



Nutritional intake, weight change and quality of life in Hyperemesis Gravidarum:

Data from the Nutritional Online sURvey for pRegnancy Induced Sickness & Hyperemesis (NOURISH) study

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Background:

Hyperemesis Gravidarum (HG) affects approximately 1-2% of pregnancies, leading to weight loss, malnutrition and electrolyte disturbances. However it is relatively under researched and little is known about nutritional intake and its consequences^{1,2}.

Objective:

To explore nutritional factors and the association with quality of life in HG.

Methods

Eligibility criteria: 6-11 weeks pregnant, ≥ 18 years old and residing in the UK.

Recruitment: via social media

Data collection

PUQE24

Food diary mobile app

Quality of life questionnaire

Analysis: Descriptive statistics, Mann Whitney, Chi square tests and Spearman bivariate correlations.

Patient and public involvement group participated throughout study

Results:

- 166 participants were recruited in total, 51 categorised as having HG.
- The median gestation at recruitment was 8 (IQR 3) weeks.
- 63.3% (n=105) were between 25-34 years old and 84.2% (n=139) multiparous.
- Median weight change from pre pregnancy was -3.63 kg (IQR 3.91) in the HG group and 0.00kg (IQR 2.00) in the non-HG group ($p < 0.05$).
- In those who completed the diet diary (n=70), intakes of **energy, carbohydrate, protein, fat, fibre, iron, thiamine, folate, vitamins C and D** were all significantly lower in the HG group ($p < 0.05$ for all), as was intake of **any nutritional supplement** ($p < 0.05$).
- Those with HG scored significantly lower on all domains of the quality of life score ($p < 0.05$).
- There were moderately strong negative correlations between energy intake and quality of life ($\rho = -0.553$) and weight change and quality of life ($\rho = -0.583$) ($p < 0.05$ for both), meaning those with **the lowest calorie intake and greatest weight loss had worse quality of life scores and vice-versa**.

Conclusions:

- This UK-based pregnancy study highlights the poor nutritional intake and weight loss in those with HG. **Energy intake and weight change were significantly negatively correlated with quality of life** in the first trimester of pregnancy.
- Future research should further investigate the association between nutritional factors and perinatal outcomes.

References:

1. Maslin et al. (2021) Eur J Obstet Gynecol Reprod Biol, PMID: 33360613
2. Dean et al. (2021) BMJ Open, PMID: 33452191

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