

## The Association between Self Esteem and Self-Efficacy With Mental Illness in Pregnant Women

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### ABSTRACT

**Background:** A study in Indonesia conducted in the DKI Jakarta area in 2002 showed that 15% experienced depression during pregnancy and 20% depression after childbirth. Self esteem and self efficacy are things that affect mental condition. This study aims to determine the relationship of self-esteem and self-efficacy on health conditions in pregnant women.

**Subjects and Method:** This study is a quantitative study with cross-sectional design involving a sample of 182 respondents from midwife independent practice in East Jakarta in January-June 2019. Univariate analysis was used to determine the description of the characteristics of respondents. SEM analysis was used to determine the relationship between variables of self-esteem, self-efficacy and mental health.

**Results:** The interaction of self esteem and self efficacy shows a strong relationship of 0.9. The path coefficient from self esteem to mental health of -0.55, from self efficacy to mental health of -0.04.

**Conclusion:** Self esteem for mental illness has a negative effect with a moderate effect. Self efficacy also has a negative direction and is very weak.

**Keywords:** mental health, maternal mental health, postpartum blues/depression

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### BACKGROUND

Mental illness during pregnancy is a major public health problem that must be taken seriously. Between 10 and 20% of women experience mental illness during pregnancy or in the first year after giving birth worldwide, examples of these diseases include antenatal and postnatal depression, obsessive compulsive disorder, post-traumatic stress disorder and postpartum psychosis (Bauer, 2014).

Mental illness or mental health problems during pregnancy in low and middle income countries are very high, the average prevalence reaching 15.6% (Spedding, 2018). One in five women experience mental health problems during pregnancy, such as depression, anxiety and fear of severe childbirth, and mild to moderate

emotional disturbances (Robertson, 2004). Depression and anxiety often occur during pregnancy. Prevalence of 6% and 17% has been reported for major and minor depression (Ashley, 2016) while the level of anxiety symptoms during pregnancy is 23% due to the change in body shape which affects self-confidence (Bayrampour, 2015) and anxiety disorders during the antenatal period is 15% because it feels worthless because it has two entities (Fairbrother, 2016).

Pregnant women around the world according to the World Health Organization (WHO) that ranges from 10% of pregnant women and 15% of women who have just given birth experience mental problems, especially depression. In developing countries even higher, which is 15.6% during

pregnancy and 19.8% after giving birth (WHO, 2005).

Other studies conducted to reduce the impact of pregnancy are mental health - psychological, stress and depression, knowledge, empowerment, self-efficacy by improving the quality of pregnancy check up services with Ante Natal Care. Besides increasing the knowledge of pregnant women by parents there is also the need for additional care in pregnancy by health personnel (obstetricians, midwives, doctors and nurses).

The prevalence of depression during pregnancy in Indonesia reached 22.4%, the high prevalence of depression can increase the risk of maternal and child morbidity and mortality, both during pregnancy and after birth (Lovell, 2015). Poor mental health during pregnancy causes and results in various pregnancy losses and the child will be born (Bayrampour, 2018).

Research in Indonesia conducted in the DKI Jakarta area in 2002 found that 15% experienced depression during pregnancy and 20% depression after childbirth. This is also in line with a study conducted by Hassan in 2003 from the Department of Psychiatry, Padjajaran University, which show that 2928 respondents pregnant and breastfeeding in 24 puskesmas in West Java found some psychiatric disorders that were quite surprising. The findings stated that there were 798 or about 27% of respondents showing signs of psychiatric disorders in the form of anxiety as much as 43%, depression 41%, psychosomatic disorders 8%, adjustment disorders 4%. In 2006 research conducted by Susmiatin in the Bogor area found that there were 29% pregnant women experience mental emotional problems and the effect of TKT on the group of pregnant women to bring their pregnancy. Subsequent study by Anindiya-jati (2017), at the Matraman Public Health

Center in Jakarta from 116 respondents pregnant women show that 15% of pregnant women experienced depression during pregnancy, and 85% experienced stress during pregnancy.

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## SUBJECTS AND METHOD

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### 1. Study design

This was a cross-sectional study conducted in East Jakarta, from January to June 2019.

### 2. Study subjects

A sample of 182 pregnant women in two independent practice midwives in East Jakarta was selected for this study.

### 3. Study variables

The dependent variable was mental illness during pregnancy. The independent variables were self-esteem and self-efficacy.

### 4. Data analysis

The univariate analysis was conducted to describe maternal characteristics (age, last education, family income, employment, and pregnancy history). Structural equation modeling (SEM) analysis was carried out to determine the interaction of self-esteem, self-efficacy, and the incidence of mental illness in pregnant women.

Self-Esteem as a latent variable, has four dimensions (power, significant, virtue, competence), each of which has five indicators. The Self-Efficacy variable has three dimensions (level, generality, strength) where the level has seven indicators, generality dimension, strength which each has five indicators. Mental health has three dimensions: self-esteem (adapted from the EPDS questionnaire which measures depression levels) with 10 indicators, self-image has five indicators and expectancy for pregnancy with five indicators. The interaction between latent variables with each indicator is depicted as Figure 1.

## RESULTS

From the results of the univariate analysis of the respondents' characteristics, the following information was obtained. From table 1, it is known that the respondent's youngest age is 3 years and the oldest is 4 years with an average of  $27.4 \pm 6.27$  years. The average gestational age of respondents

was  $24.7 \pm 9$  weeks. Most education history is 65 people high school (53.7%). The most jobs are as housewives 117 people (60.9%) with the most income less than the same as 5 million rupiahs 78 people (42.8%). The most history of pregnancy is 99 second and third children (54.5%).

**Table 1. Sample Characteristics**

Variables	Mean	SD	Min.	Max.	
Age (year)	27.44	6.27	23	44	
Age of pregnancy (weeks)	24.72	8.95	3	40	
Education	Senior high school 65 (35.7%)	Undergraduate 41(22.5%)	Postgraduate 3(1.6%)	Elementary school 33 (18.1%)	Junior high school 40 (22%)
Occupation	<b>Wiraswasta</b>	Professional	Housewives	Civil servant	Private employment
Income	23 (12.6%) $\leq 7.5$ million	3 (1.6%) $\leq 10$ million	117 (60.9%) $> 10$ million	14 (7.7%) $< 2.5$ million	25 (13.7%) $\leq 5$ million
Pregnancy History	12 (6.6%) $> 3$	12 (6.6%)	4 (2.2%)	76 (41.8%) 1	78 (42.8%) $\leq 3$
	26 (14.2%)			57 (31.3%)	99 (54.5)%

The results of the SEM diagram are estimated as shown in Figure 1. Chi-square / df = 1.91, RMSEA = 0.071,  $p < 0.001$ . This shows the level of validity and good reliability of construct modeling. Values between lines show the magnitude of the influence of factor variables (dimensions) on the latent variable. Path coefficient is said to be strong when approaching  $\pm 1$ . For the dimension indicator Self-esteem which has the strongest path coefficient is M3 which is 0.63. Dimensions of Self-Image, the strongest indicator is MH5. The dimension of birth expectancy, the strongest indicator is MH8 which is 0.75. Dimension path coefficient for latent mental health variables. Hope 0.99, Self-Image 0.97 while Self-Esteem 0.11.

The strongest Power dimension indicator is SEP4. The strongest Significant indicators are SES4 and SES5 0.83. The strongest Virtue indicator SEV4 0.92.

Strongest Competence Indicator SEC3 0.87. Power dimension path coefficient from Self Esteem variable is 0.81, Significant dimension is 0.90, irtue dimension is 0.75, Competence dimension is 0.84.

The strongest dimension indicator is SEFL7 0.81. The strongest Generality Indicator is SEFG3 0.86. The strongest Indicator Strength is SEFS4 0.85. Dimension path coefficient Level from Self Efficacy 0.90, Generality 0.78, Strength 0.76. The interaction of self esteem and self efficacy shows a strong relationship 0.9. The path coefficient from Self esteem to mental health is -0.55, from self efficacy to mental health -0.04. This shows that self esteem on mental health has a negative effect, meaning that the higher the self esteem the lower mental health with moderate influence. Self efficacy also has a negative influence on mental illness with a very weak effect.

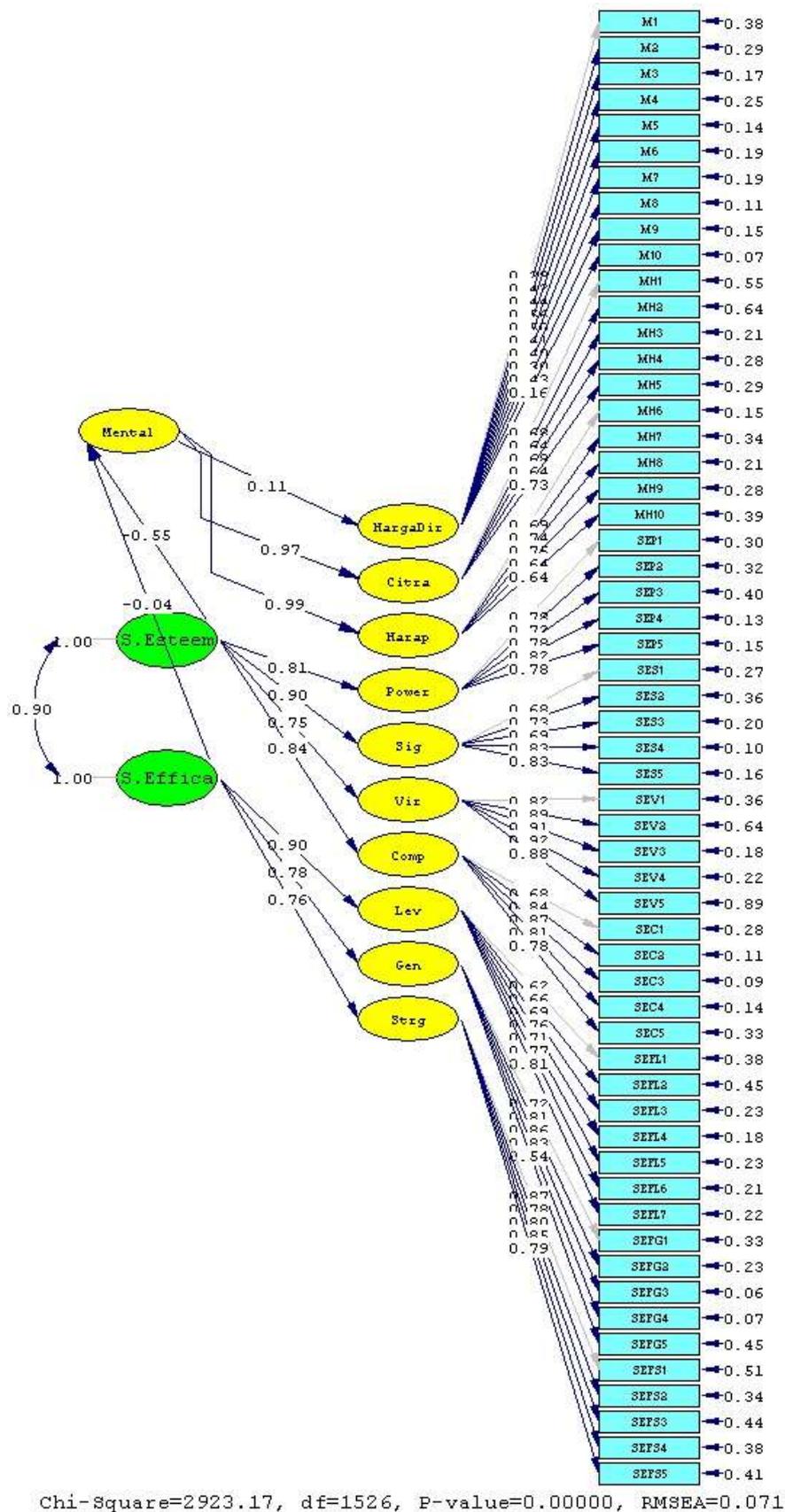


Figure 1. SEM Flowchart

**Table 1. Standardized Loading Factors**

	Koefisien Loading	Nilai Delta (error var.)	R <sup>2</sup>
Self-Esteem			
M1	0.39	0.38	0.28
M2	0.42	0.29	0.38
M3	0.44	0.17	0.53
M4	0.56	0.25	0.55
M5	0.50	0.14	0.64
M6	0.41	0.19	0.46
M7	0.40	0.19	0.45
M8	0.30	0.11	0.46
M9	0.43	0.15	0.54
M10	0.16	0.06	0.29
Self-Image			
MH1	0.68	0.55	0.46
MH2	0.64	0.64	0.39
MH3	0.68	0.21	0.69
MH4	0.64	0.28	0.59
MH5	0.73	0.29	0.65
Hope			
MH6	0.69	0.15	0.76
MH7	0.74	0.34	0.61
MH8	0.75	0.21	0.72
MH9	0.64	0.28	0.59
MH10	0.64	0.39	0.51
Power			
SEP1	0.78	0.30	0.67
SEP2	0.72	0.32	0.62
SEP3	0.78	0.40	0.60
SEP4	0.82	0.13	0.84
SEP5	0.78	0.15	0.81
Significant			
SES1	0.68	0.27	0.63
SES2	0.73	0.35	0.59
SES3	0.69	0.20	0.70
SES4	0.83	0.10	0.87
SES5	0.83	0.16	0.81
Virtue			
SEV1	0.82	0.36	0.65
SEV2	0.89	0.64	0.55
SEV3	0.91	0.18	0.82
SEV4	0.92	0.22	0.79
SEV5	0.88	0.89	0.46
Competence			
SEC1	0.68	0.28	0.62
SEC2	0.84	0.11	0.86
SEC3	0.87	0.08	0.89
SEC4	0.81	0.14	0.82
SEC5	0.78	0.33	0.64
Level			
SEFL1	0.62	0.38	0.50
SEFL2	0.66	0.45	0.49
SEFL3	0.69	0.23	0.68
SEFL4	0.76	0.18	0.76
SEFL5	0.71	0.23	0.68
SEFL6	0.77	0.21	0.74
SEFL7	0.81	0.22	0.74
Generality			
SEFG1	0.73	0.33	0.61
SEFG2	0.81	0.23	0.74
SEFG3	0.86	0.05	0.93
SEFG4	0.83	0.06	0.91
SEFG5	0.54	0.45	0.39
Strenght			
SEFS1	0.87	0.51	0.60
SEFS2	0.78	0.34	0.64
SEFS3	0.80	0.44	0.59
SEFS4	0.85	0.38	0.66
SEFS5	0.79	0.41	0.60

**Table 2. Correlation Factors**

<b>CFA</b>		
Mental	Harga Diri	0.11
	Citra	0.97
	Harapan	0.99
Self Esteem	Power	0.81
	Significant	0.90
	Virtue	0.75
	Competence	0.84
Self Efficacy	Level	0.90
	Generality	0.78
	Strength	0.76
<b>Factor Correlations</b>		
	Mental	
Self Esteem		-0.55
Self Efficacy		-0.04

## DISCUSSION

In theory, self esteem for mental health is defined as "self concept: what we think about ourselves, self-esteem, is a positive or negative evaluation of ourselves, as in how we feel it (Smith, 2007).

Albee and Ryan Finn (1993), summarize their analysis of research evidence and provide the following 'formula' for the prevention of 'mental illness':

$$\text{Mental illness} = \frac{\text{Organic factors} + \text{Stress} + \text{Exploitation}}{\text{Coping skills} + \text{Self-esteem} + \text{Social support}}$$

According to this formula, mental 'illness' can be prevented by reducing factors or elements above the equation such as organic factors or exploitation, and by increasing factors or elements at the bottom such as self-esteem and social support (Albee and Ryan-Finn, 1993). The results of this study support this theory. Other theories of mental health have been put forward following the tactic of identifying the elements or factors in mental health.

Self-efficacy is an individual's belief in his innate ability to achieve goals. Bandura defines it as a personal assessment of "how well a person can take the actions needed to deal with a prospective situation" (Bandura, 1982). In terms of mental health, more positive self-efficacy is associated with psy-

chological well-being or less psychological pressure. In the parenting domain, self-efficacy has also been identified as a key structure in terms of its relationship with various out-comes, including parenting behavior and parenting stress (Coleman, 1998).

The results of this study show that self efficacy has a weak effect with a negative direction on mental illness, indicating that in pregnancy the level of self efficacy has less effect on mental illness. In other words, mothers with high self efficacy can experience mental health disorders. Therefore, it needs to be investigated for other factors that influence the condition of mental illness.

Interaction of Self Esteem and Self Efficacy shows a strong relationship 0.9. Path coefficient from Self esteem to Mental health -0.55, from self efficacy to mental health -0.04. This shows that self esteem on mental illness has a negative influence with a moderate effect. Self efficacy also has a negative direction and is very weak. The recommendation for the next researcher is to analyze all the factors that influence mental health using the same SEM analysis approach.

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#### **AUTHOR CONTRIBUTION**

Adang Bachtiar, Cicilya Candi, and Nurul Husnul Lail collected the data, did data analysis, interpreted the results of data analysis, and wrote the manuscript.

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#### **CONFLICT OF INTEREST**

We declare that there was no conflict of interest.

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