# The Wijma Delivery Experience (W-DEQ) with Turkish sample: Confirmatory and Exploratory Factor Analysis

Oznur Korukcu, Kamile Kukulu, and Mehmet Z. Firat

Abstract—The propose of this study is to investigate the factor structures of the W-DEQ, originally developed on UK and Swedish women, were confirmed in Turkish samples, and to obtain a new modified factor structure appropriate to Turkish culture. Statistical analyses of the data obtained were performed using SPSS<sup>©</sup> for Windows version 13.0 and the SAS statistical software Version 9.1. Both confirmatory and exploratory factor analysis of W-DEQ were performed in the study. Factor analysis yielded four factors related to hope, fear, lack of positive anticipation and riskiness. The alpha estimates of the total W-DEQ score were somewhat higher, being 0.92 for the parous and 0.90 for the nulliparous sample. These are well above the accepted limit of 0.70 and indicate excellent levels of internal reliability, thus showing that the questions were appropriate to the Turkish culture and useful scale for the evaluation of fear of childbirth in Turkish pregnants.

**Keywords**—Confirmatory Factor Analysis, cross-cultural research, exploratory factor analysis, fear of childbirth

#### I. INTRODUCTION

 $R^{ ext{EPRODUCTION}}$  of the species is one of the primary factors in nature; it is essential to the survival of all higher forms of life. The mention of the word "motherhood" creates an atmosphere of reverence [1]. The actual birth of a child that is known as labour or parturition is a major life process for women [2]. Childbirth has, for hundreds of years, been associated with pain [1]. Labour pain is a complex, subjective, multidimensional experience to sensory stimuli generated during parturition with wide variations reported between different women's perceptions [3]-[5]. On average, the pain of childbirth is rated as one of the most intense of all pains [6]. A range of physiological and psychosocial factors have been identified as important in understanding the nature and variation of labour pain [7]. Produces true pain through the medium of pathological tension [1], [8]. This is known as the Fear-Tension-Pain Syndrome [1] and once it is established a vicious circle demonstrating a crescendo of events will be observed, for with the true pain fear is justified, and with mounting fear resistance is strengthened [8], [9]. The most important contributory cause of pain in otherwise normal labour is fear [1]. The management of labor pain is one of the main goals of maternity care [10]. Fear of labor pain is one of the most important reasons that make women go for cesarean section [5].

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Childbirth- related fear (CBRF) has been described as a negative cognitive assessment of the anticipated childbirth, feelings of fear and anxiety when facing birth, very negative feelings towards birth, very negative feelings towards birth and the pathological dread and avoidance of childbirth-'tocophobia' [11]. There are many aspects related to pregnancy which can make one feel fearful. Pain during labour, lack of emotional support from husband or a beloved person and death are some of the common aspects that could lead to tocophobia [12]. The common symptoms of tocophobia are breathlessness, too much sweating, vomiting, dehydrated mouth, feeling unwell, excessive shivering, excessive heart palpitations, lack of ability to speak or think clearly, fear of mortality, fear of losing control, panic attack, feeling irrational and detached from reality [13], [14].

Tocophobia is a distressing psychological disorder which may be overlooked by healthcare professionals; as well as specific phobia and anxiety disorders, tocophobia may be associated with depression and post-traumatic stress disorder [15]. Recognition of tocophobia and close liaison with nurses and other healthcare specialists can help to reduce the severity of tocophobia and ensure efficient treatment. Determine the level of fear of childbirth that women lived is a major nursing responsibility. Crosscultural differences in attitudes to fear of childbirth should be taken into account in healthcare delivery.

The aim of this study was to investigate the factor structures of the W-DEQ, originally developed on UK and Swedish women, were confirmed in Turkish samples, and to obtain a new modified factor structure appropriate to Turkish culture.

# II. METHOD

#### A. Participants

A total of 660 healthy women with normal pregnancies were recruited in this study. A written invitation to participate in the study was sent to all pregnant women who were scheduled for a routine ultrasound scan at three maternity health clinics, Akdeniz University Hospital (AUH) (n=220), Atatürk State Hospital (ASH) (n=220), Antalya Research and Education Hospital (AREH) (n=220) between February 2007- March 2008. They were asked to return the questionnaires at gestational ages of between 28 and 40 weeks when attending the routine scan, and we did not send a reminder to the nonrespondents.

Visiting to Akdeniz University Hospital, Atatürk State Hospital, Antalya Research and Education Hospital for routine controls, being at gestational ages of between 28 and 40 weeks with a healthy baby, being at ages superior to 15 and inferior to 45 years, being able to read Turkish and willing to participate in this study were the inclusion criteria. Exclusion criteria included having a cronic illness, a sexually transmitted disease, complications during

pregnancy/pregnancies.

#### Measure B.

For the purpose of the present study, information obtained from the socio-demographic questionnaire and Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ version A) was reported here. Every woman answered a sociodemographic questionnaire assessing age in years, gestational age, level of education, partner's support, the situation of both spouses wanting the baby, prior deliveries, parity (primimultipara, multimultipara), number and experience of earlier childbirths and attendance in prenatal classes. Fear of childbirth during pregnancy was measured based on the woman's cognitive appraisal of delivery by the W-DEQ-inventory (version A) [16]. The W-DEQ was formally translated into Turkish and the validity, reliability and psychometric properties of the scale was evaluated for a Turkish population by Körükcü et al. (2012) [17]. The W-DEQ is a validated 33-item questionnaire, with scores ranging from 'not at all' (0) to 'extremely' (5), giving a minimum score of 0 and a maximum score of 165. A higher score indicates a more intense fear of childbirth. This means that the answers of those questions which are positively formulated (item numbers 2, 3, 6, 7, 8, 11, 12, 15, 19, 20, 24, 25, 27, 31) have to be reversed for the calculation of the women's individual sum score [16]. A W-DEQ score of greater than 100 is considered to indicate a clinical problem, i.e. a very frightening delivery experience [18].

#### C. Analysis

All items were coded and scored, and the completed questionnaires were included in the data analysis. Individual unanswered items were excluded from the analysis. Double data entry was carried out with a subsequent validation to guarantee the quality and consistency of the data. Statistical analyses of the data obtained were performed using SPSS<sup>©</sup> for Windows version 13.0 (SPSS, Inc., Chicago, IL, USA) and the SAS statistical software Version 9.1 (SAS Institute, Cary, NC, USA). Descriptive statistics (i.e., means, standard deviations and skewness) were determined to characterize the demographic data of the women. The Kolmogorov-Smirnov test was conducted to assess the distribution of the variables in order to use parametric or non-parametric tests. For parametric continuous data, the Student's t-test assessed whether the means of two groups were statistically different from each other. A statistical significance level of p<0.05 was used in all statistical tests performed, unless otherwise stated.

Modern conceptualizations of factor analysis include both exploratory and confirmatory methods. Both EFA and CFA are based on the common factor model, and both seek to represent the structure of correlations among measured variables using a relatively small set of latent variables. However, CFA is generally used to test theory when the analyst has sufficiently strong rationale regarding what factors should be in the data and what items should define each factor and provides a powerful tool in the second stage of research when a model has already been established. CFAs (robust maximum likelihood) were performed on the variance-covariance matrix of the W-DEQ items using SAS Version 9.1 (SAS Institute, Cary, NC, USA). A total of four confirmatory analyses was conducted on our samples separately, two analyses for primipara and two for multipara group, to confirm the two exploratory models obtained

pregnancies and experiencing cesarean section in previvors, Nord 50, 2016 2016 by Johnson and Slade [19] and Wilklund et al. [20], to determine whether their factor structure required modification and to refine the model, if necessary. These two exploratory models evaluated the four-factor structure of the original 33-item W-DEQ obtained independently by Johnson and Slade [19] and Wilklund et al [20]. Model 1 and Model 2 were the four-factor structure proposed by Johnson and Slade [19] and Wilklund et al [20] respectively. In both models some of the items were allowed to load on more than one factor and the models were identified by fixing factor variances at 1.

For each CFA model tested, multiple indices were used to assess adequacy of fit. These indices were chosen based on their frequent use in the CFA literature and for their suitability in model comparison. The following indices were used to assess model fit: the goodness-of-fit index (GFI), the adjusted goodness-of-fit index [AGFI; 21], the chi-square goodness-of-fit statistic ( $\chi^2$ ), the Root Mean square error of approximation [RMSEA; 21], the comparative fit index (CFI), the Non-Normed Fit Index (NNFI) and the Normed fit index [22]. The GFI and AGFI are normed indexes, with lower bounds of zero and increasing toward unity with improved fit of the model. The GFI values >0.90 and the AGFI of 0.80 indicate an acceptable fit of the model to the data. The  $\chi^2$  goodness-of-fit statistic with k degrees of freedom was computed for each model to allow the assessment of models. Since the  $\chi^2$  statistic is highly sensitive to sample size, it is now accepted practice to employ a combination of fit indices in conjunction with the chi-square statistic to determine the adequacy of model fit. The RMSEA that has been included as a fit index is an evaluation statistic that is relatively unaffected by sample size, and is suitable for assessing models of differing complexity and explicitly penalizes models which are not parsimonious [23]. For the RMSEA, a cut-off value ranging from 0.05 or lower indicates good model fit and values up to 0.08 represent moderate model fit [23], [24]. The CFI, Bentler and Bonett's Non-Normed Fit Index (NNFI) and Normed fit index (NFI) were also employed [25]. The CFI, NNFI and NFI indexes compare the fit of an independence model (a model which asserts no relationships between variables) to the fit of the estimated model. Values of these indexes range between 0 and 1 and generally, a cut-off value > 0.90 for the CFI, NNFI and NFI is considered to be consistent with moderate model fit and a cutoff value close to 0.95 indicates good model fit [24], [26].

When a confirmatory analysis fails to fit the observed factor structure with the theoretical structure, the researcher can evaluate ways to improve the model by employing an EFA which provides procedures for determining an appropriate number of factors and the pattern of factor loadings primarily from the data without specifying a priori number of common factors. In the second stage of this analysis, an EFA was conducted to identify a viable factor structure. An EFA, using principal component extraction method with Varimax rotation, was conducted to determine the factor structure of the 33 items of the W-DEQ. Items with factor loadings ≥0.40 (including values that rounded to 0.40) and those that did not load on more than one factor were retained. Items not meeting these criteria were removed one at a time. Factor analyses were repeated until a solution in which all items included in the analysis met all criteria was attained.

A fundamental and critically important differe **Vce**: between EFA and CFA is that results of an EFA are a sole function of the "mechanics and mathematics of the method" [27]. CFA, on the other hand, is typically driven by theoretical expectations regarding the structure of the data.

Researchers should recognize that CFA and EFA procedures can produce misleading results when assumptions of multivariate normality are severely violated [28], [29]. Therefore, we recommend that the distributions of measured variables be examined prior to conducting CFA and EFA. If nonnormality is severe (e.g., skew > |3|), one of several remedies might be employed [30]. Measured variables could be transformed to normalize their distributions. Corrections to fit indexes and standard errors could be performed [22], [31], [32]. Alternatively, one might wish to use a principal factors procedure.

Finally, the SAS statistical software Version 9.1 (SAS Institute, Cary, NC, USA) was employed to examine internal consistency for each sample.

#### III. RESULTS

#### A. Participants

The demographic characteristics of the participants are described in more details elsewhere, but will be given briefly here. A total of 660 pregnant women with gestational age ranging from 28 to 40 weeks was employed. About fourty nine percent (49.4%) of the pregnants were primipara (n=326), and 50.6% were multipara (n=334). Thirty one percent (30.6%) of the women's age ranged between 15 and 19, %25 were between 25 and 29 and 5.1% were between 35 and above. While 32.4% of them were in gestation week between 31 and 33, 47.3% were in gestation week between 34 and 37. With regard to educational level, 43.5% completed primary school, 44.8% completed a higher grade elementary or secondary school and 11.7% completed a higher education. 32.7% of the participants experienced abortion, 16.5% miscarriage, 3.0% stillbirth.

# B. Statistical Analysis

In this study, independent sample *t*-tests assuming unequal sample variances were used to compare the primipara and multipara groups differing in known W-DEQ scores. Table I presents the means, standard deviations (SD) and skewness values of the W-DEQ scale for the two groups and the results of *t*-tests. In one quarter of the items (8 items), primipara women had statistically significant lower mean W-DEQ scores than multipara women, while in one quarter of the items (9 items) multipara women had statistically higher mean W-DEQ scores. In the remaining half of the items (16 items) there were no differences between these groups.

To evaluate for possible discontinuities in the data, we examined the skewness of each of the thirty three items for two samples in Table I. Skewness is a measure of asymmetry. The mean skewness values was 0.059 (range=-0.280 and 0.373; SD=0.175) for the multipara group, and -0.032 for the primipara group (range=-0.638 and 0.598; SD=0.301). No items showed a skewness value greater than the cutoffs of |3| recommend by Kline [33], and this supports univariate normality in the items.

In the case of the W-DEQ, clearly-enunciated models were already available in two separate literatures [19], [20]. Based on these original conceptualizations, two 4-factor models were tested. To reiterate, these models have four

A fundamental and critically important differel/cd:6, Noi5u2062 of childbirth dimensions, and it was considered tween EFA and CFA is that results of an EFA are a sole for the primipara and multipara groups separately.

We had several a priori criteria to assess model fit and confirm the factor structures. These criteria for the CFA models are presented in Table II. It can be seen that these two factor models had a very poor fit for both primipara and multipara groups; the  $\chi^2$  is large, and the fit indices are low. None of the criteria indicate acceptable or near acceptable model fit. The CFA, therefore, revealed an inadequate fit of the models described by Johnson and Slade [19] and Wilklund et al. [20] to the current data. The CFA does not confirm the UK and Swedish factor models for the primipara and multipara groups. Therefore, results from the CFA indicate that the fit between the model and data needed improvement and no further investigation of the confirmatory model was necessary. We needed to proceed with the EFA to modify the model and to determine the factor structure.

The 33 items were analyzed via maximum likelihood extraction method using a Varimax rotation. Four factors with eigenvalues of over 1.00 were identified. We used the scree test to determine the number of factors to retain and rotate, which again suggested a 4-factor solution. Several other criteria were also examined to decide on the number of factors, such as Tucker and Lewis's Reliability Coefficient (TLC), which ranges between 0 and 1.0 with a higher TLC value indicating better reliability, Akaike's Information Criterion (AIC), and Schwarz's Bayesian Criterion (SBC). The number of factors that yields the smallest value of AIC and SBC or the highest value of TLC is considered best [34]. To choose a factor solution that not only satisfied the retention rules but one that also was theoretically meaningful, we rotated and examined several factor solutions. We eventually chose the 4-factor solution because it satisfied all three criteria. AIC and SBC attained their minimum values and TLC the highest value (TLC=0.710 for the multipara and TLC=0.700 for the primipara sample) at four common factors compared with 1-, 2-, and 3-factor solutions, and so there is little doubt that four factors are appropriate for these data. After selecting a 4-factor solution, factor loadings were sorted from highest to lowest values for each factor. Items 25, 26, 27 and 31 were removed from the original 33-item measure both for the multipara and primipara samples on the basis of predetermined criteria. Some of the items were considered as loading on more than one factor, as their factor loadings were greater than or equal to 0.40. Finally, the EFA yielded a 29-item measure for the two samples with a four factor solution, which accounted for 57.55% and 58.38% of the variance in the multipara and primipara groups, respectively. Loadings of items on factors ( $\geq 0.40$ ) and percentage of variance for the two groups are shown in Table III. Items are ordered according to the size of loadings in this table. Each factor was then interpreted by examining item content and pattern of coefficients, and three of the four factors were labeled in the same way as in the original UK [19] and Swedish [20] studies (Fear, Lack of Positive Anticipation and Riskiness). The first factor of the multipara group and the third factor of the primipara group were labeled as "Hope", being different than the original ones. The second factor of the multipara group and the first factor of the primipara group were labeled as "Fear", which correspond to the first factor of the original studies. The third factor of

the multipara group and the second factor of the primipator. 6, No The Offeen study has addressed a new methodological group were labeled as "Lack of Positive Anticipation", as in the second factor of the original factor structure. Finally, the forth factors both for multipara and primipara groups were labeled as "Riskiness" the same as in the original factor structure. W-DEO. This study is the first to investigate whether the

Although the ordering of factors in the two samples are slightly different, with the exception of factor 4, almost the same items were grouped together to form a factor. It is easy to see the striking similarities of the factor structures for the three subscales, Fear, Lack of Positive Anticipation and Riskiness, and especially with those of the UK sample. The classification of items into subscales obtained with our EFA was reflected almost exactly in these three factors produced by Johnson and Slade [19]. However, some of the items were loaded on different factor in our samples.

Finally, the internal reliability for each of the four subscales was estimated using Cronbach's  $\alpha$ . Scale homogeneity was in a reasonable range between 0.80 and 0.96 in both samples. Cronbach Alpha tests indicated that the subscales identified by the EFA were internally consistent. The alpha estimates of the total W-DEQ score were somewhat higher, being 0.92 for the multipara and 0.90 for the primipara sample (Table III). These are well above the accepted limit of 0.70 and indicate excellent levels of internal reliability, thus showing that the questions were appropriate to the Turkish culture.

#### IV. DISCUSSION

Birth, the important turning point in life, is almost always regarded as a happy event, in Turkey as in the rest of the world. There is a belief that is because every birth increases the number of family members, and increased numbers have always meant increased strength in especially rural areas and Eastern of Turkey [35]. Motherhood is the primer social role for women in Turkey like many countries [36]. Birth, that gives the mother an identity and completes her, as well as giving confidence to the father and strength to the family, is attributed utmost importance by the couple and their relatives [37].

In the more traditional parts of Anatolia, women used to give birth at home in their villages with the help of midwives, and the majority of practices carried out during childbirth were believed to make the whole process easier [35]. But nowadays, childbirth takes place in hospitals, and licensed midwives help pregnant women to give birth in remote, mountainous villages [38]. The number of planned cesarean deliveries performed because of fear of childbirth has increased markedly in the Turkey. This is unfortunate, not only because cesarean deliveries are associated with increased risk of maternal complications, but also because of the increased hospital resources required [37].

The cesarean deliveries are associated with increased risk of maternal complications and the increased hospital resources required [12]. The causes of fear of childbirth are, however, incompletely understood, and studies on risk factors, other than previous childbirth experiences, are scarce [39]. The importance of the influence of the emotions upon pregnancy and parturition has been recognized during the last few years. The value of protecting women from fear is frequently referred to in writings and discussions upon antenatal care [1].

No: The Ottal and was addressed a new methodological approach not present in previous studies in this area, namely confirmatory factor analysis. It aimed to validate the factor structures developed by other researchers. To date, no studies have investigated the original factor structure of the W-DEQ. This study is the first to investigate whether the factor structures of the W-DEQ, originally developed on UK and Swedish women, were confirmed in Turkish samples. CFA revealed that the original factor structures of the W-DEQ obtained by Johnson and Slade [19] and Wilklund et al. [20] were not sustained in our samples. As a result, alterations regarding the content of the subscales have been made. Internal reliability of the W-DEQ was highly satisfactory. The different subscales reached good internal reliabilities in our study.

In two separate studies, UK and Swedish, where the W-DEQ instrument was also used, investigators found four clear dimensions that are conceptually distinct within childbirth fear [19], [20]. As our EFA was rather invariant compared with these studies, there is clearly a need to explain the discrapencies between the factor structures in the present study and those of Johnson and Slade [19] and Wilklund et al. [20]. There may be several explanations considered for this. Firstly, a significant strength of the present study is the 100% response rate compared with the 90% response rate in the Swedish study Wilklund et al. [20] and 35% in the British study Johnson and Slade [19]. In these studies, a response bias may have occurred, as participants chose to respond to a postal questionnaire. Since our study was carried out on face-to-face clinic based recruitment, the likelihood of such a response bias has been removed.

Secondly, the W-DEQ was orijinally designed and developed in the Swedish language and translation of the scale into English and then into Turkish may have caused distortions. Especially, four items, 25, 26, 27 and 31 were discarded from the original scale fallowing the EFA analysis in our study. It is possible that these items may have ambiguous meaning in Turkish language or are less relevant to Turkish culture.

Finally, the discrapency between the findings of the three countries may be due to the cross-cultural differences or different medical system of each country. Johnson and Slade [19] argued that such an argument is supported by differences in other birth-related outcomes.

# V. CONCLUSIONS

This study has demonstrated cross-cultural differences in fear of childbirth which exist in the dimensionality within UK, Swedish and Turkish pregnant women populations and presented alternative factor structures for the Turkish culture. Our study suggests that the Turkish version of the W-DEQ has good internal consistency and is an adequate and useful scale for the evaluation of fear of childbirth in Turkish pregnant women.

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	M	Iultipara group Primipara group (n=326)			(n=326)			
	(n=334)						t-test	
Items	Mean	SD	Skew	Mean	SD	Skew	<i>t</i> -value	Sig.
M1. Fantastic	3.74	0.975	-0.280	3.84	1.046	-0.520	-1.283	0.200
M2. Frightful	3.46	1.282	-0.173	3.70	1.372	-0.601	-2.365	0.018
M3. Lonely	2.76	1.323	-0.029	2.57	1.521	0.055	1.713	0.087
M4. Strong	2.78	1.253	0.193	3.07	1.383	-0.162	-2.787	0.005
M5. Confident	2.70	1.238	0.088	2.99	1.327	-0.259	-2.937	0.003
M6. Afraid	3.04	1.347	-0.004	3.46	1.373	-0.339	-4.006	0.000
M7. Deserted	2.43	1.259	0.309	2.09	1.374	0.235	3.336	0.001
M8. Weak	2.62	1.486	0.291	2.65	1.496	0.103	-0.315	0.753
M9. Safe	2.73	1.210	-0.050	2.67	1.370	0.015	0.645	0.519
M10. Independent	2.74	1.291	0.282	2.95	1.287	-0.112	-2.106	0.036
M11. Desolate	2.46	1.323	0.083	2.44	1.430	-0.054	0.153	0.879
M12. Tense	3.55	1.320	-0.280	3.71	1.439	-0.638	-1.467	0.143
M13. Glad	2.60	1.001	0.188	2.64	1.222	-0.104	-0.383	0.702
M14. Proud	2.29	1.146	-0.135	2.30	1.316	-0.094	-0.107	0.915
M15. Abandoned	2.27	1.433	0.134	1.99	1.524	0.351	2.421	0.016
M16. Composed	2.94	1.242	0.082	2.88	1.510	-0.076	0.556	0.578
M17. Relaxed	3.37	1.353	-0.276	3.48	1.545	-0.492	-1.030	0.303
M18. Happy	2.46	1.164	-0.005	2.18	1.206	0.065	3.035	0.002
M19. Panic	3.01	1.297	0.044	3.36	1.411	-0.364	-3.319	0.001
M20. Hopelessness	2.39	1.265	0.083	2.16	1.333	0.160	2.241	0.025
M21. Longing for child	2.30	1.205	0.170	2.02	1.178	-0.041	3.029	0.003
M22. Self-confidence	2.54	1.263	0.373	2.62	1.119	0.131	-0.811	0.418
M23. Trust	2.63	1.249	0.325	2.52	1.266	0.091	1.095	0.274
M24. Pain	3.28	1.222	0.170	3.49	1.416	-0.443	-2.035	0.042
M25. Behave badly	1.52	1.073	0.070	1.44	1.148	0.598	0.951	0.342
M26. Let happen	1.54	1.222	0.017	1.52	1.418	0.347	0.199	0.843
M27. Lose control	1.53	1.133	-0.007	1.23	1.064	0.286	3.539	0.000
M28. Funny	2.35	1.274	-0.063	1.97	1.266	0.036	3.915	0.000
M29. Natural	1.99	1.089	0.016	1.74	1.029	-0.080	2.941	0.003
M30. Obvious	1.96	1.020	-0.115	1.82	1.094	0.243	1.691	0.091
M31. Dangerous	1.45	1.295	0.286	1.26	1.189	0.296	1.883	0.060
M32. Child will die	2.11	1.071	0.005	2.30	1.251	-0.003	-2.162	0.031
M33.Child will be injured	2.07	1.091	0.150	2.33	1.163	0.327	-2.921	0.004

TABLE II GOODNESS-OF-FIT İNDİCES FOR THE W-DEQ FACTOR MODELS

	Johnson &	Slade (2002)	Wilklund et al. (2008)		
Index	Multipara	Primipara	Multipara	Primipara	
Goodness of Fit Index (GFI)	0.6184	0.5780	0.6330	0.6137	
GFI Adjusted for Degrees of Freedom (AGFI)	0.5484	0.5005	0.5691	0.5463	
Chi-Square	3281.8218	3566.7397	3245.0012	2957.9860	
Chi-Square DF	474	474	396	396	
Pr > Chi-Square	<.0001	<.0001	<.0001	<.0001	
RMSEA Estimate	0.1334	0.1417	0.1470	0.1411	
RMSEA 90% Lower Confidence Limit	0.1291	0.1374	0.1423	0.1364	
RMSEA 90% Upper Confidence Limit	0.1377	0.1461	0.1517	0.1459	
Bentler's Comparative Fit Index	0.6014	0.5668	0.5218	0.5690	
Bentler & Bonett's (1980) Non-normed Index	0.5560	0.5175	0.4747	0.5265	
Bentler & Bonett's (1980) NFI	0.5666	0.5348	0.4924	0.5363	

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## VONE, INUE: 5, 2012 FOUR FACTORS WITH FACTOR LOADINGS FOR MULTIPARA AND PRIMIPARA SAMPLES

Multipara Primipara Items  $F1_P$  $F2_P$  $F3_P$  $F4_P$ Items  $F1_N$ F2<sub>N</sub> F3<sub>N</sub> F4<sub>N</sub> M15 0.740 M12 0.820 М3 0.685 M10.769 M8 0.684 0.387 M19 0.745 M7 0.6810.743 M6 M11 0.601 M17 0.743 0.367 M13 0.598 0.735 M2M23 0.548 0.422 0.413 M24 0.684 M4 0.531 0.369 M10 0.593 M5 0.527 0.356 M5 0.586 M10 0.496 0.361 M4 0.508 0.368 M9 0.492 M29 0.864 0.454 0.812M20 M30 M24 M28 0.786 0.769 M10.767 M18 0.582 0.732 0.561 M2 M21 M17 0.721 M14 0.556 M12 M9 0.556 0.401 0.717 M19 0.685 M13 0.5080.486 0.380 M6 0.639 M23 0.483 M16 0.382 0.437 M22 0.368 0.448 0.426 0.358 M29 0.814 M16 0.428 M30 0.809 M15 0.751 M28 0.771 M11 0.741 M21 0.685 M20 0.695 0.476 0.599 M18 0.677 M7 M14 0.562 M3 0.666 M22 0.448 0.446 0.505 0.554 0.452 M8 M33 0.952 M32 0.871 M32 0.944 M33 0.870 % of Variance 18.575 17.314 14.034 7.626 20.245 16.472 14.097 7.573 Cumulative % 18.575 35.890 49.924 57.550 20.245 36.718 50.815 58.388 0.8812 0.8651 0.8529 0.9616 0.8917 0.8704 0.8080 0.9468 lpha Coefficient

 $F1_P = F3_N = Hope$ ;  $F2_P = F1_N = Fear$ ;  $F3_P = F2_N = Lack$  of Positive Anticipation;  $F4_P = F4_N = Riskiness$ 

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