

## RELATIONSHIP BETWEEN CHARACTERISTICS OF MIDWIFE AND SOCIAL AWARENESS IN FE TABLETS ADMINISTRATION TO PREGNANT WOMEN IN PUBLIC HEALTH CENTERS

<sup>1</sup>Agus Aan Adriansyah, <sup>2</sup>Nyoman Anita Damayanti, <sup>3</sup>Windhu Purnomo

<sup>1</sup>Faculty of Health, Nahdlatul Ulama Surabaya University, Email: [aan.naufal87@unusa.ac.id](mailto:aan.naufal87@unusa.ac.id)

<sup>2</sup>Faculty of Public Health, Airlangga University, Surabaya, Email: [nyoman.fkmua@gmail.com](mailto:nyoman.fkmua@gmail.com)

<sup>3</sup>Faculty of Public Health, Airlangga University, Surabaya, Email: [windhu-p@fkm.unair.ac.id](mailto:windhu-p@fkm.unair.ac.id)

### ABSTRACT

Coverage of Fe tablets during antenatal care visit from 2011-2013 in Public Health Centers in Surabaya was still low with an average percentage of 9.29% and 16.27%. The purpose of this study was to analyze the relationship between characteristics of a midwife and social awareness of a midwife in Fe tablets administration to pregnant women in Public Health Centers in Surabaya. This research was an analytic observational study and a cross sectional approach. The research location was in all Public Health Centers in Surabaya. The samples as many as 65 midwives were taken using multistage random cluster sampling technique from 62 Public Health Centers representing every region in Surabaya. The data obtained were analyzed by using Ordinal Logistic Regression technique. The results showed that the age and length of employment are closely related to social awareness of midwife, while educational background was not closely related to social awareness of midwife. The conclusion of this study is that characteristics of midwife are closely related to social awareness of midwife. Midwives with good social awareness generate a good performance achievement. Our suggestion is that Public Health Centers should immediately provide education and training to midwives who have less social awareness. In addition to the process of hiring a midwife, Public Health Centers should pay attention to midwives' ability of social interaction as it relates to the responsibility of providing services to pregnant women.

**Keywords:** Social Awareness, Midwives' Performance, Fe Tablets

### INTRODUCTION

World Health Organization (WHO) reports that the prevalence of pregnant women with iron deficiency is around 35-75%, and it increases with gestational age. Iron deficiency anemia is more likely to take place in developing countries than in developed countries. In Indonesia, the prevalence of anemia in pregnancy is still high with a total of 40.1%, which is pregnant women with iron deficiency anemia. Fe administration is one of the important efforts in preventing and combating anemia iron (MOH, 2007). Fe tablet is given when pregnant women go to a public health center for antenatal care visit. Coverage of Fe administration from year 2011 to 2013 in several public health centers in Surabaya did not reach the target yet. The average Fe coverage that did not achieve the target from 2011 to 2013 was 21 public health centers (34.61%).

The success of Fe consumption by pregnant women cannot be separated from the

characters, attitude and efforts of health workers, especially midwives. Midwife is always associated with pregnant women in her working area. Therefore, midwife should have characters, skills, competencies and experience in serving pregnant women. Midwife needs to have character, social awareness. Those can be used as foundation in building a relationship with the surrounding social environment.

The problem studied was the low coverage of Fe administration compared to the number of antenatal care visits in 2011-2013 in community health centers in Surabaya with an average percentage of 16.27%. The low coverage of Fe administration is closely related to the ability possessed by health workers such as character, social awareness. Midwife's poor ability will result in a less than optimal performance. The purpose of this study was to analyze the relationship between characteristics of a midwife with social awareness of a midwife in Fe administration to pregnant women in Public Health Center, Surabaya.

## LITERATURE REVIEW

### Emotional Intelligence

According to Goleman (1999), *emotional intelligence* refers to the ability to recognize one's own feelings, feelings of others, the ability to motivate oneself, the ability to manage emotions well in ourselves in relation to others. Emotional intelligence can be observed when someone shows ability which consists of self-awareness, self-management, social sensitivity and relationship management in a timely manner with sufficient frequency to be effective in certain situations (Goleman, 1995 and 1998; and Boyatzis *et al.*, 1999).

Boyatzis *et al.*, (1999) conducted research to get a better reliability and an intercorrelation level than those of emotional intelligence competency model proposed by Goleman. Boyatzis *et al.*, (1999) describes category of *personal competence* and category of *social competence* by updating the components. Personal ability is the ability to identify and manage emotions in oneself, consisting of two components, namely *self awareness* and *self management*, while social skill is the ability to identify and manage the emotions in oneself with others, consisting of two components, namely the dimension of *social awareness* and *social skill* (Boyatzis *et al.*, 1999).

#### 1. Self Awareness

*Self awareness* is an ability to recognize one's emotion and a feeling from time to time comprising *Emotional Awareness*, *Accurate Self Assessment*, and *Self Confidence*.

#### 2. Self Management

*Self management* is an ability to handle one's own feeling so that it can be expressed in controllable level comprising *Self-control*, *Trustworthiness*, *Conscientiousness*, *Adaptability*, *Achievement Orientation*, and *Initiative*.

#### 3. Social Awareness

*Social awareness* is an ability to recognize and feel other people's emotion comprising *Empathy*, *Organizational Awareness*, and *Service Orientation*.

#### 4. Social Skill

*Social skills* is a competence to manage

other people's emotion in building a relationship comprising *Leadership*, *Communication*, *Influence*, *Change catalyst*, *Conflict management*, *Building bonds*, *Teamwork & collaboration*, and *Developing others*.

Emotional intelligence is influenced by several important factors. According to Goleman (1997), factors that affect the emotional intelligence comprise physiological and psychological factors as follows:

#### 1. Physiological factor

Physiologically the anatomy of emotional nervous system is the most influential part of a person's emotional intelligence. Part of the brain used for thinking is *cortex* and part of the brain dealing with emotions is the limbic system. These two determine a person's emotional intelligence.

##### 1. Cortex

Cortex plays an important role in understanding something in depth, analyzing why a person experiences certain feelings and how to deal with those feelings. Special *cortex* of *prefrontal lobe* acts as a damper switch that gives meaning to the emotional situation before doing something.

##### 2. Limbic System

This section is often referred to as the emotional brain that is located deep within the cerebral hemispheres and is mainly responsible for the regulation of emotions and impulses. Limbic structures manage some of the emotional aspects, namely the recognition of emotions through facial expression, behavior tendencies and emotional memory storage (Wahyono, 2001).

#### 2. Psychological factor

Emotional intelligence is not only influenced by the personality of an individual, but it can also be nurtured and strengthened within the individual.

Furthermore, Goleman (1999) also describes some of the factors that influence individual emotional intelligence, namely:

##### 1. Family environment

Family life is the first school to study

emotion. The participation of parents is needed because parents are the first subjects whose behavior is identified, internalized and ultimately become part of the child's personality. This emotional intelligence can be taught in infancy with examples of expression. Emotional life fostered in the family is very useful for children later in life.

2. Non-family environment.

Emotional intelligence grows in line with physical and mental development of children. Development of emotional intelligence can be enhanced through various forms of training including assertiveness training, empathy and many other forms of training.

### Public Health Center

PHC is a health care facility that organizes first level of public health and individual health efforts by emphasizing more on promotive and preventive efforts to achieve the highest level of public health in its region (Ministry of Health, 2014).

PHC organizing principle is the principle of regional accountability. It means that PHC is responsible to improve the health of people residing in the region. First level of health efforts conducted by PHCs, a mobile health center, a midwife in the village and other various health care efforts conducted outside PHC (outreach activities) are basically a realization of the execution of the principle of regional accountability.

### Iron (Fe)

Iron (Fe) is an essential microelement for the body. This substance is needed in *hematopoiesis* (blood formation) that is in the synthesis of hemoglobin (Hb) (Moehyi, 2003). A mother suffering from iron deficiency during her pregnancy can not pass sufficient amount of iron to her baby for the first few months. Although the baby gets milk from her mother, milk is not a food that contains a lot of iron. Therefore, iron is needed to prevent children from suffering anemia (Siregar, 2000).

In every pregnancy the need for iron is as much as 900 mg Fe which is a total of 500 mg

Fe of increased maternal blood cells, 300 mg Fe of placenta and 100 mg Fe of fetal blood of. If a body stores only a little amount of Fe, each pregnancy will deplete the body's deposit of Fe resulting in anemia in pregnancy (Manuaba, 1998). Iron requirement during the first quarter is relatively small at 0.8 mg / day, but it increases rapidly during the second and third quarter up to 6.3 mg / day.

Lack of iron and folic acid can cause anemia. The process of iron deficiency anemia is through several stages. First, there is a decline in deposits of iron in the body. If iron requirement is not met, symptoms of anemia occurs with decreased level of Hb. Normal level of hemoglobin in the blood of pregnant women is as much as 11 g% (Ministry of Health, 1992).

According to the Ministry of Health (1999), iron tablets are given to pregnant women in accordance with the prescribed dosage and procedures, namely:

1. Prevention dosage

It is given to the target group without Hb examination. The dosage is one tablet (60 mg of elemental iron and 0.25 mg folic acid) daily at least 90 days during pregnancy starting the first time when a mother check her pregnancy (K1).

2. Treatment dosage

Given to the target (Hb <threshold) when Hb <11gr%. The dosage increases to 3 tablets daily for 90 days during pregnancy.

### RESEARCH METHOD

This research is an analytic observational study. Researcher observed characteristics of midwife associated with social awareness in the process of Fe tablet administration to pregnant women were then analysed. The research design was conducted by using cross sectional approach.

This research was conducted in all 62 Public Health Centers in Surabaya. Population in this study was 281 midwives in 62 Public Health Centers in Surabaya. The sample size used as respondents was 65 midwives from 62 Public Health Centers in Surabaya. The sample in this study was obtained from Public Health Centers that met the inclusion and exclusion

criteria. Criteria for inclusion in this study were that Public Health Center where the midwife works always has Fe tablets for pregnant women during the study. The exclusion criteria were that Public Health Center where the midwife works has limited Fe tablets for pregnant women.

The sampling technique used was multistage *random cluster sampling* from a number of Public Health Centers representing every region in Surabaya that is Central Surabaya, East Surabaya, West Surabaya, North Surabaya and South Surabaya. The method guided the researcher to determine Public Health Centers in every region of Surabaya to be selected as research sites. In each selected Public Health Center a number of midwives were selected randomly. Elected midwife then were given a questionnaire about social awareness as well as midwife characteristics such as age, length of employment and educational background.

Data collection refers to field study. This field study used direct interviews with respondents using aids such as questionnaires and method of observation. The questionnaire used must meet two main requirements, namely

the validity and reliability. Data analysis was performed on each of the variables studied. The analysis used was the relationship test by using ordinal logistic regression technique to determine the relationship between the characteristics of the midwife and social awareness of midwife. Ordinal logistic regression technique was used in this study because the measurement scale for social awareness was category or ordinal.

## RESULTS AND DISCUSSION

This study analyzed the relationship between characteristics of midwife (such as age, length of employment and educational background) and social awareness in Fe tablet administration to pregnant women in Public Health Centers, Surabaya. The analysis results and discussion of this study are as follows:

### Characteristics of midwife and social awareness of midwife

#### Age and social awareness

Characteristics of midwife (age) and social awareness of midwife in PHCs in Surabaya can be seen in Table 1.

**Table 1.**  
Cross tabulation between midwife's age and midwife's social awareness in PHCs in Surabaya 2015

No. Midwife's age	Social Awareness				Total	
	Poor		Good		n	%
	n	%	n	%		
1 ≤ 25 years	9	100,00	0	0,00	9	100,00
2 26 – 35 years	4	12,10	29	87,90	33	100,00
3 36 – 45 years	1	10,00	9	90,00	10	100,00
4 46 – 55 years	2	15,40	11	84,60	13	100,00
Total	16	24,60	49	75,40	65	100,00

The research results showed that midwives with the age of 26-35 years and 36-45 years tended to have a better social awareness with a percentage of 87.90% and 90.00% respectively. Social awareness plays an important role in the implementation of Fe administration in pregnant women because it needs a better social awareness. However, midwives tended to have less social awareness (100.00%) when they are less than 25 years of age.

Young midwives tended not to have a good social awareness compared to older midwives. Older midwives have a better social awareness since they have had experience in interacting with the social world. It is in line with the theory presented by Goleman (1999) that the social awareness in midwife grows and develops in line with the physical and mental development. Thus, midwives tend to have less social awareness when they are less than 25

years of age.

Characteristics of midwife (length of employment) and social awareness of midwife in PHCs in Surabaya can be seen in Table 2.

**Length of employment and social awareness**

**Table 2.**

Cross tabulation between midwife's length of employment and midwife's social awareness in PHCs in Surabaya 2015

No.	Length of employment	Social Awareness				Total	
		Poor		Good		n	%
		n	%	n	%		
1	Less than 6 years	12	46,20	14	53,80	26	100,00
2	6 – 10 years	2	15,40	11	84,60	13	100,00
3	More than 10 years	2	7,70	24	92,30	26	100,00
	Total	16	24,60	49	75,40	65	100,00

The research results showed that midwives who work longer tend to have better social awareness. Midwives with the length of employment more than 10 years had a good social awareness (92,30%). The longer the midwife works the more familiar and easier they are to interact with pregnant women. Midwives' habit will be a lesson to improve social awareness. It is in line with the theory presented by Goleman (1999) that the social awareness in midwife grows and develops as it

is fostered and strengthened through sufficient time.

**Educational background and social awareness**

Educational background is acquired from the last formal education that is successfully completed by midwife. Characteristics of midwife based on educational background and social awareness of midwife in PHCs in Surabaya can be seen in Table 3.

**Table 3.**

Cross tabulation between midwife's educational background and midwife's social awareness in PHCs in Surabaya 2015

No.	Educational Background	Social awareness				Total	
		Poor		Good		n	%
		n	%	n	%		
1	D3	15	25,90	43	74,10	58	100,00
2	S1	1	20,00	4	80,00	5	100,00
3	S2	0	0,00	2	100,00	2	100,00
	Total	16	24,60	49	75,40	65	100,00

The research results showed that educational background was also related to social awareness possessed by midwife. The higher the educational background, the better the social awareness is. Overall, midwife with postgraduate education had a good social awareness (100.00%). High educational background makes it possible for a person to

gain more insights, knowledge and training related to the increase in social awareness.

**Relationship between characteristics of midwife and social awareness of midwife**

Relationship between characteristics of midwife comprising age, length of employment and educational background and social awareness of midwife can be seen in table 4.

**Tabel 4.**  
Relationship between characteristics of midwife and social awareness of midwife in PHCs in Surabaya 2015

Independent Variables	P	OR	Remarks
<b>Midwife's age</b>			
46-55 years	0,001 (< 0,05)	5,00	Significantly related
36-45 years	0,001 (< 0,05)	14,06	Significantly related
17-25 years			Comparator
<b>Length of employment</b>			
> 10 years	0,021 (< 0,05)	0,06	Significantly related
6-10 years	0,067 (> 0,05)		Insignificantly related
< 6 years			Comparator
<b>Educational Background</b>			
S1	0,997 (> 0,05)		Insignificantly related
D3			Comparator
Dependent Variables = Midwife's performance			

The research result showed that midwife with the age category of 46-55 years old was significantly related to social awareness of midwife compared to that of the age category of 17-25 years. Likewise, midwife with the age category of 36-45 years old was significantly related to social awareness of midwife compared to that of the age category of 17-25 years. Older age had a relationship with a social awareness possessed by a midwife. Older midwives tended to have a better social awareness. Social awareness plays an important role in the implementation of Fe administration in pregnant women because it needs a better social awareness. This is in line with the theory presented Goleman (1999) that the social awareness possessed by midwives grows and develops in line with the physical and mental development.

Midwives with the length of employment more than 6 years was significantly related to

social awareness compared to that with the length of employment less than 6 years. Generally midwives with longer working experience tended to have a better social awareness. This is based on the fact that the more experience midwives in serving pregnant the better her social awareness is. Habits that midwives do will be a lesson to improve social awareness possessed. It is in line with the theory presented by Goleman (1997) that the social awareness in midwife grows and develops as it is fostered and strengthened through sufficient time.

Midwife's educational background either S1 or S2 was not significantly related to social awareness possessed by midwife when administering Fe tablets to pregnant women in PHC. This is because social awareness is not only strengthened through education, but also through experience, trainings, socially related to others to further strengthen the ability to

interact socially. Higher education only makes someone having more insight and knowledge; However, sharpening social awareness takes time and needs practice and midwives needs to get used to interact socially in the community.

### CONCLUSION

Based on the research results and discussion, it can be concluded that the relationship between the characteristics of midwife and social awareness of midwife can be seen as follows:

1. Older age is closely related to social awareness of midwife. Older midwives tend to have a better social awareness.
2. Midwife with over 10 working years has a close relationship with a social awareness possessed by midwife. Midwives who have longer work experience tend to have a better social awareness.
3. Educational background is not closely related to the level of social awareness possessed by midwife.

### SUGGESTION

Midwives who are stationed in KIA clinic of Public Health Center in Surabaya can increase their social awareness by starting to train themselves to recognize their own feelings, try to look at the problem from the perspective of another person, try to be a good listener and learn how to sacrifice for the sake of others, especially pregnant women.

Public Health Centers in Surabaya should pay more attention to midwife's characteristics, such as age, length of employment and educational background when recruiting new employees. In addition, the ability of social interaction like social awareness should also be put into consideration in recruitment process.

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