

# Psychometric Properties of the Online Version of the Edinburgh Postnatal Depression Scale (EPDS) for its Use in Spanish Pregnant and Postpartum Women.

Thursday 24 July 2025 17:10 (20 minutes)

## Poster

Psychometric Properties of the Online Version of the Edinburgh Postnatal Depression Scale (EPDS) for its Use in Spanish Pregnant and Postpartum Women.

## Author

Irene Gómez-Gómez

## Affiliation

Universidad Loyola Andalucía

## Abstract

**Introduction:** Perinatal depression is a public health issue and is considered one of the main complications during the perinatal period. The Edinburgh Postnatal Depression Scale (EPDS) is one of the most frequently used instruments to detect perinatal depression in women. The EPDS is a 10-item self-reported scale with a 4-Likert-type response scale. Despite numerous studies about the psychometrics properties of the EPDS have being published, there are heterogeneous results regarding its internal factorial structure. The most frequent factorial structures previously found in both international and Spanish studies were the one-factor, the two-factor (depression and anxiety) and the three-factor (depression, anxiety and anhedonia) structure. In addition, it must be noted that item factor loadings varied across factors in the studies. This study aimed to obtain different sources of validity evidence (internal structure and relationship with other variables) and to analyse the psychometric properties of the online version of the EPDS for its use in Spanish pregnant and postpartum women.

**Method:** This study followed the Standards guidelines. Data were collected online. Exploratory factor analysis (EFA) was conducted using the principal axis factoring extraction method and Promax rotation. Confirmatory factor analysis (CFA) was carried out using the Robust Unweighted Least Squares method. Both the EFA and the CFA were conducted through cross-validation procedures. The fit of the one-factor and the two-factor (depression and anxiety) structure proposed in previous studies was also tested. Factorial invariance between pregnant and postpartum women was explored. The correlation of depression (EPDS) with anxiety (GAD-7) and post-traumatic stress disorder (PTSD checklist) was analysed. Internal consistency of the EPDS was evaluated through Cronbach's alpha and McDonald's Omega coefficients. In addition, EPDS item analysis was performed.

**Results:** The EFA revealed a three-factor structure that showed a good fit of the model to the data through CFA for pregnant (CFI=.995; NNFI=.993; RMSEA [95% CI] =.047 [.032; .062]) and postpartum (CFI= .996; NNFI= .994; RMSEA [95% CI] =.039 [.027; .051]) women. The one-factor (CFI≥ .974; NNFI≥ .960; RMSEA≥ .080) and the two-factor (depression and anxiety; (CFI≥ .979; NNFI≥ .973; RMSEA≥ .070) structure presented poorer fit indexes compared with the three-factor structure. In addition, it must be noted that in the sample of postpartum women, item 3 presented high factor loadings (FL) in factors 1 (depression; FL= .48) and 2 (anxiety; FL= .34). Positive ( $r > .500$ ) and significant ( $p\text{-value} < .001$ ) correlations were found between the depression, anxiety and anhedonia dimensions with the GAD-7 and the PTSD checklist. The Cronbach's alpha and McDonald's Omega coefficients exceeded the optimal cut-off (0.70).

**Conclusions:** The three-factor structure presented the best-fit indexes for both pregnant and postpartum

women. Item 3 “I have blamed myself unnecessarily when things went wrong” presented higher loading factors in depression and anxiety subdimensions for postpartum women and higher loading factors in anxiety for pregnant women. However, due to theoretical and statistical reasons, a homogenised factorial structure was proposed for both pregnant and postpartum women: items 1 & 2 (anhedonia), items 3 - 6 (anxiety) and items 7 - 10 (depression).

## Keywords

Depression-Screening; Perinatal-Period; EPDS; Validation-Study

**Primary author:** GÓMEZ GÓMEZ, Irene (Universidad Loyola Andalucía)

**Co-authors:** Dr RODRÍGUEZ-DOMÍNGUEZ, Carmen (University of Seville); Dr GÓMEZ-BAYA, Diego (Universidad de Huelva); Dr MOTRICO, Emma (University of Seville); Dr RODRÍGUEZ-MUÑOZ, Maria Fe (Universidad Nacional de Educación a Distancia); Dr DOMÍNGUEZ-SALAS, Sara (University of Seville)

**Presenters:** Dr RODRÍGUEZ-DOMÍNGUEZ, Carmen (University of Seville); Dr GÓMEZ-BAYA, Diego (Universidad de Huelva); Dr MOTRICO, Emma (University of Seville); GÓMEZ GÓMEZ, Irene (Universidad Loyola Andalucía); Dr RODRÍGUEZ-MUÑOZ, Maria Fe (Universidad Nacional de Educación a Distancia); Dr DOMÍNGUEZ-SALAS, Sara (University of Seville)

**Session Classification:** Poster Session 4

**Track Classification:** Measurement: Measurement