Ecological Social Development Model of Health Behavior of Conduct Achievement MDGs 5

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ABSTRACT

Behavior of pregnant women who support the achievement of MDG 5 has not been fully achieved, one antenatal visit, shows there are still pregnant women who do not perform pregnancy tests regularly. The research aims to develop a model with Social Ecological Approach Model of Health Behavior in order to achieve the Millennium Development Goals by objective 5 with indicator of antenatal visits as well as aid delivery plan both place of birth and birth attendant. Observational study design, analytic, cross-sectional sample of 100 pregnant women who visit antenatal care at the health center Krembangan South Surabaya, simple random sampling, instruments using questionnaires, data analysis descriptive and inferential, using structural equation modeling (Structural Equation Modelling). The development of the social model of ecological models of health behavior to the behavior of the achievement of MDG 5 by the dominant factor is the construction of models intrapersonal factors include knowledge, attitude and self-efficacy, interpersonal factors include the support of family and community factors include health result support model testing goodness of fit note that the resulting model is an appropriate model used in the interpretation of the model because it has a model fit the criteria of empirical data generated by the study. The model can be used to strategize interventions in antenatal care is increasing knowledge, forming attitudes and self-efficacy through various activities such as prenatal classes or groups in pregnancy exercise as well as the involvement of family and health volunteers in assisting pregnant women to childbirth.

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1. INTRODUCTION

Millennium Development Goals (MDGs) are to improve maternal health indicators include the achievement of delivery assistance by skilled health personnel, health care for pregnant women, maternity and childbirth. Behaviors that can be shown to achieve these indicators are maternal antenatal health worker (antenatal care visits). Activities performed at antenatal care is integrated, among others, identify a plan to give birth in a health facility and birth attendants [1-2].
Current condition that the behavior of pregnant women who support the achievement of the MDG’s to-5 has not been fully achieved, such as antenatal visits, shows there are still pregnant women who do not perform regular antenatal care, including first-time visits to healthcare providers, called K1 reaches 98.58%, visit pregnant women for antenatal with the 1-1-4 pattern reaches 92.78%. Factors identified such behavior include individual, family and health services and community. The approach used to describe behavior that can support the achievement of the MDG's 5th is through the Social Ecological Model of Health Behavior.

Research Question are the development model of socio ecological models of health behavior (intrapersoinal, interpersonal and community) influence on the achievement of the MDG's 5th (antenatal visits and deliveries in the health center Krembangan South Surabaya)? The research purpose in general is developing a model of Social Ecological Model of Health Behavior on behavior MDG "s 5 (Visits antenatal and childbirth assistance) at the health center Krembangan South Surabaya.

2. RESEARCH METHOD

Analytical research design research one step, starting with a survey of the behavior of the achievement of MDG 5 includes a visit antenatal and childbirth assistance plan, then explore the variable factors affecting the level of intrapersonal, interpersonal and community, where this variable will be used as an indicator of manifest variables models. The early models obtained through the analysis of the model, followed by the Focus Group Discussion (FGD) with the Health Department of Surabaya, Head of community health service and regional coordinator of the midwife South Krembangan Surabaya. FGD data will be analyzed from a review of strategic issues and the concept of the solution to produce prototype models that will serve as recommendations theoretical model in improving achievement of MDG's 5 behavior. Data collection was a questionnaire.

The location of this research is in the health center Krembangan South Surabaya. The population in this study were all pregnant women who visit antenatal care at the Health Center South Krembangan Surabaya. The sample is 100 pregnant mothers. The sample of the research was taken by random sampling. Mechanical analysis with structural equation model (Structural Equation Modelling - SEM) based covariance employed with AMOS software.

3. RESULTS AND ANALYSIS

The results descriptive of the behavior of the achievement of the MDGs 5 measured from antenatal visits and give birth to a decision either for home delivery or birth attendant. Data respondent characteristics such as age, education, occupation, parity, pregnancy risks, attitudes, knowledge, self-efficacy, family support and support cadres also analyzed by unilabiate.

3.1. Characteristics of respondents

Table 1 explains that among 100 pregnant women who visit antenatal care mostly in the healthy reproductive age, the majority of high school education and does not work as well as most ethnic Javanese.

| Variable | N | % |
|----------|---|---|
| **Age** | | |
| <19 years old | 15 | 15 |
| 20–24 years old | 18 | 18 |
| 25–29 years old | 57 | 57 |
| 30–34 years old | 10 | 10 |
| >35 years old | 12 | 12 |
| **Education** | | |
| SD | 15 | 15 |
| SMP | 18 | 18 |
| SMA | 57 | 57 |
| PT | 10 | 10 |
| **Job** | | |
| Job | 13 | 13 |
| Jobless | 67 | 67 |
| **Region** | | |
| Java | 78 | 78 |
| Madura | 22 | 22 |
| **Total** | 100 | 100 |
3.2. Conduct the achievement of MDG 5

Table 2 explains that of the 100 pregnant women doing most first-time visit in the first trimester (gestational age < 13 weeks), antenatal care visits adequately according to gestational age, planning to give birth in health facilities (health centers, hospitals, Maternity Clinic) and assisted by skilled health personnel.

Table 2. Distribution of Respondents by Category of Variable Utilization of Antenatal Care, Place of Delivery and Birth Attendant in the Health Clinic South Krembangan Surabaya in August-October 2015

| Variable                          | n  | %  |
|----------------------------------|----|----|
| Visiting antenatal K1            |    |    |
| doing                            | 95 | 95 |
| not doing                        | 5  | 5  |
| Visiting antenatal K4            |    |    |
| Adequate                         | 90 | 90 |
| No adequate                      | 10 | 10 |
| Birth                            |    |    |
| Health facility                  | 94 | 94 |
| Non Health facility              | 6  | 6  |
| Birth                            |    |    |
| Midwife                          | 90 | 90 |
| Non midwife                      | 10 | 10 |
| Total                            | 100| 100|

3.2. Factors intrapersonal

Table 3 illustrates that among 100 pregnant women who visit antenatal care mostly multigravida, use their own cost, relatively low-risk pregnancy, the third trimester of pregnancy in part, the majority of pregnant women have the knowledge, attitude and self-efficacy of good prenatal care.

Table 3. Distribution of Respondents by Category of Research Variables Intrapersonal in Health Center Krembangan South Surabaya in August-October 2015

| Variable                          | n  | %  |
|----------------------------------|----|----|
| Parity                           |    |    |
| Primigravida                      | 39 | 39 |
| Multigravida                      | 61 | 61 |
| Cost personal                     | 69 | 69 |
| BPJS                             | 31 | 31 |
| Risk of pregnancy                |    |    |
| Low Risk                         | 65 | 65 |
| High Risk                        | 31 | 31 |
| Very High                        | 4  | 4  |
| Trimester                        |    |    |
| Trimester I                       | 21 | 21 |
| Trimester II                      | 33 | 33 |
| Trimester III                     | 46 | 46 |
| Knowledge                        |    |    |
| Good                             | 93 | 93 |
| Medium                           | 4  | 4  |
| Lack                             | 3  | 3  |
| Attitude                         |    |    |
| Good                             | 75 | 75 |
| Medium                           | 25 | 25 |
| Lack                             |   |   |
| Self-efficacy                    |    |    |
| Good                             | 76 | 76 |
| Medium                           | 23 | 23 |
| Lack                             | 1  | 1  |
| Total                            | 100| 100|

3.3. Factors interpersonal

Table 4 explains that among 100 pregnant women who had antenatal care mostly has support both from family. Support in the form of emotional support, instrumental and emotional mostly good.
Table 4. Characteristic Respondents by Family Support in Health Center Krembangan South Surabaya during August-October 2015

| Variable               | n  | %  |
|------------------------|----|----|
| Family support         |    |    |
| High                   | 93 | 93 |
| Medium                 |  6 |  6 |
| Low                    |  1 |  1 |
| Emotional support      |    |    |
| High                   | 97 | 97 |
| Medium                 |  3 |  3 |
| Low                    |  - |  - |
| Instrumental support   |    |    |
| High                   | 96 | 96 |
| Medium                 |  4 |  4 |
| Low                    |  - |  - |
| Informational support  |    |    |
| High                   | 95 | 95 |
| Medium                 |  5 |  5 |
| Low                    |  - |  - |
| Total                  | 100| 100|

3.4. Factors community

Table 5 explains that among 100 pregnant women who had antenatal care mostly has support both from health cadre. Support in the form of emotional support, instrumental and emotional mostly good.

Table 5. Distribution of Respondents by Category Variable Health Cadre Support in Health Center Krembangan South Surabaya August to October, 2015

| Variable               | n  | %  |
|------------------------|----|----|
| Health cadre support   |    |    |
| High                   | 83 | 83 |
| Medium                 | 15 | 15 |
| Low                    |  2 |  2 |
| Emotional support      |    |    |
| High                   | 88 | 88 |
| Medium                 | 11 | 11 |
| Low                    |  1 |  1 |
| Instrumental support   |    |    |
| High                   | 84 | 84 |
| Medium                 | 14 | 14 |
| Low                    |  2 |  2 |
| Informational support  |    |    |
| High                   | 93 | 84 |
| Medium                 |  6 | 14 |
| Low                    |  1 |  2 |
| Total                  | 100| 100|

3.5. Model development socio ecological models of health behavior towards achievement of MDG’s 5 behavior

Inferential research results with a structural equation modeling approach with Structural Equation Modelling can be unknown degree of influence between variables constructs research. The early models were developed in structural equation modeling analysis Social Ecological Model of Health Behavior is as follows in Figure 1.

Figure 1 explains that significant variables that influence the behavior of a delivery with the MDGs, so that these variables must be issued and carried out in order to form modal subsequent multivariate structural equation model of the most powerful with the strongest correlation estimates between variables empirically.
Figure 1. Initial model development socio ecological models of health behavior towards achievement of MDG's 5 behavior

End models was developed in structural equation modeling analysis Social Ecological Model of Health Behavior is as follows in Figure 2. Figure 2 and Table 6 explain that results of testing the model goodness of fit is known that the resulting model is an appropriate model used in the interpretation of the model because it has a model fit the criteria of empirical data generated by the study.

Figure 2. Model late model development socio ecological models of health behavior towards achievement of MDG's 5 behavior

Table 6. Evaluation Criteria for Goodness of Fit

| Goodness of Fit Index | Value Model | Cut Of Value | Explain |
|-----------------------|-------------|--------------|---------|
| RMSEA                 | 0.000       | ≤0.08        | Fit     |
| GFI                   | 0.772       | ≤0.09        | Fit     |
| AGFI                  | 1.000       | ≤0.09        | Fit     |
| CMIN/DF               | 0.000       | ≤2.00        | Fit     |

Focus Group Discussion conducted twice. The first meeting was held on October 28, 2015, 10:00 am at health center Krembangan South Surabaya along with 15 pregnant women with the Head of health center Krembangan South Surabaya, KIA coordinator midwife, midwives and midwife implementing wards. The second was a meeting held on 3 November 2015, at 13.00 with the Head of health center Krembangan South Surabaya, KIA coordinator midwife, midwives and midwife implementing wards. Basis for making strategic issues discussed in FGD is the exploration results in the analysis of significance.

Table 7 explains that focus group discussion indicate the importance of prenatal class, the home care program, health cadre empowerment and partnerships with shaman to improve the achievement of the utilization of antenatal care and delivery.
Knowledge of pregnant women affects the selection of the labor and birth attendants. Some studies showed that factors affecting pregnant women do ANC include age, education, knowledge, attitudes, cost, condition of pregnancy (no complaints), distance from health facilities [3-7]. A good knowledge about pregnancy and childbirth for pregnant women considered most of the 61 people (61%) is thus possible multigravida category are often exposed to information through extension activities, pregnancy exercise group to get prenatal care, place and birth attendants.

The attitude of the majority of pregnant women (75%) is good. Formation of attitudes does not happen by itself, but its formation through human interaction, both interactions within the group or outside the group. In case there is reference group and group membership interaction. Reference group is the group that became a grip people in his life. Membership group is a group which form emotional, instrumental and informational [1]. Activity prenatal classes in the health center to a vehicle that is appropriate to increase the self-efficacy of pregnant women in prenatal care with routine antenatal care, pregnant women also can observe the behavior of pregnant women who had experience as a learning process, because of mutual communication and sharing of experiences from the mother multigravida to mothers primigravida.

Family support is an indicator of interpersonal factors on the behavior of the achievement of MDG 5. Family support most (93%) either. Good family support influences the behavior of the achievement of MDG 5 in terms of the selection of ANC and birth attendants. Forms of family support in the form of emotional support, instrumental and informational [6], [9]. The family that supports pregnant women in prenatal care, the impact on the achievement of antenatal care visits [10].

Support health cadres’ majority (83%) either. Health workers have an important role in helping health workers to detect the risk of pregnancy and childbirth safe drive, given the health cadres are in the society and have the time and frequency-faculty frequently with expectant mothers and families. The results of the study explained that the empowerment of ANC cadres to enhance the knowledge, attitudes and antenatal care visits [9], [11]. Overview of the new model is presented in Figure 3. Figure 3 explains that there is development of new models of social theory of ecological models of health behavior in achieving the visit antenatal care and birth attendant. Behavior antenatal care and birth attendants’ decisions shaped by factors of family support, health cadre as well as interpersonal factors include knowledge, attitude and self-efficacy. Results of other studies reveal that knowledge; attitudes affect the utilization of antenatal care [12].

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**Table 7. Basic Strategic Decision to Issue Discussed in the Group, the Pregnant Women, the Head of Health Center and Midwives**

| No. | Indicator                                                                 | Questioner Result | Issue strategy                          |
|-----|---------------------------------------------------------------------------|-------------------|-----------------------------------------|
| 1.  | Behavior achievement of the MDGs 5 as seen from the Decision of the place of delivery. | Non health facility (at home) : 6% | - Home Care Program                     |
| 2.  | Behavior achievement of the MDGs 5 as seen from the Decision of the midwife of delivery. | Non health worker (Dukun) : 10% | - Prenatal Class                        |
| 3.  | The level of knowledge about prenatal care.                                | Category less : 3% | - Establish partnerships with shaman     |
| 4.  | Family support to conduct antenatal care.                                 | Category less : 1% | - MOU with shaman                       |
| 5.  | Support health cadres to conduct antenatal care.                          | Category Medium : 6% | Health Education Programs in Prenatal Class based trimester of pregnancy. |
|     |                                                                           | Less : 2%          | Health Education Programs in Prenatal |
|     |                                                                           |                   | Class based trimester of pregnancy by involving the family. |
|     |                                                                           |                   | Refresher Training Program health cadres. |

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*Ecological Social Development Model of Health Behavior of Conduct Achievement ... (Hilmi Yumni)*
4. CONCLUSION

The development of the social model of ecological models of health behavior to the behavior of the achievement of MDG 5 by the dominant factor is the construction of models intrapersonal factors which include knowledge, attitude and self-efficacy, interpersonal factors include the support of family and community factors include support for health cadres.

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The model can be used in formulating strategies antenatal care interventions that increase knowledge, forming attitudes and self-efficacy through various activities such as prenatal classes or groups in pregnancy exercise.

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