

Logistic regression for predicting early postpartum depressive symptoms in Japanese first-time mothers aged 35 and over

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Objective

To identify factors for predicting postpartum depressive symptoms during hospitalization after childbirth in Japanese first-time mothers aged 35 and over.

Background

Japan is showing a trend towards later childbearing. In 2006, 5.6% of women giving birth were first-time mothers at age 35 and over; this increased to 8.4% in 2011. Older first-time mothers have been shown to be at increased risk for pregnancy complications compared with younger women. These women also possess several psychosocial characteristics such as increased autonomy, limited social support and limited prior experiences with children, which may potentially cause poorer maternal adaptation after childbirth. Older first-time mothers may therefore demand more careful consideration from health care professionals not only during pregnancy but also after childbirth.

Methods

Participants

The sample of this study came from the prospective cohort study that we conducted to examine physical and psychosocial well-being during the first 6 months postpartum in Japanese mothers. The study was undertaken at 12 hospitals in the Kanto and Kansai areas in Japan from May 2012 through September 2013. Women were recruited by researchers or research nurses during their hospitalization after delivery.

<u>Inclusion criteria</u>
▪Japanese women aged 16 and over
▪0 to 4 days postpartum
▪Singleton live birth vaginally or operatively
▪Fixed address during the 6 months after the time of recruitment
<u>Exclusion criteria</u>
▪Having difficulty with communication in Japanese
▪Having serious health problems, either in the mother or newborn

Data collection

Data were collected using the self-report questionnaires at the day before hospital discharge.

- Depressive symptoms: The Japanese version of the Edinburgh Postnatal Depression Scale (The Japanese-EPDS)
- Demographics and background information

Vital records data were obtained by research nurses at the hospital.

Data analysis

We performed stepwise logistic regression through SPSS ver. 21. The two-category outcome was whether a woman scored >9 in the Japanese-EPDS.

Results

- Of the original 3769 women who agreed to participate, 3633 women responded to the questionnaire during the hospital stay (96.4% response rate). From this sample, we created a group of 461 first-time mothers aged 35 and over.
- Nearly 21% of women scored >9 on the Japanese-EPDS during the hospital stay.
- Six predictors provided an adequate model. (See Table)

Discussion

Nursing assessment of women should include women’s perceptions of their birth experience, women’s perceptions of their physical burden during the hospitalization, their concerns about life including newborn caretaking after discharge and perceptions of newborn long-term complications. These assessments will lead to appropriate nursing support which may help to prevent PPD for older first-time mothers.

Acknowledgement

This study was supported by the Funding Program for the Next Generation World-Leading Research (No. LS022) from the Cabinet Office, Japan.

Table. Results of logistic regression analysis (n=461)				
Independent variables	B	Wald	OR	95%CI
Type of delivery				
Vaginal			1.000	
Planned CS	-0.216	0.261	0.806	0.352; 1.845
Emergency CS	1.058	9.559**	2.879	1.473; 5.629
Physical burden in daily life	1.111	4.703*	3.037	1.113; 8.291
Satisfaction with birth experience	0.726	7.682**	2.066	1.237; 3.451
Newborn’s long-term complications	1.533	10.020**	4.631	1.793; 11.964
Concerns about infant caretaking after discharge	0.192	7.309**	1.212	1.054; 1.392
Concerns about one’s own life after discharge	0.213	9.863**	1.238	1.084; 1.414

*p<.05; **p<.01; ***p<.001
OR: odds ratio; CI: confidence interval; CS: cesarean section