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OBSTETRICS

Prevalence of Antenatal Mental Health Problems of Pregnant Women Living in Thai – Myanmar Border Area, Umphang Hospital, Thailand

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ABSTRACT

Objective: To determine the prevalence and risk factors associated with mental health problems in pregnant women.

Material and Method: The 245 singleton pregnant women with no previous history of psychiatric illness were asked to complete a Thai General Health Questionnaire (GHQ-12) (mental health screening tool) at Umphang hospital(a primary hospital). The prevalence of mental health problems and associated risk factors were determined.

Results: The prevalence of mental health problems in this study was 24.5%. The risk factors of mental health problems in this study were history of abortion, non-Thai speaking, smoking, severe vomiting and vaginal bleeding during pregnancy.

Conclusion: The prevalence of mental health problems in pregnant women was high. Pregnant women should be screen for mental health problems particularly in the high risk group.

Keywords: prevalence, mental health problem, Thai GHQ-12

The World Health Organization estimates that the depressive disorder will be the second leading cause of global diseases by 2020[1]. Pregnancy is a period of change in hormones, physiology and psychology. It has been reported that 7-36 %[2-6] of pregnant women suffer from the antenatal depression. Recent study from Bristol showed that antenatal anxiety and depressive symptom were higher during pregnancy than in the postpartum period[7]. This is an important issue because the consequence of antenatal metal health not only effect in maternal health but also has influences on their offspring. The recent studies revealed that antenatal anxiety and depression were not only related with postpartum depression, pre-term delivery and low birth weight infant but also had long term influence to cognitive, behavioral, and psychological development in adolescence[7-16].

This study was aimed to determine the prevalence and risk factors for antenatal metal health in pregnant women who attended in antenatal clinic at Umphang Hospital, using the Thai General Health Questionnaire (Thai GHQ-12) which is a 12 items Thai version of the General Health Questionnaire designed and developed by Nilchaikovit et al[17].

Materials and Methods

This study was an analytic cross – sectional study. The sample size was calculated based on the study of Wingwontham et al. which demonstratedthat the prevalence of mental health problems was 17.3%[5]. Two hundred and forty five pregnant women who attended the antenatal clinic at Umphang Hospital from June 1, 2010 to August 31, 2010 were enrolled. The inclusion criteria were a viable singleton pregnancy and undergone corrected gestational age by sonographic examination. The exclusion criteria included patients who had prior history of psychiatric illness.

The participants were asked to complete a self - administered questionnaire. If they could not read or speak Thai, the well-trained translators read and explainedto them.

The participants were defined as positive (possibility of mental health problems) if Thai GHQ score ≥ 2. They were then sent to see the psychiatris. The negative defined as Thai GHQ < 2. The participants in this group were unlikely to have mental health problems.

Continuous data were presented as a mean and SD. The student t-test was used to compare the continuous variables where appropriate. Categorical data were presented as a frequency or percentage. The significant variables were put into a logistic regression to disclose any independent prognostic factors of mental health problem. A two-sided p-value of less than 0.05 was considered as statistically significant.

Results

For the 245 participants, 60 of them had positive Thai GHQ-12 (score ≥ 2). The prevalence of mental health problems in this study was 24.5%.

The socio-demographic and obstetric characteristics were compared between positive and negative Thai GHQ-12 (Table 1 and 2). The mean age was 27 and 25 years old in positive and negative Thai GHQ-12, respectively. The majority of participants had low income (less than 3,000 baht/month) and graduated under secondary school. Most of them were statelessness, non-Thai speaking and had couple support. This study showed the significant difference in mental health problem in participants who spoke non-Thai language (Karen and Burmese) and smoking. There was no significant difference among citizenship, religion, couple support, education, income and alcoholic drinking.

The obstetric characteristic showed that mainly of participants were multiparous pregnancy and no significant difference in mean gestational age (29.1 weeks vs. 26.7 weeks). Most of them had no history of stillbirth. There was statistically significant difference in women who had the history of abortion and whom had symptoms of severe vomiting or vaginal bleeding during pregnancy.

Logistic regression analysis demonstrated the independent prognostic factors of the mental health in this study were non-Thai speaking (OR. 2.30 in Karen speaking, OR. 3.03 in Burmese speaking), smoking (OR 2.50), abnormal symptoms during pregnancy which OR. 2.57 in severe vomiting and OR. 9.79 in vaginal bleeding, and history of abortion (OR 2.39) (Table 3).

Table 1. Socio-demographic characteristics (n = 245)

Characteristics		Positive Thai GHQ-12 (60 cases) Number (%)	Negative Thai GHQ-12 (185 cases) Number (%)	p-value
Age (yrs) (Mean ± SD)		27.17 ± 7.1	25.71± 6.2	0.260
Citizen ship	Thai	15 (25.0)	61 (33.0)	0.24
	Stateless	45 (75.0)	124 (67.0)	
Religion	Buddhism	50 (83.3)	163 (88.1)	0.57
	Christian	7 (11.7)	17 (9.2)	
	Islam	3 (5.0)	4 (2.2)	
	Other	0 (0.0)	1 (0.5)	
Language	Thai	16 (26.7)	83 (44.9)	0.04*
	Karen	35 (58.3)	82 (44.3)	
	Burmese	9 (15.0)	20 (10.8)	
Couple support	Yes	60 (100.0)	176 (95.1)	0.08
	No	0 (0.0)	9 (4.9)	
Education	No qualification	28 (46.7)	80 (43.2)	0.88
	Primary	21 (35.0)	63 (34.1)	
	Secondary	7 (11.7)	24 (13.0)	
	Diploma or higher	4 (6.7)	18 (9.7)	
Income (baht/month)	Less than 3,000	40 (66.6)	112 (60.5)	0.72
	3,000 - 5,000	13 (21.6)	40 (21.6)	
	5,001 - 10,000	4 (6.7)	17 (9.2)	
	1,0001-1,5000	1 (1.7)	12 (6.5)	
	15,001-20,000	1 (1.7)	2 (1.1)	
	More than 20,000	1 (1.7)	2 (1.1)	
Smoking	Yes	47 (78.3)	168 (90.8)	0.01*
	No	13 (21.7)	17 (9.2)	
Alcoholic drinking	Yes	58 (96.7)	176 (95.1)	0.61
	No	2 (3.3)	9 (4.9)	

Data were presented as mean ± SD., frequencies (%)

Table 2. Obstetric characteristics (n = 245)

Characteristics		Positive Thai GHQ-12 (60 cases) Number (%)	Negative Thai GHQ-12 (185 cases) Number (%)	p-value
Gravida	Primigravida	16 (26.7)	61 (33.0)	0.36
	Multiparous	44 (73.3)	124 (67.0)	
Gestational age (weeks)	(mean ± SD)	29.1 ± 7.5	26.7 ± 7.7	0.16
Trimester	3rd (29-42 weeks)	36 (60.0)	83 (44.8)	0.11
	2nd (15-28 weeks)	20 (33.3)	88 (47.6)	
	1st (1-14 weeks)	4 (6.7)	14 (7.6)	
Symptom	None	45 (75.0)	164 (88.6)	0.02*
	Severe vomiting	12 (20.0)	19 (10.3)	
	Vaginal bleeding	3 (5.0)	2 (1.1)	
History of abortion	Yes	18 (30.3)	27 (15.7)	0.01*
	No	42 (70.0)	156(84.3)	
Stillbirth	Yes	7 (11.7)	9 (4.9)	0.06
	No	53 (88.3)	176 (95.1)	

*p < 0.05 was defined as statistically significant

Table 3. Odds ratios for various associated risk factors of mental health problems

Variables		Adjust OR	95% CI	p-value
Language	Thai	1.00		
	Karen	2.30	1.117 – 4.862	0.024*
	Burmese	3.03	1.104 – 8.322	0.031*
Smoking	No	1.00		
	Yes	2.50	1.080 – 5.818	0.032*
Symptom	None	1.00		
	Severe vomiting	2.57	1.103 – 5.982	0.029*
	Vaginal bleeding	9.79	1.328 - 72.159	0.025*
History of abortion	None	1.00		
	Yes	2.39	1.150 – 4.945	0.019*

*p < 0.05 was defined as statistically significant

OR – odds ratio

Discussion

The World Health Organization estimates that depressive disorders will be the second leading cause of the global diseases burden by 2020[1]. Pregnancy is a period of change in hormones, physiology and psychology which may be influence on mental health problems.

Since 1984, the conflict in Myanmar has resulted in a mass flow of refugees into neighboring countries including Thailand. There are approximately 1-2 million Myanmar refugees and illegal migrants in Thai-Myanmar border[18]. Umphang is arural district situated in Thai – Myanmar border. Most of pregnant women at the antenatal clinic in Umphang hospital were the statelessness, had low income, and were non-Thai speaking which may be affected the mental health problems. The prevalence of mental health problems in this study was 24.5% higher than those in Wingwontham et a's studyl[5], (17.3%) possible from the difference in socio-demographic background.

Thai GHQ-12 (mental health problem screening tool) was used in this study because it was a good screening tool for psychiatric morbidity or mental health problems in Thai population with high sensitivity (78.1%- 85.3%) and specificity (84.4%-89.7%)[17].

The purpose of this study was to identify the prevalence of mental health problems in pregnant women at Umphang Hospitalin order to support and help this risk group. The mental health problems in pregnant women was very important because of the consequences which not only affect the maternal health but also that of their offspring. The risk of mental health problems in this study was 1) non-Thai speaking 2) smoking 3) abnormal symptoms during pregnancy – severe vomiting or vaginal bleeding and 4) past history of abortion.

The mental health problem in non- Thai speaking pregnant women may be from the distress in communication between health care providers who cannot speak Karen or Burmese languages and not enough translators in service. Similar to previous studies[22,23], this study demonstrated the association between mental health problem and smoking, history of abortion. Abnormal vaginal bleeding and severe vomiting had significant effect on mental health problems. This finding was similar Swallow et al's study[24]. Studies also showed an association between history of abortion and antenatal depression[24,25].

The health care providers including obstetricians, nurses and psychiatrists, should aware of the mental health problems in pregnant women and make an effort to screen all pregnant women at antenatal clinic especially in those with the associated factors (non-Thai speaking, smoking, severe vomiting, vaginal bleeding and prior abortion). Contrary to the several studies[16-21], there is no association between mental health problems and low income in this study.

Further study should 1) follow the women at risk to postpartum period and 2) investigate the effect of medical complication on this problems.

Conclusion

The prevalence of mental health problem screening by Thai GHQ-12 in Umphang Hospital was 24.5%. The risk factors for mental health problems were 1) non-Thai speaking 2) smoking 3) abnormal symptoms (severe vomiting or vaginal bleeding) and 4) history of abortion. Pregnant women should be screen for mental health problems particularly in the high risk group.

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ความชุกของปัญหาสุขภาพจิตของสตรีตั้งครรภ์ที่พื้นที่รอยต่อระหว่างไทย-พม่า โรงพยาบาลอุ้มผาง จังหวัดตาก

วลัยรัตน์ เข็มทอง

วัตถุประสงค์ *: ศึกษาหาความชุกและปัจจัยเสี่ยงของปัญหาสุขภาพจิตของสตรีตั้งครรภ์*

วิธีการศึกษา *: ทำการศึกษาเชิงพรรณนาแบบตัดขวางในสตรีตั้งครรภ์เดี่ยว ที่ไม่มีประวัติโรคทางจิตเวช จำนวนทั้งหมด 245 ราย ที่มาฝากครรภ์ที่โรงพยาบาลอุ้มผางซึ่งเป็นโรงพยาบาลชุมชนขนาด 60 เตียง โดยให้ตอบในแบบสอบถามแบบคัดกรองสุขภาพจิตไทยจีเอชคิว -12 เพื่อประเมินหาความชุกและปัจจัยเสี่ยงที่มีผลต่อปัญหาสุขภาพจิต*

ผลการศึกษา *: พบความชุกของปัญหาสุขภาพจิต ร้อยละ 24.5 และปัจจัยเสี่ยงที่สัมพันธ์กับการเกิดปัญหาสุขภาพจิตคือ การพูดภาษาไทยไม่ได้ สูบบุหรี่ มีภาวะอาเจียนอย่างรุนแรง หรือมีเลือดออกจากทางช่องคลอดระหว่างการตั้งครรภ์ครั้งนี้ และ มีประวัติแท้งในครรภ์ก่อน*

สรุป *: ความชุกของปัญหาสุขภาพจิตในสตรีตั้งครรภ์พบได้สูงดังนั้นจึงควรมีการตรวจคัดกรองปัญหาสุขภาพจิตในสตรีตั้งครรภ์ โดยเฉพาะอย่างยิ่งในกลุ่มที่มีความเสี่ยง*