



www.figo.org

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

CLINICAL ARTICLE

Q1 Validation of specific questionnaires to assess nausea and vomiting of pregnancy in a French population

Q2 Vincent Dochez^a, Jérôme Dimet^b, Aurélie David-Gruselle^a, Aurélie Le Thuaut^b, Guillaume Ducarme^{a,*}^a Department of Obstetrics and Gynecology, Centre Hospitalier Departemental, La Roche sur Yon, France^b Clinical Research Center, Centre Hospitalier Departemental, La Roche sur Yon, France

ARTICLE INFO

Article history:

Received 18 October 2015

Received in revised form 25 January 2016

Accepted 11 May 2016

Keywords:

First trimester of pregnancy

Health-Related Quality of Life for Nausea and

Vomiting of Pregnancy score

Nausea and vomiting of pregnancy

Pregnancy-Unique Quantification of Emesis and

Nausea score

Quality of life

Questionnaire

ABSTRACT

Objective: To validate the modified Pregnancy-Unique Quantification of Emesis and Nausea (PUQE) score and the Health-Related Quality of Life for Nausea and Vomiting of Pregnancy (NVP-QOL) score in a French population. **Methods:** A retrospective study was conducted of data for women who delivered at a tertiary care hospital in La Roche sur Yon, France, between November 1, 2012, and April 1, 2013. Only women who reported nausea and vomiting of pregnancy (NVP) in the first trimester were invited to respond to the two questionnaires. **Results:** Overall, complete questionnaires were available from 399 women, 238 (59.6%) of whom reported NVP in the first trimester. The modified-PUQE score was associated with the self-reported symptom severity ($P < 0.001$). A relationship was also noted when either the NVP-QOL score or the modified-PUQE score was compared with the symptom intensity ($P < 0.001$ for both comparisons). Furthermore, a high NVP-QOL score was associated with a high modified-PUQE score ($P < 0.001$). **Conclusion:** The modified-PUQE and NVP-QOL scores provided valid indices for assessing NVP severity and alterations in quality of life. Owing to its simplicity, the modified-PUQE score might be used routinely among women experiencing NVP in the first trimester of pregnancy.

© 2016 Published by Elsevier Ireland Ltd. on behalf of International Federation of Gynecology and Obstetrics.

1. Introduction

Nausea and vomiting of pregnancy (NVP) occurs in 50%–80% of all pregnancies worldwide, particularly during the first trimester [1]. A severe form of NVP, known as hyperemesis gravidarum, is reported among a small proportion of affected individuals (0.3%–3.6%); this condition can lead to weight loss, dehydration, electrolyte disorders, and even hospitalization [2,3]. By contrast, the symptoms associated with most cases of NVP are generally mild, although they can still affect quality of life (QOL), with substantial morbidity and cost to society [4–6]. Multiple scores have been developed to accurately describe patients' symptoms, but they are rarely used in clinical practice, because they are little known by physicians or take too long to complete [7].

Two scores are available for use among pregnant women. Koren et al. [8] created the Pregnancy-Unique Quantification of Emesis and Nausea (PUQE) score, which evaluates NVP symptoms occurring in the previous 12 hours. This method has proven useful to evaluate the effectiveness of an anti-emetic agent, but its utility is limited for longer periods, such as during the first trimester of pregnancy. In 2008, Lacasse and al. [9] produced the modified-PUQE score, which combines all

symptoms occurring from the beginning of the current pregnancy. A second score—the Health-Related Quality of Life for Nausea and Vomiting in Pregnancy (NVP-QOL)—was developed by Magee et al. [10]. This score was compared with the 12-item Short Form Health Survey and found to be effective for use during the first trimester of pregnancy [11]. Other studies have confirmed the utility of this score in the evaluation of QOL during episodes of NVP [12,13]. Nevertheless, few studies have been published concerning the use of these two scores among pregnant women [14].

The aims of the present study were to assess the modified-PUQE and NVP-QOL scores according to the severity of NVP and any alteration in QOL, and to analyze the correlation between these two scores in a French population.

2. Materials and methods

A cross-sectional study was conducted at Centre Hospitalier Departemental, La Roche sur Yon, France. The study center is a tertiary care hospital that records more than 2600 deliveries each year. Women who delivered between November 1, 2012, and April 1, 2013, and who reported NVP during their first trimester were enrolled. Exclusion criteria were delivery before 24 weeks, intrauterine fetal death, elective induced abortion, inability to speak or read French, and refusal to fill out the questionnaires. The protocol was performed in accordance with the Declaration of Helsinki and approved by the Ethics Committee

* Corresponding author at: Department of Obstetrics and Gynecology, Centre Hospitalier Departemental, Les Oudairies, Boulevard Stéphane Moreau, 85000 La Roche sur Yon, France. Tel.: +33 251446570; fax: +33 251446404.

E-mail address: g.ducarme@gmail.com (G. Ducarme).

of the National College of Obstetricians and Gynecologists (Comité d'Éthique de la Recherche en Obstétrique et Gynécologie, Paris, France; CEROG OBS 2015-07-09). All women provided informed oral consent before participation.

Data were obtained for demographic variables, lifestyle, treatment used during pregnancy, and QOL. Participants completed the modified-PUQE and NVP-QOL questionnaires in the obstetrics department after delivery. The French linguistic versions were used [9,11] and incomplete questionnaires were excluded from the analysis.

The modified-PUQE questionnaire [9] was used to evaluate three specific symptoms of NVP occurring since the beginning of pregnancy. This tool uses a five-point Likert scale that measures the duration of nausea, vomiting frequency, and the frequency of retching or dry heaves. Scores were calculated by assigning a value to each response from "causing the least possible discomfort" (score of 1) to "causing the most possible discomfort" (score of 5). The total score was obtained by summing the responses to each of the three items, which ranged from no symptoms (score of 3) to maximal symptoms (score of 15). This measure was used to define mild MVP (score of 3–6), moderate NVP (score of 7–12), and severe NVP (score of ≥ 12).

The NVP-QOL questionnaire [10] uses a seven-point Likert scale covering 30 items of potential importance for QOL. The items were categorized into four general domains: physical symptoms and/or aggravating factors ($n = 9$), fatigue ($n = 4$), emotions ($n = 7$), and limitations ($n = 10$). Scores were calculated by assigning a value to each response, from 1 ("none of the time") to 7 ("all the time"), although scores for question 20 were reversed (a score of 1 indicated the patient felt reassured that she had the usual symptoms of a normal pregnancy "all the time" and a score of 7 indicated that she felt reassured "none of the time"). The total score was obtained by summing the responses of each of the 30 items. The minimum score was 30 (corresponding to good QOL) and the maximum score was 210 (corresponding to poor QOL).

After name coding, all information was transferred to a computerized database and analyzed using Excel 2000 (Microsoft, Redmond, WA, USA) and SPSS version 17.0 (SPSS Inc, Chicago, IL, USA). Maternal and neonatal characteristics were described according to presence or absence of NVP, and according to NVP severity (mild, moderate, and severe). Qualitative variables were expressed as numbers and percentages; quantitative variables were expressed as means and standard deviations. The modified-PUQE scores were described as means and standard deviations according to NVP status and treatment. Continuous variables were compared using the Student *t* test or the Wilcoxon–

Table 2
Treatment of nausea and vomiting of pregnancy during the first trimester ($n = 238$).^a

Treatment	No. (%)	Modified-PUQE score	<i>P</i> value
Medications			<0.001
Yes	144 (60.5)	8.2 \pm 2.6	
No	94 (39.5)	7.0 \pm 2.1	
Non-pharmacological methods			0.03
Yes	120 (50.4)	7.8 \pm 2.5	
No	118 (49.6)	7.1 \pm 2.2	
Non-pharmacological methods used ^b			0.93
Acupressure	5 (2.1)	8.4 \pm 2.1	
Homeopathic treatment	73 (30.7)	8.2 \pm 2.6	
Dietary changes	85 (35.7)	8.0 \pm 2.6	
Phytotherapy	7 (2.9)	8.7 \pm 2.9	
Hospitalization for severe nausea and vomiting of pregnancy			<0.001
Yes	3 (1.3)	11.3 \pm 1.5	
No	235 (98.7)	7.4 \pm 2.3	

Abbreviations: NVP, nausea and vomiting of pregnancy; PUQE, Pregnancy-Unique Quantification of Emesis and Nausea.

^a Values given as number (percentage) or mean \pm SD, unless indicated otherwise.
^b More than one method was used for some women who received non-pharmacological treatment.

Mann–Whitney test. The qualitative variables were compared using the χ^2 or Fisher test as appropriate. The association between self-reported symptom severity and the NVP-QOL and modified-PUQE scores, and the association between modified-PUQE (measure of NVP severity) and NVP-QOL scores, were described using box plots and tested using the Kruskal–Wallis test and Spearman rank correlation. $P < 0.05$ was considered statistically significant.

3. Results

A total of 835 women who had delivered during the present study period were eligible for inclusion. Questionnaires were recovered for 461 (55.2%) women; 62 (7.4%) had incomplete questionnaires and were excluded from the analysis. Therefore, the final sample comprised 399 women.

Overall, 238 (59.6%) women reported NVP in the first trimester of pregnancy. The presence of NVP in a previous pregnancy was associated with recurrence of NVP in the following pregnancy ($P < 0.001$) (Table 1). By contrast, smoking during the first trimester was associated with

Table 1
Maternal and neonatal characteristics.^a

Characteristic	Patients with NVP ($n = 238$)	Patients without NVP ($n = 161$)	Crude OR (95% CI)	<i>P</i> value
Age, y	30.5 \pm 4.0	29.9 \pm 4.6	1.03 (0.98–1.08)	0.22
Living arrangement				
With spouse or with someone else	233 (97.9)	159 (98.8)	Ref.	NA
Alone	5 (2.1)	2 (1.2)	1.70 (0.33–8.61)	0.71
Work status				
Student or not working	24 (10.1)	27 (16.8)	Ref.	NA
Working	214 (89.9)	134 (83.2)	1.08 (1.00–1.17)	0.07
NVP in a previous pregnancy	124 (52.1)	20 (12.4)	4.19 (2.73–6.43)	<0.001
Smoking during first trimester	45 (18.9)	45 (28.0)	0.68 (0.47–0.97)	0.04
Pre-pregnancy body mass index ^b	24.2 \pm 5.7	24.0 \pm 4.8	1.01 (0.97–1.04)	0.71
Maternal weight gain, kg	10.4 \pm 4.8	11.3 \pm 5.0	0.96 (0.92–1.00)	0.09
Nulliparity	83 (34.9)	72 (44.7)	0.66 (0.44–1.00)	0.06
Gestational diabetes mellitus	24 (10.1)	13 (8.1)	1.25 (0.66–2.38)	0.60
Cesarean delivery	48 (20.2)	19 (11.8)	1.71 (1.05–2.80)	0.03
Length of pregnancy at delivery, wk	39.6 \pm 1.5	39.9 \pm 1.1	0.85 (0.73–0.99)	0.04
Singleton	237 (99.6)	159 (98.8)	1.01 (0.99–1.03)	0.57
Male neonate	113 (47.5)	82 (50.9)	0.93 (0.76–1.14)	0.54
Birth weight, g	3281 \pm 502	3329 \pm 426	0.89 (0.72–1.11)	0.32
Breastfeeding	109 (45.8)	71 (44.1)	1.04 (0.83–1.30)	0.76

Abbreviations: NVP, nausea and vomiting of pregnancy; OR, odds ratio; CI, confidence interval; NA, not applicable.

^a Values given as mean \pm SD or number (percentage), unless indicated otherwise.

^b Calculated as weight in kilograms divided by the square of height in meters.

Download English Version:

<https://daneshyari.com/en/article/6186511>

Download Persian Version:

<https://daneshyari.com/article/6186511>

[Daneshyari.com](https://daneshyari.com)