



Postpartum depression among women with under 1-year-old babies in Ngo Quyen district, Hai Phong city in 2023

Luu Thanh Hoan¹

¹Nam Dinh University of Nursing

ABSTRACT

Objectives: Describe the current status of postpartum depression through screening according to the EPDS in women with under 1-year-old babies in 2 wards, Ngo Quyen district, Hai Phong in 2023. **Methods:** Cross-sectional descriptive study was conducted among 206 mothers with under 1 year old children from October 2022 to July 2023 in Dong Khe and Dang Giang wards, Ngo Quyen district, Hai Phong. The study utilized the Edinburgh Postnatal Depression Scale to screen for postpartum depression. **Results:** The mean score of postpartum depression screening according to the EPDS among mothers was 4.32 ± 0.32 ; The proportion of mothers with postpartum depression (EPDS score ≥ 10) was 20.4%. **Conclusion:** Postpartum depression in women with under 1-year-old babies in Hai Phong city was still high, these mothers need advising and intervening promptly.

Keywords: Postpartum depression, women

INTRODUCTION

Postpartum blues is a common psychological disorder in women after giving birth. About 80% of women show signs of postpartum depression on the 4th or 5th day, most of which subside spontaneously on the 10th to 14th day after birth without intervention. However, in some people, this condition does not improve on its own but develops into postpartum depression (PPD) ¹. PPD is an emotional disorder characterized by a decrease in mood that lasts for about the first year after giving birth. According to global data, PPD can have many degrees, occurring in 10 - 20% of pregnant women according

to many different studies, this percentage can be higher up to 26%, as observed in single mothers and adolescents, even higher in people with low social position, low educational level or malnourished people ².

Like other mental illnesses, screening for PPD is very important. According to statistical studies, screening, detecting, and monitoring women at risk of PPD helps reduce the risk of depression by up to 9%. Among the tools used to screen for PPD as recommended by the American Association of Obstetricians and Gynecologists Foundation (updated in January 2017), the Edinburgh Postpartum Depression Scale (EPDS) was the most commonly used, accounting for 68 % ^{3,4}.

Ngo Quyen District is one of the two largest central districts of Hai Phong City, the population here is quite diverse, and the economic and cultural characteristics, and living conditions are also very rich. Therefore, the study was conducted in the two wards with the largest population of the district, in order to provide more information to contribute to maternal and child health care in Ngo Quyen district particularly and Hai Phong city generally. For the above reasons, the research was conducted with the aim of describing the current status of postpartum depression through screening according to the EPDS scale among women with under 1-year-old babies in 2 wards of Ngo Quyen district, Hai Phong in 2023.

PARTICIPANTS AND METHODS

Participants: Women lived in 2 wards: Dong Khe and Dang Giang of Ngo Quyen district, Hai Phong

Inclusion criteria: Women had children under 1 year old and voluntarily participated in the study

Exclusion criteria: Women had children under 1 year old who were not biological children. Women were unable to answer questions (due to mental illness or other illness).

Time and place of the study: The study was conducted in 2 wards: Dong Khe and Dang Giang of Ngo Quyen district, Hai Phong from October 2022 to July 2023.

Research design: A descriptive cross-sectional study was conducted through an investigation to determine the proportion of postpartum depression through screening mothers with under 1-year-old babies in 2 wards Dong Khe and Dang Giang in 2023 according to EPDS.

Sample and sample selection method:

The formula was applied to calculate the sample size:

$$n = Z_{1-\alpha/2}^2 \frac{p(1-p)}{d^2}$$

Where:

n: minimum sample size needed for research. $Z_{1-\alpha/2}$: 95% reliability ($Z_{1-\alpha/2} = 1.96$). p: percentage of postpartum depression among mothers with under 1-year-old babies screened according to EPDS (selected $p = 0.159$)⁵. d: deviation. Choose $d = 0.05$

Substituting the values into the formula, a minimum sample size was calculated with $n = 206$.

Therefore, the minimum sample size was 206 mothers with under 1-year-old babies.

Sampling method: Places selected for the study were the 2 wards with the largest population among the 12 wards of Ngo Quyen district, Hai Phong City.

The convenient sampling method was employed, specifically as follows: Selected all mothers with under-1-year-old babies to have their children vaccinated at Dong Khe and Dang Giang medical stations, then interviewed them in the post-injection waiting room of the medical station until the calculated sample size was satisfactory.

Postpartum depression scale: The Edinburgh Postnatal Depression scale was utilized to screen for postpartum depression. The scale includes 10 items, asking about the mood of mothers with under-1-year-old babies in the past 7 days. Each item has 4 answer options, calculated on a scale from 0 to 3 points, in which questions 1, 2, 4, 5, 6, 7, 8, 9, and 10 are scored from 0 to 3 points, and question 3 is scored in reverse from 3 to

0 points. The total score of the questionnaire ranges from 0 to 30 points, the higher the score is, the more severe the depression level is. In fact, studies on depression in Vietnam used many different cut-off points (3/4, 9/10, and 12/13), but the cut-off point of 9/10 was the most recommended cut-off point to detect depression which was also used in some Asian countries having many cultural similarities with Vietnam ⁴. The study was conducted with the selected assessment threshold of 10 points:

- + Total score from 0 to 9: No depression
- + Total score \geq 10: Depression

Data analysis: Data were coded and analyzed using SPSS 22.0 software. Parameters are expressed as numbers and percentages, presented through tables and charts.

Ethical issues of research: The research was approved by the Protocol Council of Thai Binh University of Medicine and Pharmacy according to decision No. 1767/QD-YDTB.

RESULTS

Table 1. General information of participants (n = 206)

Variable		Number (n = 206)	Percentage (%)
Age group	< 25	39	18.9
	\geq 25	167	81.1
<i>Average age: 30.56; Oldest - youngest: 45 – 18; The most common age: 30</i>			
Career	Staff	51	24.8
	Housewife/Freelancer	79	38.3
	Worker	54	26.2
	Unemployment	14	6.8
	Other	8	3.9

The proportion of participants under the age of 25 accounted for 18.9%. The percentage of participants who were housewives/freelancers, staff, workers, unemployed, and other occupations were 38.3%, 24.8%, 26.2%, 6.8%, and 3.9% respectively.

Table 2. Results of postpartum depression screening scores among mothers according to EPDS (n = 206)

Content	Result
EPDS mean score	4.32 \pm 0.32
EPDS highest score	23
EPDS lowest score	0

The highest score of screening for postpartum depression among participants according to the EPDS scale was 23 points, the lowest was 0 points, and the EPDS mean score was 4.32 \pm 0.32.

Table 3. Percentage of postpartum depression among participants screened according to EPDS (n = 206)

Content		Number	Percentage (%)
Postpartum depression	<i>have (EPDS ≥ 10)</i>	42	20.4
	<i>Do not have (EPDS ≤ 9)</i>	164	79.6
Total		206	100

The percentage of participants with postpartum depression screened according to the EPDS scale (EPDS score ≥ 10) was 20.4%.

Table 4. Percentage of having thoughts of self-harming among participants screened according to EPDS (n = 206)

Having thoughts of self-harming	Number	Percentage (%)
Never	179	86.9
Have		
1. Rarely	14	6.8
2. Occasionally	12	5.8
3. Quite often	1	0.5

Through screening according to EPDS, the percentage of participants rarely, occasionally, and quite often having thoughts of self-harming was 6.8%, 5.8%, and 0.5% respectively.

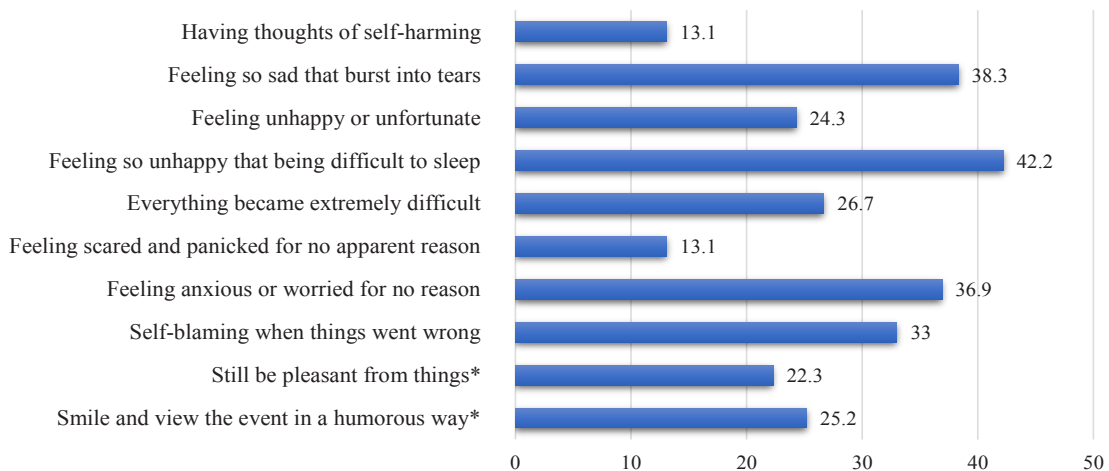


Figure 1. Percentage of occurrence of signs of postpartum depression among participants screened according to EPDS (n = 206)

Figure 1 indicated that, regarding the Percentage of occurrence of signs of postpartum depression among participants screened according to EPDS, the most common occurrences were: Feeling so unhappy that it is difficult to sleep (42.2% of the participants); Feeling so sad that burst into tears (38.3% of the participants); Feeling anxious or worried for no reason (36.4% of the participants); Blaming him/herself when things went wrong (33% of the participants).

DISCUSSION

Through similar research results published recently, the percentage of participants suffering from postpartum depression was different depending on each of the postpartum periods, and research locations. In this study, the percentage of PPD among mothers with under-1-year-old babies living in Dong Khe and Dang Giang wards was 20.4%. This result was similar to the results of PPD screening among women with under-6-month babies in Can Tho City in 2019 ⁶. This percentage was within the range of global PPD proportion by Ziyi Wang at Wuhan University, China who mapped the global prevalence of depression among postpartum women by analyzing 565 studies from 80 countries with 172,342 participants. However, the proportion of postpartum depression in this study was higher than the proportion of postpartum depression in the Southeast Asia region alone, 13.53% (CI95% 11.00–16.52), which may be explained because the incidence of PPD according to the analysis was closely related to countries' development and national income. Even among countries of the same economic class, there were still differences in the percentage of PPD ⁷. This result was also higher than the results of PPD screening according to the EPDS on women aged 18 years and older, within 12 months of giving birth, currently living in 2 wards Thuan Hoa and Thuy Bieu, Hue City in 2019. 2016 ⁵. Although the screened mothers were equal in both age and the postpartum period, the research places were located in two different regions of Vietnam so there would often be differences in lifestyle, habits, tolerance, and human personality, which may be the reason for the difference in results. According to a study analyzing 47 articles on postpartum

depression among Vietnamese women from 2010 to 2020, there were 18 studies eligible for literature review. The analysis results reported that the percentage of PPD among Vietnamese participants had a large difference (8.2–37.1%). The PPD percentage in the study was also within this range. Differences in reported PPD percentage may be due to differences in the way of PPD determination, the limited point of the scale, or, even though the same scale was used, the proportions may still be different due to differences in the characteristics of the participants ⁸. This also explained why some studies in hospitals had different PPD percentages than studies in the community. According to the results of research on signs of postpartum depression among mothers at Tra Vinh Obstetrics and Children's Hospital in 2018, the percentage of postpartum depression was 23.7% ⁹. The proportion of PPD among mothers at the Central Obstetrics Hospital in 2023 was 7.6% ¹⁰. The percentage of PPD among mothers with premature babies being treated at Children Hospital No. 1 in 2011 was 70.8% ¹¹. The percentage of PPD among mothers with under-6-month babies treated at Nam Dinh Children's Hospital in 2022 was 34.2% ¹². Normally, worries about the child's health and economic problems when the children are sick, especially in the postpartum period when both their physical and mental health have not yet fully recovered, make mothers more susceptible to depression.

Although there were many different results in the percentage of PPD in this study and many other studies, in summary, some reasons caused the difference as follows: Objectively, postpartum depression was related to socio-cultural issues, so research in different socio-cultural regions would have differences in incidence. Subjectively, this

research was a cross-sectional descriptive study, participants were only let to self-assess their emotions once in the last 7 days, so if there were mothers who showed signs of depression during the pregnancy and lasting until the time of this interview, the study could not rule it out and may affect the research results.

CONCLUSION

The percentage of postpartum depression among the participants was 20.4%; 5.8% of them occasionally had thoughts of self-harming appearing in their minds.

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