Coping Patterns among Pre Eclamptic Pregnant Women

Thesis

Submitted for Partial Fulfillment of the Requirements of the Master Degree in Nursing Science Maternity and Neonatal Health Nursing

By

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تقييم أنماط التكيف بين السيدات الحوامل اللاتي يعانين من ما قبل تسمم الحمل

رسالة

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في علوم التمريض

تمريض الأم والرضيع

مقدمة من

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ABSTRACT

Preeclampsia is a pregnancy specific condition in which hypertension develops after 20 weeks of gestation in a previously normotensive woman. Coping patterns refer to the specific efforts, behavioral and psychological, where people employ to master, tolerate, reduce, or minimize stressful events. **Aim**: to assess coping patterns among preeclamptic pregnant women. **Research questions**: 1st; does preeclamptic pregnant women have knowledge about different coping pattern? 2nd does preeclamptic pregnant women use any coping pattern? **Descriptive study design and convenience sample** were used to recruit **150 preeclamptic pregnant women** at **ante natal and high risk unit**s at Ain Shams Maternity University hospital. **Two tools** of data collection were used; an interviewing questionnaire and a coping patterns scale were used. **Results**: findings of the present study showed that 45.3% of the preeclamptic pregnant women age ranged from 20-30 years, 42.7% of them finished their secondary education, as well as 60% of them live in rural area, while 66.7% are house wives. 88.0% of the preeclamptic pregnant women had psychological problems due to preeclampsia. 86.0% of the preeclamptic pregnant mothers had correct knowledge about methods of coping to minimize the stressors. Where, 64.0% of the preeclamptic pregnant women used helpful techniques. Positive attitude as coping technique represent higher mean (25.8 ± 2.6). While, irony and spiritual support represent the lowest mean (1.2 ± 0.5 and 6.4 ± 1.8). **Conclusions:** the majority of the preeclamptic pregnant women had psychological problems due to preeclampsia. Nearly quarter of the preeclamptic pregnant women had anxiety, fear, changed in dealing with others, and unable to do house work as a result of preeclampsia. Majority of the preeclamptic pregnant women had correct knowledge about methods of coping used to minimize the pressure. More than half of the preeclamptic pregnant women had correct knowledge about concentrating method as coping pattern and had used helpful techniques. Positive attitude as coping technique represent higher mean among coping pattern used by the studied preeclamptic pregnant women. While, irony and spiritual support represent the lowest mean among them. **Recommendations:** booklet about coping pattern of preeclampsia should be available in each obstetric department in the hospital, training programs for preeclamptic pregnant women and their family to develop and motivate positive coping pattern.

Key word: preeclampsia, coping, coping pattern.

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This Work Is Dedicated to My Parents and My Family

The researcher

Amal Sarhan Eldesokey

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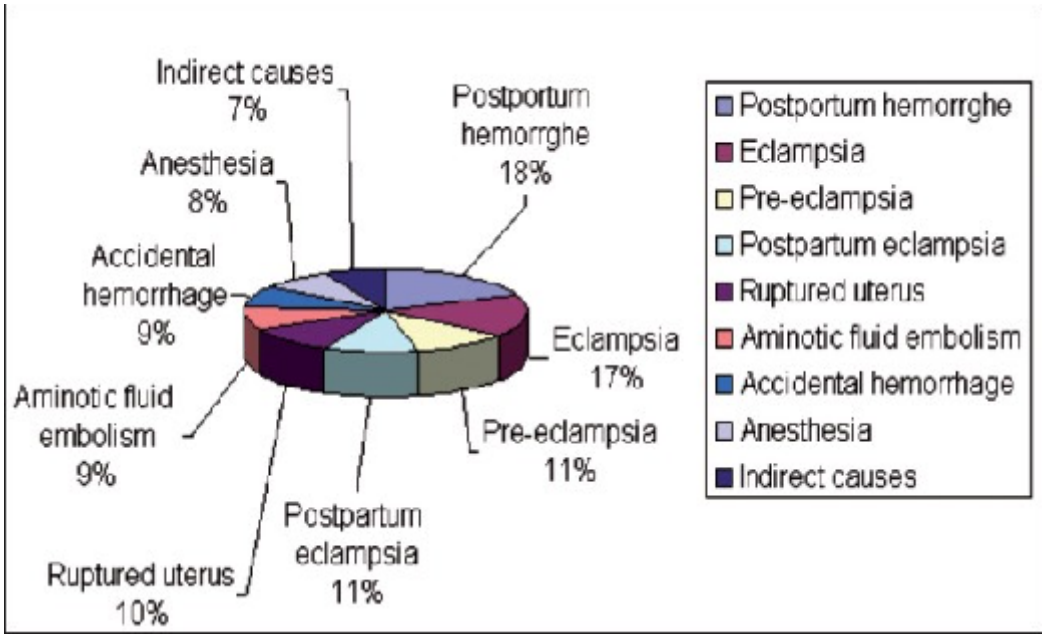
B .p	Blood pressure
BMI	Body mass index
ICSI:	Intracytoplasmic sperm injection
VEGF	Vascular endothelial growth factor
DNA	Deoxyribonucleic acid
PIGF	Placental growth factor
LDH	Lactate dehydrogenase
GFR	Glomerular filtration rate
CNS	Central nervous system
HELLP	Hemolysis, elevated liver enzymes and low platelets count
DIC	Disseminated intravascular coagulation
SOC	Sense of coherence
RR	Relative risk
NNT	Number needed to treat
AST	Aspirate amino transferase level
MGso4	Magnesium sulfate
UAD	Umbilical artery Doppler
NANDA	North American Nursing Diagnosis Association
DBP	Diastolic Blood pressure
SBP	Systolic Blood pressure

Preeclampsia

Preeclampsia is a multisystem disorder of unknown causes that is unique to human pregnancy. Preeclampsia is A condition in which hypertension develops during pregnancy in a woman who previously had normal blood pressure. It is a multisystem vasospastic disease process characterized by hypertension, and proteinuria, beside many women experience generalised oedema. [13]

Incidence and risk factors associated with preeclampsia

Preeclampsia is relatively common, affecting 5% to 10% of all pregnancies Pregnancy induced hypertension is still one of the most common causes of maternal and prenatal mortality and morbidity. Every day, 1500 women die from pregnancy or childbirth-related complications. Where In 2005, there were an estimated 536, 000 maternal deaths worldwide (about 12%) from preeclampsia. Most of these deaths occurred in developing countries. In Egypt there was estimation OF 130/100.000 population. (12)



World health 0rganization report at http://www.who. int/reproductive – health/publications/ Adopted from WHO 2009 (12).

Frequency of preeclampsia ranges between 2% and 7% in healthy nulliparous women. In these women, the disease is mostly mild, the onset mostly occurs near term or intrapartum (75% of cases), and only conveys a negligible increased risk for adverse pregnancy outcome. On contrast, frequency and severity of the disease are substantially higher in women with multifetal gestation, chronic hypertension, previous preeclampsia, pregestational diabetes mellitus, and pre-existing thrombophilia's [(15)].

Several risk factors have been identified with increased risk of preeclampsia. Generally, preeclampsia is regarded as a disease of first pregnancy. *Advances in assisted reproductive technology* have introduced several challenges for the maternal immune system that also increase the risk of preeclampsia. These include women who are older than 40 years, are infertile during their first gestation or obese with polycystic ovaries syndrome, and are pregnant by donated gametes (i.e. donor insemination, oocyte donation, or even embryo donation. The use of donated gametes will affect the maternal–fetal immune interaction, and many of these women will have multifetal gestations). [(16)]

Obesity is a definite risk for preeclampsia. Risk increases with a greater body mass index. The worldwide increase in obesity is likely to raise the frequency of preeclampsia. Obesity has a strong link with insulin resistance, which is a risk factor for preeclampsia. The exact mechanism by which obesity or insulin resistance is associated with the disorder is not completely understood. Possible explanations are increased shear stress, associated with a hyper dynamic circulation; dyslipidaemia or enhanced cytokine mediated oxidative stress; amplified sympathetic activity and increased tubular sodium resorption; and direct interference of the insulin resistance and therefore hyperinsulinaemic state with placentation. [(17)]

Chronic diseases account for a significant proportion of risk factors. They include type 1diabetes, gestational diabetes, other endocrine disorders, chronic hypertension, kidney disease, and connective tissue disease. Women with molar pregnancy, pre pregnancy increased systolic (BP) in early pregnancy are also at increased risk for preeclampsia, as women at the extremes of reproductive age. Previous personal or family history of preeclampsia / eclampsia (mother or sister) also increases risk. [17]

Briefly, risk factors for preeclampsia includes three main categories as follow; *maternal personal risk factors* as (first pregnancy, new partner/paternity, age younger than 18 years or older than 35 years, history of preeclampsia, family history of preeclampsia in a first-degree relative, black race, obesity (BMI $\geq$ 30) and interpregnancy interval less than 2 years or more than 10 years). [3]

Meanwhile, *maternal medical risk factors* for preeclampsia as (chronic hypertension, especially when secondary to such disorders as "hypercortisolism, hyperaldosteronism, pheochromocytoma, or renal artery stenosis", preexisting diabetes (type 1 or type 2), especially with microvascular disease, renal disease, systemic lupus erythematosus, obesity, thrombophilias, history of migraine, use of selective serotonin uptake inhibitor antidepressants beyond the first trimester. [18]

In addition, *placental/fetal risk factors* for preeclampsia, multiple gestations, hydrops fetalis and gestational trophoblastic disease, triploidy. [19]

Types of preeclampsia

Preeclampsia may be subdivided further into mild and severe forms for the purpose of management. The distinction between the two is made on the basis of the degree of hypertension and proteinuria as well as the involvement

of other organ systems. The criteria for mild preeclampsia and severe preeclampsia are presented in the following table. [15]

Items	Mild preeclampsia	Severe preeclampsia
Maternal effects		
Blood pressure (BP)	BP reading S-140/90 mm Hg x 2, 4-6 hr apart	Rise to >160/110 mm Hg on two separate occasions 4-6 hr apart with pregnant woman on bed rest
Mean arterial pressure (MAP)	>105 mm Hg	>105mm Hg
Proteinuria Qualitative dipstick	≥ 1+ on dipstick	≥ 2+ on dipstick
Quantitative 24-hr analysis	Proteinuria of ≥ 300 mg in a 24-hr specimen	Proteinuria of ≥ 2.0 grams in 24 hr
Reflexes	May be normal	Hyperreflexia ≥ 3+, possible ankle clonus
Urine output	Output matching intake, ≥ 30 ml/hr or <650 ml/24hr	<20ml/hr. or < 400-500 ml/24hr
Headache	Absent or transient	Persistent or Severe
Visual problems	Absent	Blurred, photophobia, blind spots on funduscopy
Irritability or changes in affect	Transient	Severe
Epigastric pain	Absent	Present
Serum creatinine	Normal	Elevated, > 1.2 mg/dl
Thrombocytopenia	Absent	Present, <100,000/mm3
AST elevation	Normal or minimal	Marked
Pulmonary edema	Absent	Present
Fetal effects		
Placenta I perfusion	Reduced	Decreased perfusion expressing as IUGR in fetus; FHR: late decelerations
Premature placental aging	Not apparent	At birth placenta appearing smaller than normal for duration of pregnancy, premature aging apparent with numerous areas of broken syncytia, ischemic necroses

Adopted from ACOG (2002): Diagnosis and management of preeclampsia and eclampsia AGOG Practice Bulletin number 33. Washington DC: Cunningham, et al (2005), Williams obstetrics (2nd ed) New York. McGraw -Hill.[20]