

Nurse's Performance and Attitudes towards patient with Blood borne Viral Hepatitis B/ C

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Abstract:

Aim: this study aimed to explore the knowledge levels, practice and attitudes of nurses toward patients HBV /HCV. **Methods:** A quantitative descriptive correlation study design was utilized to identify the nurses' performance and attitude, the study was carried out in tropical medicine and gastroenterology departments at Assiut University Hospital. **Sample:** A convenience sample including nurses as (10) males and (55) females. Tools utilized for data collection were structured interview questionnaire sheet to assess their knowledge and attitudes, observation checklist sheet to evaluate nurses' practice. **Results:** showed that, about half of the nurses had age > 30 years, while the majority of them were females. As regarding level of education, two third of the study group had diploma degree and about half of the study group their experiences were ≥ 3 years. In addition, 46.16% of nurses their knowledge poor, 30.77% passed, 15.38% good and 7.69% very good. Regarding nurse's practices the results show that 76.9 % of nurses were unsatisfactory .Overall, nurses expressed negative attitudes. **Conclusion:** Study findings concluded that, discriminatory attitudes are common among nurses, half of nurses had poor comprehensive knowledge and the majority of study nurses their practices were unsatisfactory. **Recommendations:** further studies are needed to focus on service educational program for nurses, there must be standardized written nursing care and develop strategies for improving public health knowledge.

Key words: *Performance; Attitudes; Knowledge; Blood Borne Viral Hepatitis B And C*

Introduction:

Hepatitis is inflammation of the liver due to microorganism and non-infectious causes. The most common types of blood borne viral hepatitis (BBVH) are hepatitis B virus (HBV) and hepatitis C virus (HCV). (Hou J et al., 2010).

BBVH are among the most important causes of death and chronic liver diseases worldwide. It occurs in people at any age and even can pass from mother to newborn child. The peak rate of infection occurs among males twice that of females in the 30- 39 age group also bulge in 40 - 59 years (Guney C and Kadayifci A, 2011).

BBVH divides into major serotypes and into genotypes which affect the disease severity, course, complications, response to treatment and possibly vaccination. Currently 1.25 million Americans are chronically infected with HBV and 2.7 million are chronically infected with HCV. (Wong PN and Fung TT, 2012).

In Egypt, about 1.8 % of the general population has HBV. While the situation is quite worse it contains the highest prevalence of hepatitis C in the world 16.7 % of Egyptian about 15 million are infected (Mohamed MK and Omar A, 2013).

In Assiut, the number of patients with HBV and HCV, was approximately (7788) cases admitted in Tropical Medicine and Gastroenterology department and internal medicine department during the period between 2011- 2012 (Hospital records, 2012).

The common predisposing risk factors for blood borne viral hepatitis include injecting drugs, blood transfusion,

hemodialysis, birth to an active infected mother, and needle-stick accident. Other risk factors that have a slightly increased risk for hepatitis B is having multiple sex partners and intranasal use of cocaine using shared equipment (Dienstag JL and McHutchinson JG, 2011).

A large number of patients with BBVH are a symptomatic. In the minority of patients they are generally mild, nonspecific and rarely lead to a specific diagnosis of hepatitis B/ C. The clinical manifestations include decreased appetite, fatigue, abdominal pain, jaundice, itching, sleep disturbances ,and flu-like symptoms as anorexia, headache, low-grade fever and arthralgia during the acute phase. (Sargent S, 2012).

Chronic hepatitis B is diagnosed by hepatitis B markers, Polymerase Chain Reaction (PCR), and liver biopsy. Laboratory diagnosis of HCV include Inzyme-linked immunosorbent test (ELISA), RIBA test, PCR, serum transaminase levels, and liver biopsy. Several complications were reported which include liver fibrosis, cirrhosis, liver failure, and liver cancer. Other complications of chronic hepatitis B and C are glomerulonephritis, cryoglobulinemia, hepatic encephalopathy and portal hypertension (Sargent S, 2012) and (Kita H and Gershwin ME, 2011).

Nurses spend more time with patients than do any other health care providers and patient outcomes are affected by nursing care quality. Thus, improvements in patient safety can be achieved by improving nurse performance. Where many nurses work, the risk of cross-infection is high. Preventing is an essential activity for all nurses in their everyday practice. Nurses have an ethical and

legal duty to protect themselves against infection within hospitals, cross-infection can be avoidable by means of universal precautions and careful sharps disposal. It is important role of the nurse to be familiar with the various types of hepatitis, methods of assessment, prevention and treatment medically and surgically. In addition, teaching is important part of the patient treatment (Nathens AB et al., 2012).

Patients with hepatitis B/C have met with discrimination and stigmatization in the work place, by family members and by members of their communities. In addition, they may face discrimination from nurses (Reis C et al., 2011). The discriminatory practices of nurses may result from a lack of knowledge and negative attitudes toward these kinds of diseases, which could interfere with their willingness to treat these patients because of a fear of contracting hepatitis B/C.

Aim of the study:

The aim of this study was to explore the knowledge levels, practice and attitudes of nurses toward HBV/HCV patients.

Magnitude of the study:

This study will help in identifying one of the crucial issues that impact nursing practice in the cultural context. Having a safe practice for caring patient with BBVH taking into consideration the cultural and ethical components within nurses. The results of this study could be used as a reference in resolving nursing attitude in the professional nursing practice by developing clear standard care and nursing education that could be implemented in the clinical practice.

Definition of terms: Performance:

"It is a joint process that involves both knowledge and practices that accomplishment of a given tasks measured against present standards of accuracy to increase nursing care effectiveness" (Spraling P and Rup L, 2012)

Attitude:

"Learned experience that exerts influence upon a person, which can be neutral positive or negative toward a particular objects, situations or person which refers to the person's judgment to perform specific behaviours, that is good or bad"(Mosby's Dictionary, 2011)

Blood borne viral hepatitis:

A form of viral hepatitis which is transmitted via blood transfusions, blood products, needle sticks, shared drug instruments, breast-feeding, and sexual contact (Robin D W., et al 2011).

Material and Methods:

Design:

A quantitative descriptive correlation study design was utilized to identify the nurses' performance and attitude toward patient with HBV/HCV.

Setting:

The study was conducted in tropical medicine and gastroenterology departments at Assiut University Hospital.

Sample:

A convenience sample including, 65 nurses as (10) males and (55) females.

Data collection and Instrument:

A Structured interview questionnaire sheet: It was developed by the researcher after reviewing the relative literatures and translated to Arabic simple language to assess exact nurses' knowledge and attitude about blood borne viral hepatitis. It was consists of three parts: The first part includes socio-demographic characteristics for nurses (e.g., age, gender, residence, marital status, educational level, years of experience and pervious attended training programs. The second part used to assess nurses' knowledge about viral hepatitis B/C including definition, Predisposing factors, manifestation, complications, management and Methods of prevention. The third part used to assess nurses' attitude toward patient with hepatitis B/ C including fear of contagion, social stigma, direct care, education counseling and fatal outcome of the disease.

Answers of the studied nurses were scored as (two) for complete answer (one) for incomplete answer (zero) for unknown answer. Total score was categorized into (70%) or more were considered as having "very good" knowledge. Those who scored (60% - 70%) were considered as having "good" knowledge while those scored (50% - 60%) were considered as having "pass" knowledge less than 50% were considered 'poor'. Nurses' attitude was categorized into (50%) or more were considered as positive attitude and less than (50%) was considered as negative attitude.

Observation checklist sheet: These tools were designed by the researcher after reviewing the relevant national and international literatures to observe how the nurses adhere to precautions of infection control. It contain certain items were selected such as; precautions to prevent infection transmission, use universal precautions, nursing duties for the patient's discharge, nurses' roles during parenteral and intramuscular medication, and incident report. In addition, to evaluate the nurses' practice related to prevention and management of blood borne viral hepatitis. It was rated for four levels: not done gets score of (0) un applicable gets score of (1), un correct gets score of (2) and correct answer gets score of (3). Those who obtained less than (50%) were considered having unsatisfactory level of practice. More than (50%) were considered having satisfactory level of practice.

Ethical Considerations:

Informed consent was obtained from all participants. Nurses' participation was voluntary and nurses were assured that their responses will be confidential.

Data Collection Procedure:

Before conducting the actual study, an official permission was obtained and the purpose of the study was explained to all nurses, and the participants were informed that they have the right to participate and the right to withdraw at any time they like. At initial interview the researcher introduce her self to initiate line of communication, explain the purpose of asked nurses to fill out the questionnaire sheet. Observation checklist sheet were collected by the researcher from each nurse through observing the nurses' practice during each shift.

Data Analysis:

A statistical analysis was performed using the SPSS package version (17) for windows. Descriptive statistics were used to analyze demographic data, means, standard deviation, and frequencies. Numbers and percentage used to answer the others research questions

Results:

Table (1): demonstrates that, about half of the nurses had their age > 30 years, while the majority of them were female. As regarding level of education two third of the study nurses was diploma degree and about less than half of the study group their experiences were ≥ 3 years.

Table (2): show that, overall, the nurses in this study had negative attitudes towards caring for people with HBC/HCV.

Table (3): illustrated that, half of nurses have poor comprehensive knowledge about HBV/HCV, knowledge and one third of the study nurses were passed.

Table (4): illustrated that, the majority of study nurses have unsatisfactory practices level.

Table (5): show that, overall, the nurses in this study have negative attitudes towards directed care for the patient with HBV/HCV.

Table (6): show that, overall, the nurses in this study have Fear of contagion from patients with HBV/HCV

Table (7): show that, overall, the nurses in this study have negative Attitudes regarding Social stigma for patients with HBV/HCV

Table (1): Frequency distribution of socio-demographic characteristic of the studied nurses (n= 65)

Variables	Frequency	
	No.	%
Age:		
• < 20 years	9	13.85
• 20 - < 30 years	24	36.92
• > 30 years	32	49.23
Mean \pm S.D	33.60\pm 8.30	
Gender:		
• Males	10	15.38
• Females	55	84.62
Marital status:		
• Single	24	36.92
• Married	41	63.08
Level of education:		
• Diploma nurse	44	67.69
• Technical Nurse Institute	13	20.0
• Baccalaureate nurse	8	12.31
Years of experience:		
• < 1 years	19	29.23
• 1-<3 years	16	24.62
• ≥ 3 years	30	46.15

Table (2): Frequency distribution of Nurses' attitude toward Patients with HBV/HCV (n = 65)

Attitude Subsections	Positive Attitude		Negative Attitude	
	No.	%	No.	%
Fear of Contagion	16	24.69	49	75.3
Social Stigma	14	21.53	51	78.46
Fatal Outcome of the Disease	27	41.53	38	58.46
Direct Care	2	3.07	63	96.92
Education and Counseling	18	27.69	47	72.3

Table (3): Frequency distribution of knowledge score level obtained by nurses (n=65)

Scores allotted	Poor		Pass		good		Very good	
	No.	%	No.	%	No	%	No	%
Total knowledge	30	46.16	20	30.77	10	15.38	5	7.69

Table (4): Frequency distribution of nurse's score levels of practice (n= 65)

Nurse's levels of practice	Satisfactory		Unsatisfactory	
	No.	%	No.	%
Total practice	15	23.1	50	76.9

Table (5): Attitudes of nurses directed care for patients with HBV/HCV (n= 65)

Questions	Agree		Disagree	
	No	%	No	%
• All patients should not be tested for hepatitis B/C virus infection before they receive health care?	0	0	65	100
• Deliver the same standard of care to patients with hepatitis B/C as I do for other patients?	2	3.07	63	96.92
• I feel that I have knowledge and skills to effectively care for patients with hepatitis B/C?	0	0	65	100
• I feel not sorry for people who contracted hepatitis B/ C through illicit drug use?	0	0	65	100
• Following universal precautions will not protect me from becoming infected with hepatitis B/C at work?	0	0	65	100
• I often not use additional infection control precautions when caring for patients with hepatitis B/C?	0	0	65	100
• I believe nurses have a central role in the treatment of hepatitis B/C?	0	0	65	100
• Do you agree to not attend any training program about hepatitis B/C before working?	0	0	65	100

Table (6): Attitudes of nurses regarding Fear of contagion from patients with HBV/HCV (n= 65)

Questions	Agree		Disagree	
	NO	%	NO	%
• Nurses involved in patient care should not be regularly tested for hepatitis virus during their working lives	3	4.62	62	95.38
• I feel sorry for people who contracted hepatitis B/C virus through blood transfusions or blood products	2	3.07	63	96.92
• I do not like treating patients with hepatitis B/C Because I am scared of catching hepatitis B/C	1	1.54	64	98.46
• I feel comfortable and no anxiety looking after someone with hepatitis B/C virus regardless of how they caught the disease	5	7.69	60	92.30
• Dealing with nursing staff have hepatitis B/C virus makes me comfortable	1	1.54	64	98.46
• I am not scared I might have hepatitis B/C	1	1.54	64	98.46
• I am not scared of transmission hepatitis B/C to the family member	0	0	65	100
• Patients with hepatitis B/C virus should not be identified for occupational health and safety reasons?	2	3.07	63	96.92
• Nurses who have hepatitis B/C virus should not be discouraged from having contact with patients?	1	1.54	64	98.46

Table (7): Attitudes of nurses regarding Social stigma for patients with HBV/HCV (n= 65)

Questions	Agree		Disagree	
	No	%	No	%
• If you could refuse to treat IV drug users?	5	7.69	60	92.30
• HBV/HCV patient are better off a home than in hospital?	2	3.08	63	96.92
• HBV/HCV patient have themselves to blame?	1	1.54	64	98.46
• HBV/HCV patient should not be nursed in isolation because they are homosexual, indicated drug use, have malty partner relations and occupational exposure to infection?	6	9.23	59	90.77

Discussion:

Nurses enter the field armed with the knowledge they need to excel at their jobs. However health care is a changing field with constant new developments and continuing education prepares nurses for these changes. Continuing education is also necessary for nurses who want to work as an advanced or specialized nurse (Aceijas C et al., 2010).

Based on the results of the present study, about half of the nurses had their age > 30 years, and the majority of them were female. As regarding level of education two third of the study nurses have diploma degree and less than half of them their experiences were ≥ 3 years. All of nurses have no in-service training courses related to blood borne viral hepatitis diseases.

In the same line with the current study Saker N S (2009), mentioned that findings in tropical medicine and gastroenterology department of Alexandria University Hospital, entitled implementing of a health teaching module on the incidence of health problems for patient with liver cirrhosis due to BBVH infection which revealed that about half of nurses were aged from 20-45 years. The majority of nurses were female and nursing diploma, more than half of them have experience more than 6 years and all of them have no in service training courses related to liver cirrhosis or complications of BBVH. However the researcher was imagining that there should be a perfect training program designed for a selected group of nurses and other health team member a head of time to prepare team capable of dealing with such group of patients.

Kane M A & Hadler SC, (2013) mentioned that a trained nursing staff in tropical medicine and gastroenterology units is necessary for adequate reducing risk of transmission and improving safety. It is necessary to prepare nurses to handle such specialized area of care at the postgraduate level by enrolling in a specially or continuing education program. As well Garner J S, (2012) reinforce on the principles that promote success for optimal nursing care for patients with hepatic viral diseases include; a team approach including specialist nursing and high quality of nursing care provided to the patient.

In the present study, the results revealed that about half of the nurses had poor level of knowledge. This reflects the lack of

scientific preparation in these specialized diseases. This might be related to the fact that providing care to the patient with BBVH needs special skills, knowledge and nursing specialty or may be attributed to insufficient courses related to BBVH included in their undergraduate curriculum of nursing education with lack of continuous education and in-service training program.

In this respect, Lynch P and Jackson MM, (2012) & National Disease Surveillance Center (2012), reported that nurses have a very dominant role in clinical monitoring of sign and symptoms, observations of complications, clinical responses to treatment and educating other clinicians regarding the mode of transmission, diagnosis, prevention, essential primary care and standard methods of infection control.

Moreover, Baffoy GL and Fayard N, (2012) who recommended that the use of stander nursing care provided to the hospitalized patient with liver diseases due to infection with hepatitis B and C usually improve the liver functions depending on nutrition and medication strategies. This is the responsibility of gastroenterology department and liver care units. Nurses must be able to expand their knowledge of this area through ongoing education, Journal, and seminars. Consequently, teaching programs for nursing staff constitute an important part. These programs are urgently designed to assess nursing staff in developing and enhancing the skills needed to provide high standards of care to their patients. As well, Gunson R N, (2011) agreed that those programs are urgently needed to provide up-to-date knowledge and improve nurse's competency and skills.

Based on the results of the present study, the majority of study nurses have unsatisfactory practices level. Kramer M and schmalenberg G, (2011) stated that educational support is essential for creating a magnetic work, the more experienced staff the less educational and training needs. As well, Medical University of South Carolina, (2010) stated that, in service education helps the bedside nursing care providers and increase their competence in specific areas of practice. It enhances their skills, knowledge, and attitude in relation to specific aspects of their role in the work setting. Friese C et al., (2012) reported that, continuing education must result in practice change to be effective. Integration of

knowledge occurs when information is combined with performance

Nurse's behavior affect in caring for HBV/HCV patients. Nurses reaction are varied from positive appropriate care to inadequate isolation techniques, minimum contact with such patients, and even avoidance to care of such patients **Walusimbi M et al. (2011)**. Most of previous studies have showed nurses negative attitude regarding to care of HBV/HCV patients. First factor that cause a negative attitude is fear of being affected by occupational exposure in contact to HBV/HCV patients. Social stigma is the second factor affected nurses attitude. Thus, negative attitude cause a poor management of patient who need support, treatment and care **Baylor A R & McDaniel A (2011)**.

The results of this study show that, overall, the nurses in this study had negative attitudes towards caring for patient with HBV/HCV. According to **Baron A and Byrne D (2010)**, attitudes are learned and they are evaluative concepts associated with the way how people think, feel, and behave. This means, that with proper education and the opportunity to work with patients with HBV/HCV, these negative attitudes may change.

This study shows that most of the nurses had a negative attitude towards HBV/HCV because of fear of contagion. As regard **Shearer R & Davidhizar R, (2012)**, fear is compounded by the fact that HBV/HCV is considered fatal, and the social stigma associated with HBV/HCV makes it difficult for nurses to establish a therapeutic relationship with HBV/HCV patient. A study conducted by **Ezedinachi E N et al. (2012)** indicated two major dimensions of attitudes of some nurses regarding people with HBV/HCV infections: a conflict between fear of treating them and sympathy towards them and the feeling of responsibility for the patients. At the same way **Corr C., et al., (2011)** reported, contagious diseases induce fear in people, and the fear is worse if the causes and modes of transmission are not known. Therefore, increase in knowledge of the causes and the mode of transmission of the infection should reduce the fear of contracting the infection and reduce the anxiety when treating HBV/HCV patients.

Based on the results of the present study, it shows that (78.46%) of the study nurses had a negative attitude towards HBV/HCV because of their social Stigma about the disease. According to **Germov J, (2011)**, stigma and discrimination have been coupled with any disease that is associated with an undesirable or discrediting attribute of the patient, that has no cure, or that is considered highly infectious. Stigma is a social construct that singles out a person by virtue of physical or social trait and results in negative social reactions, such as discrimination and avoidance. As **Rondahl et al., (2011)**, a consequence of stigmatization and fear of contracting HBV/HCV as

well as lack of knowledge, nursing staff sometimes decline to care for patients with HBV/HCV

The result of this study shows that more than half (58.46%) of the study nurses had a negative attitude towards HBV/HCV because of the perceived fatal outcome of the disease. This result is consistent with a study conducted by **Bishop G et al., (2010)** on knowledge, beliefs, and attitudes of nurses in Nigeria; their results showed that 55% of the nurses felt that HBV/HCV patients were responsible for their illness. **Suominen T et al., (2008)** found that nurses who had previous experience of nursing HBV/HCV patient reported more cautious perceptions than those who did not.

The present study showed that (96.92%) of nurses had a negative attitude towards providing direct care to HBV/HCV patients. This result agree with **Reis C et al., (2011)** found who that 93% of nurses reported refusing to care for an HBV/HCV patient, this indicated that they had refused HBV/HCV patient admission to the hospital.. A study by **Rondahl G et al., (2011)** showed that 86% of participating nursing students did not want to care for patients with HBV/HCV that even thinking about caring of HBV/HCV patients makes them worried.

The results of this study show that (72.3%) of the nurses had a negative attitude towards educating and counseling patients with HBV/HCV. This agree with **Hodgson I (2012)**, who mentioned that it is a misconception that nurses would contract HBV/HCV from the patient because of being close to them during nursing procedures. It would be helpful for nurses to have an understanding of their job description and professional responsibilities to help them stay focused on their job. Fear and risk go hand in hand, since all patients are seen as potentially HBV/HCV positive. **Hentgen V et al., (2008)** found that, some nurses believed that HBV/HCV patients should not be isolated indicated that nurses had negative attitudes toward treating HBV/HCV patients can changed.

Conclusion:

Discriminatory attitudes are common among health care providers toward hepatitis B/C patients, half of nurses had poor comprehensive knowledge and the majority of study nurse's practices were unsatisfactory. It is therefore necessary to improve their knowledge level and attitude toward this disease.

Recommendations:

1. Service educational program for nurses should be conducted. This program should emphasize on the importance of patient care and skills of teaching and educating to ensure high quality of information and care provided to patient.

2. There must be standardized written nursing care in tropical medicine, gastroenterology and internal medicine department. In addition to making of nursing library and net including all different nursing sciences.
3. Specially nursing programs to prepare nurses in BBVH care to ensure high quality of information and care provided based on national and international standards
4. Replication of the current study on larger probability sample is recommended to achieve generalized ability.

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