Maternal competence and attachment anxieties					.900
Item 1	.617	.000	.596	.000	
Item 2	.602	.000	.555	.000	
Item 3	.586	.000	.551	.000	
Item 4	.481	.000	.500	.000	
Item 5	.636	.000	.557	.000	
Item 6	.539	.000	.476	.000	
Item 7	.637	.000	.575	.000	
Item 8	.541	.000	.581	.000	
Item 9	.581	.000	.432	.000	
Item 10	.594	.000	.516	.000	
Item 11	.612	.000	.577	.000	
Item 12	.595	.000	.548	.000	
Item 13	.601	.000	.602	.000	
Item 14	.502	.000	.508	.000	
Item 15	.613	.000	.638	.000	
Factor 2 Infant safety and welfare anxieties					.890
Item 16	.544	.000	.523	.000	
Item 17	.704	.000	.699	.000	
Item 18	.675	.000	.557	.000	
Item 19	.691	.000	.613	.000	
Item 20	.642	.000	.622	.000	
Item 21	.705	.000	.702	.000	
Item 22	.637	.000	.548	.000	
Item 23	.486	.000	.511	.000	
Item 24	.497	.000	.478	.000	
Item 25	.546	.000	.559	.000	
Item 26	.462	.000	.440	.000	
Item 27	.628	.000	.575	.000	
Factor 3 Practical infant care anxieties					.835
Item 28	.493	.000	.544	.000	
Item 29	.663	.000	.563	.000	
Item 30	.390	.000	.308	.000	
Item 31	.485	.000	.421	.000	
Item 32	.473	.000	.395	.000	
Item 33	.438	.000	.370	.000	
Item 34	.534	.000	.356	.000	
Item 35	.572	.000	.635	.000	
Item 36	.557	.000	.519	.000	
Item 37	.523	.000	.597	.000	
Item 38	.498	.000	.562	.000	
Factor 4Psychosocial adjustment to motherhood					.838
Item 39	.672	.000	.696	.000	
Item 40	.503	.000	.418	.000	
Item 41	.646	.000	.677	.000	
Item 42	.724	.000	.694	.000	
Item 43	.563	.000	.440	.000	
Item 44	.589	.000	.590	.000	
Overall Scale					.949

Next an exploratory factor analysis was performed to test the construct validity of the PSAS. Since the PSAS in the study had 51. items, the factor analysis was performed on data that represented at least 5–10 times the number of items (n = 360). To understand whether the data was suitable for factor analysis, the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy was employed along with Bartlett's test to determine the significance of the correlations between the variables to be analysed and to test the null hypothesis.

Table 2. Comparison of test/retest mean scores of PSAS and its subscales and correlations (n = 70).

Scale and Subscales	Initial Application Mean±SD	Second Application Mean±SD	t	p	r	p
PSAS (Total)	112.27 ± 3.76	112.15 ± 3.54	.572	.569	.897	.000
1. Maternal competence and attachment anxieties	36.21 ± 2.30	36.04 ± 2.14	1.180	.242	.853	.000
2. Infant safety and welfare anxieties	31.17 ± 1.73	31.21 ± 1.78	−.354	.725	.833	.000
3. Practical infant care anxieties	28.71 ± 1.90	28.70 ± 1.99	.098	.922	.803	.000
4. Psychosocial adjustment to motherhood	16.17 ± 1.78	16.20 ± 1.62	−.228	.820	.813	.000

The Kaiser-Meyer-Olkin coefficient was found to be 0.92, and the chi-square value in Bartlett's test was (X^2 = 8527.140; df = 946; p = .000), demonstrating strong significance (p < 0.001) and confirming that the data were adequate and suitable for factor analysis.

The 44-item Postpartum-Specific Anxiety Scale and its subscales revealed a 4-factor construct with eigenvalues over 1.00 that explained 48.94% of total variance (Table 3).

***Some items appeared under factors different from where they appeared in the original scale and the factors were named as follows*:**

1 Maternal competence and attachment anxieties subscale: This factor consisted of a total of 15 items numbered from 1 to 15.

2 Infant safety and welfare anxieties subscale: This factor group consisted of a total of 12 items numbered from 16 to 27.

3 Practical infant care anxieties subscale: This factor group consisted of a total of 11 items numbered from 28 to 38.

3 Psychosocial adjustment to motherhood subscale: This factor group consisted of a total of 6 items numbered from 39–44.

Following the EFA, the goodness of fit indices found for the four-factor, 44-item scale in the CFA were chi-square = 3114.278 (p = 0.000), Degree of Freedom = 896 (X2 = 3114.805; df = 896, X2/df = 3.48), RMSEA = .083 (p < .05) CFI = .722, NNFI = .651, GFI = .712, AGFI = .644. The diagram for the Confirmatory Factor Analysis can be seen in Figure 1.

In order to predict and differentiate the performance on the PSAS of individuals currently experiencing anxiety or diagnosed with depression from that of others, a Receiver Operating Characteristic curve analysis (ROC) was performed. A statistically significant ROC curve (AUC 1.00; SE 0.00; p < .001;% 95 CI 1.00, 1.00; Figure 2) indicated an optimal cut-off PSAS score of 113.5 for clinical anxiety and depression levels and it was found that sensitivity and specificity were 0.78 and 0.26, respectively.

It was found that the women in the study exhibited a PSAS mean score of 112.79 ± 4.11 and that 55.6% scored above the cut-off point of 113.5, indicating levels of anxiety.

Discussion

A validity and reliability study of the Postpartum-Specific Anxiety Scale was carried out in this research and our results led to the conclusion that the psychometric features of the Turkish version of the PSAS were at a good level.

The reliability analysis of the PSAS was performed with the implementation of a test-retest, internal consistency and item analysis. Test–retest reliability refers to the power of the measuring instrument to produce consistent results at each measurement, maintaining that consistency over time. A statistically significant test–retest correlation in the PSAS

Table 3. Factor construct for the scale, eigenvalues and explained variance.

PSAS Subscales	Item number	Scale item	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*
	Item 1	I have had negative thoughts about my relationship with my baby.	.563			
Factor 1	Item 2	I have worried about the bond that I have with my baby.	.609			
Maternal	Item 3	I have worried that other people think that my parenting skills are inadequate.	.550			
competence	Item 4	I have worried about the length of time that my baby sleeps.	.433			
and	Item 5	I have felt resentment towards my partner.	.707			
attachment	Item 6	I have felt tired even after a good amount of rest.	.604			
anxieties	Item 7	I have worried more about my relationship with my partner than before my baby was born.	.605			
	Item 8	I have worried that I am not going to get enough sleep.	.434			
	Item 9	I have worried that my partner finds me less attractive than before my baby was born.	.704			
	Item 10	I have worried more about my appearance than before my baby was born.	.643			
	Item 11	I have had difficulty sleeping even when I have had the chance to.	.592			
	Item 12	I have worried more about my relationship with my friends than before my baby was born.	.546			
	Item 13	I have felt isolated from my family and friends.	.501			
	Item 14	I have worried more about my finances than before my baby was born.	.473			
	Item 15	I have felt that when I do get help it is not beneficial.	.547			
Factor 2	Item 16	I have felt that my baby would be better cared for by someone else.		.519		
Infant safety and welfare anxieties						
	Item 17	I have felt unconfident or incapable of meeting my baby's basic care needs.		.620		
	Item 18	I have felt that other mothers are coping with their babies better than me.		.730		
	Item 19	I have felt that I am not the parent I want to be.		.664		
	Item 20	I have worried I will not know what to do when my baby cries.		.573		
	Item 21	I have worried about how I will cope with my baby when others are not around to support me.		.600		
	Item 22	I have worried about being unable to settle my baby.		.680		
	Item 23	I have worried that my baby is less content than other babies.		.457		
	Item 24	I have felt that motherhood is much harder than I expected.		.442		
	Item 25	I have worried about accidentally harming my baby.		.493		
	Item 26	I have worried about my baby's weight.		.506		
	Item 27	I have worried about getting my baby into a routine.		.624		
Factor 3	Item 28	I have worried that my baby is picking up on my anxieties.			.429	
Practical infant care anxieties						
	Item 29	I have worried about my baby being accidentally harmed by someone or something.			.670	
	Item 30	I have repeatedly checked on my sleeping baby.			.554	
	Item 31	I have worried that my baby will stop breathing while sleeping.			.484	
	Item 32	I have felt frightened when my baby is not with me.			.467	
	Item 33	I have thought of ways to avoid exposing my baby to germs.			.597	

(*Continued*)

Table 3. (Continued).

PSAS Subscales	Item number	Scale item	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*
	Item 34	I have not taken part in an everyday activity with my baby because I fear they may come to harm.			.632	
	Item 35	I have worried about my baby's health even after reassurance from others.			.503	
	Item 36	I have worried that I will become too ill to care for my baby.			.525	
	Item 37	I have worried about the way that I feed my baby.			.468	
	Item 38	I have worried that my baby is not developing as quickly as other babies.			.509	
Factor 4 Psychosocial adjustment to motherhood	Item 39	I have worried more about my relationship with my family than before my baby was born.				.536
	Item 40	I have worried more about completing household chores than before my baby was born.				.623
	Item 41	I have felt that I do not get enough support.				.531
	Item 42	I have been less able to concentrate on simple tasks than before my baby was born.				.606
	Item 43	I have felt unable to juggle motherhood with my other responsibilities.				.664
	Item 44	I have felt that I have had less control over my day than before my baby was born.				.559

	Percentage of Variance Explained by the Factors	Eigenvalue
Factor 1	*33.260*	14.635
Factor 2	*6.824*	3.003
Factor 3	*4.527*	1.992
Factor 4	*4.329*	1.905
Total Variance Explained	**% 48.941**	

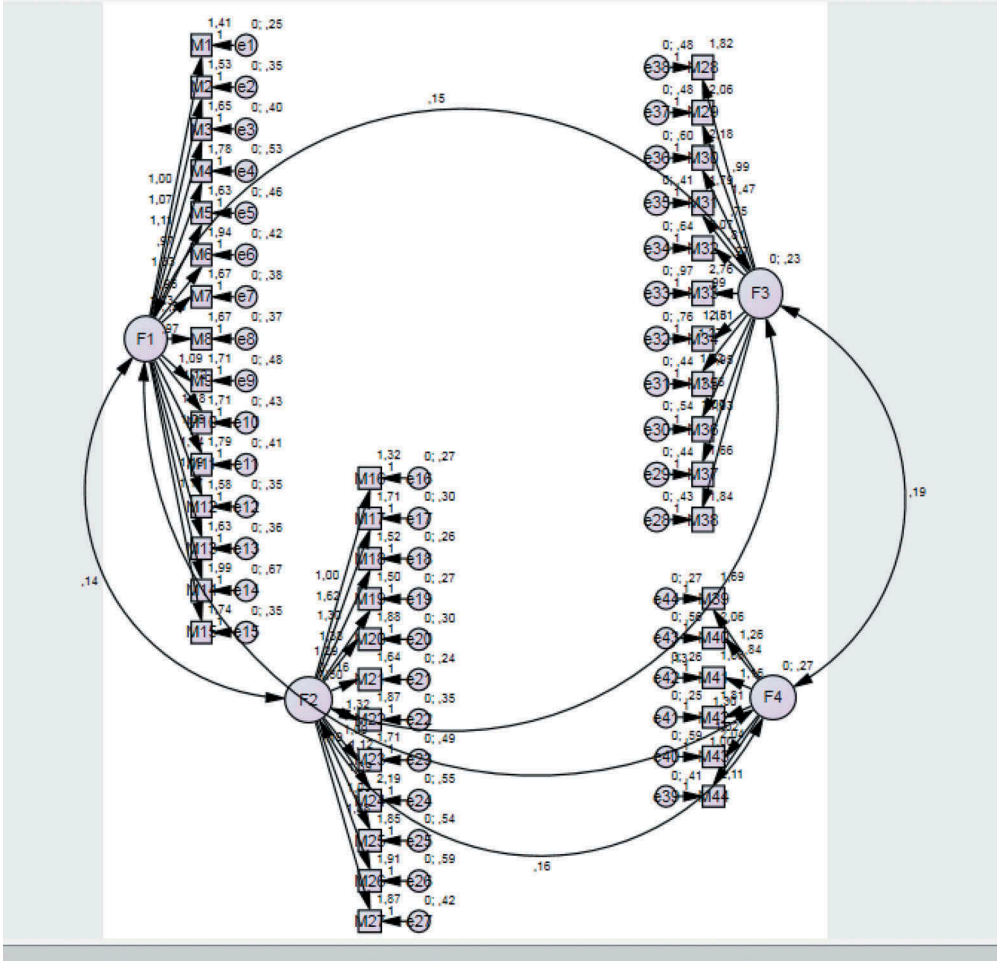

Figure 1. PSAS confirmatory factor analysis diagram.

is taken to mean that the scores on the scale support reliability in terms of the instrument's consistency over time (Erefe, 2004; Esin, 2014; Gozum & Aksayan, 2002; Oner, 2006). Another finding that supports the reliability of the scale is the level of significance of the scale's internal consistency coefficient. The technique of using Cronbach's alpha in Likert-type scales was employed to assess internal consistency. It is assumed that the higher the alpha coefficient of the scale, the more this indicates that the items in the scale are consistent and intercorrelated with each other and the more the scale is accepted to contain a set of items that predict the same elements of a construct. A function of the average covariance between items and the variance of the total score, coefficient alpha is a value between 0 and 1 and is used to determine whether the questions in a scale can be used to homogeneously explain a construct (Esin, 2014; Oner, 2006). In the study of the reliability of the Turkish version of the Postpartum-Specific Anxiety Scale, the analysis for internal consistency demonstrated that Cronbach's alpha reliability coefficient was at the desired level in all four dimensions.

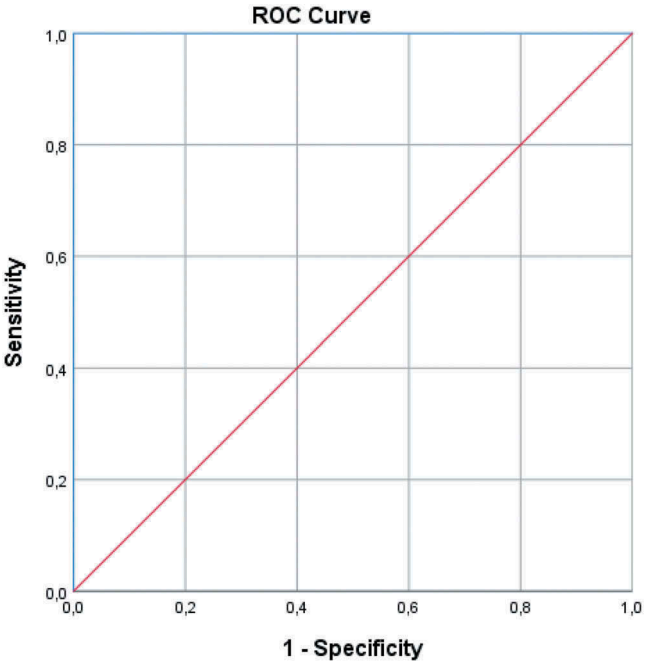

Figure 2. Roc curve.

If the items in a scale are equally weighted and independent units, it is expected that the correlation coefficient between each item and total values will be high. The higher the correlation coefficient, the more it is expected that the item will be correlated with the attribute meant to be measured. Although there is no standard as to under which criteria the item-total correlation coefficient will be considered an inadequate indication of reliability, it is advised that the correlations not be negative or exceed 0.25 or 0.30. The higher the correlation coefficient, the better the reliability attributed to the items (Esin, 2014; Oner, 2006). It was found in the analysis of each of the item-total score correlations in the subscales performed for testing the reliability of the Postpartum-Specific Anxiety Scale that all of the subscales fulfilled the criteria.

When the experts reviewed the items in terms of content validity, there was a high degree of agreement as to the fact that the scale matched the form of the original instrument. The high degree of interrater agreement is an important finding for content validity.

In order to confirm the suitability of the factors of the Turkish version of the scale in terms of construct validity, each of the dimensions was subjected to confirmatory factor analysis. The most commonly employed goodness of fit tests are the chi-square goodness of fit test, Root Mean Square Error of Approximation (RMSEA), Standardised Root-mean-Square Residual (SRMR), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI) (Erefe, 2004; Esin, 2014; Gozum & Aksayan, 2002; Oner, 2006). The goodness of fit statistics resulting from confirmatory factor analysis must be at the desired levels. For the model to be acceptable, the chi-square value must be non-significant. In this study, it was found that

the chi-square value was non-significant in all of the dimensions, meaning that the model exhibited a good fit.

A RMSEA value equal to or less than 0.08 with a p value of less than 0.05 (statistical significance) indicates a good model fit while a value equal to or less than 0.10 is a poor model fit. In this study, RMSEA was found to be significant in each dimension, signifying a good fit. Factor loadings should not be less than 0.30. SRMR values of less than 0.10, CFI, GFI and NNFI values equal to or greater than 0.90, AGFI values equal to or greater than 0.80 indicate a good model fit (Erefe, 2004; Esin, 2014; Gozum & Aksayan, 2002; Oner, 2006). It was seen that the Postpartum-Specific Anxiety Scale fulfilled the conditions of all of the goodness-of-fit indexes.

Research limitations

The fact that the data for the study were based on self-reporting is an important limitation to the study. Since all of the data collected on postpartum anxiety relied on personal statements, allowance should be made for a margin of error. It would not be possible to make a diagnosis of anxiety disorder relying only on an assessment based on this scale or on its original. It should not be forgotten that the function of the scale and of its scores are meant to serve as a guide to psychotherapists and psychiatrists. Another important limitation to the study was that it was conducted at a family health centre and did not include women from outside facilities such as this. Since the research was carried out only at a Family Health Centre located in Istanbul, the results cannot be generalised to all postpartum women. Another limitation was that due to Turkey's culture and health policies, the focus of healthcare is more concentrated on the antenatal period and postnatal women are considered to be in a normal state of health and provided only superficial care. Women accept the fact that their condition is normal and refrain from seeking medical attention.

Conclusion

The results of the validity and reliability studies of the Turkish version of the Postpartum-Specific Anxiety Scale showed that the easy-to-implement, comprehensible and quickly applicable features of the scale make it an instrument that can be recommended as a tool to identify anxiety in postpartum women. The scale can be used to identify anxiety in postpartum women as well as serve as a means of early detection of psychological issues, providing guidance to psychotherapists and psychiatrists and to other health-care professionals if needed, before problems become unmanageable.

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Resources

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