Outcomes after a positive postpartum depression screening at 6 weeks: A single US center retrospective cohort study

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Background and Hypothesis

Postpartum depression affects 15% of individuals following childbirth in the US

- The Edinburgh Postnatal Depression Scale (EPDS) is the best validated measure for Postpartum depression (PPD) screening
- Screening when combined with follow-up care reduces both depressive symptoms and overall prevalence of PPD
- Understanding the impact of routine postpartum screening on patient referrals, diagnosis and subsequent treatment could help
  - guide appropriate follow up and primary care services
  - optimize patient recovery care
  - Improve patient experience

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Study Design and Methods

Primary outcome: Frequency of psychiatry referrals up to 1 year postpartum

Secondary outcomes: Identify risk factors, timing and additional treatments following psychiatry referral and child outcomes up to 1 year postpartum

- Electronic health records (EHR) used to identify patients who complete postpartum EPDS screening between 2014–2023.
- Patients categorized into screen negative (EPDS 0–9) or screen positive (EPDS ≥10) for depressive symptoms.
- ICD-10 codes were used to populate psychiatric variables.

Inclusion Criteria

- Age ≥18 years at time of delivery
- Delivery of a live or non-viable fetuses after gestational age ≥ 20 weeks, via any delivery mode
- Completion of all items of the postpartum EPDS screening tool between 4 weeks 0 days and 8 weeks 0 days postpartum
- Care received from Stanford Healthcare

Exclusion Criteria

- No documentation of EPDS/ incomplete postpartum EPDS in the electronic health record (EHR)
- EPDS completed outside <4 weeks 0 days or >8 weeks 0 days postpartum
- EPDS score ≥10 whilst inpatient immediately following childbirth

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Results

- Of 41,790 deliveries, 8,155 patients met inclusion/exclusion criteria
  - 1,107 (13.6%) screened positive (EPDS ≥10)

- Patients who **screened positive** within 1 year of screening
  - Had **higher rates of psychiatry referral/consultation/visits**
  - Referrals occurred **within 3 months postpartum**
  - Received a mental health diagnosis
  - Utilized psychiatric medication
  - Had **higher rates of infant hospital admission or new disease diagnosis**

- For patients who **screened negative**, 30.6% of psychiatry referrals/consults/visits occurred **≥6 months after postpartum delivery.**

Table 1: Outcomes following EPDS depression screening between 4 – 8 week up to 1 year postpartum

	Negative screen (EPDS 0–9 score) N=7,048	**Positive screen** (EPDS score ≥10) N=1,107	p-value
Medical psychiatry Referral/consultation/visits	75 (1.1%)	80 (7.2%)	<0.001
Psychiatry diagnosis All* Only F53**	 479 (6.8%) 92 (1.3%)	 339 (30.6%) 201 (18.2%)	 <0.001 <0.001
Psychiatric medication	139 (2.0%)	33 (3.0%)	0.030
Child hospital admission after discharge or disease	744 (10.6%)	133 (12.0%)	0.021

All* = Psychiatry diagnoses as per Appendix 1
F53** = ICD-10 code for Mental and behavioral disorders associated with the puerperium, not elsewhere classified

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Conclusion and Discussion

- In summary, **more patients with an EPDS ≥10 at 6-weeks postpartum** were referred to psychiatry services or had a child requiring provider intervention within 1 year postpartum
- Psychiatric needs may arise **later in the postpartum year** for patients who screen negative at 6 weeks
- Consider **extended longitudinal EPDS screening** to identify all individuals at risk

References and Appendix

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