

# The Intervention of Community Role for Improving Health Status of Pregnant Women Suffering HIV-AIDS in Medan

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## Abstract

**Citation:** Nasution SS, Erniyati E. The Intervention of Community Role for Improving Health Status of Pregnant Women Suffering HIV-AIDS in Medan. Open Access Maced J Med Sci. 2018 Sep 25; 6(9):1768-1772. <https://doi.org/10.3889/oamjms.2018.324>

**Keywords:** Pregnant Mother; HIV-AIDS; Intervention; Community Role

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**Received:** 24-Apr-2018; **Revised:** 23-Jul-2018; **Accepted:** 27-Jul-2018; **Online first:** 24-Sep-2018

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**Funding:** This research was financially supported by Research Institution of the University of Sumatera Utara via TALENTA Scheme 2017

**Competing Interests:** The authors have declared that no competing interests exist

**AIM:** This research was aimed to analyse the influence of the intervention towards the pregnancy health status of the HIV-AIDS patients.

**METHODS:** The type of the experiment is a quasi-experiment, and statistically analysed with SPSS 17. The data collection was held by spreading questionnaires and conducting interviews. The sample of the research consists of 39 pregnant mothers with HIV-AIDS in Medan, Indonesia. The intervention provided counselling about the treatment for expectant mothers with HIV-AIDS involving the community.

**RESULTS:** The result of the research generally shows that intervention potentially increase the knowledge and the attitude of the pregnant mother. Intervention has a significant result which is  $p < 0.05$ , high-risk detection, ANC, selection of birth assistance and healthcare service provider.

**CONCLUSION:** Intervention has an impact in increasing the knowledge, attitude and health status of the pregnant mothers. The involvement of the society takes an important role in the healthcare of the expectant mothers with HIV-AIDS.

## Introduction

The acceleration of the decline of maternal mortality rate (MMR) and infant mortality rate (IMR) has to involve all aspects, such as medical aspect, health service management and socio-cultural aspect of the society [1]. The health status is defined by the mother's condition starting from the pregnancy, labouring, to the postpartum period [2]. The treatment that is conducted with the mother, as well as the infant, is related to the perception and the daily habits of the family and society. The factor of the high rate of MMR and IMR that is related to the role of health officers can be resolved by upgrading the quality and scope of the health service, however the socio-cultural-related problems are sensitive issues and difficult to be intervened if the involvement of local community is not included [3] [4]. Women with

HIV/AIDS have higher morbidity and mortality rate [5] [6]. Pregnant mothers with HIV-AIDS and family will encounter several problems in reproduction health that requires comprehension and adaptation towards changes on herself and family as well as the society that will affect the life quality [7] [8] [9].

Based on the WHOQOL – BREF concept, the life quality can be measured from the physical health aspect, psychological well-being, social relationship and power society [10]. Psychological changes generally happen to pregnant mothers with HIV/AIDS. Besides the anxiety of contagion to the fetus, they have various types of complications that are possible to happen to the fetus as well as the mother herself. The complications are the rupture during labour, a baby born with disabilities, low birth weight (LBW), preterm and fetus infected with HIV/AIDS [11]. These results in psychological changes, such as ambivalence, feelings of doubt about pregnancy,

depression, excessive concern for the fetus, and even post-partum blues. The social aspect of HIV/AIDS patients happen to the social life such as stigmatisation and isolation may influence the psychological condition of the mother [12]. Health status is generally influenced by habit or culture adopted by the community because the act of treatment to be performed by the knowledge and perception of a person [13] [14]. Health status is a dynamic and individual circumstance that is influenced by personal and environmental factors.

According to Green (2005), there are 4 (four) factors that influence one's health status that is hereditary, health service, environment and behaviour [15]. Of the four factors, the ones that play a bolder role in one's health status are environmental factors (45%) and behavioural factors (30%). Delay in decision-making at the family level can be avoided if the mother and the family learn the signs of jeopardy on the pregnancy and childbirth and understand the appropriate action to take to overcome the problem to avoid the high risk to both mother and baby [16]. Based on the above assumptions and phenomena, an intervention is needed to improve the health status of pregnant women who have HIV/AIDS through empowerment and community involvement programs. The intervention conducted is counselling about health care for pregnant women suffering from HIV-AIDS delivered by the community and health cadres. The application of the theory with community empowerment in preventing and decreasing the morbidity and mortality rate in mother and baby [17].

Based on Mikkelsen (2011), several concepts are frequently used as a basis for differentiation of culture, character, basic personality, perception, time concept, thinking, language, non-verbal communication, values, behaviour (norms, rules, nature) and grouping as well as social relations [18]. Most human actions and behaviour are based on the values of what is considered as bad, good and neutral in people's lives [19].

## Methods

The method was the quasi-experiment type, with the pretest-posttest design. Intervention is done in two stages: the first phase of forming community team consisting of health professionals to be involved in health care counselling. The team was trained and educated with materials that are related to the care of pregnancy, childbirth, and postpartum and infants of mothers with HIV/AIDS. Then the team conducted counselling on pregnant women who have HIV/AIDS. Intervention by giving counselling to pregnant women was performed with media leaflets and posters. After intervention for 6 months, the measurement of the behaviour of pregnant women on the variance of

knowledge and attitudes has conducted. Maternal health status is measured from the record of high-risk detection, the implementation of antenatal care, the selection of birth attendants and the selection of pregnancy and health checkpoints. Data analysis was performed with the frequency distribution and presentation, T-test dependent and regression.

## Results

Based on Table 1, the characteristics of mothers are at high risk, where the age of pregnant women is still much over 35 years and less than 20 years, the number of children more than 2, the level of education is still a lot of elementary and family income is below than enough and the character of pregnant women in general categorized under high-risk conditions.

**Table 1: Frequency distribution of characteristic data of pregnant women respondents (n = 37)**

Variables	Intervention	
	N	%
Age		
a. <20 years old	6	16.21
b. 20-35 years old	12	32.43
c. >35 years old	19	51.35
Number of Children		
a. Primi	5	13.51%
b. 1-2	24	64.86%
c. >2	8	21.62%
Education		
a. No school	6	16.21
b. Elementary	10	27.02
c. Junior High School	6	16.21
d. Senior High School	6	16.21
e. Higher Education (D3. S1)	9	24.32
Occupation		
a. Farmer/Laborer	6	16.21
b. Entrepreneur	15	40.54
c. Public/Private Company Employees	2	5.40
d. Others	14	37.83
Earnings		
a. <Rp.700.000	6	16.21
b. Rp.700.000-2.000.000	11	29.72
c. >Rp. 2.000.000	20	54.05
Religion		
a. Islam	22	59.45
b. Christian	8	21.62
c. Hindu	2	5.40
d. Buddhism	5	13.51
Total	37	100.0

Table 2 displays that there is a difference of knowledge score before and after knowledge on pregnant women, in which the value of  $p < 0.05$  ( $p = 0.031$ ).

**Table 2: The different score of knowledge pre-test & post-test on pregnant women (n = 28)**

Knowledge	Case				P
	Before		After		
	N	%	n	%	
Good	13	35.13	30	81.08	0.031
Insufficient	24	64.86	7	18.91	

From Table 3, it can be seen that there is a difference of attitude before and after (knowledge) on

the team members who care about public health in which the value  $p < 0.05$  ( $p = 0.002$ ).

**Table 3: The difference between the score of attitude pretest & posttest on pregnant women (n = 28)**

Knowledge	Case				P
	Before		After		
	N	%	n	%	
Good	16	43.24	32	86.48	0.002
Insufficient	11	29.72	5	13.51	

From Table 4, it is shown that there is the difference in the health status score before and after the intervention, in which the value  $p < 0.05$  for several variables that are high-risk detection, ANC treatment, choice of labour assistance and choice of health care centre.

**Table 4: Health status of pregnant women before and after intervention (n = 39)**

Variables	Before	After	P
High-Risk Detection			
a. Has record	10	20	0.046
b. No record	29	19	
ANC			
a. Fit	9	14	0.006
b. Not fit	30	25	
Choice of Labor Assistance			
a. Health Officer	8	21	0.007
b. Non-Health Officer	31	18	
Health Care Place			
a. Health Care Centre	8	17	0.005
b. Non-Health Care Centre	31	22	
Total	39	39	

## Discussion

The result of the study generally indicates the influence of interventions in improving the health status of pregnant women who have HIV/AIDS. Interventions are conducted through community empowerment by community empowerment by the realisation of potential capabilities in the care of pregnancy, childbirth, post-partum and newborns by taking into account socio-cultural community, involving community leaders and local tradition leaders [20]. Nursing care in pregnant women with HIV/AIDS involves community leaders and local customary leaders. Intervention is done by activating the role of society that plays an important role in influencing beliefs, traditions and customs. This is consistent with studies suggesting that HIV patients were given attention-based and cognitive-minded interventions experienced a reduction in stress and depression by 8 weeks and 6 months after the intervention [21].

Community empowerment is an effort to automate the community through the realisation of the potential ability possessed [18]. One of the effective strategies to improve health status through community empowerment application is by the educative approach, i.e. a series of activities that are implemented systematically planned and directed with

the active participation of individuals, groups and communities aimed at solving problems by considering social, economic and cultural aspects [22] [23].

This opinion is in conjunction with Mikkelsen B. (2011) who says that the logic model underlying the participatory strategy or the participation of the community in the effort of community empowerment to achieve the development goal can be achieved harmoniously and the possibility of conflict among social groups, but this can be mitigated through the local democracy pattern [18] [24] [25].

Community participation has a positive impact on development, and it is an effective tool for mobilising local resources such as people and nature with the aim of implementing specific development programs. The counselling activity is a form of education with the aim to equip health and community cadres with good and true knowledge and positive attitude in the health care of pregnant women suffering from HIV-AIDS [3] [7]. The implementation of the intervention is one of the cognitive approaches that can help optimise the role of the community in improving the behaviour of pregnant women in maternal and infant health care [26]. This is consistent with the theory which states that knowledge can improve emotional control, increase client's self-reliance, increase self-esteem, increase endurance and can help clients to adapt to problems or diseases that can ultimately improve health status [15].

The formed behaviour begins with the cognitive domain which further raises the inner response in the form of attitudes toward the object, and this response ultimately will be in the form of acts or skills. Information sharing is a cognitive approach to psychosocial interventions designed to analyse and change the wrong beliefs or values held by clients and help clients learn to use effective coping strategies [15]. According to Notoatmodjo (2003) who said education, experience, culture, belief, are the factors that influence one's knowledge and attitude. Moreover, knowledge affects the consciousness level of solving health problems, healing treatments, disease anticipation and healthcare [13]. Behavioural factors that can influence the health status of the community cannot be separated from the culture and habits of families and the environment of society on a daily basis, including the stigma attached to HIV/AIDS patients [27].

Community leaders such as traditional leaders, village officials and religious leaders are the people who are considered to play a role and influence people's decisions on health care related to culture. Public health status improvement program will not run well by the objectives if it does not study the environmental and cultural factors of surrounding communities and involve the community in the program. Implementation of the interventions conducted in this study involved community leaders

directly, who are role models for communities in their region [26].

The right strategy in changing the behaviour and perceptions of the people related to culture is very appropriate to involve community leaders. This is by the opinion that the social condition is a condition or position that is purposely arranged socially, thus places a person in a certain position in the social structure of society [21]. Ones who occupy the highest position in society and are role models in everyday life are people who understand knowledge of religion, knowledge of healing disease/shaman, understanding the customary law and local culture more, have a lineage of kings or come from the family of society leaders in the past [19].

Based on this, the implementation of intervention by involving the community and observing the social culture of local communities in improving the health status of pregnant women suffering from HIV-AIDS through the care of pregnancy, childbirth, post-partum and infant is an appropriate and effective action in supporting more optimal achievement of public health status program [12]. In accordance with the role and function of health personnel that are facilitating the involvement of all family members and the community in helping individuals and families in decision-making, helping families to get positive experiences aligning with expectations, overcoming problems in maternal and infant care, as well as interactions among them through education programs, referred to like the approach of family, centred maternity care [20].

Human behaviour is influenced by its environment, both physical and socio-cultural environments [15]. The approach to health behaviour change in society should be initiated with the ability of health workers to master the various socio-cultural backgrounds of the related community.

The social and economic backgrounds have relations to public health behaviour. The social and economic backgrounds have relations to public health behaviour, especially pregnant women who suffer from HIV-AIDS. According to research factors that can affect the stigma felt by HIV-AIDS patients is the level of education and the process of disease [27]. Related to the behaviour of factors that can affect the health status of the community, especially mothers and babies, but in general, can not be separated from the culture and habits of families and the environment of everyday society [16]. This is in line with the notion that the indirect causes of maternal and neonatal deaths are due to societal conditions such as education, socio-economic and cultural [25].

As a health officer, understanding of community-related behaviour is important in influencing the behaviour of pregnant women and families. Research conducted by Caetano et al. (2006) showed that there was an effective decline in HIV infection about sexual behaviour and the

transmission of sexual infections using behavioural therapy approaches [5]. HIV-risk behaviours can be reduced in targeted populations through interventions that provide risk reduction counselling, emphasising cognitive approaches to problem-solving and behaviour change, and helping individuals to build the skills they need to reduce HIV risk [7].

In conclusion, the implementation of Interventions through community involvement in the health care of pregnant women who have HIV/AIDS has an impact in optimising the knowledge and the maternal health status. The result of data analysis shows that there is a change in knowledge and attitude with  $p$ -value  $< 0.05$  ( $p = 0.0001$ ). Maternal behaviours related to health status that have a significant effect are high-risk detection, ANC implementation, selection of birth assistance and selection of treatment sites.

## Acknowledgement

Authors would like to acknowledge Research Institution of the University of Sumatera Utara for research funding support via TALENTA Scheme 2017. Also, Thanks to society, especially expectant and family who supported this research sampling.

## Ethical Aspects

Authors state that the research follows the ethical aspect as regulated by University of Sumatera Utara, Indonesia.

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