

【Original Article】

Related factors in pregnant women who have economic anxiety: From the notification of pregnancy report investigation

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Summary

Purpose: The purpose of this study was to elucidate the factors that would provide women with the needed support, predominantly based on the characteristics of pregnant women who experience economic anxiety in certain areas. **Survey methods and participants:** Participants comprised 1,273 pregnant women, who visited the health center in City A between April 1, 2006 and March 31, 2008 to submit a notification of pregnancy. They completed a self-administered questionnaire survey. **Results and Conclusion:** In the present study, we compared women who submitted notifications of pregnancy. These findings suggest that women who are smokers, have an unplanned pregnancy, have anxiety about childrearing, are at 12 weeks or more of gestation, and have anxiety about birth are high-priority targets for support.

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Key words: Notification of pregnancy, Economic, Anxiety, Support

I. Introduction

Recently, problems concerning women who did not undergo prenatal exams and then had an unexpected delivery have become a serious issue in Japan. Economic anxiety is reported to be a major factor behind these problems^{1,2,3}. To address these issues, prenatal exams at public expense were offered beginning 2009 and steps were taken to ensure safe pregnancies and births⁴.

In these situations, economic problems can be considered the major factor for pregnant women. However, previous studies have investigated pregnant women who faced economic anxiety and therefore did not undergo prenatal exams and then had an unexpected delivery, and found no relationship between the situation of pregnant women confronted with economic anxiety and its related factors¹⁻³. Yet, pregnant women dealing with economic issues may face the possibility of

not undergoing a prenatal exam and then having an unexpected delivery, leading to a high-risk birth. Therefore, we consider it important to understand the factors related to economic anxiety and the situation of pregnant women in order to support safe births.

The purpose of this study was to elucidate the factors that would provide women with the needed support, predominantly based on the characteristics of pregnant women who experience economic anxiety in certain areas.

II. Methods

1. Survey methods and participants

Participants comprised 1,273 pregnant women, who visited the health center in City A between April 1, 2006 and March 31, 2008 to submit a notification of pregnancy. They completed a self-administered questionnaire survey.

2. Survey items

The main assorted traits were the presence of economic anxiety, age of the pregnant woman and her partner, smoking by the pregnant woman, number of weeks at which notification of pregnancy was submitted, presence of other children at home, whether the pregnancy was unplanned, anxiety about the baby, and anxiety about the birth.

3. Analytical methods

Economic anxiety, notification of pregnancy, and relationship between these items were examined by the χ^2 test.

In addition, assorted traits that became significant because of the χ^2 test were made an autonomous variable, economic anxiety was made an induced variable, and a multivariate logistic regression analysis was performed by the compulsion turning on method.

SPSS17.0J for Windows was used for the analysis. The significance level was assumed to be 5%.

4. Ethical considerations

Prior to the implementation of this study, public health nurses explained the survey objectives and other matters to the participants, and written informed consent was obtained after an oral explanation that the participation was voluntary rather than compulsory and that personal information would be protected.

III. Results

Of the 1,273 pregnant women who participated in the study, 1,214 (95.4%) completed the survey form.

1. Demographic background of the pregnant women and their partners

The mean age of the pregnant women was 29.3 years (SD 5.0) and ranged from 15 to 48 years. Valid answers regarding the age of partners were received from 1,175 women. The mean age was 31.3 years (SD 5.6) and ranged from 16 to 54

years.

2. Pregnancy and childbirth status

A total of 1,021 women (84.1%) were in their eleventh week of pregnancy or earlier, and 761 (62.7%) had children.

3. Economic anxiety on the part of pregnant women

A total of 194 women (7.7%) had economic anxiety or had sought advice on financial issues.

4. Factors associated with economic anxiety

Factors for which there was a significant association with economic anxiety included being a smoker ($p < 0.01$), unplanned pregnancy was intended ($p < 0.01$), anxiety about childrearing ($p < 0.05$), number of weeks of gestation ($p < 0.01$), anxiety about birth ($p < 0.01$), presence or absence of children ($p < 0.05$), and age of the pregnant woman ($p < 0.05$) (Table 1).

Multivariate logistic regression analysis was then performed, with seven items found to be associated with independent variables and economic anxiety as a dependent variable. The results showed that women with partners who were smokers (odds ratio [OR] = 2.05, 95% confidence interval [CI] 1.10–3.83); who had an unplanned pregnancy (OR = 3.03, 95%CI 1.92–4.79); who had anxiety about childrearing (OR = 4.71, 95%CI 2.85–7.82); who had weeks of gestation (OR = 3.63, 95%CI 2.13–6.18), and who had anxiety about birth (OR = 1.66, 95%CI 1.01–2.73) were significantly more likely to be smokers than the control group (Table 2).

IV. Discussion

The present survey found a relationship between women who experienced economic anxiety on notification of pregnancy and the following factors: number of weeks until they submitted a notification of pregnancy, whether the pregnancy was planned, smoking by the pregnant women, anxiety about childrearing, and presence or absence of anxiety about birth.

Table 1 Factors Associated with Economic Anxiety n = 1214

	Smoke n = 125		Quit Smoking n = 1089		χ^2 Value	P Value	
	n	%	n	%			
Ages of the pregnant women							
20 years or younger	9	20.0	36	80.0	4.76	0.03	*
21 years or older	116	9.9	1053	90.1			
Presence or absence of children							
Yes	54	8.4	588	91.6	5.24	0.02	*
No	71	12.4	501	87.6			
Presence or absence of smoking							
Yes	20	22.0	71	78.0	14.53	0.00	**
No	105	9.3	1018	90.7			
Unintended pregnancy							
Yes	50	23.5	163	76.5	48.57	0.00	**
No	75	7.5	926	92.5			
Anxiety about childrearing							
Yes	50	38.2	81	61.8	123.50	0.00	**
No	75	6.9	1008	93.1			
Weeks of gestation							
12 weeks or more	33	17.1	160	82.9	11.50	0.00	**
11 weeks or less	92	9.0	929	91.0			
Anxiety about birth							
Yes	50	34.0	97	66.0	101.86	0.00	**
No	75	7.0	992	93.0			

** : p < 0.01 * : p < 0.05

Table 2 Economic Anxiety Adjusted Odds Ratio n = 1214

	Adjusted odds ratio	95%CI	P Value	
Ages of the pregnant women				
20 years or younger [†]	1.00			
21 years or older	1.18	(0.48–2.90)	0.71	
Presence or absence of children				
No [†]	1.00			
Yes	0.97	(0.62–1.54)	0.90	
Presence or absence of smoking				
No [†]	1.00			
Yes	2.05	(1.10–3.83)	0.02	*
Unintended pregnancy				
No [†]	1.00			
Yes	3.03	(1.92–4.79)	0.00	**
Anxiety about childrearing				
No [†]	1.00			
Yes	4.71	(2.85–7.82)	0.00	**
Weeks of gestation				
11 weeks or less [†]	1.00			
12 weeks or more	3.63	(2.13–6.18)	0.04	*
Anxiety about birth				
No [†]	1.00			
Yes	1.66	(1.01–2.73)	0.00	**

[†] : control group

1. Unplanned pregnancy and number of weeks before submitting notification of pregnancy

It was elucidated that women who found out that they were pregnant after 12 weeks were significantly related with women who had economic anxiety, but the study did not find a relationship between the submission of a notification of pregnancy and the economic anxiety of pregnant women. Regarding submission of a notification of pregnancy, in this study, notifications before 11 weeks were presented by 80% of the pregnant women, and those after 12 weeks may be late. In Japan, artificial abortion is conducted in 94.8% of women before 11 weeks of pregnancy⁵⁾, and there is a possibility of emotional struggle regarding giving birth in women who submit a notification of pregnancy after 12 weeks. In addition, a significant relationship was found concerning planned pregnancy. This factor leads to child abuse in Japan⁶⁾. Koren et al. reported the relationship between unexpected pregnancy and the women with economic anxiety, and this relationship presents a high possibility that such circumstances will lead to divorce⁷⁾. This link can also possibly lead to a one-parent family, and may make the current situation with economic anxiety.

Based on this observation, helping a woman understand the importance of a planned pregnancy and the number of weeks before she submits a notification of pregnancy are important matters, and these need to be considered in providing women with continuous support.

2. Anxiety about childrearing and delivery

Anxiety about childrearing and delivery is reported in studies of women who neglect to undergo prenatal exams and then have an unexpected delivery, in Japan. In addition, in reports on child abuse, a high proportion of women with anxiety about childrearing and delivery and those with economic anxiety were noted^{1,2,3)}. In addition, the proportion of these two factors was high in a report on the major motives for parent-

child suicide and homicide⁸⁾.

Based on these findings, there is a possibility of a high risk of child abuse in women who face economic anxiety on notification of pregnancy and have anxiety about childrearing and delivery. Continuous follow-up of mother and baby may be necessary after birth and during the childrearing period.

3. Smoking in pregnant woman

The present survey showed the relationship between pregnant women who experienced economic anxiety and those who show smoking behavior. It has been demonstrated that smoking during pregnancy has physical effects on both mother and child. Although many pregnant women stopped smoking after their pregnancy was confirmed⁹⁾, a relationship with smoking was reported in low-income pregnant women¹⁰⁾. Women who face economic anxiety may have stress in their lives, and Mckee et al. asserted that women with stress continue smoking¹¹⁾. Ergin et al. found that smoking in pregnant women must be paid attention to as a socioeconomic determinant related to inequality in the health of pregnant women and children¹²⁾. Therefore, follow-up regarding smoking cessation in pregnant women is needed to gain an accurate understanding of their economic anxiety and improve their situation.

Based on the results elucidated from this study, I consider it necessary in the future to analyze in detail the background factors of persons with economic anxiety in comparison with pregnant women and to strengthen the development of policies and support from each related agency. Bravema et al. found a need to treat low-income participants who are pregnant as a problem related to social policy, and this problem should be considered similarly in Japan¹³⁾.

V. Conclusions

In the present study, we compared women who submitted notifications of pregnancy. These

findings suggest that women who are smokers, have an unplanned pregnancy, have anxiety about childrearing, are at 12 weeks or more of gestation, and have anxiety about birth are high-priority targets for support.

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経済的不安を持つ妊婦の特徴的な関連要因 —妊娠届出調査から—

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要 旨

目的：妊婦の経済的困難者に関する要因を比較し、重点的な支援を要する対象を明らかにすることを目的に、調査、研究を行った。**方法：**妊娠届けに来所した妊婦 1,273 人を対象とした。**結果：**経済的不安を持つ妊婦は 10.3%であった。妊娠届出者の経済的不安の有無で比較したところ、「妊娠計画が無い」「育児不安が有る」「出産に関する不安が有る」「妊婦が喫煙者」「妊娠届出週数が 12 週以上」が支援を重点的に要する関連項目と示唆された。

キーワード：妊娠届、経済、不安、支援

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