Effect of Mothers' Self-Care Brochure on Early Detection Of Preeclampsia

Thesis

Submitted for Partial Fulfillment of Doctorate Degree in Nursing Science (Obstetric and gynaecological Nursing)

By

Mona Gamal Hessien

Master degree in Nursing

Ain shams university

Faculty of Nursing Ain-Shams University 2017

Effect of Mothers' Self-Care Brochure on Early Detection Of Preeclampsia

Thesis

Submitted for Partial Fulfillment of Doctorate Degree in Nursing Science (Obstetric and gynaecological Nursing)

Supervised by

Prof. Dr. Kamilia Abou Shabana

Professor of obstetric and gynaecological Nursing Faculty of Nursing – Ain Shams University

Assis. Prof. Eman Mostafa

Assistant professor of obstetric and gynaecological Nursing Faculty of Nursing - Ain Shams University

> Ain-Shams University Faculty of Nursing 2017



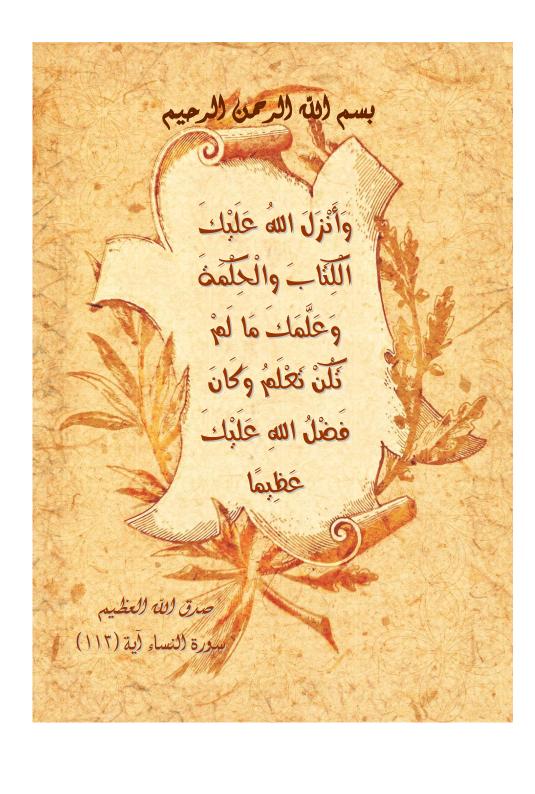
First and foremost I am grateful to **ALLAH** for giving me the opportunity to complete this study, and give Him thanks and praise.

I wish to express my deepest and grateful thanks to **Dr. Kamilia Abou Shabana** Professor of obstetric and gynecological Nursing, Faculty of Nursing, Ain Shams University, for her continuous Supervision, guidance, support and encouragement.

I turn with a grateful heart to express my deep thanks to **Dr. Eman Mustafa**, Assistant Professor of obstetric and gynecological Nursing, Faculty of Nursing, Ain Shams University, for her continues and meticulous supervision, guidance, support encouragement and for the time she devoted to complete the work.

I would like to express my gratitude and appreciation to all those who helped me to complete this work and there is, no adequate way to express my deep genuine appreciation to them.

Mona Gamal





CONTENTS

	Title	Page
_	List of Tables	I
-	List of Figures	III
-	List of Abbreviations	IV
-	Abstract	V
•	Introduction	1
•	Aim of the Study	7
•	Review of Literature	
	> Chapter 1: Preeclampsia	9
	> Chapter 2: Self -care	29
	> Chapter 3: Nursing role to enhance self-care	42
•	Subjects and Methods	84
•	Results	95
•	Discussion 122	
•	Conclusion 137	
•	Recommendations	138
•	Summary1	
•	References	143
•	Appendices	169
•	Arabic Summary	

LIST OF TABLE

No.	Table	Page		
TABLE OF REVIEW				
1 Risk factors of preeclampsia		11		
<u>2</u>	Classification	14		
<u>3</u>	Diagnostic criteria for preeclampsia	21		
4	Complications of preeclampsia on mother & fetus	22		
<u>5</u>	5 Antihypertensive treatment of preeclampsia			
<u>6</u>				
<u>7</u>	Nutrient &vitamins during pregnancy according to ACOG.			
TABLE OF RESULTS				
<u>1</u>	Distribution of studied sample regarding their general characteristic	98		
<u>2</u>	Distribution of studied sample according to their medical history	100		
<u>3</u>	<u>3</u> Distribution of studied sample according to their obstetric history			
<u>4</u>	Distribution of studied sample according to their present pregnancy history	103		
<u>5</u>	Distribution of studied sample according to their self-reported pregnancy complains	104		
<u>6</u>	Distribution of studied sample knowledge regarding preeclampsia pre & post intervention			
<u>7</u>	Distribution of studied sample measures related to promotive self-care of preeclampsia pre & post intervention (physical needs)	106		

List of Tables 🕏

Mo.	Table	Page
8	Distribution of studied sample measures related to promotive self-care of preeclampsia pre & post intervention (psychological needs)	108
9	Total score related to promotive self-care measures of preeclampsia pre &post intervention among the studied sample	109
<u>10</u>	Distribution of total self-care practice related to promotive self-care of preeclampsia pre & post intervention	
<u>11</u>	Pregnant mothers` attitude regarding promotive measures of preeclampsia pre & post intervention	
<u>12</u>	Distribution of Pregnant mothers` total attitude regarding prevention of preeclampsia pre & post intervention	114
<u>13</u>	Relation between mothers` knowledge and attitude regarding preeclampsia self-care pre and post intervention	116
<u>14</u>	Relation between mothers' practice and attitude regarding preeclampsia self-care pre and post intervention	117
<u>15</u>	Relation between mothers` knowledge and practice regarding preeclampsia self-care pre and post intervention	118
<u>16</u>	Relation between mothers` self-reported complain and knowledge regarding preeclampsia self-care	119
<u>17</u>	Relation between mothers' self-reported complain and practice regarding preeclampsia self-care	120
<u>18</u>	Relation between mothers' self-reported complain and attitudes regarding preeclampsia self-care	121

LIST OF FIGURE

No.	Figure	Page		
FIGURES OF REVIEW				
1	Pathogenesis	15		
<u>2</u>	Flow chart for all degrees of preeclampsia treatment according to gestational age	25		
<u>3</u>	Flow chart for mild preeclampsia treatment according to gestational age	26		
<u>4</u>	Flow chart for sever preeclampsia treatment according to gestational age	27		
<u>5</u>	Orem`s self-care model	34		
<u>6</u>	Flow chart: for prevention and management of pre-eclampsia and eclampsia	44		
<u>7</u>	Theoretical Framework.	74		
<u>8</u>	Dorothea Elizabeth Orem's key concepts.	75		
FIGURES OF RESULTS				
<u>1</u>	Educational level of the studied sample	99		
<u>2</u>	Total score related to promotive self-care measures of preeclampsia pre &post intervention	110		
<u>3</u>	Distribution of total self-care practice pre & post intervention	112		
4	Distribution of Pregnant mothers` total attitude regarding prevention of preeclampsia pre & post intervention	115		



LIST OF ABBREVIATIONS

Abb. Meaning

ACOG	American college of obstetrics &gynecological
BP	Blood pressure
DBP	Diastolic Blood pressure
HELLP	Haemolysis, elevated liver enzyme &low platelet
IV	Intravenous
ME	Medicine emergency
NHPI	National health public institute
NICE	National institute for health &clinical excellence
NICE	National institute for health& clinical Excellence
PIGF	Placental growth factor
PE	Preeclampsia
PIH	Pregnancy induce hyper tension
РНС	Primary health care
Pub Med	Public medicine
SEHD	Self-care England health delivery
SBP	Systolic Blood pressure
VEGF	Vascular endothelial growth factor
WHO	World Health Organization
ISSHP	International Society for the Study of Hypertension in Pregnancy
TV	Televasion

ABSTRACT

The study **aimed** to evaluate the effect of mothers' self-care brochure on early detection of preeclampsia. The study **conducted** at outpatient clinics at EL-Hussein University Hospitals & Ain Shams Maternity University Hospital. **Study design** was utilized a quasi-experimental design. A convenient sample was obtained, involved all pregnant women (100 cases) who were registered in the antenatal outpatient clinic for one year. The tools used for data collection involved Arabic structured interviewing questionnaire, checklist, likert scale, follow up sheet as well as supportive instruction brochure. The **results** showed highly statistical significant improvement in mothers' knowledge, practice & attitude regarding self-care for prevention of preeclampsia pre & post intervention (p-value <0.001). Also the study showed statistically significant correlation between mothers' knowledge, practice and attitudes related to promotive self-care measures for preeclampsia. It also showed statistically significant correlation between mothers' knowledge, practice and self-reported complain (pvalue <0.05). The present study concluded that mothers' self-care brochure can help on empowering mother's knowledge, practice and attitude regarding self-care of preeclampsia. In addition the self-care has positive impact on early detection of preeclampsia. So the research **recommend**, designing and implementing brochures & guidelines to be distributed among pregnant mothers at antenatal clinics to empower mothers for early detection, early referral and early management of preeclampsia.

Keywords: preeclampsia, self-care, brochure



Introduction

Preeclampsia is a disorder of widespread vascular endothelial malfunction and vasospasm that occurs after 20 weeks' gestation and can present as late as 4-6 weeks postpartum. It is clinically defined by hypertension (greater than or equal to 140/90 mmHg) and proteinuria (greater than or equal to 0.3 grams in a 24-hour urine specimen) or a urine dipstick protein of 1+, with or without pathologic edema (ACOG, 2013).

Preeclampsia (PE) is a leading cause of maternal mortality and morbidity worldwide. It occurs in women with first or multiple pregnancies and is characterized by hypertension and proteinuria. onset **Improper** placentation is responsible for the disease. If PE remains untreated, it moves towards more serious condition known as eclampsia. Predisposing factor for PE are Hypertension, diabetes mellitus, proteinuria, obesity, family history, nulliparity, multiple pregnancies and thrombotic vascular disease, women with a history of recurrent PE and eclampsia. The clinical findings of sever PE are assorted by presence of systemic endothelial dysfunction, microangiopathy, the liver (hemolysis, elevated liver function tests and low platelet count, namely HELLP syndrome) and the kidney (proteinuria). The early detection



of PE is one of the most important goals in obstetrics (Al-Jameil, 2016).

Early detection of PE would allow for planning appropriate monitoring and clinical management, following the early identification of disease complications allow early prophylactic strategies to be more effective and the use of possible preventative treatment (Thilaganathan, 2010).

Self-care is key concept in health promotion, refers to decisions and actions that an individual can take to cope with a health problem or to improve his or her health. Selfcare is empowering people to participate more actively in fostering their own health and influence their own health self-care behaviors include seeking information (e.g., reading books or pamphlets, searching the Internet, attending classes, joining a self-help group); exercising; seeing a doctor on a regular basis; getting more rest; lifestyle changes; following low fat diets; monitoring vital signs; and seeking advice, evaluating their information, and making decisions to improve health (Patrick, 2016).

Self-care is a broad term comprising everything that people do to maintain health, prevent illness, seek and adhere to treatment, manage symptoms and side-effects, accomplish recovery and rehabilitation, and manage the impact of long-term illness and disability (Allina for Self-Care Research, 2008).



Developing a self-care plan will help to think about the small steps can take in own life to build resilience and reduce vulnerability to compassion fatigue. This plan should address all needs as biological self-care (caring for own physical health), psychological self-care (taking care of emotional health), social self-care (taking care of social needs and networks) and spiritual self-care (drawing on sources of spiritual help that might comfort and guide (Sitzman & Eichelberger, 2011).

Maternity nurses understand the importance of ensuring a healthy mother and a healthy baby. In order to design a tailored pregnancy nursing care plan, it is necessary to have a baseline of the pregnant or post-partum patient's condition for preeclampsia. An effective nursing care plan for pregnancy patients should include assessment, promoting autonomy and patient teaching (Armento, 2007).

Nurses are the front line of health care. It is vital that the new recommendations are wholly understood so that nurses can fully assess care and assist the team as well as provide anticipatory guidance to women which help in early diagnosis of preeclampsia. Assessment skills need to be sharpened and a full assessment of the entire person must be made to come to an accurate Also, it is imperative to acknowledge that these are



recommendations, as each patient is an individual, each case is unique, and each provider will make a judgment call on the basis of the clinical picture (Nicole & Franzen, 2013).

The majority of the antenatal mothers had average knowledge towards preeclampsia. The lack of adequate knowledge on preeclampsia due to lack of planned preeclampsia educational or awareness program among antenatal mothers& educational program is important to improve antenatal mother`s knowledge toward preeclampsia (Jos et al., 2010 & Joseph et al., 2013).

Pregnancy nursing care plans most often include women education listed as a goal and as a nursing intervention. Teaching the pregnant women how to recognize normal and abnormal symptoms in her body provides an extra line of defense against fetal health risks. It also helps mothers-to-be feel more comfortable about the birthing process and post-partum life. This may include information about proper diet, the risks and benefits of medications, activities that should be avoided during pregnancy and immediately post-partum. Women teaching also should include information on birthing options and breastfeeding (Adele, 2007).



Educate the pregnant women about danger signs of preeclampsia and immediate seeking care, regular prenatal visit to measure blood pressure & regular checking protein in urine during pregnancy also regular moderate exercise, high antioxidant food prior to pregnancy, less salt diet and eat plenty of potassium- rich foods to fight high blood pressure, eat variety of colorful fresh food which supplies high amount of electrolytes, eliminate packaged foods and high sugar snacks, take 15-25% of total calories from protein foods, prevent dehydration and fatigue through drink enough water, limited caffeine, get enough sleep & perform easy natural stress relievers as relaxing breaks to reduce stress and regular sexual intercourse to decrease risk of preeclampsia (Josh Axe, 2016).

Justification of the study:

Preeclampsia is one of the biggest maternal killers, in Egypt it affects 5-8% of pregnant women (Al Amrawy, **2014),** so importance for primary prevention & early identification of pre-eclampsia and also importance of early and regular antenatal care and awareness about signs and symptoms of pre-eclampsia, severe pre-eclampsia and eclampsia to improve maternal and perinatal outcomes & doing a national assessment in the country to understand provider practice, barriers to appropriate screening and