

## ORIGINAL PAPER

# Turkish version of the Pregnancy Experience Scale-Brief: validity and reliability study

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## Abstract

**Aim:** To identify the validity and reliability of the Turkish version of the Pregnancy Experience Scale-Brief Version (PES-Brief). **Design:** A methodological study. **Methods:** The sample of this methodological research consisted of 201 pregnant women. Face, language, content, construct, and convergent validity analyses were used. The retest was administered to 40 randomly selected pregnant women in the sample after four weeks from the first data collection. **Results:** The Cronbach alpha score of PES-Brief for uplifts was 0.77 and 0.87 for the retest. The Turkish version was found to be grouped under two factors. **Conclusion:** Turkish translated version of PES-Brief is a valid and reliable instrument to assess pregnant women's positive or negative perceptions. The PES-Brief may be a time-saving tool to assess negative and positive pregnancy experiences.

**Keywords:** experience, health, pregnancy, reliability, validity.

## Introduction

Pregnancy is a unique experience for women. This physiological process, which starts with fertilization and ends with birth, creates important psychological and emotional changes in women (Aksay et al., 2017; Babacan et al., 2011; Kumcağız, 2012). It is considered natural for a woman to experience both excitement and anxiety regarding the physical changes occurring in her body, unknown waiting, the birth process, and postpartum life. Problems that may affect compliance with this physiological process may arise due to such reasons as giving birth at high numbers and at frequent intervals and having an unhealthy fetus and a chronic disease. During pregnancy, difficulties experienced by women are an important source of stress for them and may cause psychosocial problems such as anxiety, fear, and depression in pregnant women. Social and psychological problems experienced during pregnancy are known to increase the complications of pregnancy and to negatively affect the health of the mother and baby both during pregnancy and after birth (Babacan et al., 2011;

Bergbom et al., 2017; Nakamura, 2010; Siegel & Brandon, 2014). According to the World Health Organization (WHO), women should receive healthcare of good quality in the antenatal and postpartum period (Tunçalp et al., 2017; World Health Organization, 2016). Healthcare services of good quality that women will receive in the antenatal and postpartum periods will enable a more positive pregnancy and birth experience. In the literature, the number of studies evaluating the pregnancy experiences of pregnant women is limited (Lilienfeld et al., 2016; McManus et al., 2017). Positive pregnancy experience is known to have positive effects on both mother and fetus (Downe et al., 2016). From this point of view, positive or negative pregnancy experience can be considered an indicator of the quality of healthcare services provided in the antenatal and postnatal periods.

DiPietro et al. developed the Pregnancy Experience Scale (PES-Long) in 2004 to assess pregnant women's pregnancy experiences (DiPietro et al., 2004). PES-Long consists of 41 questions, each of which is scored twice (for uplifts and hassles). In their article, DiPietro and colleagues (2008) stated that researchers gave feedback that they experienced difficulty administering the scale to groups with low

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literacy levels (DiPietro et al., 2008). Therefore, the same authors developed the shortened version of the scale, since it took a long time to answer the first version of the scale (DiPietro et al., 2008). According to our previous experience, the long version of the scale (PES-Long) was a long and difficult questionnaire for pregnant women to answer. Administering the PES-Brief can be easier, time-saving, and used for low-education populations or underdeveloped regions.

## Aim

This study was conducted to determine the validity and reliability of the Turkish version of the PES-Brief.

## Methods

### Design

This methodological research was conducted in a training and research hospital in Giresun province between August 2019 and January 2020.

### Sample

The research universe consisted of pregnant women at between 20 and 40 weeks of gestation who applied to receive antenatal care. This study used the GRRAS (Guidelines for Reporting Reliability and Agreement Studies) checklist for reporting.

In determining the sample size, it has been recommended that the sample size be at least five to ten times more than the number of scale items for reliable factor analysis (Güngör, 2016; Sousa & Rojjanasrira, 2011). Based on this suggestion, 201 pregnant women who met the inclusion criteria and agreed to participate in the study were included.

### Data collection

#### Instruments

Data collection tools used in the study were as follows: the Sociodemographic Characteristics Form and the Obstetric Characteristics Form developed by researchers according to the relevant literature and the brief (DiPietro et al., 2008), and long (DiPietro et al., 2004; Esmeray et al., 2017) versions of PES.

#### *Sociodemographic and Obstetric Characteristics Data Collection Form*

This form consists of 10 questions about the sociodemographic (age, sex, marital status, type of family, income, etc.) and 16 questions obstetric characteristics (number of pregnancy, number of children, planning status of pregnancy, the experience of abortion / curettage, etc.) of women.

### *Pregnancy Experience Scale Brief Version*

The scale is an abbreviated version of the PES-Long (DiPietro et al., 2008); it measures maternal exposures to daily, on-going uplifts, and hassles specific to pregnancy and is derived from the general Hassles and Uplifts Scale (Delongis et al., 1988). The consent of the authors of the scale is required for use. The PES-brief version consists of the ten most frequently endorsed uplifts and ten hassles, each of them rated between 0 (not at all) to 3 (a great deal). Each item in the PES-Brief is rated for only one dimension (a hassle / an uplift). On the scale, women evaluate positive feelings with these items: “How much the baby is moving”, “Discussions with spouse about baby names”, “Thinking about the baby’s appearance”, etc. And they evaluate negative feelings with these items: “Getting enough sleep”, “Physical intimacy”, “Normal discomforts of pregnancy (heartburn, incontinence)”, etc. Six different scores can be calculated with this scale, such as hassles frequency, uplifts frequency, computed by counting the number of items that are rated with numbers bigger than 0; the intensity of hassles and intensity of uplifts, computed as the sum of scale scores (1–3) divided by hassles or uplifts frequency; and two hassles: uplifts ratio scores calculated by splitting hassles frequency scores by uplifts frequency scores and splitting hassles intensity scores by uplifts intensity scores (DiPietro et al., 2008). Cronbach alpha value for uplifts was found as 0.82 and for hassles 0.83 in the original version of the scale (DiPietro et al., 2008).

### *Pregnancy Experiences Scale-Long Version*

This scale was developed by DiPietro et al. in 2004 to determine whether women had positive or negative perceptions about their pregnancy and the difficulties related to pregnancy (DiPietro et al., 2004). Esmeray et al. performed the Turkish version of the scale in 2017 (Esmeray et al., 2017), and the consent of the authors of the scale is required for use. The scale consists of 41 questions. The statements in the scale were created to evaluate whether they make pregnant women feel happy or unhappy. Each item is rated on a four-point Likert-type scale ranging from 0 to 3 (0 – not at all; 1 – somewhat; 2 – quite a bit; 3 – a great deal). There is a left and right column for each item where the pregnant can indicate a score for positive or negative emotions. The numbers on the right side of the expression are marked if pregnant women feel positive emotions. However, those feeling negative emotions mark one of the numbers on the left side of the relevant expression. Values above one on the right and left side indicate an increase in positive and negative emotions,

respectively (DiPietro et al., 2004; Esmeray et al., 2017).

There are five subfactors in PES-Long. These are mental and physical preparations for the baby (questions 4, 5, 8, 9, 10, 25, 26, 37), changes in both her and her spouse's lifestyle (questions 6, 7, 13, 14, 19, 22, 32, 33, 38), relationships with family and friends (questions 16, 17, 18, 20, 21, 23, 24, 28, 29, 39), events and concerns during pregnancy (questions no. 11, 15, 27, 31, 34, 35, 36, 40, 41), and body image and attitudes toward herself (questions no. 1, 2, 3, 12, 30). Each subfactor is evaluated with the frequency and intensity scores of positive-negative emotions (DiPietro et al., 2004; Esmeray et al., 2017).

The frequency score of PES-Long is the number of items that women have marked except for "0" and is calculated separately for positive and negative emotions. The intensity score of PES is calculated by dividing all scores of women except the "0" score by the frequency score. The frequency ratio is calculated by dividing the frequency score of negative emotions with the frequency score of positive emotions. The intensity ratio is calculated by dividing the intensity score of negative emotions with the intensity score of positive emotions (DiPietro et al., 2004; Esmeray et al., 2017). Cronbach's alpha was calculated as 0.92, 0.77, and 0.76 for the whole scale, the frequency ratio of positive emotions, and the frequency ratio of negative emotions, respectively (Esmeray et al., 2017).

Pregnant women, who were applied to the hospital in which the research was conducted to receive antenatal care, were informed about the objective and method of the study, and their written consent was obtained. Those willing to participate in the study were given a data collection form and were informed about how to fill it out. Researchers collected data collection forms filled by pregnant women. Data collection took 10 to 15 minutes for each participant. The retest was re-administered to 40 randomly selected pregnant women in the sample four weeks after the first data collection.

### Data analysis

Statistical analyses were performed using SPSS 26 statistical program. Descriptive data were expressed as a number, percentage, mean, and standard deviation. Descriptive statistics such as mean and standard deviation were used to determine the scores obtained from PES-Brief and PES-Long. A p-value of  $< 0.05$  was accepted statistically significant. Within the scope of the validity assessment of the scale, face, language, content, construct, and

convergent validity analyses were used. According to the Davis method, back-translation was made to assess language validity, and experts evaluated content validity. In the content validity assessment, the opinions of five experts about the scale were taken. In construct validity assessment, the Kaiser-Meyer-Olkin (KMO) test was used to evaluate whether the study's sample size was adequate for factor analysis. The KMO test value should be 0.50 and greater for the sample size to be considered adequate. Construct validity of PES-Brief was evaluated by factor analysis according to the varimax rotation method. The factor loading must be 0.30 minimum in construct validity. The eigenvalue of one or greater and explained variance of 40–60% confirm the scale's construct validity. Cronbach's alpha and Pearson's correlation coefficient values were used to assess the convergent validity of the scale (Heale & Twycross, 2015; Güngör, 2016; Sousa & Rojjanasrira, 2011).

In the reliability analysis of the scale, internal consistency, time invariance (test-retest method), and concurrent validity analyses were employed. The internal consistency of the subdimensions of PES-Brief was evaluated using the reliability coefficient (Cronbach's alpha) and item-total correlation. The reliability coefficient is expected to be 0.70 minimum, and the item-total correlation is expected to be 0.20 minimum for each item (Sousa & Rojjanasrira, 2011). Time invariance was evaluated using test-retest reliability analysis. The value obtained from the analysis must be 0.70 minimum for a scale to be considered to have stability (Sousa & Rojjanasrira, 2011; Güngör, 2016). Concurrent validity was evaluated with PES-Long.

### Validity stages

a) *Face validity*: The statements in the scale were read individually to ten pregnant women through the face-to-face interview method, and the clarity of the items was evaluated. As a result of the evaluation, some of the statements required minimal edits according to the recommendations of pregnant women. Pregnant women who participated in the preliminary application were not included in the research data.

b) *Language validity*: Translation of the scale into Turkish and its adaptation into Turkish society was conducted within the framework of international validity and reliability standards (Güngör, 2016; Sousa & Rojjanasrira, 2011). The translation and back-translation technique was used to determine the language validity of the PES-Brief. The researchers reviewed the Turkish translated version of the scale and revised it. Then, an English linguist who also

knew Turkish translated the form back into English from Turkish. The original scale and the Turkish version were checked in terms of the differences in the meaning of the items. The items in both scales and stated both items best were selected and presented to the views of five experts (two obstetricians, two women's health specialists, and a public health specialist). The evaluations made by the experts for the content validity were assessed according to the Davis method, and the "content validity index" was calculated. The value of 0.80 is considered acceptable (DiPietro et al., 2008). The items in the scale were evaluated as "appropriate", "item should be reviewed slightly", "item should be reviewed significantly," and "item is inappropriate". Content validity was calculated to be 0.93 for PES-Brief.

c) *Content validity*: The scale was finalized by taking the opinions of five experts, including two obstetricians, who were experts on scale development and validation, two women's health specialists, and a public health specialist.

d) *Construct validity*: The KMO and Bartlett's test was used to assess the adequacy of sample size. KMO and Bartlett's test values of PES-Brief were 0.79 and  $p < 0.001$ , respectively. The original version

of the scale was grouped under two factors (DiPietro et al., 2008). In this study, the exploratory factor analysis results determined two factors with eigenvalues higher than one, and the total variance explained of 60.36%. The factor loadings of the items were found to be higher than 0.39.

e) *Convergent validity*: Convergent validity was evaluated using the Pearson correlation between total PES-Brief and original PES scales scores (Table 1).

#### Reliability stages

a) *Internal consistency*: The internal consistency of PES-Brief and its subgroups were evaluated using the reliability coefficient (Cronbach's alpha) and item-total correlation (Table 2). Cronbach's alpha value of the PES-Brief scale was calculated to be 0.81. Item-total correlations of PES-Brief were found to be 0.28–0.56 for uplifts and 0.29–0.56 for hassles (Table 2).

b) *Time invariance (Test-Retest method)*: Re-test was applied to 40 pregnant women, who were reached for the second time for the PES-Brief scale, four weeks after the first test. The retest Cronbach's alpha value of the PES-Brief scale was calculated to be 0.87. This value was found to be 0.77 (uplifts frequency) and 0.70 (Hassles frequency) for the subgroups.

**Table 1** Correlations for the PES-Brief and the PES-Long

Scales	PES-Brief							
	Uplifts frequency		Hassles frequency		Intensity of uplifts		Intensity of hassles	
PES-Long	r	p	r	p	r	p	r	p
Intensity of uplifts	0.832	< 0.001	-0.618*	0.014	0.832	< 0.001	-0.690**	0.006
Intensity of hassles	0.327**	< 0.001	0.517	0.126	-0.402	0.250	0.706*	0.022
Uplifts frequency	0.434	0.106	0.339	0.217	-0.029	0.919	-0.308	0.284
Hassles frequency	0.650*	0.042	0.108	0.539	-0.308	0.284	0.173	0.468

\*correlation is significant at the 0.05 level (2-tailed); \*\*correlation is significant at the 0.01 level (2-tailed)

**Table 2** Pregnancy Experience Scale-Brief Version (PES-Brief) reliability analysis

Scale and subscales	mean	SD	Item total correlations	Cronbach Alfa	Retest Cronbach Alpha
PES-BRIEF Total	29.56	8.63	0.38–0.73	0.81	0.87
Uplifts frequency	8.46	1.74	0.28–0.56	0.77	0.83
Hassles frequency	7.88	2.13	0.29–0.58	0.76	0.74
Intensity of uplifts	1.95	0.45	–	–	–
Intensity of hassles	1.62	0.42	–	–	–

## Results

The mean age of the participants was  $30.00 \pm 5.46$  years. The mean number of pregnancies was  $2.20 \pm 1.17$  and the mean weeks of gestation were  $30.46 \pm 8.45$  weeks. Of the participants, 78.1% were in the 18–34 age group, 34.3% were university graduates or had a higher educational level, and 76.5% were unemployed. Pregnancy was planned

in 73.6% of pregnant women, and 72.6% did not experience abortion or curettage. No chronic disease was present in 90.5% of the participants, 92.5% had social support, and 94.0% did not have any psychological disorders (Table 3).

The mean scores that the participants obtained from the scale were  $29.56 \pm 8.63$  for total PES-Brief scale score,  $8.46 \pm 1.74$  for frequency of uplifts,  $7.88 \pm 2.13$  for frequency of hassles,  $1.95 \pm 0.45$

**Table 3** Sociodemographic and obstetric characteristics of pregnant women (n = 201)

Items	n	%
<b>Socio-demographic prosperities (mean ± SD)</b>		
age (year)	30.00 ± 5.46	
number of pregnancy	2.20 ± 1.17	
gestational week	30.46 ± 8.45	
<b>Age</b>		
18–34	157	78.1
35–44	44	21.9
<b>Educational status</b>		
illiterate	4	2.0
primary and elementary	68	33.8
high school	60	29.9
university and higher	69	34.3
<b>Employment</b>		
employed	49	24.4
unemployed	152	75.6
<b>Obstetric prosperities</b>		
<b>Planning status of pregnancy</b>		
yes	148	73.6
no	53	26.4
<b>Experience of abortion / curettage</b>		
yes	55	27.4
no	146	72.6
<b>Chronic illness status</b>		
yes	19	9.5
no	182	90.5
<b>Social support status</b>		
yes	186	92.5
no	15	7.5
<b>Psychological disorder status</b>		
yes	12	6.0
no	189	94.0

for intensity of uplifts, and  $1.62 \pm 0.42$  for intensity of hassles (Table 2). The Cronbach's alpha value was found as 0.81 for the frequency of uplifts and 0.87 for the retest, whereas it was found as 0.76 for the frequency of hassles and 0.74 for the retest. Pregnant women's responses according to items in PES-Brief for uplifts were found between 1.00 (2 – Discussions with spouse about baby names) and 2.18 (5 – Feelings about being pregnant at this time), for hassles was found between 1.07 (2 – Physical intimacy) and 1.67 (7 – Thinking about your labour and delivery) (Table 4). Total item correlations were found for uplifts between 0.28 (3 – Comments from others about your pregnancy / appearance) and 0.56 (5 – Feelings about being pregnant at this time) and for hassles between 0.29 (8 – Ability to do physical tasks / chores) and 0.58 (5 – Body changes due to pregnancy). Leaving out the items with a low factor loading did not considerably change internal reliability, so the items were kept in the scale (Table 4).

According to Table 1, a positive and strong correlation was found between Uplifts Frequency-Brief and Intensity of Uplifts-Long scores ( $r = 0.832$ ;  $p < 0.001$ ). A negative and moderate correlation was found between Hassles Frequency-Brief and Intensity of Uplifts-Long ( $r = -0.618$ ;  $p = 0.014$ ). A positive and strong correlation was found between Intensity of Uplifts-Brief and Intensity of Uplifts-Long scores ( $r = 0.832$ ;  $p < 0.001$ ). A moderate and negative correlation was determined between Intensity of Hassles-Brief and Intensity of Uplifts-Long ( $r = -0.690$ ;  $p = 0.006$ ). A positive and weak correlation was found between Uplifts Frequency-Brief and Intensity of Hassles-Long ( $r = 0.327$ ;  $p < 0.001$ ). A positive and moderate correlation was determined between Intensity of Hassles-Brief and Intensity of Hassles-Long ( $r = 0.706$ ;  $p = 0.022$ ). There was a positive and moderate correlation between Uplifts Frequency-Brief and Hassles Frequency-Long ( $r = 0.650$ ;  $p = 0.042$ ). According to these results, there was a consistent relationship between PES-Brief and PES-Long.

**Table 4** Pregnancy Experience Scale Factor Analysis and Total Item Correlations

Items	Factor 1	Factor 2	mean (SD)	Total item correlation
<b>UPLIFTS</b>				
5. Feelings about being pregnant at this time	0.758		2.18 (0.87)	0.56
7. Spiritual feelings about being pregnant	0.713		2.01 (0.86)	0.49
6. Visits to obstetrician / midwife	0.643		1.75 (0.86)	0.50
8. Courtesy / assistance from others because you are pregnant	0.618		1.94 (0.87)	0.46
9. Thinking about the baby's appearance	0.560		1.85 (0.96)	0.46
4. Making or thinking about nursery arrangements	0.540		1.42 (1.02)	0.43
10. Discussions with spouse about pregnancy / childbirth issues	0.454		1.22 (0.99)	0.41
2. Discussions with spouse about baby names	0.437		1.00 (0.96)	0.45
1. How much the baby is moving	0.423		2.06 (0.89)	0.29
3. Comments from others about your pregnancy / appearance	0.408		1.19 (0.85)	0.28
<b>Eigenvalue</b>	3.33			
<b>Variance</b>	33.39			
<b>HASSLESS</b>				
5. Body changes due to pregnancy		0.738	1.26 (0.914)	0.58
4. Your weight		0.693	1.26 (0.966)	0.54
10. Clothes / shoes don't fit		0.650	1.26 (0.991)	0.50
6. Thoughts about whether the baby is normal		0.574	1.30 (0.918)	0.44
7. Thinking about your labour and delivery		0.565	1.67 (0.923)	0.47
1. Getting enough sleep		0.535	1.41 (0.935)	0.35
2. Physical intimacy		0.484	1.07 (0.897)	0.40
9. Concerns about physical symptoms (pain, spotting, etc.)		0.418	1.09 (0.890)	0.33
3. Normal discomforts of pregnancy (heartburn, incontinence)		0.401	1.42 (0.935)	0.32
8. Ability to do physical tasks/chores		0.393	1.18 (0.749)	0.29
<b>Eigenvalue</b>	3.26			
<b>Variance</b>	32.65			

## Discussion

In this study, we aimed to determine the validity and reliability of the Turkish version of the PES-Brief. Healthcare services mostly focus on the diagnosis and treatment of diseases. However, patients' experiences during this process may affect their perceptions about health (Mangeli et al., 2018). Pregnancy is an important process associated with physical, emotional, and social changes. The emotions experienced during this period may affect the woman's attitudes towards herself, her baby, and her family (Lattof et al., 2020; McCarthy et al., 2019). The relevant literature focuses on determining the experiences of pregnant women in special situations. Some studies aim to determine the pregnancy experience in special cases such as prenatal fetal diagnosis of congenital heart disease (Im et al., 2018) and weight changes (Shahbazzadegan, 2019; Shin & Kim, 2019). Determining pregnancy experiences can be an important step in identifying the problems and needs of pregnant women during pregnancy. Accurate information provided by the healthcare personnel to pregnant women during pregnancy may increase women's informed decisions and satisfaction levels. The original version of the PES-Brief scale,

the Turkish validity, and reliability of which was analysed in the present study, was developed by DiPietro et al. in 2008. The scale was adapted to Dutch (2017) and Brazilian (2020) languages (Ferreira et al., 2020; van Der Zwan et al., 2017). It is important to adapt the scales to different languages to make international comparisons. Additionally, using a scale that was previously tested in a population instead of developing their own instruments from scratch is both a faster and cheaper method. In addition, implementing PES-Brief can be easier to administer for some groups of pregnant women.

In the present study, factor and principal component analyses were used to determine the construct validity of PES-Brief. The item-total correlation values of the uplifts and hassles subdimensions have been found to be 0.39–0.75, meaning that items are suitable for construct validity. The total-item correlation was found to be 0.24–0.76 in the Dutch version of the scale and 0.35–0.72 in the Brazilian version (Ferreira et al., 2020; van Der Zwan et al., 2017). The original version of PES-Brief has two subgroups (DiPietro et al., 2008). It was evaluated in two subgroups in the Brazilian and Dutch validity and reliability studies (Ferreira et al., 2020;



van Der Zwan et al., 2017). In the present study, items were collected in two subfactors as in other validity studies of the scale. In both studies, items with low factor loading were not excluded from the scale (Ferreira et al., 2020; van Der Zwan et al., 2017).

Internal consistency reliability is the evaluation made to determine how reliable the questions measure the data (Sousa & Rojjanasrirat, 2011). The internal reliability of PES-Brief was evaluated by the reliability coefficient (Cronbach's alpha) and item-total correlation. The reliability coefficient and item-total correlation values are expected to be 0.70 and 0.30 minimum, respectively (Sousa & Rojjanasrirat, 2011). In this study, the item-total correlation value was found to be 0.28 minimum (Uplifts-3. Comments from others about your pregnancy / appearance). Due to the factor loading is not very low or inverse, we agreed to keep the item in the scale. In the Dutch version of the scale, item-total correlation values were found to be 0.24 minimum (Hassles-6. Thoughts about whether the baby is normal) (van Der Zwan et al., 2017). In the Brazilian version, the item-total correlation value was found to be 0.35 minimum (9. Concerns about physical symptoms [pain, spotting, etc.]) (Ferreira et al., 2020).

In our study, the Cronbach's alpha value of the Turkish version of PES-Brief was found to be 0.77 and 0.76 for uplifts and hassles, respectively. These values indicate that the internal consistency of the scale is reliable. The Cronbach's alpha value was found to be 0.82 and 0.83 for uplifts and hassles in the original version of the scale, respectively (DiPietro et al., 2008). In contrast, it was found to be 0.83 for uplifts and 0.76 for hassles in the Dutch version (van Der Zwan et al., 2017) and 0.77 for uplifts and 0.80 for hassles in the Brazilian version (Ferreira et al., 2020).

The stability of two measurements made under the same conditions and at different times is one of the reliability criteria of the scales (Güngör, 2016). In this study, the test-retest method was used to evaluate the time invariance of PES-Brief and Cronbach's alpha value of PES-Brief was found to be 0.83 for frequency of uplifts and 0.74 for frequency of hassles. This finding has shown us that the Turkish version of the scale is a consistent measurement tool that provides similar results in repeated measurements. In the original version of the scale, test-retest Cronbach's alpha value was found to be 0.63 for frequency of uplifts; 0.73 for intensity of uplifts; 0.66 for frequency of hassles; and 0.63 for intensity of hassles (DiPietro et al., 2008). In the Dutch version, test-retest analyses showed sufficient

intraclass correlations for frequency of uplifts ( $\alpha = 0.78$ ), frequency of hassles ( $\alpha = 0.84$ ), intensity of uplifts ( $\alpha = 0.83$ ), and intensity of hassles ( $\alpha = 0.72$ ) (van Der Zwan et al., 2017).

## Conclusion

PES-Brief is a valid and reliable measurement scale that can be used in pregnant women in Turkey. It is recommended to plan the care based on the results obtained by determining the experiences of pregnant women during antenatal care. The PES-Brief can be used for this purpose as a short and quickly applicable measurement tool. We believe that it will also be an important assessment tool for studies aiming to determine women's experiences with pregnancy-related problems.

This study was conducted only in one hospital in the city centre. Therefore, the results obtained from this study cannot be generalized to all pregnant women.

## Ethical aspects and conflict of interest

Written permission was obtained from DiPietro to conduct the Turkish validity and reliability study of the PES-Brief. Before data collection, ethics committee approval (Numbered KAEK-73, dated 17.06.2019) was obtained from the hospital in which the research was conducted. Written informed consent was obtained from volunteer pregnant women. The authors report no actual or potential conflicts of interest.

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## Author contributions

Concept and design (İY, EŞ), data collection (EŞ), data analysis and interpretation (İY, EŞ, GG), manuscript draft (İY, EŞ), critical revision of the manuscript (İY, GG), final approval of the manuscript (İY, EŞ, GG).

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