



**“Comparison of Models
Estimating Six-Week Edinburgh
Postnatal Depression Scores
Based on Antenatal Anxiety and
Depression Assessments and
ObsQoR-10 at Discharge.”**

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Background

- Between 15% and 40% of new mothers experience postpartum anxiety and around 17.7% experience postpartum depression.
- Patient Reported Assessment Tools
 - EPDS:  Postpartum screening for depression
 - ObsQoR-10:  Postpartum well-being
 - PHQ-4: Abbreviated screening tool for anxiety and depression
 - PCS: Screening anxiety related to pain
 - GAD-7: Screening scale for severity of anxiety and depression

Hypothesis:

Patient reported assessment tools for anxiety and depression would improve the association between ObsQoR-10 and 6-week EPDS scores.

Study Design and Methods

Prospective, observational study

Timeline of data collection

- Admission
 - Demographics
 - Obstetric history
 - H/O Anxiety and Depression
 - PHQ-4, GAD-7, PCS
- Hospital Discharge
 - ObsQoR-10
- 6-weeks postpartum
 - EPDS

- Generalized linear model
- Models
 - ObsQoR-10
 - ObsQoR-10 + PHQ-4
 - ObsQoR-10 + PCS
 - ObsQoR-10 + GAD-7
 - ObsQoR-10 + PHQ-4 + GAD-7 + PCS
- Models compared with the Akaike Information Criteria (AIC) -> **significant with reduction of 10 or more.**
- Model accuracy compared by use of Area Under the Curve (AUC) @EPDS cutoff values of 10 and 13

Results


Table: Comparison of overall accuracy (AUC) of predictive models of EPDS values at 6 weeks from baseline and discharge data.

- N= 412
- 79% White
- 16% Latina
- 64% Nulliparous
- 31% H/O Anxiety
- 15% H/O Depression
- 98% Neuraxial analgesia
- 82% Vaginal delivery
- 51% EPDS Completion
 - 17% ≥ 10 on EPDS
 - 7% ≥ 13 on EPDS

Model	AIC	EPDS ≥ 10	EPDS ≥ 13
ObsQoR-10	2172	0.68 (0.61 to 0.75)	0.65 (0.54 to 0.76)
ObsQoR-10 plus PHQ-4 baseline	2105	0.74 (0.68 to 0.81) [†]	0.72 (0.62 to 0.82)
ObsQoR-10 plus PCS baseline	2010	0.71 (0.65 to 0.78)	0.68 (0.57 TO 0.78)
ObsQoR-10 plus GAD-7 baseline	1990	0.74 (0.68 to 0.82) [†]	0.72 (0.62 to 0.82) [†]
ObsQoR-10 plus PHQ4, GAD-7, PCS	1979	0.76 (0.69 to 0.82) [‡]	0.73 (0.63 to 0.83) [§]

AIC = Akaike information criteria, EPDS = Edinburgh postnatal depression score, ObsQoR-10 = Obstetric quality of recovery 10 question assessment at discharge, PHQ-4 = Patient health questionnaire 4 question, PCS = Pain catastrophizing score, GAD-7 = Generalized anxiety disorder 7 question. [†], [‡] = P < 0.1 and 0.05 compared to ObsQoR-10 model only.

Discussion and Conclusion

- Screening for anxiety and depression in the antenatal period can improve the association between ObsQoR-10 and 6-week EPDS scores.
- **ObsQoR-10 + GAD-7** provides the most parsimonious combination for identifying high risk  for postpartum depression.

