

## **Knowledge and Practice of Hepatitis B Screening Services Among Pregnant Women in Enugu South Local Government Area**

**Nnaji Akuchukwu Oprah**

University of Nigeria Nsukka, Department of Social Work

**Nnaji Ruthven Nweji Ijeoma**

University of Nigeria Nsukka, Department of Physical and Health Education

doi: <https://doi.org/10.37745/bjmas.2022.0189>

Published May 10, 2023

---

**Citation:** Nnaji A.O. and Nnaji R.N.I. (2023) Knowledge and Practice of Hepatitis B Screening Services Among Pregnant Women in Enugu South Local Government Area, *British Journal of Multidisciplinary and Advanced Studies: Health and Medical Sciences* 4 (3),14-27

---

**ABSTRACT:** *Viral hepatitis is a major global health problem with more than 500 million people chronically infected, causing over 1.4 million deaths per year. The high infection and mortality rate raises questions on the knowledge and practice of hepatitis B screening. The study therefore sets out to examine the knowledge and practice of hepatitis B among pregnant women in Enugu South Local Government of Enugu state. The questionnaire and in-depth interview guide were used as instruments for collection of data from 564 respondents. The quantitative data were analyzed using version 20 of Statistical Package for Social Sciences (SPSS) and frequency distribution tables and percentages were used to present the results. Chi-square ( $\chi^2$ ) was used to test the hypotheses; binary logistic regression was used to predict the effect of independent variables on a dependent variable while the qualitative data collected were analyzed in themes as complement to the quantitative data. The Findings of the study revealed that educational status and place of residence have statistically significant relationship with awareness of HBV screening services, while age, income, religion and marital status had no statistically significant relationship with awareness of Hepatitis B screening services. In the same vein, the findings showed that age, level of education, income, and marital status had a statistically significant relationship with utilization of Hepatitis B screening services, while religion and place of residence had no statistically significant relationship with utilization of Hepatitis B screening services. Four hypotheses were tested and three hypotheses were accepted while one was rejected. From the findings in regression analysis it can be seen that in predicting awareness of Hepatitis B screening services, place of residence was statistically significant. Also, age, income level, marital status and level of education were predictors of utilization of HBV screening services. However, religion was found to have no relationship with the two dependent variables such as awareness of Hepatitis B screening services and utilization of HBV screening services. The study therefore recommends that Government, organizations, institutions, social workers and the general public should be quickly awakened to their separate responsibilities in providing proper information about hepatitis B to the general public focusing on the benefit of utilizing the screening services. This will definitely go a long way in reducing the rate of the occurrence of the disease in this country.*

**KEYWORDS:** knowledge, hepatitis B screening, services, pregnant women, Enugu South

---

## INTRODUCTION

Viral hepatitis infection is the inflammation of the liver caused by one or more of five main hepatic viruses: A, B, C, D, and E. Although these viruses display similar symptoms and the potential to cause liver diseases to varying degrees; they however differ significantly with regards to epidemiology, prevention, diagnosis, care and treatment (WHO, 2016). Hepatitis B Virus (HBV) is a major health problem globally and is ranked as the tenth leading cause of death in the world (Lavanchy, 2004). According to the World Health Organization [WHO] (2010) viral hepatitis is a major global health problem with more than 500 million people chronically infected, causing over 1.4 million deaths per year. Similarly, an estimated 78 percent of primary liver cancer and 57 percent of liver cirrhosis cases were caused by viral hepatitis and approximately 1.4 million deaths from viral hepatitis occurred each year (Global burden of disease study, 2013).

Chronic Hepatitis B infection is endemic in Asia and Africa with more than 75% of the world's chronic Hepatitis B surface antigen carriers having originated from Asia and Africa and the burden of the virus is however a global one, with black children from HBV endemic areas adopted by whites been implicated in the infection of white families (Cobelens, Van-Schothorst, Wertheim-van, Dillen, Ligthelm, Paul-Steenstra & Van-Thiel, 2004; Raza, Clifford & Franceschi, 2007). In addition, HBV is more often than not transmitted through sexual intercourse; also marriage across races could expose people from low incidence areas to HBV (Luksamijarulkul, Mooktaragosa & Luksamijarulkul, 2002). In highly endemic areas like Africa, Hepatitis B is more commonly spread from mother to child at birth (Lavanchy, 2004; WHO, 2015). Moreover, a notable danger associated with Hepatitis B is that most infected people are unaware of their infection because the Hepatitis B Virus can persist for decades without observable symptoms.

Nigeria accounts for 8.3 percent and 4.5 percent of the global burden of chronic HBV and HCV respectively. Nigeria is among the countries with a high burden of viral hepatitis with viral Hepatitis B and C prevalence of 11 percent and 2.2 percent are undiagnosed, increasing the likelihood of future transmission to others and placing them at great risk for severe, even fatal health complications such as liver cirrhosis and liver cancer [hepatocellular carcinoma] (WHO, 2016). Some key sub populations such as men who have sex with men (MSM), people who inject drugs (PWID), have a high risk of viral hepatitis infection. People living with HIV/AIDS are disproportionately affected and related adverse health conditions, considering that HIV, HBV and HCV share common modes of transmission (Federal Ministry of Health [FMOH], 2013).

Similarly in Nigeria, HBV transmission results in substantial morbidity and mortality from chronic HBV, liver cirrhosis, and hepatocellular carcinoma. Risk factors for transmission in Nigeria include drug users or injectors, people who pierce or tattoo their bodies with marks or tribal marks, local circumcision, local tubectomy, scarification, surgical procedures, blood transfusions, home birth by local traditional birth attendants, MSM and lack of knowledge

about sexual negotiation and safe sex practices. Knowledge of viral hepatitis remains limited amongst the general public, at-risk populations, policy makers, and even health-care providers leading to the death of many Nigerians each year. As a consequence, most of the 11-12 million Nigerians estimated to be living with viral hepatitis, especially pregnant women do not know that they are infected, placing them at greater risk for severe, even fatal, complications from the disease and increasing the likelihood that they will spread the virus to others, and most importantly to their unborn babies (FMOH, 2013).

Pregnant mothers can be described as the expecting baby mothers. The pregnant mothers need at least four prenatal visits with trained health worker during every pregnancy. The first prenatal visits should take place as early as possible, ideally in the first trimester(16 weeks) then second trimester (20-24 weeks) and third trimester (28-32 weeks) to make sure that mother and baby are in good condition without illness of any form (Ball, 2014).

Despite the awareness created worldwide on the need for Hepatitis B screening, especially among pregnant mothers, there is still rising evidence on the increase of hepatic viral transmission, especially from mother to the child due to lack of knowledge of HBV and its deadly effects. A recent meta-analysis showed that the pooled prevalence of HBV in pregnant women attending Antenatal Care (ANC) in Nigeria was 12% (Musa, Bussell, Borodo, Samaila & Femi, 2015). This data represents only a fraction of all pregnant women as many women (about 40% or more) still do not attend ANC, and so lack basic knowledge necessary for the prevention of HBV hence it could be greater than this (National population commission [NPC], 2014). Other studies have shown a similarly high prevalence of HBV in pregnant women: 8 and 11% (Mbaawuaga, Enenebeaku, Okopi & Okopi, 2008; Olokoba et al., 2011). Mother-to-child-transmission of HBV (MTCT-HBV) is a main route of HBV transmission in Nigeria (Musa, Bussell, Borodo, Samaila& Femi, 2015) and contributes significantly to the burden of HBV in the country. Some studies have reported HBV prevalence in infants as high as 17% (Sadoh & Sadoh 2013; Donbraye, Japhet, Adesina & Abayomi, 2014).Other studies in Nigeria confirmed vertical transmission rates between 40 and 53% (Onakewhor et al., 2013; Ogunlaja, Fawole, Adeniran, Olawumi & Ogunlaja, 2014). This shows that the risk of Hepatitis B vertical-transmission/MTCT due to pregnant women's lack of the needed knowledge is high and cannot be ignored in Nigeria.

Presently, most pregnant women in Enugu state do not have adequate knowledge about HBV screening services as there is no effective health policy or programme on awareness creation among pregnant women on the dangerous effects of HBV, and also on the benefits of HBV screening services, particularly in Enugu South Local Government Area. Hence, there is no compulsion for pregnant women to take standard precaution against this deadly virus. Apart from the annual world hepatitis day marked in the hospitals in the study area, little awareness is created to guard against this virus. Previous studies in the study area have laid much emphasis and focused on contraction of the deadly virus by hospital workers while few or no studies have been conducted among pregnant women to assess their knowledge base of HBV. It therefore becomes necessary to conduct a baseline assessment of pregnant women's

knowledge, attitude and utilization of Hepatitis B screening services in Enugu South local government area.

### **Factors influencing Hepatitis B screening services among pregnant women**

Majority of Nigerians have little or no knowledge or understanding of the importance of their liver condition for good health. This lack of knowledge or awareness is not only limited to only Hepatitis B but also their overall well-being in terms of health. There are a lot of factors impeding efforts put up by established institutions like WHO and other world organizations to curb the menace of Hepatitis B globally (Grob, 2010). Notably among these is the lack of knowledge and awareness among health care providers, social service professionals, pregnant mothers, members of the public and even policy makers. It is an established fact that though there have been a safe and effective vaccine for Hepatitis B over the past 20 years, universal vaccination is still lacking in many countries.

One of the major obstacles identified for this drawback is the lack of commitment to preventive medicine and vaccines. Due to the apparent lack of knowledge about Hepatitis B, most governments which are supposed to be the major financiers of public health activities have seriously not considered Hepatitis B prevention as a topmost priority in health care and have opted for selective prevention strategies (Tran, 2013). Most interventions aimed at reducing HBV prevalence among high risks groups have failed because of the inability to access these groups. There is also lack of perceived risk among these high risk groups and over 30 percent of those with acute Hepatitis B infection do not have identifiable risk factors (Mangtani, 2015). Few literatures have been able to take into cognizance geographical locations when assessing pregnant mother's knowledge about the deadly HBV.

According to Akinsola (2016) a mother's level of education could determine her knowledge and perception of viral Hepatitis B screening and its benefits. This could consequently impact on her adoption or non-adoption of it for her children as illiterate and less educated mothers could be less knowledgeable and aware of the availability of the health promotion services available in their area. In line with this, Chen and Liu (2015) posited that educated women are better able to break away from tradition to utilize modern services like viral hepatitis screening services to safeguard their health and that of their children. They equally acknowledge that lack of education could also lead to ignorance about causes of disease and the relationship of viral Hepatitis B detection to elimination of diseases.

The marital status of a mother could also determine the support she get or not towards viral Hepatitis B screening behaviour and consequently how she adopts it. This is because as Bates & Wolinsky (2013) put it, a married woman who gets the supports of her husband and relations is more likely to afford the financial requirement of services that may be charged like cost of transportation. They also posited that they might have less control over their lives because of their marital status and family environment. It could therefore be said that unmarried mothers are more likely not to screen themselves of viral hepatitis even as Bates & Wolinsky (2014) suggested that they may be less bothered with their child's health care and theirs especially without the support of a spouse.

Location or residence of the mother and distance to the facility for health screening as observed by Weathers, Cynthia, Campo and Dinner (2011) could also be a factor in the adoption or non-adoption of viral hepatitis screening behaviours. This is because such physical factors as terrain of an area, or even the distance to get to the nearest healthy facility for viral Hepatitis B screening may determine the rate of adoption or non-adoption of such services.

### **Strategies to improve on Hepatitis B screening services**

Even though HBV has become a major source of health concern worldwide, we should also be reminded by the good news that it is the only STD that can be prevented by vaccination (CDC, 2012). The prevention of HBV globally has become one of the topmost priorities of major political actors and decision makers in recent years (Svenson, Varnehagen, Godwin & Salmon, 2014). The disease is prevented by the use of safe and effective vaccine which became available in 1982 through funding and implementation of Hepatitis B immunization programmes. Measures for HBV prevention have been geared towards avoidance of unsafe blood exposure or blocking of transmission before the advent of the vaccine. Unsafe blood transfusion has been a major force in the transmission of HBV globally (Wang & Wong, 2016).

The enactment of a law for the donation and management of blood in blood banks across the world has aggressively fought this channel of HBV transmission. This notwithstanding, current researches have shown that blood transfusion is regaining its position as one of the major risk factors for HBV transmission globally. This finding is attributed to the presence of occult HBV infection (OHBVI) among blood donors (Shang et al, 2007). It is also worth mentioning that the global acceptance of the auto-disposable syringes (ADS) has considerably reduced the incidence of HBV infections that occur due to unsafe injections (Zhang et al, 2008). HBV per se does not have a permanent treatment; therefore the surest antidote to the global epidemic is prevention. Temporary treatment of the disease is therefore aimed at suppressing viral replication, reducing the risk of progressing to advanced liver disease or inflammation of the liver and the development of complications such as liver failure or liver cancer. Chronic Hepatitis B is therefore easily managed rather than treated (Gambarin-Gelwan, 2012).

### **Social work and Hepatitis B screening services**

Adding a social worker to the Hepatitis B healthcare team might be the last thing on a clinic or hospital administrator's mind, but it shouldn't be, says experts looking for ways to expand care. They suggest the benefits can be substantial, at minimal cost. Social workers bring unique skills and knowledge to the interdisciplinary team treating Hepatitis B patients, making the team more effective (Hyams, 2016). They have engagement skills to help get Hepatitis B screening services patients into care and understand the value of fostering a good relationship with the treating physician and members of the healthcare team, especially in high-risk marginalized populations. This can help them build a sense of community between the patient and the team.

People in underserved urban areas have a significant incidence of chronic Hepatitis B, but face many psychosocial barriers to appropriate care. The systems management skills social workers have, such as the ability to deal with homelessness and poverty, housing, legal and immigration issues, can help patients "surmount many of these barriers. Social workers can help patients



maneuver their world, translate between the doctor and the patient, and hopefully make their lives better and give them more stability so they can complete treatment (Amory, 2017). The social worker is involved in the process of making referrals to link a family or person to the needed resources. Social work professionals do not simply provide information. They also follow up to be sure the needed resources are attained. This requires knowing resources, eligibility requirements, fees and the location of services.

Social workers create awareness through different theories in order to bring about behaviour modification in the life of the community at large. Social workers in health facilities and other settings use different notions to create awareness on pregnant and expecting mothers. The process is mostly conducted during antenatal days and knowledge is being passed down to mothers on the preventive process and the overall damage of HBV. Social workers help to mobilize and educate fathers on the need to support the mothers to go and access HBV screening services (Akinsola, 2013). These processes are mostly done through sensitization.

Social Workers are also involved in many levels of community organization and action including economic development, union organization, and research and policy specialists. Social Workers, because of their expertise in a wide variety of applications, are well suited to work as managers and supervisors in almost any setting (WHO, 2013). As managers, they are better able to influence policy change and/or development, and to advocate, on a larger scale, for all underprivileged people.

### **Purpose of the Study**

The specific purposes of this study were:

1. To determine if older pregnant women are more likely to utilize HBV screening services than those who are younger.
2. To find out if pregnant women with higher level of education are more likely to be screened of HBV than those with lower level of education.
3. To ascertain whether pregnant women with high economic status are more likely to utilize HBV screening services than those with low economic status.
4. To examine if pregnant women who live in urban areas are more likely to utilize HBV screening services than those that live in the rural areas.

### **Hypotheses**

The study will be guided by the following hypotheses:

1. Older pregnant women are more likely to utilize HBV screening services than those who are younger.
2. Pregnant women with higher level of education are more likely to be screened of HBV than those with lower level of education.
3. Pregnant women with high economic status are more likely to utilize HBV screening services than those with low economic status.
4. Pregnant women who live in urban areas are more likely to utilize HBV screening services than those that live in the rural areas.

### **Theoretical framework**

This study adopted the Health Belief Model (HBM) as its framework of analysis. The constructs of the theory which state that there is likelihood that one will follow a preventive behaviours by weighing the cost and benefits of doing so; considering the severity of the illness (Hepatitis B) and individuals beliefs are part of the reasons that this theory is suitable to this study (Glanz et al., 2008). Since people are likely to move into actions based on what they think they will gain and to avoid the negative consequences of not doing so, then removing the barriers that will hinder them from taking such action (like Hepatitis B) and making them see the benefits of doing so will aid them swing into the action. In this case women will present themselves for Hepatitis B screening to avoid falling victim to the preventable disease. According to Hak-seon, Joo and Jae-Kyung (2012) in their study, college students health behaviour show that nutrition knowledge leads to an increase in nutrition confidence, that nutrition confidence also influences health beliefs, and that positive health beliefs lead to an increase in behavioural intention to eat healthy food and do physical activity. This implies that perceptions of high benefits and low barriers regarding diet will influence behavioural intentions. With self-efficacy therefore, one become convinced that she can successfully undergo Hepatitis B screening meaning that if pregnant women are informed about Hepatitis B screening services, they will see the perceived threat, benefits of the screening and will be able to overcome the barriers and develop self-efficiency to present themselves for screening.

### **Research design**

Cross-sectional survey research design was employed, in this study. The choice of this research design for this study was because it will enable the researcher to collect information from a cross section of a population on a defined subject matter within a given period of time (Onigu, 1994; Nworgu, 2003). Obikeze (1990) and Babbie (2007) posits that cross sectional survey design describes situations as they are and gives the exact picture of the study at one point in time.

### **Test of hypotheses**

#### **Hypothesis one**

*Substantive hypothesis:* Older pregnant women are more likely to utilize HBV screening services than those who are younger

*Null hypothesis:* Older pregnant women are less likely to utilize HBV screening services than those who are younger.

**Table 1: Age and utilization of HBV screening services**

Utilization of HBV of HBV services	Age		Total
	Younger women	Older women	
Utilize	20(10.4%)	172(89.6%)	192(100.0%)
Do not utilize	52(43.7%)	67(56.3%)	119(100.0%)
<b>Total</b>	<b>72(23.2%)</b>	<b>239(76.8%)</b>	<b>311(100.0%)</b>

$\chi^2= 45.737$ ;  $df=1$ ,  $p < .000$ , critical value = 3.841

Source: *Fieldwork, 2018*

To test hypothesis one, age of respondents was cross-tabulated with utilization of HBV screening services. The result revealed that 10.4% of younger women and 89.6% of older women utilize HBV screening services. On the other hand, 43.7% of younger women and 56.3% of older women did not utilize HBV screening services. The chi square test result shows that computed chi square ( $\chi^2$ ) is 45.737 while the critical ( $\chi^2$ ) value is 3.841 and  $df=1$ . The test showed that there is a statistically significant relationship ( $P < .000$ ) between age of respondents and utilization of HBV screening services. As a result of this, the substantive hypothesis which states that older pregnant women are more likely to utilize HBV screening services than those who are younger is hereby accepted and upheld while the null hypothesis which states that older pregnant women are less likely to utilize HBV screening services than those who are younger is rejected. Thus, age of respondents as hypothesized in the study influences utilization of HBV screening services.

### Hypothesis two

*Substantive hypothesis:* pregnant women with higher level of education are more likely to go for screening of HBV than those with lower level of education.

*Null hypothesis:* pregnant women with higher level of education are less likely to go for screening of HBV than those with lower level of education.

**Table 2: Level of education and utilization of HBV screening services**

Utilization of HBV screening services	Level of education		Total
	Lower	Higher	
Utilize	15(7.8%)	177(92.8%)	192(100.0%)
Do not utilize	39(32.8%)	80(67.2%)	119(100.0%)
<b>Total</b>	<b>54(17.4%)</b>	<b>257(82.6%)</b>	<b>311(100.0%)</b>

$\chi^2= 31.900$ ;  $df=1$ ,  $p < .000$ , critical value = 3.841

Source: *Fieldwork, 2018*

To test hypothesis two, level of education was cross-tabulated with utilization of HBV screening services. The result revealed that respondents with lower level of education 7.8%



and 92.8% of those with higher level of education utilize HBV screening services. On the other hand, 32.8% of respondents with lower level of education and 67.2% of those with higher level of education did not utilize HBV screening services. The chi square ( $\chi^2$ ) test result showed that computed ( $\chi^2$ ) is 31.900 while the critical ( $\chi^2$ ) value is 3.841 and  $df=1$ . The test shows there is a statistically significant relationship ( $P < .000$ ) between level of education and utilization of HBV screening services. Accordingly, the null hypothesis which argued that pregnant women with higher level of education are less likely to go for screening of HBV than those with lower level of education is hereby rejected. Thus, level of education influences utilization of HBV screening services.

### Hypothesis three

*Substantive hypothesis:* Pregnant women with high level of income are more likely to utilize HBV screening services than those with low level of income

*Null hypothesis:* Pregnant women with high level of income are less likely to utilize HBV screening services than those with low level of income

**Table 3:** Level of income and utilization of HBV screening services

Utilization of HBV screening services	Level of income		Total
	Lower	Higher	
Utilize	71(37.0%)	121(63.0%)	192(100.0%)
Do not utilize	9(7.6%)	110(92.4%)	119(100.0%)
<b>Total</b>	<b>80(25.7%)</b>	<b>231(74.3%)</b>	<b>311(100.0%)</b>

$\chi^2 = 33.272$ ;  $df=1$ ,  $p < .000$ , critical value = 3.841

Source: Fieldwork, 2018

To test hypothesis three, level of income was cross-tabulated with utilization of HBV screening services. The result revealed that respondents with lower level of income 37.0% and 63.0% of those with higher level of income utilize HBV screening services. On the other hand, 7.6% of respondents with lower level of income and 92.4% of those with higher level of income did not utilize HBV screening services. The chi square test result showed that computed ( $\chi^2$ ) is 33.272 while the critical ( $\chi^2$ ) value is 3.841 and  $df=1$ . The test shows there is a statistically significant relationship ( $P < .000$ ) between level of income and utilization of HBV screening services. Therefore, the null hypothesis which argued that pregnant women with higher level of income are less likely to utilize HBV screening services than those with lower level of income is hereby rejected. Thus, level of income influences utilization of HBV screening services. This finding is also supported by the data from the IDI conducted with the health workers. A participant (a nurse) from Ugwuaji said;

One of the important factors that influences pregnant women's utilization of Hepatitis B screening services is income and the economy is bad this day and most of these services in the hospital are too expensive that not everyone can afford them.

**Hypothesis four**

*Substantive hypothesis:* Pregnant women who live in urban area are more likely to utilize HBV screening services than those that live in rural area.

*Null hypothesis:* Pregnant women who lives in urban area are less likely to utilize HBV screening services than those that live in rural area

**Table 4:** *Place of residence and utilization of HBV screening services*

Utilization of HBV screening services	Place of residence		Total
	Urban	Rural	
Utilize	186(96.9%)	6(3.1%)	192(100.0%)
Do not utilize	114(95.8%)	5(4.2%)	119(100.0%)
<b>Total</b>	<b>300(96.5%)</b>	<b>11(3.5%)</b>	<b>311(100.0%)</b>

$\chi^2 = .250$ ;  $df=1$ ,  $p < .617$ , critical value = 3.841

Source: *Fieldwork, 2018*

To test hypothesis four, place of residence was cross-tabulated with utilization of HBV screening services. The result revealed that 96.9% of respondents from urban areas and 3.1% of those from rural areas utilize HBV screening services. On the other hand, 96.5% of respondents from urban areas and 4.2% of those from rural areas did not utilize HBV screening services. The chi square test result shows that computed ( $\chi^2$ ) is .250 while the critical ( $\chi^2$ ) value is 3.841 and  $df=1$ . The test showed that there is no statistically significant relationship ( $P < .617$ ) between place of residence and utilization of HBV screening services. As a result of this, the substantive hypothesis which states that pregnant women who live in urban areas are more likely to utilize HBV screening services than those who live in rural areas is hereby rejected while the null hypothesis which states that pregnant women who live in urban area are less likely to utilize HBV screening services than those who live in rural areas is hereby accepted. We therefore conclude that one's place of residence does not influence utilization of HBV screening services.

**DISCUSSION OF FINDINGS****Level of knowledge and utilization of Hepatitis B screening services**

Findings from this study revealed that majority (98.1%) of the respondents knew about Hepatitis B screening services. This implies that the knowledge about Hepatitis B screening among pregnant women of Enugu south LGA was high. This finding is in disagreement with the findings of Han et al (2017) where it was discovered that the knowledge about HBV screening among pregnant women was poor and needs to be improved upon and that of Eredoro and Egbochuku (2017) whose study noted that there is lack of knowledge of Hepatitis B screening. Also, Gboeze, Ezeonu, Onoh, Ukaegbe and Nwali (2015) in their study in Abakaliki Nigeria, reported that there is lack of knowledge and awareness of Hepatitis B virus infection in the environment of study. This is supported with the findings of Oyesami, Eboiyechi & Adereti (2005) in their study which noted that there is lack of knowledge of the Hepatitis B

services. Adekanle, Ndububa, Olowookere, Ijarotimi, and Ijadunola (2014) in their study in Nigerian tertiary hospital revealed that over 33% had poor knowledge of Hepatitis B screening.

### **Factors influencing pregnant women's utilization of Hepatitis B screening services**

Findings from this study revealed that majority (90.0%) of the respondents indicated that level of education determines pregnant women utilization of HBV services. This finding is consistent with that of Akinsola (2016), who noted that a mother's level of education could determine her knowledge and perception of viral Hepatitis B screening and its benefits. This is supported by Chen and Liu (2015) who in their study maintained that educated women are better able to break away from tradition to utilize modern services like viral Hepatitis B screening services to safeguard their health and that of their children. They equally acknowledge that lack of education could also lead to ignorance about causes of disease and the relationship of viral Hepatitis B detection to elimination of diseases.

Also, place of residence has always been regarded as an important determinant of pregnant women's utilization of HBV services. Weathers, Cynthia, Campo and Dinner (2011) in their study stated that place of residence could also be a factor in the adoption or non-adoption of viral Hepatitis screening behaviours. They further pointed that such physical factors as terrain of an area, or even the distance to get to the nearest health facility for viral Hepatitis B screening may determine the rate of adoption or non-adoption of such services. This is in agreement with the findings which showed that majority of the respondents indicated that place of residence determine pregnant women's utilization of HBV services and that distance can be a barrier to women's utilization of HBV service.

Furthermore, in the literature, scholars found out that marital status is one of the important factors influencing pregnant women's utilization of HBV services. In their study, Bates & Wolinsky (2013) found that marital status is very important in determining pregnant women's utilization of HBV services. They noted that unmarried mothers are more likely not to screen themselves of viral Hepatitis. Findings showed a statistically significant relationship between marital status and utilization of HBV services.

More so, findings in Table 1 showed that older women (89.6%) utilize HBV services more. On the other hand, this study revealed that more respondents that were older women (98.7%) see the need to save life more than the younger adult's women. This is in agreement with the findings of (Akinsola, 2013) which revealed that teenage pregnant mothers with little or no knowledge and experience of viral HBV screening may not be bothered with her health and that of her unborn child because they may not know the value of viral HBV screening, and as such may not present themselves for viral HBV screening.

### **The extent non-utilization of Hepatitis B screening services affects pregnant women**

Findings showed that majority (92.9%) of the respondents indicated that non-utilization of HBV services leads to mother- to -child transmission. This is supported with the findings of Othman, Saleh and Shabila (2014) in their study which indicated that non-utilization of HBV services leads to slight chances of the baby being infected before birth.

### **Roles social workers play in enhancing the utilization of Hepatitis B screening**

The findings revealed that greater percentage (35.9%) of the respondents revealed that social workers can render the help of identifying and modifying strength within pregnant women with HBV. And also social workers can play a significant role in prior counseling services and support to encourage pregnant women to know about and go for HBV screening services. This finding is in agreement with that of Hyams (2016) whose study reported that social workers have engagement skills to help get Hepatitis B screening services to patients care and ability to foster a good relationship with the treating physician and members of the healthcare team, especially in high-risk marginalized populations. This is supported by Amory (2017) who maintained that social worker is involved in the process of making referrals to link a family or person to the needed resources. Social work professionals do not simply provide information; they also follow up to be sure the needed resources are attained.

### **CONCLUSION**

The current study sought to explore knowledge and practice of Hepatitis B screening service among pregnant women in Enugu South LGA of Enugu state. From the study, it can be seen that level of education is associated with utilization of Hepatitis B screening services. The finding concur with that of Chen and Liu (2015) in their study which maintained that educated women are better able to break away from tradition to utilize modern services like viral Hepatitis screening services to safeguard their health and that of their children.

However, the findings revealed that some persons do not utilize HBV screening services due to lack of knowledge and that most of the services available are not functional. Consequently, the paper suggested ways of improving the utilization of HBV services in Enugu South L.G.A, Enugu state.

### **Recommendations**

Based on the findings of this study, the researcher proposes the following recommendations to guide the government, organizations, institutions, NUC, social workers and general public in addressing knowledge and practice of Hepatitis screening services among pregnant women. The recommendations are below;

- 1 Since some women do not utilize Hepatitis B screening services, federal, state and local government should ensure that pregnant women utilize HBV services by creating more awareness and provide functional services.
- 2 Increase awareness about Hepatitis B using different channels such as churches as well as multiple channels of communication at grass roots level that will encourage wider access to information concerning the importance of HBV screening.
- 3 Government should join efforts with policy makers to make and implement policies that will focus on educating younger women, those with low level of education and low level of income, and single women on the need to utilize HBV screening services.
- 4 There is need for policy makers especially in the education sector to review and modify the educational system in order to include the study of Hepatitis B and other forms of hepatitis in the school curriculum at all levels. By this, the sector will ensure that the study on

Hepatitis B and related diseases will cut across every educational level (primary, secondary, and tertiary) so as to help educate those with low level of education, younger women and single women on the importance of utilizing HBV screening services.

- 5 Social workers should create awareness or organize enlightenment programmes for the general public, specifically younger women, single women and those with low level of education to improve their understanding about Hepatitis B and the need for them to utilize the screening services available in order to reduce the rate of maternal mortality in the country, as well as reduce the probability of getting infected with such disease.
- 6 Government, organizations, institutions, social workers and the general public should be quickly awakened to their separate responsibilities in providing proper information about Hepatitis B to the general public focusing on the benefit of utilizing the screening services. This will definitely go a long way in reducing the rate of the occurrence of the disease in the country.

## REFERENCES

- Adekanle, O., Ndububa, D.A., Olowookere, S.A., Ijarotimi, O.& Ijadunola, K.T. (2015). Knowledge of hepatitis b virus infection, immunization with hepatitis b vaccine, risk perception, and challenges to control hepatitis among hospital workers in a Nigerian tertiary hospital. *Hepatitis Research and Treatment*, 10, 1-7.
- Babbie, E. (2007). *The practice of social research* (11<sup>th</sup> ed). Belmont, CA: Wadsworth, Cengage Learning
- Centres for Disease Control and Prevention [CDC], (2012). A comprehensive immunization strategy to eliminate transmission of hepatitis b virus infection in United States. *Morbidity Mortality Weekly Report*, 55(16), 1-25.
- Chan, O. K., Lao, T. T., Suen, S. S. H.,& Leung, T. Y. (2012). Deficient knowledge on hepatitis b infection in pregnant women and prevalence of hepatitis b surface antigen carriage in an endemic area: A review. *Hepatitis Research and Treatment*,(317451), 8.
- Cobelens, F. G. J., van Schothorst, H. J., Wertheim-van Dillen, P.M. E., Ligthelm, R. J., Paul-Steenstra, I. S.,& van Thiel, P. P. A. M. (2004). Epidemiology of hepatitis b infection among expatriates in Nigeria. *Clinical Infectious Diseases*, 38(3), 370–376.
- Donbraye, E., Japhet, M.O., Adesina, A.O., & Abayomi, O.A. (2014). Prevalence of asymptomatic hepatitis b virus surface antigenemia in children in Ilesha, Osun State, south-western Nigeria. *African Journal of Microbiology Research*, 8(23), 2329-2331.
- Eredoro, C.O., & Egbochuku, O.O. (2017). Awareness and opinions about hepatitis b among secondary school teachers in Irepodun Local Government Area of Kwara State, Nigeria. *Health Science Journal*,11(5), 530.
- Gambarin-Gelwan, M. (2007). Hepatitis b in pregnancy. *Clinics in Liver Disease*,11, 945-963.
- Gboeze, A.J., Ezeonu, P.O., Onoh, R.C., Ukaegbe, C.I.,& Nwali, M.I. (2015). Knowledge and awareness of hepatitis b virus infection among pregnant women in Abakaliki Nigeria. *Journal of Hepatitis Research*, 2(3), 1029.
- Grob, P. (1995). Introduction to epidemiology and risk of hepatitis b. *Vaccine 13 Supplement*, 1, 541-5.



- Han, Z., Yin, Y., Zhang, Y., Ehrhardt, S., Thio, C.L., Nelson, K. E, ... Hongying, H. (2017). Knowledge of and attitudes towards hepatitis b and its transmission from mother to child among pregnant women in Guangdong Province, China. *PLoS ONE* 12(6), e0178671.
- Hyams, K. C. (1995). Risks of chronicity following acute hepatitis b virus infection: A review. *Clinical Infectious Diseases*, 20, 992-1000.
- Lavanchy, D. (2004). Hepatitis b virus epidemiology, disease burden, treatment, and current and emerging prevention and control measures. *Journal of Viral Hepatitis*, 11(2), 97-107.
- Luksamijarulkul, A., Mooktaragosa, P., & Luksamijarulkul, S. (2002). Risk factors for hepatitis b surface antigen positivity among pregnant women, *Journal of the Medical Association of Thailand*, 85(3), 283- 288.
- Mbaawuaga, E.M., Enenebeaku, M., Okopi, J., & Okopi, J. (2008). Hepatitis B virus infection (HBV) among pregnant women in Makurdi, Nigeria. *African Journal of Biomedical Research*, 11,155-159.
- Musa, B.M., Bussell, S., Borodo. M.M., Samaila, A.A., & Femi, O.L. (2015). Prevalence of hepatitis b virus infection in Nigeria, 2000-2013: A systematic review and meta-analysis. *Niger. Journal of Clinical Practice*, 18(2),163-167.
- Onakewhor, J.U.E., Charurat, M., Matthew, O., Esosa, O., Asemota, M.O., & Omoigberale, A. (2013). Immunologic pattern of hepatitis b infection among exposed and non-exposed babies in a pmtct program in low resource setting: Does every exposed newborn require 200iu of hepatitis b immunoglobulin? *Journal of Vaccines and Vaccination*, 4(7), 207.
- Onigu, O. (1994). *Sociology: Theory and applied*. Lagos: Malthouse press limited.
- Othman, S. M., Saleh, A. M., & Shabila, N. P. (2014). Knowledge about hepatitis b infection among medical students in Erbil city, Iraq. *European Scientific Journal*, 9(10).
- Svenson, L., Varnhagen, C., Godwin, A., & Salmon, T. (1992). Rural high school students' knowledge, attitudes and behaviors related to sexually transmitted diseases. *Revue Canadienne de Santé Publique*, 83, 260-263
- Tran, T. T. (2009). Understanding cultural barriers in hepatitis b infection. *Cleveland Clinic Journal of Medicine*, 73(3), S10-S13.
- WHO (2010). *Guidelines for the prevention, care and treatment of persons with chronic hepatitis B infection*. March, 2015, WC-536.
- WHO (2013). *Global policy report on the prevention and control of viral hepatitis in WHO member States*. Geneva: Switzerland.
- WHO (2015). *Guidelines for the prevention, care and treatment of persons with chronic hepatitis B infection*. March, 2015, WC-536.
- WHO (2015). *Guidelines for the prevention, care and treatment of persons with chronic hepatitis B infection*. March, 2015, WC-536.
- World Health Organization [WHO], (2016). *Hepatitis b fact sheet*. Updated July 2016. <http://www.who.int/mediacentre/factsheets/fs204/en/>.