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Effect of Emotional Support on Perceived Stress among Hospitalized High Risk Pregnant Women

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Original Research Article

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Abstract: Women hospitalized with high risk pregnancy are exposed to many stressors such as separation from their families, unsuitable and noisy environment, hospital routine, lack of privacy. Stress has negative effect on maternal, fetal and neonatal outcomes such as abortion, preterm birth and low birth weight babies. One group time series research design. A purposive sample of 45 high risk pregnant women. High risk in-patient (unit 21) at El Manial University Hospital. A- Maternal Interviewing Questionnaire, B- Perceived Stress Scale, C- Hospital Stressors Assessment Sheet. Study revealed statistical significant difference in stress level before and after intervention due to emotional support (*X2 41.627, P .000**) and there is statistical significant difference between stress level and maternal complications (*X2 49.828, P .023**), but there is no statistical significant difference between stress level and neonatal birth weight, neonatal complications(*X2 18.280, P .107**), time and mode of delivery. Women hospitalized with high risk pregnancy need not only medical treatment but also to give attention to their psychological status and provide emotional support from health care providers.
Keywords: High risk pregnancy, Emotional support, Perceived stress.

INTRODUCTION

High risk pregnancy include women that deviate from normal pregnancy in which there are risks to the women and their fetuses as placenta abnormalities, hypertension, preterm labor, recurrent abortions [1].

Those women required hospitalization to provide safe pregnancy outcomes for the woman and the fetus/newborn, hospitalization exposed the women to many stressors as fear that resulted from threat or danger that the woman cannot maintain or complete this pregnancy, the woman also afraid that something could happen to the fetus or to her condition, fear from dying, this fear put them in tension and stress, sadness that resulted from different situations as previous pregnancy loss, separation from their families, hospital routine, lack of privacy and care of other children at home [2].

Many studies demonstrate an association between stress and poor pregnancy outcomes. Maternal stress during pregnancy can alter the immune functions and increase production of cytokines and cortisole by stimulating the Hypothalamic- Pituitary Adrenal (HPA) axis. Cytokines and cortisol stimulate prostaglandin production which is responsible for contraction and dilatation of smooth muscles leading to abortion or preterm birth. Preterm birth can lead to infant blindness, cerebral balasy, respiratory problems. Stress during pregnancy can also lead to increase inflammatory process, intrauterine growth restriction, low birth weight babies, learning and cognitive disabilities in child hood [3].

Stress has negative effect on maternal, fetal and neonatal outcomes due to its effect on Hypothalamic- Pituitary Adrenal (HPA) axis, the activation of (HPA) cause increased secretion of cortisol which varies dynamically across the peri-conseptional period leading to premature onset of labor, elevated oxidative stress resulting in abortion, intra uterine growth restriction, bleeding, and low birth weight babies[4]. Stress also can affect on the women body as increase or decrease appetite, insomnia or interrupted sleeping, decrease salivation/dry mouth, un healthy behaviors as nail pitting, caffeine intake, alcohol or cigarette smoking [5].

Managing hospitalization stress is important for the woman and unborn child by enhancing the husband and the family to support the woman, encouraging the pregnant woman to participate in

social support groups and group activities are crucial, also referral to mental health services during pregnancy may be useful in preventing the associated negative pregnancy outcomes in woman and her unborn child that may potentially become public health problems [6]. Also, High risk pregnant women need reassurance and support. Reassurance that others understand their fears and worries, need to discuss their experiences to care givers especially nurse. Nurses also should provide active listening and engaged with them, accommodating and built strong relationships with high risk pregnant woman. Nurses also should provide help when needed, provide information and education that help them to deal with high risk pregnancy situations and hospitalization and who to recognize early complications. Nurses also should facilitate partner, family and other support people involvement at this time to overcome feeling of loneliness and helplessness. This study supports that human care, advocacy and support can reduce stress for high risk pregnant women [7].

Emotional well being is more at risk if the pregnant women have little social support, one of interventions used to help women with or at high risk for prenatal mental health is peer support. peer support during pregnancy and postpartum can provide emotional, informational, affirmation, and practical support by reducing level of anxiety and stress, also peer support overcome feeling of loneliness and isolation, low mood, disempowerment, it achieved by bringing affected women together in support groups, the pregnant woman can feel "safe" to talk about each one experience, feelings and distress [8]. This study aims at testing the effect of emotional support on the perceived stress among hospitalized high risk pregnant women. Providing emotional support to hospitalized high risk pregnant women will reduce perceived stress.

Significance of the study

Hospitalization and high risk pregnancy are potent stressors that affect the mother and the fetus. Negative effect of stress on pregnancy include abortion, preterm labor and low birth weight babies. Although there are some studies investigating the effect of stress among high risk pregnancy and provide support programs to reduce stress, however in Egypt there are scarce studies conducted in this critical area. Thus this study will provide findings on effectiveness of emotional support given to reduce stress that results from hospitalization due to different high risk conditions and this will help improve pregnancy out comes.

Also the results of this study will improve the quality of nursing care by providing knowledge to the health care professionals that can be utilized in understanding sources of stressors, planning and implementing supportive care that decrease maternal stress. Also the finding will add to the body of nursing knowledge in this neglected area. The nurse have crucial role in minimizing stress level through giving accurate information, reassurance to the mother about the fetus and her medical condition, providing health teaching about needs of high risk pregnant woman during hospitalization, providing active listening, allow the women to express their fears and concerns. Finally the finding of this study may be implemented in the future as a part of high risk pregnancy care protocol.

SUBJECTS AND METHODS

Research Design

One group pre-posttest quasi experimental time series research design was adopted to achieve the study's aim. Multiple observations are obtained prior to the intervention to establish a baseline. Multiple observations are also obtained after the intervention [9].

Sample

Purposive sample of 45 pregnant women who met inclusion criteria was recruited for the study.

Setting

The study was conducted at high risk pregnancy units which affiliated to Cairo University Hospitals.

Tools for Data Collection

Three tools were used to collect the necessary data:

Maternal Maternal Interviewing Questionnaire

That is include the following: 1) Socio-demographic data as name, age, level of education, age at marriage, place of residence and marriage from relatives or not; 2) Obstetric history and mode of previous delivery; 3) Reason for admission to hospital.

Perceived Stress Scale (10 Items) For Hospitalized Patient (PSS-10 HP)

This scale is a classic stress instrument originally developed in 1983 by Cohen, Kamarck & Mermelstein [10], for inpatient use. The scale includes 10 items on experience of stress, feelings and thoughts during hospitalization. Using a likert scale, responses to questions will range from " 0-never, 1-almost, 2-sometimes, 3- fairly often, 4- very often". Individual scores on this scale ranges from 0 to 40 with higher scores indicating higher level of perceived stress:- 0-13 considered low perceived stress, 14-26 considered moderate perceived stress, and 27-40 considered high perceived stress. Arabic version of the tool was applied in Tishreen university the study conducted by Saleh & Mashael [11] about perceived stress and anxiety among diploma student. The study

used "perceived stress scale" on a sample of 268 subjects and reliability was established by Cronbach Alpha Reliability at test (0.836).

Hospital Stressors Assessment Sheet

That is developed by the investigator to collect data on the following items 1) Hospitalization stressors, 2) Pattern of sleep during hospitalization "no sleep, interrupted sleep or sleeping too much". 3) sources of support and reassurance during hospitalization; 4) coping with hospitalization stressors; 5) pregnancy outcomes: maternal and fetal as birth time, mode of delivery, neonatal birth weight, neonatal and maternal complications; 6) level of worries and reassurance before and after intervention.

Procedure

Data were collected through a period of one year from first of Janury 2017 till the end of December 2017. Data were collected through three phases:, interviewing, intervention, follow up.

After getting the acceptance of the research ethics committee, an official permission to conduct the study was obtained from the board of the faculty of nursing, Cairo University and administrative authority at high risk pregnancy units. Written consent was obtained from pregnant women after explanation of the aim and the nature of the study. Women who will fit the inclusion criteria and accepted to be included in this study were recruited .Data collection was carried out following the selected study design (time series) through the following steps:-

Initial interviewing (pretest)

The investigator was met the participants at the high risk pregnancy unit, after explaining the purpose and the nature of the study. Data related to socio-demography, obstetric, medical history was obtained. Also a baseline perceived stress level was measured using (PSS-10 HP). Data related to hospitalization experience and perceived stressors were obtained using the hospital stressors assessment sheet. This interview was took 20-30 min for each subject (2 times within three weeks).

Intervention: (through a period of 6 weeks) After having a permission, consultation and revising data with the treating physician, the investigator met the high risk pregnant woman in a high risk pregnancy unit to provide informational and emotional support through giving information about the disease, the reason for admission, health teaching according to needs and diagnosis (the subject group was divided to three support groups as the following:

Group of cardiac patient, group of diabetic patient and group of recurrent abortion, the investigator met with them to provide information about care of medication, prevention of infection, suitable diet for each group, fetal movement count [12, 13].

Also Group activities was also implemented as allow each woman talk about her experience with pregnancy, delivery and medication. Allow each woman to talk about her ways to cope with the long time in hospital and how she done when feeling danger toward herself or her fetus. The investigator also met every high risk pregnant women individually before or after group discussion and provides the following interventions: Provide supportive care as physical touch in case of pain, sit down in front of patient, eye contact, smile, and use sense of humor. Talking to the woman in a supportive manner, active listening to her concerns, needs and fears regarding pregnancy and infant, answering questions, interpreting results of investigation. Reassuring the woman about fetal wellbeing through auscultation of the fetal heart sound and reading the reports of ultrasound after consultation with treating physician. The investigator was available when needed, allow for telephone calls and attending during labor for many cases. Reinforcing husbands and family contact with her through telephone calls and hospital visits. Encouraging activities that may help release stress and better coping such as reading books, magazines, the Holy Book, and other loved things.

Follow up phase/posttest

At the last 3 weeks the investigator was measure stress level after intervention (2 times- each one after 1.5 week) by meeting the woman in a high risk pregnancy unit 21. And also using telephone calls to be in contact with them and to assuring that they follow instructions that maintain them emotionally supported

RESULTS

Age range of the study sample was between <20 to>40 years, about half of the study sample was between age of 25-35 years, the lowest age percent was >25 and more than 40 years. More over 60% of the study sample came from urban areas.

Table-1: Hospitalization stressors as reported by high risk pregnant women

Variable	N	%
Separation from family	20	44.4
Fear from unknown	14	31.1
Worries and concerns about the fetus	25	55.5
Lack of information about the fetus.U/S	6	13.3
Lack of information about the medical -condition and procedures	6	13.3
Boring of hospital stay	10	22.2
Hospital routines	10	22.2
Unsuitable environment (food, bathroom, beds,……)	25	55.5
Feeling burden on their families in the form of visits and care of other children at home	14	31.1
Insomnia& Interrupted sleep	32	75.6
Long time sleeping due to feeling bored of hospital stay	11	24.4

*non- mutual exclusive answers

Table-2: Relationship between stress levels before and after intervention

	Mean	SD	Repeated measures ANOVA	P
Perceived stress score first time(pre)	27.11	4.82	41.627	.000*
Perceived stress score second time (pre)	25.28	4.44		
Intervention	--------	-------		
Perceived stress score third time (post)	17	5.23		
Perceived stress score forth time (post)	17	7.94		

There is statistically significant difference in stress levels before and after intervention (P value<.050. The study also revealed that, there is statistically significant difference between maternal complications and stress level, but there is no significant relation between stress level and other pregnancy outcomes as neonatal complication, neonatal birth weight, mode and time of delivery.

DISCUSSION

Finding of the current study revealed that, women who were hospitalized with high risk pregnancy exposed to many stressors as separation from their families, care of other children left at home, lack of privacy, lack of information about their cases, concerns about their fetuses and also unsuitable environment as unfavorable food, bath rooms, bad beds and noisy environment that lead to interrupted sleeping or insomnia, they become bored due to long hospital staying and finally lack of refinement as television or internet connection. This finding were supported by the study conducted by [14] about hospital stressors and their related factors in hospitalized cardiac patient and also with [15], who conduct study about the hospital environment and it is effect as a source of healing or un- healing to the patient, the study concluded that, hospitalization exposed the patient to different and many stressors as patient waited for the doctor, waited for test results and also waited for nursing care as administration of medication on time, hospital routines implied by hospital rules and loss of personal autonomy in decision making, lack of support and, lack of privacy.

Also, the current study finding are matched with the data of the study done by [16], about high risk pregnant women experiences during hospitalization, The women reported the following stressors: lack of knowledge about the disease and it is complications as fear from death, disease consequences and uncertainty about what might happen, discomfort associated with disease, feeling of fear, uncertainty, frustration and sadness to the possibility of health problems, death or putting the infant in neonatal intensive care units. Furthermore, the current study findings are consistent with [17], describe hospitalization stressors as boredom, loneliness, feeling of imprisonment, sense of timelessness, lack of control, uncertainty, frequent procedures, thoughts about fetus and delivery, fear of possible preterm birth and caring for the baby after delivery.

Also, the finding of this study revealed that, there is a significant difference in stress level before and after intervention due to emotional support. These finding was supported by [18], who did study about women's experiences of care in relation to coping with a medical complication in pregnancy, the study recommended that, nurses should provide active listening with high risk pregnant women, providing help when needed, providing information and education that help them to deal with high risk situations and hospitalization and who to recognize early complications. Nurses also should facilitate partner, family and other support people involvement at this time to overcome feeling of loneliness and helplessness. Also, this study supports that human care,

advocacy and support can reduce stress for high risk pregnant women [19].

CONCLUSION & RECOMMENDATION

Women with high risk pregnancy who were hospitalized need emotional support from health care providers, family and friends to reduce their level of stress and subsequently enhance pregnancy outcomes. The study needs to be replicated in different setting and samples to help in generalize this emotional support as a protocol of care in high risk pregnancy units in Egypt. Also the study need to be conducted as a qualitative research that assess the lived experience of women who hospitalized with a high risk pregnancy.

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