

Knowledge and Attitude Towards Hepatitis B among Pregnant Women Attending Antenatal Clinics at Tripoli University Hospital, 2016-2017

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ABSTRACT

Hepatitis B virus (HBV) infection is one of the major public health problems in the world. Libya is, considered an area of intermediate endemicity for hepatitis B with mother to child HBV transmission remains an important mode of transmission. Awareness of pregnant women about hepatitis B and the knowledge that it can be prevented through vaccination is important for the effective control of the disease. Hence, the study conducted to assess knowledge and attitude of pregnant women attending antenatal clinic (ANC) in the Tripoli Medical Centre. This was a cross-sectional study conducted at ANC in Tripoli Medical Center, Libya, between 21st December 2016 and 13th April 2017, including 342 pregnant women attending ANC at Tripoli University Hospital. Knowledge and attitude (KA) regarding HBV were assessed using a standardized structured questionnaire. Data was entered and analyzed by excel program using frequencies and percentages.

A total of 342 pregnant women were enrolled in the study. The mean age was 31.2±6.4 years and the majority of the women was from Tripoli. Only (46.8%) of pregnant women had demonstrated an adequate knowledge towards HBV, and 86.3% of the pregnant women had positive attitude regarding HBV.

The study indicates a poor level of knowledge among pregnant women with regards to several aspects of HBV. Hence, there arises a need for policy guidelines along with extensive health education campaigns to manage all aspects of KA of pregnant women regarding HBV.

Key words- HBV; Knowledge; Attitude; Pregnant; Prevention; Libya.

INTRODUCTION

Hepatitis B virus (HBV) infection is one of the major public health problems in the world. It is estimated that worldwide, 2 billion people have evidence of past or present infection with HBV, and 248 million are chronic carriers of HBV surface antigen (HBsAg), particularly in lower middle-income countries (LMICs)¹; they are at risk in developing liver diseases like cirrhosis and hepatocellular carcinoma (HCC). Worldwide, it is estimated that around 686 000 people die each year from the complications of CHB.² Overall, HBV accounts for around 45% of cases of HCC and 30% of cirrhosis, with much higher proportions LMICs.^{1,3} Chronic infection is much more likely to develop in patients infected as infants (90%) and young children (30%).^{4,5} In Africa, the Middle East, and Asia, chronic hepatitis B generally acquired at birth or early in life, has a prevalence that ranges from 2% to 20%, and is among the leading causes of death in those regions. The seroprevalence of HBsAg among general population in Libya was found to be 2.2%. Libya is, therefore, considered an area of

intermediate endemicity for hepatitis B infection.⁵ About 80-90% of infants, who are infected during their first birthday develop chronic infections.⁶ The main modes of transmission of the hepatitis B virus are through exposure to body fluids like blood, semen or vaginal discharge. Sexual contact, sharing contaminated needles, razors, shared tooth brushes and exposure through non-intact skin or mucous membranes can also transmit HBV.⁷⁻⁹

The infectivity of HBV is hundred times higher than the HIV virus⁷. HBV is rarely congenitally acquired, less than 3% of all mother-to-newborn infections; but it is mostly acquired during delivery.^{6,8,10,11}

At least 50% of all HBV infections are asymptomatic, it is often found during routine prenatal screening. Maternal hepatitis B infection during pregnancy does not increase maternal morbidity and mortality, however, it increases the risk of prenatal transmission.¹² Prevention of mother to child transmission (MTCT) is an essential step in reducing the global burden of chronic HBV. Currently recommended



practice to reduce mother-to-child perinatal transmission or horizontal transmission relies on the administration of HBV vaccine which can prevent 70%-95% of HBV infections in infants born to HBeAg and HBsAg-positive mothers⁹ and, in some countries, concurrent administration of hepatitis B immune globulin (HBIG). Vaccination is the most effective method in preventing HBV infection and thus, decreasing the incidence, prevalence of childhood HBV infection and hepatocellular carcinoma in a number of endemic areas.¹⁵⁻¹⁷

Awareness to pregnant women about hepatitis B and the knowledge that it can be prevented through vaccination is important for the effective control of the disease.

KA studies play an imperative role in determining the ambiguities of the society and are widely used in population reported assessment research worldwide. In Libya the current knowledge and attitude (KA) among key affected populations such as pregnant women are unknown. Thus, there is a need for KA study in the country among ANC women towards HBV to better strengthen and improve public health awareness and other intervention on HBV at the health facility setting. Therefore, this study was conducted to assess knowledge and attitude of pregnant women attending Antenatal Clinic (ANC) in Tripoli Medical Centre in Libya as evidence for effective HBV awareness raising and advocacy program.

MATERIALS AND METHODS

A cross-sectional descriptive study design of KA of pregnant women attending ANC in Tripoli Medical Centre, in Libya was conducted for the duration of 4 months from 21st December 2016 to the 13th April 2017. A random sample of pregnant women who agree to participated in the study and give verbal consent were enrolled. A sample size was estimated to be 342 women, a margin of error of 5% (at 95% confidence level), assumed that 50% of respondents were knowledgeable and aware of hepatitis B. A non-response rate of 5% was factored in the sample size calculation.

A structured questionnaire was used, all the questions were closed-ended. The questionnaire explored the socio-demographic background of respondents which include: age, educational level, occupation, residential address. Also, there were questions regarding HBV knowledge and attitude.

The questionnaire consisted of 12 items that assessed participants' knowledge and 4 items for attitude related to HBV. These questions were then scored; each correct response was scored one (1) point (favorable response) and each wrong or "don't know" response was scored zero (0) (unfavorable response).

The total score of the participants' knowledge regarding HBV is 12 (100%), and for positive attitude was 4. The knowledge and attitude level were categorized as "low" for scores within 0-49%, "moderate" for scores within 50-75% and "high" for scores >75%. Unfavourable score was indicated poor knowledge and attitude, and favourable for moderate and high score.

Data was entered and analyzed by SPSS program, version 16. Frequencies and percentages were calculated. A *Chi-*

square test was conducted to determine the relationship between the categorical variables and the main outcomes of the study (knowledge, attitude related to HBV infection). The *P*-value of $\leq .05$ was set as the significance level.

RESULTS

A total of 342 women were surveyed. The age ranged between 16-53 years; the main age was 31.2±6.4 years. Most of the cases (272, 79.5%) were among age group 25-44 years. The majority of the participants (293, 85.7%) had secondary degree or above, and (89.5%) of the study participants from Tripoli (Table 1).

Table 1: Socio-demographic data of pregnant women

Character	No.	%
Age (year)		
<25	53	15.5
25-34	168	49.1
35-44	104	30.4
45-54	4	1.2
Unknown	13	3.8
Education level		
Illiterate	14	4.1
Essential	33	9.6
Secondary	159	46.5
College or above	134	39.2
Unknown	2	0.6
Occupation		
Employment	140	40.9
House wife	166	48.5
Student	34	9.9
Unknown	2	0.6
Residence		
Tripoli	306	89.5
Outside Tripoli	36	10.5

Regarding the knowledge toward HBV among the pregnant women who attending the ANC at University Tripoli hospital, the results revealed that 182(53.2%) of them had poor knowledge, 128 (37.4%) had moderate level and 32(9.4%) had a higher level of knowledge (Figure 1).

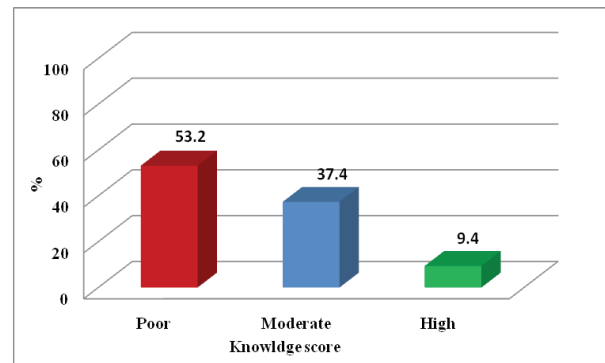
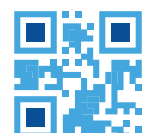


Figure 1: Knowledge score of pregnant women regarding HBV.



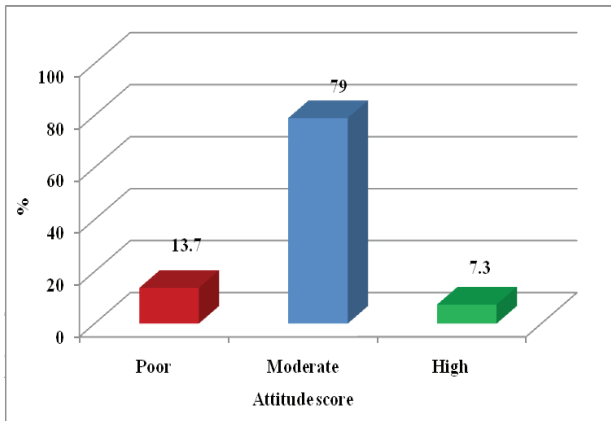


Figure 2: Attitude score of pregnant women regarding HBV.

The relation between knowledge and attitude responses with Socio-demographic characteristics as shown in Table 2, which demonstrated that the higher education level was associated with better knowledge ($P= <0.001$) and attitude scores ($P= 0.04$). There was a significant difference between the occupation and the knowledge scores ($P= 0.014$).

Table 2: Distribution of participants according to demographic characteristics and knowledge, attitude towards HBV.

Character	Favourable knowledge	P-value	Unfavourable attitude	P-value
Age (year)				
<25	22(14.1%)	0.037	45(15.7%)	0.8
25-34	75(48.1%)		146(50.9%)	
35-44	59(37.8%)		92(50.9%)	
45-54	0		4(1.4%)	
Education level				
Illiterate	2(1.3%)	<0.001	9(3.1%)	0.04
Essential	12(7.5%)		27(9.2%)	
Secondary	64(40.5%)		136(46.4%)	
College or above	81(50.9%)		121(41.3%)	
Occupation				
Employment	79(49.4%)	0.014	122(41.5%)	0.75
House wife	66(41.2%)		144(49%)	
Student	15(9.4%)		28(9.5%)	

DISCUSSION

Prevention of both vertical and horizontal transmission is one of the key strategies to reduce the incidence of Hepatitis B. This measure can only succeed if the population has good knowledge and awareness of the infection because it requires comprehensive participation of community members.¹⁶

This study examined the knowledge and attitude of pregnant women attending ANC at Tripoli University Hospital. The results of our study showed that 53.2% of the participants have poor knowledge, 37.4% of them had moderate level, and 9.4% with high knowledge. In comparison with a study carried out by Yankam *et al* in Cameroon in 2017,

documented that (39.8%) had poor knowledge, (38.52%) had good knowledge, and (21.31%) demonstrated excellent knowledge on the transmission and prevention of hepatitis B virus infection.¹⁷

The present findings are in accordance with another study conducted by Bayuh in Ethiopia, showed the overall knowledge of the participants was poor and their attitude and practice were limited.¹⁸

In addition, in a cross-sectional study conducted in China in 2017, only 21% of the participants were able to answer all the general knowledge-related questions correctly.¹⁹

A study in Nigeria conducted by Adeyemi *et al*, that assessed the knowledge of 643 pregnant women about Hepatitis B infection found that 76% of women had inadequate knowledge of HBV infection.²⁰

Other studies conducted in Cameroon²¹, Ghana²² revealed similar results.

Similarly, a population-based knowledge, attitudes, beliefs and practices study in France, indicated a low level of knowledge on the modes of transmission of HBV through sex contact or sharing of needles by injecting drug users.²³

Concerning the relationship between demographic characteristics and KA, the results in the current study demonstrated that the age, occupation, and educational level, were significantly associated with knowledge score of pregnant women regarding HBV transmission and vaccination.

Our study clearly demonstrates that people with higher level of education are more likely to be aware and knowledgeable of HBV. This is not surprising since people who are educated are in a better position to access more sources of information and learn more about HBV.

This finding is similar with the results of Ngaira *et al* in Kenya that reported the women showed a low level of HBV awareness (12.2%) and higher education attainment had a strong association with HBV infection awareness.²⁴

In our study, younger women who aged <35 years (62.2%) were more likely to have correct knowledge than those aged 35-54 years ($P<0.05$). In accordance with the finding of Noreen *et al* study, that found younger age group (14-35 years) were have correct knowledge than those aged 35-49 years ($P<0.005$); also he reported that twice as many women with a higher and matriculation level of education had correct knowledge than did illiterate women ($P< 0.01$).²⁵

In the current results, there was a significant difference between occupation of respondents and level of knowledge ($P = 0.014$), employed women had higher frequency of correct knowledge than housewives; similar finding reported by Noreen *et al*, those who were employed in government service or private business tended to have better knowledge than housewives and the jobless.²⁵

The great majority of the respondents (86.2%) showed a favourable attitude towards HBV that 87.4% of the pregnant women accept HBV screening, 79.2% of them agree to provide care for infected person, but only 27.8% of respondents agree to use condom for safe sex practice.

Study limitation:

Small sample size, inadequate financial resources and time constraints limited the scope of the study.



CONCLUSION

Knowledge and awareness of HBV among pregnant women in Libya, is low and this could have the potential to hamper effective HBV prevention and control in Libya.

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