

Original Research Article

## Knowledge and attitude level of nurses about Hepatitis C patient

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**Abstract:** It is important for any health system to provide Nursing care and treatment with great quality and respond the client's necessities. About Hepatitis C disease discrimination and stigmatization is very common in health care sector. In India nursing college student stated that Patients with hepatitis C often encounter incrimination and prejudice in the hospitals, by the family and common people. Because of increasing prevalence of Hepatitis C, It is very important to take appropriate action regarding HCV in Government Hospital of Jhang. The aim was to assess the exact knowledge and attitude of Nurses about care and treatment of Hepatitis C. Quantitative descriptive cross sectional study design was used and questioners on five point Likert scale ranging from strongly disagree, disagree, neutral, agree, strongly agree were distributed. Simple convenient sampling technique was used and Sample size was 222 Nurses from selected hospital. Reliability was checked on Cronbach, s alpha, it was .886 for knowledge and .738 for attitude that is reliable. Data was analyzed SPSS software 21. Most of the participant shown negative attitude regarding HCV 65% (n=146) shown sorry for HCV contracted through blood transfusion. 72% (n=160) respondent not like treating patient with HCV. 69.8% (n=155) respondent were not willing to treat HCV patient. 72.4% (n=162) not believe that their profession plays an important role in HCV treatment. 83.7% (n=186) agree that that they do, not have skills needed to effectively and safely in treating HCV patient. There was association between knowledge and attitude score. Study result shows lack of readiness about HCV patient, that is due to bias and stigmatization. It is therefore very important to improve Nurses knowledge and attitude about hepatitis C disease.

**Keywords:** Knowledge, attitude, Nurses, Hepatitis C, patient care

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### INTRODUCTION

In hospital settings with different diagnosis client has been admitted, for the treatment of every diagnosis need unique intervention and care plan. This has been provided from health professional especially from nurses. Nurses play a vital role according to the client diagnosis care plan. Meanwhile some diagnosis very seriously effect performance of nurses due to the threat of infection spread like HIV, HCV etc. It is the possibility Nurses attitude would not be good with that client who are suffering with hepatitis C infection. The knowledge and attitude of Nurses about hepatitis C patient has significant vita importance.

“Knowledge is an expertise ,awareness and admiring of somebody or somewhat such as facts, information, metaphors, and skills, which are obtained during experience or else education by

understanding of science, discovering, or learning ” [1] Knowledge is an understanding and skills that we get through continue learning and experience in work field. Nurse's knowledge related to hepatitis C disease and attitude is the foundation to control and reduce hepatitis C infection. Health care professional especially nurses have close contact with the patient hepatitis C infection, that plays a basic function in the progress of knowledge and attitude about hepatitis C patient and between themselves during period of job experience. Because Nurses has great consequences of contracting hepatitis C by needle stick or injury. Due to the subsequent reason some health attendant had unfairness attitude about hepatitis C patient[2].

Attitude “an attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the

individual response to all object and situation with which it is related” [3]. Attitude is the feeling and perception of nurses about hepatitis C patient that could be positive or negatives to care HCV patient. Moreover about attitude is that Patient with hepatitis C faces incrimination in health sector, by family members and they also experience by health care provider. It incrimination can interfere with their acceptance to treat patient with hepatitis C, because they have fear regarding the undertake infection. It is due to lack of knowledge’s and negative attitude toward hepatitis C patient [4]. Furthermore nurses has history of needle stick injury, That’s why health care professional has fear for getting hepatitis C positive infection. That can interfere with Nurses willingness about hepatitis C patient treatment [5].

Hepatitis C infection is a hepatotoxic infection and a remarkable reason for everlasting hepatitis and liver disease around the world. Introductory communications between HCV virions and hepatocytes are required for productivity of viral disease and start of the viral life cycle [6]. In Pakistan a disturbing rate of HCV has been flare-up considered. The past appraisal shows that around 10 million individuals are contaminated with HCV in Pakistan [35]. Further stated in a study done in Georgia nation according to that assessment around 185 million people are infected with hepatitis c contamination on the planet and 500,000 individuals ding with this disease yearly [7].

Meanwhile In Mongolia over 10% population is infected with hepatitis C, taken after by Uzbekistan and Pakistan where, as per a few reports, around 6% of the aggregate general population is tainted with HCV [8]. Disease with hepatitis C infection is a prominent worldwide wellbeing concern. With an expected 170 million individuals contaminated with hepatitis C around the world, this infection is demonstrating to be a heighten financial, social and wellbeing burden [9].

The hepatitis C spread through contact with polluted blood of a contagious individual and reuse of unsterile syringes. Ear and body puncturing, for circumcision unsterile instruments, unsterile tattooing, apparatus use in dental surgery, unsterile needle stick damage, through blood transfusion. Individuals can't get infected with hepatitis C, in the occurrence that they will utilize the same toilet, shaking hand, by embrace, wheezing, coughing, sneezing, breast milk, sharing nutrition and utensils, unconcerned contact, mosquito bite. [10].

Moreover in one more research it has been stated that Patient with hepatitis C face with incrimination in health facilities settings, by relatives and they likewise encounter by human services supplier. This incrimination can intervene with their

response to treat persons with hepatitis C, the reason for that health care people may fright about hepatitis C contamination. This is because of shortage of knowledge and negative state of mind toward hepatitis C patient [4]. However in a study stated that most of health care worker have appropriate knowledge related to hepatitis C, and some has incrimination attitude for hepatitis C. Very less research has been done in Pakistan regarding the knowledge and attitude of health care professional about hepatitis C patient. [11].

“Nurses are peoples who engaged in the promotion, protection or improvement of the health of the population ” [12]. Health care worker especially nurses are people, working in health care setup to care the patients. Patient with hepatitis C mostly face stigmatization and discrimination in the hospital setting. In India nursing college student stated that Patients with hepatitis C often encounter incrimination and prejudice in the hospitals, by the family and common people [13]. Additionally, patient with hepatitis C could face stigmatization and discrimination from health attendant. These discriminatory attitude could be result due to lack of hepatitis C infection, it interfere with the contact of care about hepatitis C infection patient. first and foremost proper Knowledge and attitudes of the nurses is a vital role for reduction of stigmatization and discrimination [14].

However In recent study about treatment, interferon Alfa was the main treatment accessible for patients with endless hepatitis C. Be that as it may, following 48 weeks of treatment; serum hepatitis RNA levels are invisible in just 15 to 20 percent of patients. [15, 16]. Thus at the point when considered in clinical trials, the present standard-of-administer to patients with hepatitis C infection genotype 2 or 3 contamination paginated interferon is mix with ribavirin for 24 weeks — brought about a managed biologic reaction in 70 to 85% of patients who had not got earlier treatment and in 55 to 60% of the individuals who had gotten treatment [17]. The Corrective action is superior to anything cure. We have to know reality and must to have sincere mindfulness about preventive measure and control .Health care supplier is at more serious danger to get disease, hepatitis C infection .That is the reason I assessed the knowledge and attitude of health care professionals about patient with hepatitis c.

#### **VARIABLES:**

Knowledge and attitude are independent variables which will be assessed among nurses working in Hospital of Jhang & health care professionals (response) are dependent variables.

Objective of the study:

To assess the knowledge of Nurses about hepatitis C patient.

To assess the attitude of nurses about hepatitis C patient.

The purpose of the study

We want to assess the exact knowledge and attitude of Nurses about care and treatment of hepatitis C patient.

Questions of the study:

1-What is knowledge level of Nurses about hepatitis C patient care?

2-What attitude do nurses have about care of hepatitis C patient?

4-What is the relationship between Nurses knowledge and attitude about, hepatitis C patient.

The Significance of the Study:

This study enhance the professional knowledge and attitude about hepatitis C. and its findings help the professionals, policy maker, hospital administration and decision maker to know the level of knowledge and attitude of nurses, positive or negative about hepatitis C patient. On the stand of this research result, Organizations, stakeholder should take sufficient measure for knowledge and attitude of nurses about Hepatitis C. The Policy maker should plan rules and policies to provide proper knowledge and inspirational mentality about hepatitis C patients.

## LITERATURE REVIEW

In hospital setting patients are being admitted with various kinds of diseases. All of them needed proper and equal intervention and treatment from nurses. Nurses play an essential role in giving treatment and for the diagnosis of the patient effect. More ever some diagnosis very speciously affects the Nurses attitude due to the fear for acquiring disease such as HIV and HCV. There is potential that Nurses may have negative or biased attitude about a patient with positive hepatitis C infection. Knowledge and attitude of health care providers is very important for the diagnosis and care of the patient. In Georgia country a study performed, in the world the prevalence of hepatitis C infection is 185 million, due to hepatitis disease the number of dying individuals every year increased to 500,000 [7] . Thus accurately explained in a research that three to four million persons are recently contaminated every year, 170 million individuals are constantly infected and at danger of creating liver sickness including cirrhosis and liver abnormal growth, and because of all hepatitis C related causes 350,000 passing's happen every year [18] , [19] Nurses are the biggest gathering of health care experts and might be the first expert to evaluate individuals with hepatitis C virus, the individuals who are at a chance. Among the medicinal services personals', HCV is transmitted by the skin prick with an infected, polluted needles and syringes contaminated instruments or through incidental booster of moment amounts of blood during the surgical and dental methods. It has been found in the writing that the most commonness of hepatitis C exists in dental

practitioners[14]. However a study done in Punjab about health care professional knowledge. According to that study Nurses with low level of knowledge have negative attitude toward hepatitis C patient they further mentioned that Nurses those who are highly knowledgeable, they have positive attitude about hepatitis C. There was a positive connection in the middle of the information and state of mind score. The comparative relationship in the middle of the knowledge and state of mind was found in one study done in Iran on curative services specialists [4]. Thus in a study considering everything, they exhibited that cruel attitudes are vital among human services laborers towards patients with hepatitis C. Characters are clearly influenced by data levels; as needs be, it is essential to manufacture the level and nature of get ready among medical services laborers to stop incrimination and bias about patients with hepatitis C [2]. Additionally expressed in a study that the greater part of the human services specialist particularly nurses has history of needle stick harm conclusively despite the fact that knows about curative action of hepatitis C, confused from getting disease .That is connected with personnel agreement of medical insurance laborers about hepatitis C understanding treatment [5] . Thus one more research done about importance.

Connection between nurses' knowledge and attitude about hepatitis C. They advised that working knowledge and apprehension to catch contamination of hepatitis C likewise bring about absence of ability to treat those clients having hepatitis C disease [20]. More ever in a study encountering disgrace or segregation in a human services setting has been found to unfavorably influence the wellbeing practices of individuals living with hepatitis C for example, getting to treatment, looking for testing for HCV, and remain to curative administrations [21] . Likewise In an Australian quantitative research they mentioned that a diminished keenness to look after individuals with HCV amongst wellbeing experts who afraid from infection to get themselves. Who were bigoted to individual who had obtained the infection through the past medication use [20] .

Meanwhile in a study stated that Hepatitis C is additionally noiseless storm in Pakistan. It is extremely vital for health care personnel's to acquire further education and spread through training to hepatitis C clients by display poster about hepatitis C, necessary information and by directing seminar related to hepatitis C in healing center settings. It will enhance nurse's knowledge and lessen the prevalence of hepatitis C in new generation. [22].

Furthermore, considering the need of suitable immunization against hepatitis C, lawful use of the security standards by medicinal services staff is of the

remarkable significance. Thus indicated by studies directed, a critical rate of social insurance faculty is presented to the danger of needle stick damage and being debased by the patient's body liquids. By and large, and in view of insights in Iran, more than half of the medical workers and other social insurance staff experience these risks while working [23-25]. Consequently, advancing the knowledge, mentality, and implementation of this at danger, society has a critical significance in corrective action of hepatitis C. Regardless of the way that wellbeing administration nurses are much exposed to hepatitis infection then the general population. Their insight level on viral hepatitis has been low. Ponders directed on the knowledge level of understudies and graduated class [26].

More ever In a study transmission of HCV incorporate dangerous infusions, reuse of glass syringes or needles by therapeutically inadequate health worker, dialysis, acupuncture, socioeconomic status drug abuser, vertical transmission, non-sexual contact in family units, mother to baby, face or armpit shaving by the barber unhygienic performance at group hairstyling salons, ear penetrating, tattooing and insufficiently sanitized surgical or dental instruments ,poverty, environmental changes [21, 27]. Persons with intense HCV disease normally are either asymptomatic or have a calm. Clinical weakness; 60%–70% have no perceivable indications; 20%–30% may have jaundice; What's more, 10%–20% may have nonspecific manifestations like anorexia, lethargic, or Stomach disturbance, gray stool[28].

HCV antiviral treatment with peg interferon Alfa and ribavirin is the standard of administer to enduring hepatitis C virus, with a 50-85% cure rate dependent upon genotype [29]. Thus in a study a 48 week treatment with peg interferon in addition to ribavirin for all genotypes has been observed to be powerful in co-tainted people, counting for people who inject drug [30].

#### **MATERIALS AND METHODS:**

I used cross-sectional design in research knowledge and attitude level of Nurses about hepatitis C, a cross sectional descriptive study, is the study design in which information's are collected without changing environment .A situation at particular time .It provide the snapshot of the current situation. This study design helped me to assess the knowledge and attitude of nurses working under Government sector about hepatitis C patient. The target population 500 nurses of government hospital in Jhang. Inclusion criteria, nurses who work under Government sector and their age from 22years to 45 years, education include registered nurse, Bsn, Post Rn, Specialization, experience from 1 year and above, and also has willingness to response.

In exclusion criteria: Student nurses, below 22years and above 45 years age, and those who are not willing to response private Hospital nurses are excluded . Sample size 222 nurses were taken from government District head Quarter hospital Jhang. The data was collected with convenient sampling technique; convenient sample is taken from the participants who are easily available. This technique is easiest, cheapest and less time consuming. The following criteria set to select the sample according to the demographic data of the participants will be Gender, age, clinical experience, education and history of needle stick injury. Ethical consideration; First of all I have got permission from ethical review committee college Of nursing, the Independent University of Faisal Abad through a permission letter. Later, the institutional permission was taken for conducting the research study from head of department from government hospital. . I used specially designed questionnaire for the study because no other instrument was identified to assess the exact Knowledge and attitude of Nurses about hepatitis C patient [11].The participants were informed require information for the objective of my research project and their data confidentially was secured. Data was collected by set of 26 questions which is self-administered questionnaire on likert scale adapted on 5 point likert-type scale ( from 1, strongly disagree to 5, strongly agree). The time limit from February to May, approximately for the study. Software Package statistical analysis SPSS version 21 used for statistical analysis.

#### **RESULTS**

Data was entered on SPSS software, Version 21 and analyzed by descriptive statistics. In this chapter result are discussed after the application of statistical procedure properly.

Demographic Characteristics; Summarizes the characteristics of respondents n=222 On the stand of their Gender Male and Female, age 22-27years ,28-33years, 34-39years ,40-45years, Experience , Less than 1Year , 1-5Years , 6-10Years , Above 10Years, Years of education, Registered Nursing , Bachelor degree in Nursing Master degree in Nursing , Specialization and History of needle stick injury. Demographic characteristics of the respondent

In table 1 the study participants belong from different age group which shows that 34% of respondents belong to 22-27years age group and 61.7% of respondents belong to 28-33 years age group, ,8% of respondent belong to 34-39years age group 1% of respondent belong to 40-45years age group . More details are clear from given table 1.

**Table-1: The percentage and frequencies of Clinical Nurses Age group.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22-27	76	34.2	34.2	34.2
	28-33	137	61.7	61.7	95.9
	34-39	8	3.6	3.6	99.5
	40-45	1	.5	.5	100.0
	Total	222	100.0	100.0	

According to table-2 most of 81.5% study participants were registered nurses and 41% study

participant qualification was BSN. More details are clear from given table-2.

**Table-2: The percentage and frequencies of clinical Nurses Qualification.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Register Nurse	181	81.5	81.5	81.5
	Bsn	41	18.5	18.5	100.0
	Total	222	100.0	100.0	

According to the table 3 the most of the 58.1% study participants had needle stick injury and 41.9%

had no history of needle stick injury. More details are clear from given table-3.

**Table-3: The percentage and frequencies of clinical Nurses history of Needle stick injury**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	129	58.1	58.1	58.1
	No	93	41.9	41.9	100.0
	Total	222	100.0	100.0	

In table 3 stated about first knowledge question , Hepatitis C caused by virus, 5% study participant were strongly disagree, 9% study participant were disagree and 11.7% study participant were neutral , 35.6% agree and 38.7% participant were strongly agree, More details are clear from given table -3

According to table 3 Hepatitis C can be spread through sharing injecting equipment, 2.3% study participant were strongly disagree, 14.4% were disagree , 7.7% were neutral, 43.7% were agree and 32% were strongly disagree. More detail is given in the given table-3.

**Table-4: Hepatitis C can be spread through sharing injecting equipment, such as needles, tourniquets, spoons, filters and swabs**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.3	2.3	2.3
	Disagree	32	14.4	14.4	16.7
	Neutral	17	7.7	7.7	24.3
	Agree	97	43.7	43.7	68.0
	Strongly Agree	71	32.0	32.0	100.0
	Total	222	100.0	100.0	

According to table 5, hepatitis C is spread through the air in an enclosed environment. In this table no one was strongly disagree, 3.6% respondent were disagree, 6.3% were neutral , 43.7% were agree , 46.4%

were strongly agree. These result shows negative knowledge about hepatitis C .More detail is given below in the table.

**Table-5: Hepatitis C is spread through the air in an enclosed environment (e.g., crowded buses and elevators)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	3.6	3.6	3.6
	Neutral	14	6.3	6.3	9.9
	Agree	97	43.7	43.7	53.6



	Strongly Agree	103	46.4	46.4	100.0
	Total	222	100.0	100.0	

According to table 6, sexual transmission is a common way hepatitis C is spread. In this table 0.9% participant were disagree, 10.8% were neutral, 37.8% were agree and 50.5 % were strongly agree. Most

of the participants are strongly agree that shows positive knowledge about hepatitis C. More detail is given below in the table.

**Table-6: Sexual transmissions is a common way hepatitis C is spread.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	.9	.9	.9
	Neutral	24	10.8	10.8	11.7
	Agree	84	37.8	37.8	49.5
	Strongly Agree	112	50.5	50.5	100.0
	Total	222	100.0	100.0	

According to table 7 hepatitis C is the mutation of hepatitis B. In this study 7.2% participant were strongly disagree, 12.2% were disagree, 9.9 % were neutral, 35.1% were agree and 35.6 % were strongly

agree . Most of the participants were strongly agree that shows negative knowledge about hepatitis C. More detail is given below in the table.

**Table-7: Hepatitis C is a mutation of hepatitis B**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	7.2	7.2	7.2
	Disagree	27	12.2	12.2	19.4
	Neutral	22	9.9	9.9	29.3
	Agree	78	35.1	35.1	64.4
	Strongly Agree	79	35.6	35.6	100.0
	Total	222	100.0	100.0	

According to table 8, a person can be infected with hepatitis C and not have any symptom of the disease. In this study 2.7% participant were strongly disagree, 9.9% were disagree, 9 % were neutral, 51.8%

were agree and 26.6 % were strongly agree . Most of the participants were agree that shows negative knowledge level about hepatitis C. More detail is given below in the table.

**Table-8: A person can be infected with hepatitis C and not have any symptoms of the disease**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.7	2.7	2.7
	Disagree	22	9.9	9.9	12.6
	Neutral	20	9.0	9.0	21.6
	Agree	115	51.8	51.8	73.4
	Strongly Agree	59	26.6	26.6	100.0
	Total	222	100.0	100.0	

According to table 9 , I deliver the same standard of care to patient with HCV as do for other patient In this table 6.3% participant were strongly disagree, 7.2% were disagree, 17.6 % were

neutral, 24.3% were agree and 44.6 % were strongly agree . Most of the participants were strongly agree that shows positive attitude level about hepatitis C. More detail is given below in the table.

**Table-9: I deliver the same standard of care to patients with HCV as I do for other patients**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	14	6.3	6.3	6.3
	Disagree	16	7.2	7.2	13.5
	Neutral	39	17.6	17.6	31.1
	Agree	54	24.3	24.3	55.4
	Strongly Agree	99	44.6	44.6	100.0
	Total	222	100.0	100.0	

According to table 10, In question I feel that I do not have the skills needed to effectively and safely treat patient with HCV. In this table 4.1% participant were strongly disagree, 5.9% were disagree, 6.3%

% were neutral, 41.4% were agree and 42.3% were strongly agree. Most of the participants were strongly agree that shows negative attitude level about hepatitis C. More detail is given below in the table.

**Table-10: I feel that I do not have the skills needed to effectively and safely treat patients with HCV**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	4.1	4.1	4.1
	Disagree	13	5.9	5.9	9.9
	Neutral	14	6.3	6.3	16.2
	Agree	92	41.4	41.4	57.7
	Strongly Agree	94	42.3	42.3	100.0

According to table 11 about question I feel sorry for people who contracted HCV through a blood transfusion. In this study 18% participant were strongly disagree, 27% were disagree, 31% were neutral, 94% were

agree and 52% were strongly agree. Most of the participants were agree that shows negative attitude level about hepatitis C. More detail is given below in the table.

**Table-11: I feel sorry for people who contracted HCV through a blood transfusion**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	18	8.1	8.1	8.1
	Disagree	27	12.2	12.2	20.3
	Neutral	31	14.0	14.0	34.2
	Agree	94	42.3	42.3	76.6
	Strongly Agree	52	23.4	23.4	100.0
	Total	222	100.0	100.0	

According to table 12 about question, I do not like treating people with HCV. In this study 7.7% participant were strongly disagree, 6.8% were disagree, 13.5% were neutral, 33.3% were agree and 38.7%

% were strongly agree. Most of the participants were strongly agree that shows negative attitude level about hepatitis C. More detail is given below in the table.

**Table-12: About Nurses response I do not like treating people with HCV**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	17	7.7	7.7	7.7
	Disagree	15	6.8	6.8	14.4
	Neutral	30	13.5	13.5	27.9
	Agree	74	33.3	33.3	61.3
	Strongly Agree	86	38.7	38.7	100.0
	Total	222	100.0	100.0	

According to table-13, about question I am willing to treat people with HCV. In this study 24.3% participant were strongly disagree, 45.5% were disagree, 11.3% were neutral, 14.9% were agree and 4.1%

% were strongly agree. Most of the participants were disagree that shows negative attitude level about hepatitis C. More detail is given below in the table.

**Table-13: About Nurses response willingness to treat people with HCV**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	54	24.3	24.3	24.3
	Disagree	101	45.5	45.5	69.8
	Neutral	25	11.3	11.3	81.1
	Agree	33	14.9	14.9	95.9
	Strongly Agree	9	4.1	4.1	100.0
	Total	222	100.0	100.0	

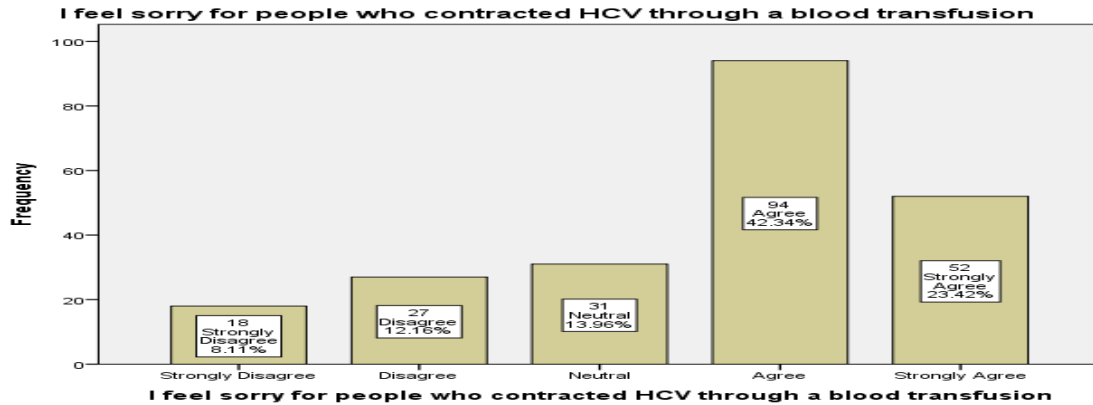


Fig-1

According to figure 1 more than 65% respondent were agree and feel sorry for patient who

contracted HCV through blood transfusion, indicate negative attitude.

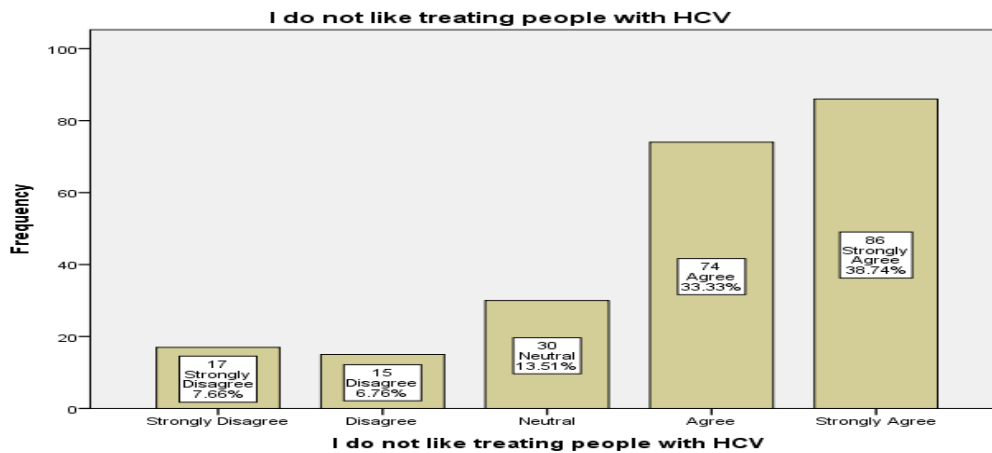


Fig-2

According to fig-2 more than 71% nurses response I do, not like to treat patient with hepatitis C,

indicate unwillingness and negative attitude about HCV patient.

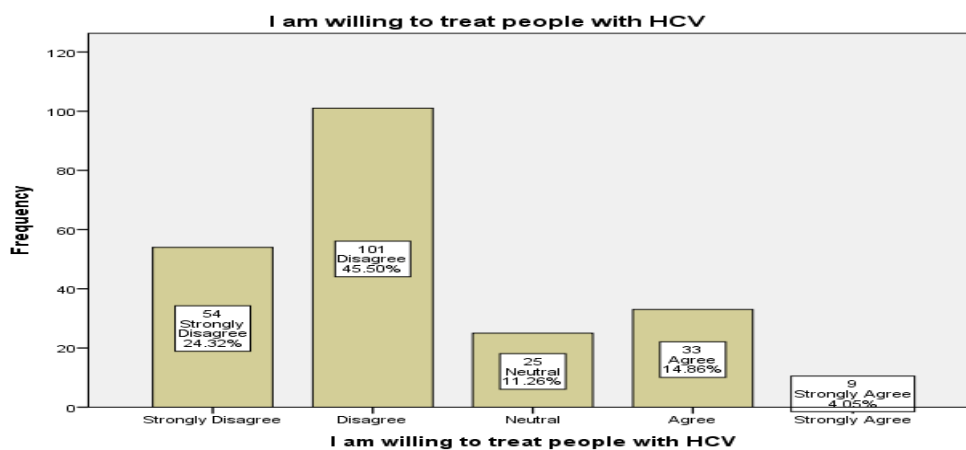


Fig-3

According to figure 3 more than 75% nurses response in disagree for willingness to treat people with HCV Indicate negative attitude about their willingness

about HCV patient. Hepatitis C knowledge level and education.



The average mean of knowledge was 52.81153 in my study Score higher than 65 indicate good knowledge and less than 25 indicate poor knowledge level. For example Hepatitis C caused by virus 75.4% answered correctly, 75.7% answered that hepatitis C spread through sharing equipments, 72.4% answered correctly that HCV spread through blood to blood contact, 88.3% answered that HCV lead to cirrhosis.77.9% Nurses answered Hepatitis C increases risk of cancer.79.7% answered that for Hepatitis C pharmaceutical treatment is available.78.4% answered correctly a person can have HCV if no symptom of the disease.

70.7% Nurses answered hepatitis C is the mutation of hepatitis C, that indicate negative knowledge. 87.7% answered that sexual transmission is common way of transmission that indicate poor knowledge level, because in sexual very low chances of HCV transmission.

82.9% response that there is vaccine for HCV indicates negative knowledge,90.1% answered that HCV spread enclosed environment indicate low knowledge level, 73.9% responded that if you have HCV virus you cannot catch it again you are immune for HCV indicate negative knowledge.

**Table-14 (a) Nurses knowledge hepatitis C score in association with different variables**

Variables		n	Mean knowledge score (SD)	P value
Sex	Male	222	2.00(.000)	
	Female			
AGE	22-27	76	1.70(.556)	.407
	28-33	137		
	34-39	8		
	40-45	1		
EXPERIENCE	1-5 years	57	2.12(.787)	.417
	6-10years	82		
	Above 10 year	83		
Qualifications	Registered nurse	181	1.18(.389)	.825
	BSN	41		
	Specialization	0		
NSI history	Yes	129	1.42(.494)	.101
	NO	93		

NSI: Needle sticks injury

**Table-14(b): Association of Nurses attitude with different variables**

Variables		P value
Sex	Male	
	Female	
AGE	22-27	.298
	28-33	
	34-39	
	40-45	
EXPERIENCE	1-5 years	.950
	6-10years	
	Above 10 year	
Qualifications	Registered nurse	.916
	BSN	
	Specialization	
NSI history	Yes	.320
	NO	

Normal p value is significant less than 0.05 in my research demographic variables p value is higher than 0.05 that are not significant.

Attitude of nurses with different variables is not significant because p value is above 0.05.

Attitude and self reported behavior:

Patient with HCV should given last appointment for International crises group 82.4% answered in favor that indicate negative attitude, The professional who has HCV positive should be discouraged 62.1% respondent answered in agree that indicate negative attitude.83.7% respondent answered that I do not have skills to safely and effectively treat the HCV patient ,also shows negative attitude.65.7% respondent answered we feel for patient who contracted

HCV through blood transfusion indicate negative attitude of Nurses.72.0% response that we don't like to treat patient with HCV positive, shows negative attitude.81.1% answered in disagree that I am willing to treat people with HCV.72.4% response in disagree that my profession should have central role in treatment of HCV. All above explained questions indicate negative attitude about hepatitis C patient.

**Figure: 5.4(d) shows Pearson correlation between Nurses knowledge and attitude level**

Attitude_of_hepatitis_c COMPUTE knowledge_of_hepatitis_c=MEAN(Kno_1,Kno_2,Kno_3,Kno_4,Kno_5,Kno_6,Kno_7,Kno_8,Kno_9,Kno_10,Kno_11,Kno_12,Kno_13,Kno_14)	Attitude_of_hepatitis_c		
	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	9910.995	8686.190
	Covariance	45.050	39.483
	N	221	221
	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	8686.190	14555.428
	Covariance	39.483	65.862
	N	221	222
	** . Correlation is significant at the 0.01 level (2-tailed).		

**DISCUSSION**

Patient face discrimination and stigmatization in the community, from individual's family and especially in health care sector from nurses because nurses have more close contact with patient rather than all other health care professionals. Respondent rate in the existing study was higher, about this issue as put side by side to previous studies [11] .In this present study reason for not answering may be lack of interest or may be respondent low knowledge level or may have not enough time . In the contemporary study 125% of Nurses had history of needle stick injury, different in this study [31] .Thus according to a research this needle stick injury may be due to nurse's stress , may be increase work capacity, incorrect practices and knowledge. [32]In this existing research mean value for needle stick injuries is (1.42).

In the present study mean value for age group (1.7%). More answered age group of nurses in my study was 28-33years that is more young age, in those nurses high rate of NSI. That need more knowledge and positive attitude by influencing them for advanced education. Furthermore age group from 28-33 were average knowledgeable, other age group were less knowledgeable.

In the present study Nurses are more knowledgeable about the complication of hepatitis C. Most of the study participant answered correctively. That shows their positive knowledge about Hepatitis C. In another study half of the respondent answered that cirrhosis initiated by hepatitis C, 37% answered that

cancer caused by Hepatitis [33]. About mode of transmission in present study 168 were agree that Hepatitis C spread by sharing equipment, injection needle etc. that show good knowledge level, but 192% respondents answered that HCV spread by mosquito that is negative and lack of knowledge.in this present study most of the participant answered that hepatitis C spread by blood to blood contact that indicate positive knowledge level. About more than half answered that sexual transmission is the common way of HCV transmission. Meanwhile in Van de Mortal [34] study also represents most of the respondent answer that blood transfusion is the major of HCV .In that study about sexual transmission of HCV was deficiencies of knowledge [34].In a study also stated that attitude by education can be inclined ,attitude scores in dissimilar group were importantly changed ,physician attitude was positive also noticed by [34]. In the present study there was negative attitude that the Nurses has HCV should be discouraged for care of the patients. In this study most of the respondent answer about that I feel sorry for person who contracted HCV by blood transfusion.160% respondent answered that I do, not like to treat people with Hepatitis C, and 162% answered disagree that my profession should have central role in HCV treatment .About willingness to treat people with hepatitis C 155% respond in disagree. That all mentioned above represents negative attitude of the Nurses. Thus in a study also represented negative attitude about HCV treatment and willingness [11]. As a final point I expect that there is a significant correlation between knowledge and attitude about hepatitis C. About occupational exposure and fear for contract

disease also effects on willingness of nurses about HCV. Same statement about willingness and fear described in a study done by [34]. The participant answered according to their knowledge and understanding. The response percentage was good. There were shortage of time due to their workload. There may be some limitation about self reported scale, that may not appropriate according to their attitude.

## CONCLUSION

In conclusion I mention that the incrimination and prejudice attitude is conjoint in Nurses about the care of patient who are infected with Hepatitis C. The proper knowledge also enhance positive attitude about Hepatitis C disease. The meanwhile it is the necessary that there is extreme need for knowledge regarding HCV. Therefore I conclude that hospital should arrange skill workshop and seminar for knowledge, positive attitude and for the better care and treatment of hepatitis C patient.

## RECOMMENDATIONS:

Based on the findings of the study the investigator recommends the following

1. There is a communication gap between nurses and patients, due to discrimination and prejudice about HCV disease.
2. Enhancement of knowledge is necessary, along with clinical practice, Nurses theoretical knowledge should improve, by advancement of evidence and research base practice.
3. For patient and public there should program shown on T.V and Internet. There should be posture placed in Hospital about HCV information, so common people can get easily awareness about HCV disease that is increasing drastically in Pakistan.
4. Hospitals which were under study should use the findings of this study to improve nursing services. Limitation of the study: The research was conducted in one hospital of Jhang that's why it could not be generalized.

## REFERENCES:

1. Pringle, J., Mills, K., McAteer, J., Jepson, R., Hogg, E., Anand, N., & Blakemore, S.-J. (2016). A systematic review of adolescent physiological development and its relationship with health-related behaviour: a protocol. *Systematic reviews*, 5(1), 1.
2. Joukar, F., Mansour-Ghanaei, F., Soati, F., & Meskinkhoda, P. (2012). Knowledge levels and attitudes of health care professionals toward patients with hepatitis C infection. *World J Gastroenterol*, 18(18), 2238-2244.
3. Pratkanis, A. R. (1989). The cognitive representation of attitudes. *Attitude structure and function*, 71-98.

4. Setia, S., Gambhir, R., Kapoor, V., Jindal, G., & Garg, S. (2014). Attitudes and Awareness Regarding Hepatitis B and Hepatitis C Amongst Health-care Workers of a Tertiary Hospital in India. *Annals of medical and health sciences research*, 3(4), 551-558.
5. Mohammadi, N., Allami, A., & Malek Mohammadi, R. (2011). Percutaneous exposure incidents in nurses: Knowledge, practice and exposure to hepatitis B infection. *Hepat Mon*, 11(3), 186-190.
6. Zeisel, M. B., Felmlee, D. J., & Baumert, T. F. (2013). Hepatitis C virus entry *Hepatitis C Virus: From Molecular Virology to Antiviral Therapy* (pp. 87-112): Springer
7. Tsertsvadze, T., Sharvadze, L., Chkhartishvili, N., Dzigua, L., Karchava, M., Gatsrelia, L., Nelson, K. E. (2016). The natural history of recent hepatitis C virus infection among blood donors and injection drug users in the country of Georgia. *Virology journal*, 13(1), 1.
8. Nakamura, S., & Matsumoto, T. (2013). Gastrointestinal lymphoma: recent advances in diagnosis and treatment. *Digestion*, 87(3), 182-188.
9. Hajarizadeh, B., Grebely, J., & Dore, G. J. (2013). Epidemiology and natural history of HCV infection. *Nature Reviews Gastroenterology and Hepatology*, 10(9), 553-562.
10. Elkazeh, E. A. E. E., Basal, A. A., & Abdelrehim Mohamed, F. (2014). Manuscript Info Abstract. *International Journal*, 2(1), 691-701.
11. Richmond, J., Dunning, T., & Desmond, P. (2007). Health professionals' attitudes toward caring for people with hepatitis C. *Journal of viral hepatitis*, 14(9), 624-632.
12. Adams, R. P., & Pandey, R. N. (2003). Analysis of *Juniperus communis* and its varieties based on DNA fingerprinting. *Biochemical Systematics and Ecology*, 31(11), 1271-1278.
13. Reis, C., Heisler, M., Amowitz, L. L., Moreland, R. S., Mafeni, J. O., Anyamele, C., & Iacopino, V. (2005). Discriminatory attitudes and practices by health workers toward patients with HIV/AIDS in Nigeria. *PLoS Med*, 2(8), e246.
14. Mahore, R., Mahore, S. K., Mahore, N., & Awasthi, R. (2015). A Study To Assess Knowledge And Awareness About The Hepatitis B And C Among Nursing College Students Of Central India. *Journal of Evolution of Medical and Dental Sciences*, 1(4), 5033-5039.
15. Lin, R., Roach, E., Zimmerman, M., Strasser, S., & Farrell, G. C. (1995). Interferon alfa-2b for chronic hepatitis C: effects of dose increment and duration of treatment on response rates: results of the first multicentre Australian trial. *Journal of hepatology*, 23(5), 487-496.
16. McHutchison, J. G., & Poynard, T. (1998). Combination therapy with interferon plus ribavirin

- for the initial treatment of chronic hepatitis C. Paper presented at the Seminars in liver disease.
17. Poynard, T., Colombo, M., Bruix, J., Schiff, E., Terg, R., Flamm, S., . . . Berg, T. (2009). Peginterferon alfa-2b and ribavirin: effective in patients with hepatitis C holed interferon alfa/ribavirin therapy. *Gastroenterology*, *136*(5), 1618-1628. e1612.
  18. Perz, J. F., Armstrong, G. L., Farrington, L. A., Hutin, Y. J., & Bell, B. P. (2006). The contributions of hepatitis B virus and hepatitis C virus infections to cirrhosis and primary liver cancer worldwide. *Journal of hepatology*, *45*(4), 529-538.
  19. Mohd Hanafiah, K., Groeger, J., Flaxman, A. D., & Wiersma, S. T. (2013). Global epidemiology of hepatitis C virus infection: New estimates of age-specific antibody to HCV seroprevalence. *Hepatology*, *57*(4), 1333-1342.
  20. Frazer, K., Glacken, M., Coughlan, B., Staines, A., & Daly, L. (2011). Hepatitis C virus in primary care: survey of nurses' attitudes to caring. *Journal of advanced nursing*, *67*(3), 598-608.
  21. Butt, A. K., Khan, A. A., Khan, S. Y., & Ijaz, S. (2003). Dentistry as a possible route of hepatitis C transmission in Pakistan. *International dental journal*, *53*(3), 141-144.
  22. Jiwani, N. (2011). A Silent Storm: Hepatitis C in Pakistan.
  23. Kazemi Galougahi, M. H. (2010). Evaluation of needle stick injuries among nurses of Khanevadeh Hospital in Tehran. *Iranian journal of nursing and midwifery research*, *15*(4).
  24. Shiva, F., Sanaei, A., Shamshiri, A. R., & Ghotbi, F. (2011). Survey of needle-stick injuries in paediatric health personnel of 5 university hospitals in Tehran. *JPMA-Journal of the Pakistan Medical Association*, *61*(2), 127.
  25. Askarian, M., Malekmakan, L., Memish, Z., & Assadian, O. (2012). Prevalence of needle stick injuries among dental, nursing and midwifery students in Shiraz. *Iran. GMS Krankenhhyg Interdiszip*, *7*.
  26. Ataei, B., Meidani, M., Khosravi, M., Khorvash, F., & Akbari, M. (2014). Knowledge, attitude, and performance of medical staff of teaching healthcare settings about hepatitis B and C in Isfahan, Iran. *Advanced biomedical research*, *3*.
  27. Raja, N. S., & Janjua, K. A. (2008). Epidemiology of hepatitis C virus infection in Pakistan. *Journal of Microbiology Immunology and Infection*, *41*(1), 4.
  28. Koretz, R. L., Abbey, H., Coleman, E., & Gitnick, G. (1993). Non-A, non-B post-transfusion hepatitis: looking back in the second decade. *Annals of internal medicine*, *119*(2), 110-115.
  29. Ghany, M. G., Strader, D. B., Thomas, D. L., & Seeff, L. B. (2009). Diagnosis, management, and treatment of hepatitis C: an update. *Hepatology*, *49*(4), 1335-1374.
  30. Novick, D. M., & Kreek, M. J. (2008). Critical issues in the treatment of hepatitis C virus infection in methadone maintenance patients. *Addiction*, *103*(6), 905-918.
  31. Zafar, A., Aslam, N., Nasir, N., Meraj, R., & Mehraj, V. (2008). Knowledge, attitudes and practices of health care workers regarding needle stick injuries at a tertiary care hospital in Pakistan. *Journal of the Pakistan Medical Association*, *58*(2), 57.
  32. Wicker, S., Jung, J., Allwinn, R., Gottschalk, R., & Rabenau, H. F. (2008). Prevalence and prevention of needlestick injuries among health care workers in a German university hospital. *International archives of occupational and environmental health*, *81*(3), 347-354.
  33. Nicklin, D. E., Schultz, C., Brensinger, C. M., & Wilson, J. P. (1999). Current care of hepatitis C-positive patients by primary care physicians in an integrated delivery system. *The Journal of the American Board of Family Practice*, *12*(6), 427-435.
  34. van de Mortel, T. F. (2004). Registered and enrolled nurses' knowledge of hepatitis C and attitudes towards patients with hepatitis C. *Contemporary nurse*, *16*(1-2), 133-144.
  35. Raja, N. S., & Janjua, K. A. (2008). Epidemiology of hepatitis C virus infection in Pakistan. *Journal of Microbiology Immunology and Infection*, *41*(1), 4.