

**Systematic review**

## Measures of depression and anxiety in women with hyperemesis gravidarum are flawed

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**Commentary on:** Mitchell-Jones N, Gallos I, Farren J, et al. Psychological morbidity associated with hyperemesis gravidarum: a systematic review and meta-analysis. *BJOG* 2017;124:20–30.

### Implications for practice and research

- ▶ Suggesting hyperemesis gravidarum (HG) is psychological can be offensive to women experiencing HG. Caregivers should be sensitive to patient needs for supportive care.
- ▶ New methods of psychological support should be tested in HG patients, such as phone counselling/texting the bedridden patient.
- ▶ Current measures of anxiety and depression are not applicable to HG. A new tool specific to HG is necessary.

### Context

Nausea and vomiting in pregnancy (NVP) is common, occurring in up to 91% of pregnant women. The most severe form, hyperemesis gravidarum (HG), occurs in as many as 2% of pregnant women. HG has been associated with significant psychological morbidity, and Mitchell-Jones *et al* provide the first systematic review and meta-analysis of the published data on depression and anxiety in pregnancies affected by HG. Current management is largely focused on anti-emetic treatment with over 23% of women with NVP prescribed medication to treat symptoms.<sup>1</sup> Mitchell-Jones *et al* use their review as evidence of a critical need to regularly assess and supplement patients with psychological support.

### Methods

The investigators searched electronic databases for studies of NVP and HG and psychological illness, including mood disorders, anxiety

disorders and post-traumatic stress disorder (PTSD), using standard search criteria. The meta-analysis was restricted to a case-control study design. The determination to include a manuscript was independently assessed by two reviewers. Quality of methodology was scored independently by three co-authors. The scoring system was based on selection criteria of cases and controls, comparability of cases and controls, and exposure criteria. The scores for depression and anxiety were compared between cases and controls using standard statistical methodology. Analysis of the heterogeneity between studies was performed graphically and statistically.

### Findings

Among 589 studies identified in the initial search, 59 were selected for full review, 12 were included in the meta-analysis of HG and depression and 10 for anxiety. A large effect was identified for depression (OR 9.12) determined by comparing 786 women with HG to 3965 controls. The estimated OR for anxiety was also high (4.76), determined by comparing 508 women with HG to 3673 controls. Although a meta-analysis could not be performed for PTSD, the authors reported on one study showing full criteria symptoms in 18% of women following an HG pregnancy and another study showed post-traumatic stress symptoms following an HG pregnancy did not increase recurrence risk.

### Commentary

The review and meta-analysis are reasonable and limitations of heterogeneity addressed. The issue of concern is the methodology used to score depression/anxiety in women with HG. A new scoring system is necessary because current scales rely on questions overlapping with HG. Patients have difficulty working, sleeping, low energy, low appetite, lose weight and are too ill for sex. It is inaccurate to use scoring systems (eg, Beck Depression Scale), which rely on answers to questions on ability to work, sleep, energy, appetite, weight loss and sexual activity. The questions lead to poor scores regardless of whether the patient is truly depressed or is simply suffering from HG. The same is true for anxiety, where symptoms included are common for anyone with nausea/vomiting—lightheaded, palpitations, unsteady, indigestion and hot/cold sweats.

That being said, violent vomiting, starvation and prolonged illness can cause distress and does imply women with HG may benefit from emotional support. The authors report some women with HG consider termination. Risk increases with an unsympathetic doctor,<sup>2</sup> so providing emotional support may help prevent therapeutic termination.

The authors determine there are no good data supporting a link between pre-existing psychological morbidity and developing HG, yet providers continue to tell patients that HG is psychological, which can be offensive. Stick to what is proven by twin studies: the cause of HG is unknown, but it is currently estimated that genetics accounts for at least 50% of the variation in symptoms.<sup>3</sup>



The major conclusion is to develop designated HG care teams providing follow-up, advice and support. Studies should determine what kind of support improves patient health. A bedridden patient may benefit more from telephone or online support than office visits. Endpoints that decrease impact of HG including request for termination, post-traumatic stress symptoms and limiting family size will help determine effectiveness of adding an emotional support protocol.

**Competing interests** None declared.

**Provenance and peer review** Commissioned; internally peer reviewed.

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## References

1. Taylor LG, Bird ST, Sahin L, et al. Antiemetic use among pregnant women in the United States: the escalating use of ondansetron. *Pharmacoepidemiol Drug Saf* 2017;26:592–6.
2. Poursharif B, Korst LM, Macgibbon KW, et al. Elective pregnancy termination in a large cohort of women with hyperemesis gravidarum. *Contraception* 2007;76:451–5.
3. Colodro-Conde L, Jern P, Johansson A, et al. Nausea and vomiting during pregnancy is highly heritable. *Behav Genet* 2016;46:481–91.