

## The Obstacle Factors of HIV Screening on Pregnant Women

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### **Abstract**

*The infection prevention of Human Immunodeficiency Virus (HIV) from the mother to her child is pivotal and to conducted and implemented because more than 90% of HIV baby cases are infected through the process from the mother to the baby. Baby with positive HIV status more frequently experience growth disorder and infection illness. Negative stigma towards HIV and AIDS cause the children with HIV and AIDS frequently experience discrimination treatment from the community where they live. There were five stages of conducting this scoping review such as; identifying the research question, identifying relevant studies, selecting the studies, data charting, and arranging, summarizing, and reporting the results. The purpose of this review is find out what factors that inhibit HIV screening on pregnant women. This research used three databases such as Science Direct, Wiley, and Pubmed for identifying the relevant article studies in line with the inclusion and exclusion criteria. The article publication is around 2010 until 2019 and obtained 101 articles which then filtered in line with the framework and finally gained 7 articles. We grouped the themes to be four. The inhibition factors of HIV screening on pregnant women are knowledge, health facility, stigma, and distance of service facility.*

**Keywords:** *inhibition, HIV screening, pregnant women*

### **1. Introduction**

The report of HIV Global Epidemy until 2014 shows that there are 36,9 million people infected by HIH in the world. In the amount of 17,4 million of them were women and 2,6 million children age 15 years old [1]. In South Asia and South East Asia, there are 4,8 million people infected by HIV and AIDS (ODHA). In some developed countries, HIV and Acquired Immune Deficiency Syndrome (AIDS) are the main factors of women's death at productive age. The main cause of death from this illness is opportunistic infection, however 50% patients that have obtained therapy of anti-retrovirus will die because of non-AIDS related death such as non-AIDS defining cancer (23,5%), cardiovascular disease (15,7%), and liver disease (14,1%) [2].

The identification of pregnant women infected by HIH through Voluntary Counseling and Testing (VCT) is the initial stage of determining the intervention. The guideline to invite the pregnant women doing the counseling and test, for the first time issued in 1995 by community health service USA [3]. According to [4], pregnant women with elementary school and high school education, four to five times likely to follow HIV test compared to women who have no education at all.

The most frequent reason why women do not want tested for HIV is because less perception of HIV risk (49%), there is no closest HIV test center (26%), less benefit felt from HIV test (22%), and feels lack of secret security at HIV test center (7%). According to [5], some women rejected HIV test because of various reasons such as needle phobia, lack of information about the benefits of HIV test, reject HIV test because of psychosocial reason, frequently related to HIV stigma.

## 2. Methodology

Scoping review is a literature review which aims to map the relevant articles/literatures or the process of summarizing various evidences for delivering the large and depth of certain field [6]. Scoping review is used to check the interval and trait of research activities, determining the value of systematical review, summarizing and spreading the research findings, to identify the research gap in the existed literature, enlight the complex concept and fix the the research questions [7].

### 2.1. Identification of Scoping Review Research Questions

In this scoping review, the research question was: What are the factors which inhibit pregnant womens from HIV Screening?

### 2.2 Identifying Relevant Articles

#### 2.2.1. Suitable criteria

To identify relevant articles in this scoping review, then the first step conducted was determining the inclusion and exclusion criteria from the framework that had been made so that the searched data focus on the determined context. The inclusion and exclusion criteria in this scoping review are showed in Table 1.

**Table 1. Criteria for Inclusion and Exclusion in Article Selection**

<b>Inclusion Criteria</b>	<b>Exclusion Criteria</b>
1. Articles published in 2010-2020 2. Article published in English 3. Research articles 4. Grey literature 5. Full text.	1. Review/comment article 2. Articles with English title but the content is in another language such as spanish, chinese, and so on.

#### 2.2.2. Keywords and search strategies

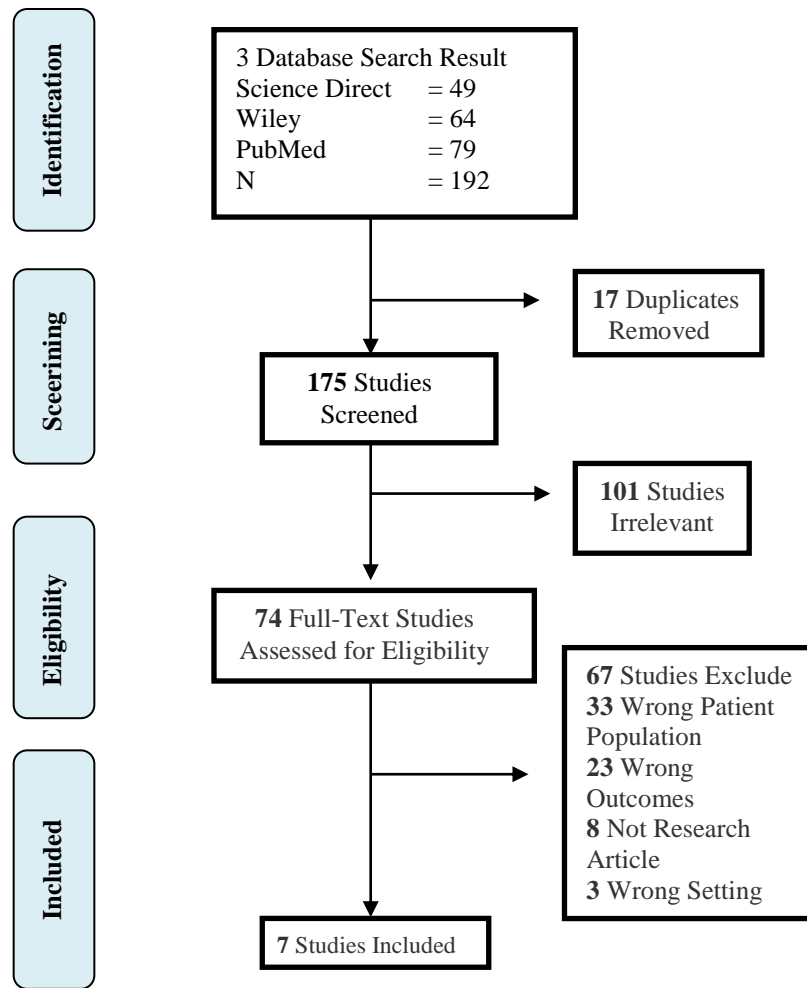
The second step of this scoping review was determining the keyword that will be used in searching for the literatures. The keywords designed and focused on the enlarged framework by determining the synonym through Thesurus and Booleant until the keywords used in this scoping review were HiV screening OR HIV testing AND pregnant OR pregnancy AND barrier AND impediment.

#### 2.2.3. Database

The third step was entering the keywords into search engine in databases such as PubMED, Science Direct, and Wiley. These three databases were chosen because the article indexes contain health sciences.

### 2.3 Article Selection

From three databases search engine above then 192 articles were found. The unsuitable articles were sorted out based on their duplication, title, and abstract that were not in line with the framework, non English articles, articles in the form of review. Then filtered again with Full Text Reading, the articles were excluded with three reasons until the suitable article with the framework were 7 articles that then will be the sources of this scoping review. In the stage of critical appraisal, the device selected to assess the article quality was Joana Brigs Institute (JBI). The findings of total articles and filter process would be discussed in Prism Flowchart as follows.



**Figure 1. Prisma Flowchart**

## 2.4 Data Charting

Based on 7 articles that were selected, then data charting was conducted to classify some points or parts of the articles such as the writer, the research purpose, research design, total samples, and results or findings of the research. After analyzed and evaluated from some points above, then extraction collection results of suitable data with the title can be seen in Table 2.

**Table 2: Data Charting**

Author/Year	Country	Purpose	Method	Samples	Results
Yihun, et al. /2017	East Gojjam, Ethiopia	To identify the proportion and factor of HIV test among pregnant women	Cross sectional	416 pregnant women	Women with high school education and above have more interest to be tested for HIV compared to those who have no education.
Olowoker et al./2017	Nigeria	To assess the knowledge, access, and utilization of counseling and HIV test on	Cross sectional	288 pregnant women	The results show that 40,30% respondents have less knowledge, while 59,7% have good knowledge.

		pregnant women			
Ghoma-Li nguissi, et al./2015	Gambom, Republic of Congo	To identify the factors which influence HIV test on pregnant women	Cross sectional	136 pregnant women	The knowledge of pregnant women about how to prevent HIV by using condom (71%), avoid cutting things (56%), loyal to the spouse (46%), and PMTCT (43%), and restrain the lust (12%).
Larsson, et al. /2012	Uganda	To investigate the inhibition of HIV test in the context of national HIV test policy	Cohort	707 pregnant women	Less HIV test service and ANC facility and far place which causes the missed opportunity of PMTCT, especially for poor women.
Kwapong, et al./2014	Kumasi, Ghana	To find out the influencing factor related to health facility at HTC among pregnant women	Cross sectional	300 pregnant women and 12 medical staffs	Connecting HTC to NC and still did not result many benefits. Most of pregnant women did not use ANC because of health facility factor such as lack of health information and education, lack of privacy and secret, long waiting time, and bad quality of medical staff.
Tripathi, et al. /2013	Ukraine	To explore the experience of women and HIV test provider during ANC by focusing on the agreement, counseling, and confidentiality.	Qualitative study	20 service providers, 60 pregnant women, and 15 women positive HIV	The service provider reports the feeling of not ready to give adequate counseling and practice after-examination that can endanger the patients' confidentiality, especially in the city. The service provider reported that women are afraid of being forced to do abortion if they are positive HIV.

### 3. Results and Analysis

#### 3.1. Study Characteristics

The search findings through systematical search obtained articles published in 2010-2019. The articles came from Ethiopia (1 Article), Ghana (1 Article), Congo (1 Article), Nigeria (1 Article), Ukraine (1 Article), and Uganda (2 Articles). The graph of article search findings based on countries can be seen in Figure 2. Based on critical appraisal by using Joana Brigs Institute (JIB), 5 articles gained grade (A) and 2 articles gained grade (B). Based on the research method used, then 4 articles employed Cross Sectional, 2 articles employed Qualitative Study Method, and 1 article employed Cohort. The explanation can be seen in Figure 3 and Figure 4.

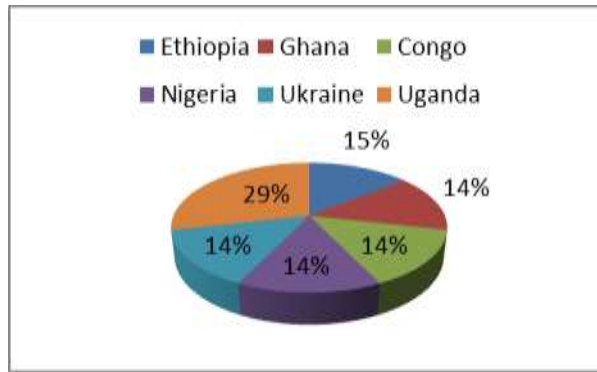


Figure 2. Country Characteristics

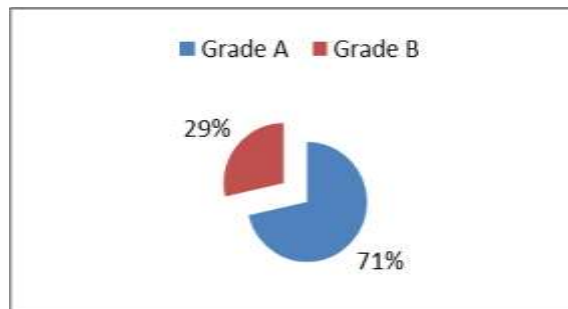


Figure 3. Characteristics of articles by Grade

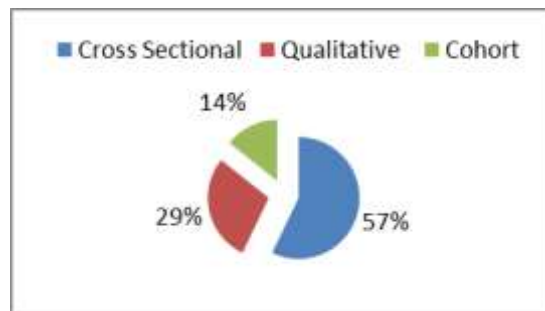


Figure 4. Characteristics of Research Method

### 3.2 Thematic Analysis

Based on the review results of 7 articles, then four themes were obtained such as knowledge of pregnant womens, health facility, stigma, and distance of health facility.

## 4. Discussion

### 4.1. Knowledge of Pregnant Womens

#### 4.1.1. Lack of information

According to [8], almost a half of total samples (49,3%) felt that HIV infection is the curse given by God to punish the people who have many spouses, 52,0% did not know that HIV can be infected through labor and 33,3% did not know that HIV infection can be through breastfeeding, and the results also show that 40,30% respondents did not know information about HIV, while 59,7% had good knowledge about HIV counseling and testing (HCT). In [9] confirmed that 185 (98%) know that HIC can be infected through sex and 184 (95%) know that the usage of condom can decrease its risk, only 117 (62,5%) who know that a woman can infect HIV to her child tand only 95 (51%) who know that HIV can be infected through breast milk.

Lack of information (not told at ANC) becomes the biggest inhibition for HTC by pregnant women. Some participants expressed that they never heard about HIV Test and Counseling since they started to attend antenatal care (ANC) and it is the reason why they did not take the test. In [10], “I was not informed about it” appear as the most quote reason why pregnant women did not take HIV Test and Counseling confirmed by 29,5% responses, support the fact that not all pregnant women who visited the facility did know the benefits of HIV counseling service. Some participants in the qualitative study also revealed that they never heard and never be informed at the facility about HTC and others said that HTC was not explained well to them. It can be explained with the counseling trait of HIV that is not routine at health facility and showed that some pregnant women cannot make decision to run HTC because they are lack of information.

#### **4.1.2. Education**

In [11] show that the increase of general education about the way of infection/prevention of HIV is pivotal to improve the screening acceptance. HIV and AIDS knowledge need to be spread to patients at hospital and must be monitored carefully. The increase of mother-to-child transmission (MTCT) together with the better community and giving wider information.

Pregnant women whose education were elementary school or high school five times more interested in HIV test compared to the women without education [4]. Similar to the previous research in Nigeria and Tanzania which shows that there is correlation between higher educational level and the interest of pregnant women to HIV test. Education has important role in understanding the concept of HIV counseling and for Counseling and Vouluntary Test (VCT).

### **4.2 Health Facility**

#### **4.2.1 Medical staff**

Pregnant women decision to not taking HTC is influenced by the factors such as bad relationship with the medical staff. In [8], around 60% (59,3%) respondents feel that women will not go to HIV Counseling and Testing (HCT) because they are afraid of treatment rejection when needed. Even though HTC is high at some health facilities, the participants of this facility confirm that they took the test because they were informed that it was compulsory and they were forced to do it. They explained that midwife said to them that if they did not take the test, they would not get the facility as participants. Other respondents said that a woman who rejected will not be treated the same during the labor compared to those who accept the HIV test [12].

The problem around counseling is the biggest challenge for HTC utilization. Medical staff has their own particular challenge which can influence the relationship and their communication with the client and push them to adopt suitable behavior. In [10], respondents who attended were treated unrespectfully by the medical staffs that make them reluctant to run HTC. The support provider is for obtaining clients. Therefore, trust is the important stage in improving HTC absorption among pregnant women. Health labors in this study reported that their work space was inadiquate, lack of work materials, lack of motivation and feels as the challenge that must be faced in providing PMTCT at ANC. The effort to increase HTC usage therefore it must center the attention on the service provider to determine the service needed and ensure the training, time, and sources needed.

#### **4.2.2 Long Waiting List**

In [10], 16,4% respondents answered the reasons they did not take HIV test because of a very long waiting list. Most of the women confirmed that they waited for a very long time at the health facility until they left without taking the test. A long waiting list also

becomes the inhibition for health facility in delivering HTC in Kumasi Metropolitan City. Most of the participants showed dissatisfaction with waiting list. They also explained that they waited for a long time at ANC and because of that they did not have time for taking HTC. Some pregnant women also explained that they got stressed out and hungry when they waiting a long time and finally they went home, the queue at HTC makes them keep postponing HIV test. Lack resources at health center is considered as the inhibition of ANC usage for pregnant women. Six of then ANC users that were interviewed had experienced a long waiting list at health center especially because of lack of health labors. Two of them emphasized that pregnant women must leave the health service without accepting any service [13].

#### 4.2.3 Lack of Privacy

Lack of privacy and confidentiality become inhibitions for pregnant women in taking HTC test. Health facility for HIV test was conducted open without any privacy. Some participants rejected the test because they said that the privacy room was not adequate. If their status is positive, the people will notice and they will be stigmatized. A pregnant woman who took closed test but other patients have the possibility of knowing her status because of the process of the treatment. Some pregnant women rejected to take the test because they feel that someone can hear or know their status. They explained the way and how the test was conducted and the result was revealed and it becomes the inhibition of taking the test.

The previous study in India, Thailand, Philippine, and Indonesia also reported the confidentiality violation by the medical staffs (34%) respondents [14] the client perception towards the privacy level and confidentiality influence their willingness to run HTC [15]. In line with [16] who found out that lack of confidentiality for the test result as the factor related to the service provision that prevail for the rejection of HIV test. In their research, respondents did not believe in their confidentiality protection. During the counseling, five times or more rejection of HIV test compared to those who answered that their privacy will be protected during the counseling (OR = 5,2, 95% CI = 2,70, 9,79). This shows that privacy and confidentiality are pivotal in improving HTC at health facility level. This is far more important in the situation in which the stigmatization is still dominant. If the examination result is positive HIV and extremely stigmatized and they do not want other people to know about their status.

#### 4.3 Stigma

Many respondents feel that participating in HCT can cause anxiety after diagnosed HIV-positive. Around 59,4% and 75,7% of them feel that participating in HCT has become a problem since they are afraid of stigmatization or lost their spouse. Some women rejected HIV test because of psychosocial reason, frequently related to HIV stigma, and this continues to become the challenge in health service in all treatment [5]. In [10], 2,5% of pregnant women who did not take HIV test yet because their spouse did not allow them to do so. Another reason quoted is “I have no risk” (22,1%), “Afraid of positive result” (10,7%), “afraid of stigma if positive” (8,2%), “There is no medicine provided if positive” (7,4%). The difficulty of running HIV test among most of women is related to their fear of positive HIV result which can threaten their normal life and trigger the thought of being blamed by their spouse related to their sex because she is infected by HIV in the family and the life challenges with HIV.

Another research obtained 56,7% respondents who had good perception about Counseling and HIV Test, while the remaining 43,30% had bad perception. The rejection to take HCT during pregnancy nowadays is probably also caused by being afraid of accepting positive result of there is not HCT service, afraid of overcoming the problem with positive result as reported beforehand. Therefore, it must be done by exploring and

eliminating the fear and offering psychological assistance needed during the counseling before and after the test to increase national emo-stability even after accepting positive result [8].

#### 4.4 Distance of Health Facility

In [17], around one third (30,7%) must go through four kilometers or more to access the facility which offers on the spot HIV test. Multivariable analysis showed that one of significant risk factor of pregnant women not taking HIV test is the residence which is far from health service facility (aRR 1,72, 95% CI 1,12-2,63). The women who never took HIV test had average distance 3,5 kilometers to the closest health facility, different from the women who had taken HIV test the average distance to the health facility is 2,8 kilometers and had been tested (uji-t-test,  $p < 0,01$ ). Women with low income have distance to health facility 3,5 kilometer compared to poor women 2,7 kilometer (t-test,  $p < 0,01$ ).

In [18] state that difficult transportation and long distance which takes too much time cause the emergency of lazy feeling or resistant to go to health service and take HIV/AIDS screening. This is also strengthened by Oktavinola (2009) who argues that the far distance to the health facility and not strategic to be achieved by pregnant women until these causes their lack of access to HIV/AIDS screening examination.

According to [17], some risk factors of not to take HIV test are farmers, women with low income, having more than four children, living more than 3 kilometers away from HIV test facility, there is not initiative to find ANC facility, late in the ANC visit (the first visit after four months of pregnancy). Distance and travel time to health service center and bad road condition inhibit the community to attend the antenatal service. This finding shows that the repair of the access to health service and service distribution person to person especially in rural zone must be priority [19].

The study in Ethiopia also explains that the longer the distance to achieve the closest health service, then the lower the intention of pregnant women to utilize the health service. The lack of easy transportation to the closest health service is also reported as the important thing. If a woman feels that the distance to the facility as the inhibition, then they tend not to use the service [20]. The distance to health facility is the obvious inhibition which makes the implementation of PMTCT and HIV test highly effective.

## 5. Conclusion

The findings elaborated in this paper give some valuable insight and further knowledge about the factors which inhibit HIV screening on pregnant women. HIV screening on pregnant women is the effort to open the access of recognizing HIV status on pregnant women, the expectation is that either positive or negative is to know the further prevention effort such as HIV transmission to the her child in the womb, to obtain medication as early as possible, the knowledge and psychological support about HIV.

There are many efforts that have been conducted to decrease the limitations of this research such as using Arksey and O'Malley framework, finding the reference list, and discussed with other researchers. The process of finding the article is already wide, however there were still missed articles. From the results of this research, four factors which inhibit pregnant women to take HIV test are found such as the knowledge, health facility, stigma, and the distance to health service.

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