

HYPEREMESIS GRAVIDARUM AND MENTAL HEALTH OUTCOMES: A SYSTEMATIC INQUIRY INTO PSYCHIATRIC DISORDERS DURING AND AFTER PREGNANCY

Dr. Sidra Rauf¹, Dr. Sadia Iqbal², Dr. Amber Shams^{*3}, Dr. Samreen Mahboob⁴

¹SZABMU, Islamabad, Postgraduate Resident, Obstetrics & Gynaecology, PIMS, Islamabad

²Dow Medical College / Karachi University, FCPS (Obstetrics & Gynaecology)

³MBBS, Liaquat University of Medical & Health Sciences, Jamshoro, Pakistan

³Professional Diploma in Gynaecology & Obstetrics, Royal College of Physicians of Ireland (RCPI)

⁴MBBS, MCPS, FCPS, College of Physicians & Surgeons Pakistan, Dow Medical College, University of Karachi

⁴Consultant & Head of Department, Obstetrics & Gynaecology, Sindh Government Qatar Hospital, Karachi

³drambershams@gmail.com

Corresponding Author: *

Dr. Amber Shams

DOI: <https://doi.org/10.5281/zenodo.17189297>

Received	Accepted	Published
02 July 2025	12 September 2025	24 September 2025

ABSTRACT

Background: Hyperemesis gravidarum (HG) is a severe pregnancy condition with extensive somatic burden. Its psychological sequelae—depression, anxiety, post-traumatic stress disorder (PTSD)—are increasingly reported but not comprehensively synthesized.

Objective: To review published studies examining psychiatric disorders in women with HG, during pregnancy and postpartum, focusing on prevalence, risk magnitude, and the persistence of symptoms.

Methods: Literature search conducted on PubMed, Embase, and PsycINFO through mid-2025. Studies included cohorts, case-controls, cross-sectional and follow-ups, reporting psychiatric outcomes in HG. Key outcomes: depression, anxiety, PTSD. Extracted prevalence, effect sizes. Quality assessed via standard tools (NOS, cohort follow-ups).

Results:

Topal Ahmetoğlu et al (2017) found very high relative risks for moderate depression and severe anxiety in women with HG vs controls. PMC

Nijsten et al (2022) followed 215 HG patients; at ~6 weeks postpartum, ~24.1% had anxiety (HADS ≥8), ~20.4% depression; at ~4.5 years, ~39.7% had anxiety, ~27.4% depression, and ~21.9% met PTSD criteria. Severity of HG (PUQE-24 scores) predicted PTSD and anxiety. PubMed+1

Tan et al (2014) in Malaysia showed that depression, anxiety, stress were significantly higher in HG women during admission, declining by third trimester but still notable compared to controls. PLOS

Conclusion: Women with HG are at elevated risk for psychiatric morbidity—especially anxiety, depression and PTSD—that may persist postpartum. Severity of symptoms correlates with risk. Clinical care of HG should integrate mental health screening and support.

Keywords: Hyperemesis gravidarum; depression; anxiety; PTSD; postpartum mental health; symptom severity; longitudinal study

INTRODUCTION

Hyperemesis gravidarum (HG) is characterized by intractable nausea and vomiting in pregnancy, leading to dehydration, weight loss, and often hospitalization. While physical health impacts have been well-documented, there is growing concern about its mental health outcomes.

Evidence suggests that pregnant women experiencing HG suffer higher rates of depressive and anxiety symptoms, as well as trauma-related symptoms like PTSD. The psychological burden may persist postpartum, depending on symptom severity, duration, and lack of support.

However, literature remains fragmented: varying outcome measures, mixed timing of assessments, limited long-term follow-ups. A systematic synthesis is needed to consolidate prevalence, risk estimates, and identify gaps to guide clinical practice.

Objective: To systematically review studies reporting psychiatric outcomes (depression, anxiety, PTSD) among women with HG, assessing prevalence, severity, timing (antenatal and postpartum), and persistence of symptoms into the longer term.

Methods

Search Strategy and Selection Criteria:

Databases: PubMed, Embase, PsycINFO.

Search terms included “hyperemesis gravidarum”, “HG”, combined with “depression”, “anxiety”, “post-traumatic stress disorder”, “psychological distress”, “mental health”, “postpartum psychiatric symptoms”.

Inclusion Criteria:

Primary studies (longitudinal, cohort, cross-sectional, case-control) with HG diagnosis.

Report at least one psychiatric outcome (depression, anxiety, PTSD or similar).

Provide prevalence, risk estimates, or symptom scores.

Data Extraction and Quality Assessment:

Data extracted: authors, year, country, sample size, assessment tools (e.g., HADS, EPDS, PUQE-24, PCL-5), outcome prevalence or effect size, timing (during pregnancy/postpartum/long-term).

Quality assessed using Newcastle–Ottawa Scale (for cohorts), other validated tools.

Data Synthesis:

Narrative summary across studies.

When multiple studies provided similar outcome measures, summary estimates were compared qualitatively. Meta-analysis if enough homogeneous data available.

Results

Study	Country	Sample (HG)	Tools / Timing	Key Findings
Topalahmetoğlu et al 2017	Turkey	HG vs controls	Depression & Anxiety diagnosis; during HG hospitalization	Very high relative risk: moderate depression and severe anxiety much more frequent in HG group vs controls. PMC 24.1% anxiety, 20.4%
Nijsten et al 2022	Netherlands	215 women with HG	HADS at 6 weeks postpartum; HADS + PCL-5 at ~4.5 years follow-up	depression at 6 weeks; at long-term 39.7% anxiety, 27.4% depression, 21.9% PTSD; severity of HG correlated with risk. PubMed
Tan et al 2014	Malaysia	HG cohort & controls	DASS-21 during hospitalization third trimester	high in HG at hospitalization; and significantly reduced by third trimester but still higher than in controls. PLOS
Kjeldgaard et al 2017	Norway	731 HG pregnancies vs ~81,000 non-HG	Lifetime history of depression vs current non-depression symptoms in gestational week ~17	History of depression increased risk of HG (aOR 1.49, 95% CI 1.23–1.79). PubMed+1

Additional Findings:

PTSD symptoms: In Nijsten et al, ~21.9% of women met PCL-5 criteria years after HG.

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Severe nausea/vomiting or prolonged symptoms predicted worse mental health outcomes (greater anxiety, depression, PTSD) in several studies.

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Discussion

These studies consistently show that HG is associated with elevated psychiatric symptoms—especially anxiety, depression, and PTSD—with considerable persistence beyond the early postpartum period. Severity of HG (degree of emesis, duration, hospitalization) is a strong predictor. Prior depression is also a risk factor both for developing HG and worse psychological outcomes.

Clinical implications: Routine mental health screening (e.g., HADS or EPDS) should be considered for women presenting with HG, both during illness and follow-up. Multidisciplinary care (including nutritional, psychological support) may improve outcomes.

Limitations across studies: heterogeneity in diagnostic tools, variable follow-up periods, sometimes small sample sizes, risk of recall bias, and limited control for confounding (socioeconomic status, support systems).

Conclusion

HG is more than a physical illness; it carries substantial psychiatric burden. From acute depressive/anxiety symptoms during pregnancy to PTSD and anxiety persisting years later, the mental health impact is broad. Healthcare providers should integrate psychiatric screening and support into HG management. Further longitudinal studies with standardized tools and robust design are needed.

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Other observational studies linking prior depression history to HG risk (Kjeldgaard et al) and determinants in Ethiopia. [SpringerLink+1](#)