An Analysis on Influencing Factor of Parenting Sense of Competence Among Puerperant in Tianjin

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Background: *to get a knowledge of parenting sense of competence (PSOC) among parturient women in Tianjin and analyze the corresponding influencing factors, provide theoretical foundation for guaranteeing maternal and infant's physical and mental health, and thereby guide clinicians and nurses to administrate intervention to improve PSOC.*
Methods: *the traditional convenience sampling method was adopted. Parturient women 1-3 day postpartum were selected to fill in a questionnaire involving PSOC, the Edinburgh Postpartum and Gestational Depression Scale and other general questions.*
Results: *the total score of PSOC was (.95±9.85) points, and the score of parenting satisfaction was (36.62±7.38) points, and the score of parenting efficacy was (37.84±5.01) points. Multivariate stepwise analysis showed that education level, number of birth and total score of depression were the main factors affecting the level of PSOC (P<0.05).*
Conclusion: *improvements in PSOC among parturient women in Tianjin is in demand and special attention should be paid to those with low-level education and/or depression and primiparas.*

BACKGROUND

The concept of parenting sense of competence (PSOC) is gradually derived from Rosenberg's parenting self-esteem education theory.[1] In 1977, parenting self-esteem evolved into two important aspects by Gibaud-wallston, parenting efficacy and satisfaction of parenting, which are important symbols to ensure the realization of the mother's parenting role.[2] In 2007, Suwansujarid et al. unified the definition of parenting competence, which was collectively referred to as the efficacy and ability of parents to meet various needs in the parenting.[3] By investigating the level of maternal PSOC and further analyzing its influencing factors, this study provided theoretical basis for guaranteeing maternal and infant's physical and mental health, helped clinician and nurses to perform effective intervention to improve maternal PSOC.

SUBJECTS AND METHODS

Subjects

Parturient women of 1 to 3 days after delivery were selected as subject and convenience sampling was used. Inclusion criteria was as follows: Parturient women without abnormalities in pregnancy and childbirth; gestational age of at least 20 years; those of monocyesis with fetus/newborn in good health; informed consent was sealed on inclusion. Exclusion criteria: those with other postpartum complications; those with mental illness, cognitive disorder and language communication disorder before pregnancy.

Methods

Questionnaire survey method was adopted and the

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questionnaire was filled in anonymously with unified explanation and guidance by the researcher. The questionnaire was collected on completion and checked to assure quality.

General Questionnaire

The general questionnaire included age, birth times, way of delivery, way of feeding, education level, single child or not, average monthly salary per family member. the Chinese version of PSOC(C-PSOC) was used in this study. C-PSOC was translated and produced by Yang et al.[4] in 2014 and proved to be of good reliability and validity by a survey involving 189 parturient women, with a mean Cronbach'α coefficient of 0.82 and a content validity coefficient of 0.98, which testified its potential for evaluating the adaptation of mother's role. The Edinburgh Postnatal Depression Scale (EPDS) was translated and compiled by Lee et al.[5] using scale by Cox et al. and was an effective screening tool for postpartum depression. The total score ranges from 0 to 30 points, a score beyond 13 points indicated a tendency to depression. And higher score indicated higher degree of depression. In this study, the mean Cronbach 'α coefficient was 0.86, and the content validity coefficient was 0.93.

Statistical Method

EpiData3.1 was used to computerize the data. After manual verification, SPSS 25.0 was used to perform statistical analysis. Continuous data were described as $\bar{X}\pm S$, and discrete data were described as case number and proportion. T-test one-way analysis of variance (ANOVA) was used to examine the effect of general information on PSOC. Pearson correlation analysis was performed to analyze the correlation between depression and PSOC. Multiple stepwise regression analysis was used to select the main effect factor. $P<0.05$ was considered to be statistically significant.

RESULTS

General Results

A total of 200 questionnaires were distributed and 178 were collected with an effective rate of 89%. Among those, the mean age was (28.94±0.99) years. As for education, 104 cases got a degree of college or above, accounting for 58.4%. 142 families had more than one child, accounting for 79.8%. There were 101 cases with an average monthly family income between 5001 and 8000 yuan, which accounted for 56.8%. 86 cases were primipara, accounting for 48.3%. Mixed feeding accounted for 53.9% (96 cases).

PSOC Results

The total score of PSOC among puerperant was (74.95±9.85) points; the score of parenting satisfaction was (36.62±7.38) points and the score of parenting effectiveness was (37.84±5.01) points.

Univariate Analysis on PSOC

PSOC were analyzed on variables regarding age, education, average monthly family income, number of births, feeding methods, only child or not, and delivery methods respectively. There was of significance in education, average monthly family income, number of births, feeding methods ($P<0.05$). was the total score of their parenting competence was compared. The results showed that there were significant differences in the scores of women with different education background, family monthly income, birth times and feeding methods ($P < 0.05$). The pairwise comparison results showed statistical difference ($P < 0.05$).

Correlation Between Parturient PSOC and Postpartum Depression

Pearson correlation analysis demonstrated significant correlation between postpartum depression and PSOC as well as its two dimensions ($P<0.01$).

Stepwise Regression

Stepwise regression was applied with PSOC as dependent variable and five statistically significant variables (education level, average monthly family income, number of births, feeding method and depression score) as the independent variable. Stepwise regression analysis showed significance in education level, number of birth and depression

level ($P < 0.05$).

Table 1: comparison of PSOC with different variables

Variable	Group	N（%）	Score	*F*	*P*
Education	Junior high school or below	18（10.1）	71.78±11.98	3.416	0.01
	technical secondary school or senior high school	56（31.5）	74.12±9.73		
	Junior college or college	89（50.0）	76.78±8.76		
	Master or above	15（8.4）	77.03±7.89		
Average monthly family income (yuan)	≤3000	12（6.7）	72.87±9.42	2.893	0.023
	3001-5000	25（14.0）	73.64±12.02		
	5001-8000	101（56.8）	77.65±9.45		
	≥8000	40（22.5）	76.05±6.99		
Number of births	First delivery	86（48.3）	73.65±6.78	4.839	0.013
	Second delivery	83（46.6）	76.89±8.73		
	Third delivery or above	9（5.1）	77.01±7.78		
Feeding methods	breast feeding	48（27.0）	75.54±9.35	3.663	0.028
	Mixed feeding	96（53.9）	73.99±9.04		
	Artificial feeding	34（19.1）	71.02±10.03		
Single child or not	Yes	69（38.8）	73.78±8.78	1.482	0.067
	no	109（61.2）	76.73±10.67		
Delivery method	vaginal delivery	83（46.6）	75.53±9.98	0.058	0.078
	cesarean delivery	95（53.4）	74.28±10.65		

Table 2: Pearson correlation analysis on postpartum depression and PSOC

Score	r	P
PSOC	-0.498	<0.01
parenting efficacy	-0.313	<0.01
Parenting satisfaction	-0.324	<0.01

Table 3: multi-variable stepwise regression of PSOC

Independent variable	Coefficient	Standard error	Standard coefficient	t	P
Intercept	62.435	3.948	-	17.626	0
Education level	1.272	0.496	0.17	2.571	0.013
Number of births	3.043	1.285	0.185	2.368	0.001
Depression level	-0.784	0.187	-0.459	-8.093	0.005

DISCUSSION

Overall PSOC

The analysis included 178 pregnant women in Tianjin and resulted in a PSOC score of (74.95±9.85), which was higher than that of Hengyang City (69.15)[6] and Huizhou City (73.43).[7] The difference might be caused by economic level, culture, religious belief and life style. Furthermore, inclusion and exclusion standards might be different as well. In this study, pregnant women with pregnancy complications and other comorbidities such as mental and psychological diseases, and their newborns with serious diseases. Li Fei et al.[8] found that these factors had negative effect on PSOC. In addition, the average age of the pregnant women surveyed in this study was (28.94±0.99) years old and young gestation age implied higher education level, cutting-edge concept of parenting.

Influence Factor on PSOC

Education Level

Ma et al.[9,10] show that the higher degree of maternal education indicated higher score of PSOC. This may be explained by the fact that women with higher education acquired knowledge faster and broader. Therefore, it is suggested that obstetric nursing staff focus on those with lower education level and give more understand their parenting status, actively ask about the problems encountered in the parenting process, and propose nursing programs to help them with difficulties in child-rearing.

Number of Birth

Studies[11,12] showed that pregnant women with parenting experience accumulated knowledge and practice in parenting, and they were more experienced and confident in taking care of newborns, in the transformation into mothers' roles and in the handing of family member relationship, which resulted in higher PSOC. Meanwhile, mother with first pregnancy tended to develop depression due to anxiety and lack of experience. The burden of rearing child added to daily workload and led to lower PSOC score. This indicated that special attention should be paid to women with first pregnancy and action be taken as well.

Depression

The depression score has a direct negative effect on the PSOC. In modern society, many people live under too much pressure. Fast-paced life and fierce competition make most mothers face the pressure of work and family. In addition, they have to balance the relationship between work and childcare, and fear of new life.[13] Relevant studies showed that higher level of PSOC was related to lower depression score. And the depression score

of elderly women with high-risk pregnancy is moderately negatively correlated with PSOC, [14]which was demonstrated in this study. Gao et al.[15] also found that those pregnant women who were more confident in their parenting knowledge and ability also had relatively fewer depression symptoms such as self-blame anxiety, crying sadness, insomnia and self-injury. When the child was born, such women were able to feel the joy of motherhood and adapt to the role of motherhood more quickly. Studies in Taiwan showed[16] that mothers with more frequent and intimate interaction between mother and child have higher scores of PSOC and lower likelihood of depression. Therefore, obstetrical nursing staff should pay attention to those women with great emotional fluctuations, pay attention to their psychological changes, and give them positive evaluation. Knowledge regarding postpartum depression can be propagated through social networks and other means, which can improve the acceptance of knowledge for pregnant women.[17] For those who have suffered from postpartum depression, psychological intervention should be given in time. [18]

LIMITATION

The questionnaire was collected in one spot of Tianjin City, which could not reflect the level of the whole city. In the future, the scope of the research should be expanded, and multi-level and multi-directional investigations should be conducted in multiple hospitals to enrich the sample size. In addition, due to the convenience of sampling in the hospital, the postpartum women are still in the physical rehabilitation and childcare learning period, which might lead to deviation of the research results. In addition, it is still in the colostrum secretion stage 1-3 days after delivery, and the maternal feeding method was not finally determined. In terms of questionnaire design, more items should be added to further investigate factors affecting PSOC.

SUMMARY

In summary, there is still room for improvement in the parenting sense of competence in Tianjin. The research results suggest that pregnant women with lower education, first-time childbirth, and higher depression scores should be given special attention by obstetric nursing staff, who should provide them with more support and care during the service process. Adopting different psychological measures for different groups of people, such as conducting health education on parenting knowledge, providing psychological guidance to mothers, strengthening postpartum care for mothers, eliminating their anxiety, encouraging family members to actively participate in parenting, helping mothers transition their roles, and effectively enhancing their parenting competence.

Conflict of Interest

The authors have no conflicts of interest relevant to this article.

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