

## A Study On Anxiety And Depression Level Among High Risk Inpatient Pregnant Women In An Obstetric Ward

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### ABSTRAK

Kehamilan merupakan satu pengalaman yang mencemaskan, namun membawa kegembiraan bagi hampir semua ibu-ibu yang mengharapkan cahaya mata. Walaupun begitu, bukan semua ibu mengalami kegembiraan. Terdapat juga setengah ibu yang mengalami tahap tekanan dan kebimbangan yang tinggi tanpa sebab diketahui. Tujuan kajian ini dijalankan adalah untuk mengenalpasti tahap tekanan dan kebimbangan dikalangan wanita hamil yang berisiko tinggi dan faktor-faktor yang menyebabkan tekanan dan kebimbangan. Satu kajian rentas deskriptif telah dijalankan keatas 38 wanita hamil yang berisiko tinggi yang telah berada diwad obstetrik selama tiga hari, Hospital Universiti Kebangsaan Malaysia. Satu set soalselidik yang dibanci sendiri "Hospital Anxiety Depression Scale" digunakan untuk mengukur tahap tekanan dan kebimbangan dikalangan wanita hamil yang berisiko tinggi. Dari sejumlah 38 responden, 16 (42.1%) wanita mengalami tahap kebimbangan yang ringan dan 22 (57.9%) mengalami tahap kebimbangan yang teruk. Tujuh belas (44.7%) wanita telah diklasifikasikan sebagai mengalami tekanan yang ringan dan 21 (55.3%) tekanan yang teruk. Kajian ini mendapati "kurang informasi mengenai penyakit", "faktor keluarga" dan "kewangan" sebagai faktor-faktor yang mempengaruhi tahap tekanan dan bimbangan wanita hamil yang berisiko tinggi semasa berada diwad. Wanita hamil yang berisiko tinggi dalam kajian ini mengalami tekanan dan kebimbangan yang signifikan semasa berada dihospital. Dengan ini, ia adalah penting untuk jururawat menyedari dan peka pada faktor-faktor yang boleh menyebabkan tekanan dan kebimbangan supaya membolehkan ibu hamil yang berisiko tinggi bergembira dengan kehamilan dan kelahiran.

*Kata kunci:* kebimbangan, tekanan, wanita hamil berisiko tinggi yang berada di wad

### ABSTRACT

Pregnancy is perceived by many pregnant mothers as a period of happiness in anticipation of motherhood. Not all pregnant mothers experience cheerfulness as some may experience a high anxiety and depression level for unknown reasons. The purpose of this study was to determine the level of anxiety and depression among high risk pregnant women and the factors that contribute to their level of anxiety and depression. A descriptive cross-sectional study was conducted on 38 high risk mothers whose stay in

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hospital exceeded more than three days in the obstetric ward of Hospital Universiti Kebangsaan Malaysia. A self assessment questionnaire "Hospital Anxiety Depression scale" was used to measure the level of anxiety and depression among high risk pregnant women. Of the 38 participants, 16 (42.1%) women experienced a mild level of anxiety and 22 (57.9%) experienced a severe level of anxiety. Seventeen (44.7%) women was classified as having mild depression and 21 (55.3%) severe depression. The factors contributing to the level of anxiety and depression, include those related with "lack of information on disease", "family matters" and "finance". High risk pregnant women in this study experienced a significant level of anxiety and depression during their stay in hospital. It is therefore important for nurses and doctors to be aware and sensitive to the influencing factors that cause anxiety and depression as to enable high risk pregnant mothers to enjoy their pregnancy and childbirth.

**Keywords:** anxiety, depression, high risk in-patient pregnant women

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## INTRODUCTION

Pregnancy is a time of growth and hope (Schroeder, 1996). Pregnancy is perceived by many pregnant women as a period of happiness in anticipation of motherhood. Women hope for a smooth journey in pregnancy without any complications and a normal fetal development. However, not all pregnant mothers experience joy and cheerfulness as some may experience anxiety, stress and depression. Anxiety is a dimension of stress (Brown, 2001) that occurs in response to internal or external stimuli and can result in physical, emotional, cognitive and behavioral symptoms (Relier, 2001). Depression, anxiety and stress are quite prevalent during pregnancy (Halbreich, 2005) and occurs in majority of the women with a prevalence rate of 30% (Matteson, 2001). Depression and anxiety, on the other hand, can cause a stressful pregnancy that can result in fetal distress, preterm delivery, low birth weight, postpartum disorders and other delivery complications.

Previous studies by Zigmond & Snaith (1983) have shown that pregnant mothers experience a high anxiety and depression level for various reasons and is worse among high risk pregnant women. Several other studies have also shown that anxiety and depression during pregnancy may affect fetal development pregnancy

outcome and labour (Sjostrom et al, 2002; Mulder et al, 2002; Sandman et al, 1994). Literatures have also discussed that women who experiences anxiety disorders during pregnancy are at increased risk for intense postnatal depressive symptoms (Sandman et al, 1994, Chung et al, 2001).

Prevalence of anxiety disorders during pregnancy among the blacks was reported to be 40% (Barnett, 1996) and among Hispanic women 51% (Zayas et al, 2002). Prevalence was found to be high among women of low socioeconomic status (Seguin et al, 1995). The prevalence of anxiety and depression among high risk pregnant women in the local settings was never investigated and little is known about its prevalence and causes.

Iams (1998) reported that approximately one million women each year experience medical complications of pregnancy and are designated as at-risk or high risk. Of these, the majority are treated with bed rest in the hospital. Hospital environment compared to a home environment may cause some stress, anxiety and depression to them. Besides a hospital environment, there are many other factors that can contribute to the level of anxiety and depression among high risk pregnant women. Poor social support was found to have influenced the anxiety level of high risk pregnant women (Rodriguez et al, 2001). Biomedical factors such as medical

condition, behaviour of ward staffs and unfriendly ward conditions could also influence the anxiety and depression level during their hospital stay. However, little is known about the contributing factors among high risk pregnant women in the local scenario and its negative effects during pregnancy.

The aim of this study was to determine the level of anxiety and depression among high risk pregnant women during their stay in the hospital and identify the factors influencing their level of anxiety and depression. Furthermore, there is a need to study the needs of high risk pregnant women during their hospital stay in HUKM as there has been no study done locally.

## METHODOLOGY

A descriptive cross-sectional study was conducted on 38 high risk pregnant women whose stay in hospital exceeded more than three days. The study was conducted in the obstetric ward of Hospital Universiti Kebangsaan Malaysia. High risk pregnant women whose stay is less than 3 days were excluded from the study. Pregnant women with placenta praevia, eclampsia, diabetes, hypertension were all considered as high risk in this study.

The instrument used here is a self-administered questionnaire which was divided into three (3) sections. Section A, B and C. Section A consisted of socio-demographic data, Section B consisted of the self-assessment questionnaire "Hospital Anxiety Depression scale" developed by Zigmund & Snaith (1983) used to measure the level of anxiety and depression. Section C measured the factors that may influence their anxiety and depression level. Questionnaires that could contribute to the anxiety and depression among high risk pregnant women were prioritized by the researcher based on several literature search. Questionnaires were divided into five (5) headings: *information on disease, family matters, health service providers, ward conditions*

and *finance*. A total of 18 questions related to the above headings were asked. The questionnaires were pilot-tested for its reliability and validity with a convenience sample of 10 high risk pregnant women. A panel of expert researchers reviewed the questionnaire and incorporated the changes to improve its clarity. Questions were prepared in two languages: Bahasa Malaysia and English and respondents could choose to answer in any of the preferred languages.

All data were coded and entered into SPSS (Statistical Package Social Sciences) for descriptive analysis. A three point Likert scale was used to measure the level of anxiety and depression. A score of between 0-7 was classified as having mild anxiety and depression and scores above 8 as having severe level of anxiety and depression. Factors influencing anxiety and depression were measured by frequencies and percentages.

## RESULTS

### Level of Anxiety and Depression

Table 1 described the socio-demographic data of respondents. The majority of the respondents in this study were working mothers (71.1%) and 60.5% were in the second trimester. Their medical conditions vary from one another as 21.1% had hypertension, placenta praevia (18.4%) and (7.9%) diabetes. Of the 38 respondents, 22 (57.9%) were found to have experienced a severe level of anxiety and 16 (42.1%) was classified as having mild anxiety. Twenty-one (55.3%) high risk pregnant women were classified as having severe depression compared to 17 (44.7%) experiencing mild depression.

### Factors that contribute to the level of anxiety and depression

Out of the 38 respondents, 30 (78.9%) strongly identified "*unsure of the length of stay in hospital*" which is related to lack of

information on disease as the most important contributing factor to their level of anxiety and depression. The other factors identified were in relation to family matters such as “*being away from husband*” (76.3%) and the *inability to care for her children* (76.3%). Twenty-four (63.2%) of the respondents identified “*lack of information on disease*” as a contributing factor to their level of anxiety and depression. The less important contributing factor to the level of anxiety and depression among the high risk pregnant women in

this study were the “*health service providers*”. Respondents were satisfied with the service of health care providers as Table 3 shows the behaviour of support staffs, rough nursing care from nurses and rough treatment from doctors scored a low percentage (15.8%) which denotes its insignificance to the anxiety and depression level among high risk pregnant women. In relation to finance, 50 % “*identified insufficient money to pay hospital bills*” as a contributing factor to their anxiety and depression level.

Table 1: Socio demographic data of respondents (n=38)

Variables	n = 38	%
<b>Ethnic group</b>		
Malay	26	68.4
Non malay	12	31.6
<b>Age</b>		
<30 years	21	55.3
>31 years	17	44.7
Working women	27	71.1
Non working women	11	28.9
<b>Household income</b>		
>RM2000	22	57.9
<RM1999	16	42.1
<b>Medical conditions</b>		
Hypertension	8	21.0
Diabetes mellitus	3	7.9
Placenta Praevia	7	18.4
Cardiac disorder	2	5.3
Other conditions such as breech, pre-eclampsia etc	18	47.4
<b>Trimester</b>		
< 36 weeks	23	60.5
>37 weeks	15	39.5

Table 2: Distribution of level of anxiety and depression among high risk pregnant mothers (n=38)

	Mild n (%)	Severe n (%)
Anxiety	16 (42.1%)	22 (57.9%)
Depression	17 (44.7%)	21 (55.3%)

Table 3: Questionnaires related to Factors Influencing the level of anxiety and depression.

Item	Subject	n=38	Percentage
<b>Lack of information on disease</b>			
1	Unsure of the length of stay in hospital	30	78.9%
2	Lack of knowledge on disease	24	63.2%
3	Being away from work for a long period	23	60.5%
<b>Family matters</b>			
4	Being far away from husband	29	76.3%
5	Unable to provide care for children at home.	29	76.3%
6	Unable to be together with family members	22	57.9%
7	Worry about family members at home	22	57.9%
<b>Ward condition</b>			
8	Same daily ward routine.	22	57.9%
9	Strange/different ward environment.	19	50.0%
10	A noisy ward environment	14	36.8%
11	A brightly lighted wad	11	28.9%
<b>Finance</b>			
12	Insufficient money to pay hospital bills.	19	50%
<b>Health service providers</b>			
13	Disturbance from medical students	14	36.8%
14	Unfriendly nurses	12	31.6%
15	Disturbance from nurses during the night	10	26.3%
16	Rough nursing care from nurses.	7	18.4%
17	Rude behaviour of support staffs.	6	15.8%
18	Rough treatment from doctors	6	15.8%

**DISCUSSION**

This study identified the level of anxiety and depression among high risk pregnant women during their hospital stay and the factors influencing their anxiety and depression. The findings of this study indicated that high risk pregnant women

experienced a significant level of anxiety and depression during their hospital stay. The fact that anxiety and depression was detected in all the respondents (100%), is similar to the previous data and findings of Piyasil, (1998) and Raskin et al.(1990) whereby pregnant women have also shown depressive symptoms (38%) and anxiety

symptoms (12%). Factors such as "lack of information on disease", "family matters", "finance" and "ward conditions" were all found to be the main contributing factors of their anxiety and depression. For all high risk cases, hospitalization is part of management recommended and many when agreed for admission were not told of the length of stay, thus, causing anxiety and depression to the pregnant women in this study. Since anxiety and depression during pregnancy was found to have resulted in poor pregnancy outcome (Rini et al, 1999; Hedegaard et al, 1996) including complications such as fetal distress, preterm delivery, low birth weight and other delivery complications, therefore, steps should be taken to critically evaluate the factors causing anxiety and depression during their hospital stay.

Findings of this study could therefore, act as a reminder to all doctors that providing sufficient knowledge and information for high risk pregnant mothers concerning their condition, could help alleviate their anxiety. This is important as according to Lazarus & Folkman, (1984), lack of knowledge and information could result in poor coping mechanism of the disease for the women and thus resulting in a stressful pregnancy. The functions of information and the number of benefits have also been clearly identified by many other researchers. Grahn & Danielson (1996) and Ream & Richardson (1996) reported that information does enable a patient to gain control over themselves as well as it contributes to patient's sense of control (Dennis, 1990). Patients with a strong sense of control not only improve the relationships between health care providers but also reduce the level of anxiety (Philip et al, 1990). Information also enables a patient to actively participate in their treatment thus improving patient compliance with treatment and also enabling them to prepare and plan for their future (Hinds et al, 1995).

Doctors should also be cautious and be made aware in using the label "high risk"

on high risk pregnant women so as not to scare or upset them of their condition and only admit them to the ward when necessary. Majority of the women in this study are working women, therefore, worrying about "being away from work" will definitely cause some anxiety and depression among this high risk pregnant women. However, the importance of rest and treatment should be clearly emphasized to all high risk pregnant women to prevent any maternal and fetal complications. This finding also emphasizes the importance of patient education concerning their disease as this will enable high risk pregnant women to cope with their disease and pregnancy effectively.

Family matters were identified as another important contributing factor to the level of anxiety and depression of the pregnant women in this study. Women prefer to be at home and enjoy their pregnancy with family members as family support is important for a pregnant woman throughout her pregnancy. This finding is consistent with the findings of Maloni et al (2001) and Maloni & Kutil (2000) as it was also found to be a major concern for women in previous studies (Maloni & Ponder, 1997; Mercer & Ferketich, 1988) whereby hospitalization was found to have disrupted family functioning and childcare.

Factors like "ward condition" is a modifiable factor and could be looked into by the hospital management to provide a friendly and home like environment thus suppressing the anxiety and depression incidences and improve the care of high risk pregnant mothers. A hospital environment is always different from a home environment. Both the designation of having a high risk pregnancy and treatment with hospitalization and bed rest could be a stimulus for developing negative affect or mood (Hammer & Kenan, 1980; Kemp and Hatmaker, 1989; Maloni et al, 1993; Mercer & Ferketich, 1988).

"Health service providers" were found to have performed their job well as

respondents in this study were happy with support staffs, nurses and doctors attitude and behaviour as many did not identify them as a contributing factor to their level of anxiety and depression. On the other hand, finance was found to be a contributing factor to their level of anxiety and depression, And since finance can influence a patient's state of mind, therefore, they should be made aware of an "easy financing scheme" on discharge, so as to alleviate the fear of owing money to an institution. Maybe, the hospital administrator could consider an installment payment which could help to lessen the burden of some of the pregnant mothers.

Lastly, cognitive behavior psychotherapy aimed at assisting pregnant women to cope effectively with stressful situations could be applied on high risk pregnant women considering all pregnancies as precious. Cognitive behaviour psychotherapy has been reported to have improved psychological well-being and reduce poor pregnancy outcomes (Halbreich, 2005).

## CONCLUSION

High risk pregnant women in this study experienced a significant level of anxiety and depression and a number of influencing factors have also been identified. It is therefore important for nurses and doctors to be aware and sensitive to the influencing factors that could cause anxiety and depression to enable pregnant mothers to enjoy their pregnancy and childbirth. Hopefully, this will then reduce the "anxiety" and "depression" among high risk pregnant women during their stay in hospital. Nurses and doctors working in Obstetric & Gynaecology wards should also attend continuous medical education (CME) and continuous nursing education (CNE) to update their knowledge on providing quality patient care. Organizers of CME and CNE should prioritize or emphasize more on the importance of information given to pregnant mothers on the issues identified in this

study. An information tool known as the "Clinical Information profile" could also be developed as it will be useful in guiding nurses and doctors when providing information to high risk pregnant women during admission.

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