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A descriptive study on practices related to self-protection against Hepatitis C among nurses in civil hospital phase 6, Ajitgarh, 2013-2014

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Abstract
Hepatitis C is caused by Hepatitis C virus or blood borne virus. Exposure to infected blood and body fluids is the main route of transmission of Hepatitis C virus. Practices regarding the self-protection of HCV transmission to patients for nurses by implementing universal precaution. The present study was on the 'practices related to self-protection against Hepatitis C' among nurses in Civil Hospital Phase 6, Ajitgarh, 2013-2014 and 40 nurses were interviewed, from where nurses were drawn who were working in emergency department, General wards (male, female, paediatric, private wards), hemodialysis unit, Gyne ward (labour room, postnatal ward), and de-addiction ward, operation theatre. The study aim was to assess and describe practices related to self-protection against Hepatitis C among nurses working in Civil Hospital Phase 6. Total study subjects were 40 nurses. Written Permission was obtained from the head of hospital and verbal consent was taken from the study subjects before conducting the study. Interview schedule were formulated and validated by various experts. Data was collected through interview schedule. The data obtained were compiled, tabulated and analysed using by descriptive and inferential statically methods. The data showed the frequency and percentage distribution of socio demographic variables. Data presented in table showed, 2.5 % were male and 97.5% females. 42.5% study subjects were under 25-35 years of age, 50% study subjects were in 35-45 year of age, 7.5% study subjects were under >45 year of age. 95% study subjects had professional qualification in G.N.M, 2.5% in post basic nursing and 2.5% study subjects in M.sc nursing. It was found, no socio demographic variables impacted on nurses' level of practices related to self-protection against Hepatitis C' among nurses. The study results revealed, staff nurses had good practice>75% were only 12 (30%), fair practice level were 50-75% only 28 (70%) and none of them had poor practice. No significant association was observed between practices scores of staff nurses with selected socio demographic variable. The conclusion of study is nurse had good practices and fair practices related to self-protection against Hepatitis C among nurses and none of them had poor practice.

Keywords: Hepatitis C, self-protection

1. Introduction
Hepatitis C is a worldwide problem. The Hepatitis C virus (HCV) is a hepatotropic viral infection & major cause of both acute and chronic Hepatitis C. It is estimated that 170 million people worldwide (3% of the world population) are chronically infected with Hepatitis C and are under the risk of cirrhosis and liver cancer [1]. Hepatitis C infection leads to chronic hepatitis in 50% to 80% of individuals [2]. Chronic Hepatitis C infection is usually slowly progressive. In hospital all nurses and other health care workers have risk of getting Hepatitis C infection. Exposure to infected blood and body fluids is the main route of transmission of blood-borne pathogens, Hepatitis C virus (HCV). Infections with these pathogens are serious but may be preventable especially in the healthcare setting. The increasing global prevalence of this disease put extra demands on health care services and increases care for health care workers against Hepatitis C [3]. Occupational exposure from percutaneous injuries is a substantial source of infection by blood borne pathogens among nurses or other health care workers. However, studies of health care workers exposed to Hepatitis C by a needle stick injury, or any other percutaneous injury [4]. Physicians, laboratory technicians, nurses, and dialysis unit personnel are the main health care workers at risk. Nurses are at greatest risk because they have close contact with patients and are more likely to be exposed to a needle stick injuries [5]. Recent studies have identified that

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75% of individuals with Hepatitis C were infected by the parental route. Hepatitis C indirect transmission may be related to contact with instruments of personal use or to the use of tools or instruments contaminated with infected blood. And nurses are the one who deal with all these materials [7]. Nurses are at risk of various occupational hazards in the hospital, including exposure to blood borne infections from sharps injuries and contact with body fluids [8-9]. Prevention and control of Hepatitis c infection is the responsibility of every nurse. By applying universal precautions and use patient safety programme to reduce the risks of Hepatitis C infection. The practices for prevention of Hepatitis C infection include hand hygiene, Use of appropriate personal protective equipment (PPE) to provide a barrier to contact with blood, body fluids, non-intact skin or mucous membranes, Management of sharps, blood spills, linen, and waste to maintain a safe environment, Use of aseptic technique to reduce patient/client exposure to microorganisms, Routine environmental cleaning [15]. Moreover, Nurses supervise and also act as role model for the student's nurses, their practices in the clinical setting act as a source of learning for the student's nurses. Student nurses would perform the same practices as the nurses do, whether it's right or wrong. Further no study was found on practices related to self-protection against Hepatitis C among nurses in Civil Hospital Phase 6, Ajitgarh. So the investigator wants to conduct research on it.

2. Methodology
Research methodology is the significant part of any research study, which enables the researcher to project a blue print of the research understanding. The research approach adopted in the study was Descriptive research approach. A Non-experimental descriptive research design was selected for the present study. The study was conducted at civil hospital, Phase-6, Ajitgarh, Punjab. Name of the wards in Civil Hospital were Emergency ward, Labor room, Post natal ward, Female medical ward, Male medical ward, Pediatric ward, Dialysis unit, Isolation ward, Operation theater, De addiction ward. The target population consists of staff nurses who were working in Civil Hospital, Phase-6. Ajitgarh, Mohali, Punjab. Total female nurses were 39 and 1 was male nurse. Sample size of the study subject was 40 staff nurses working in different wards of the hospital. With the extensive review of literature and discussion with the experts and with the investigator personal and professional experience 'Interview schedule on practices related to self-protection against Hepatitis C' among nurses was developed. In the present study 'interview schedule' was used as a tool for data collection. The tool for the data collection consists of two sections. Section-A: Interview schedule related to demographic data. Section–B: Interview schedule on practices related to self-protection against Hepatitis C among nurses. Validity of tool was established by experts from nursing field for content. The reliability of the tool was determined by using split half method and the tool was found to be reliable. The 'r" value calculated was r=0.71, hence the tool was considered reliable for proceeding with the main study. Ethical approval to conduct the study was obtained from the head of the Civil Hospital. The purpose and details of the study was explained to the study subjects. Assurance was given regarding the confidentiality of the data collected. Verbal consent was taken from the study subjects. Data collection was not

interfere in the routine working of the area. Study subjects were interviewed at their respective working area or as convenient to them. Researcher introduced herself to the ward in charge and explained the purpose of the interview. Verbal consent was taken from the ward in charge and ward in charge gave permission to conduct their interview at their break time. Researcher conducted interview during the break time of study subjects. Researcher introduced herself to the study subject and explained the purpose of the interview. Verbal consent was taken from the study subjects. Researcher address terms of confidentiality then explained the format of the interview to the study subject and explained that it was taking 15-20 minutes. Researcher started the interview and asked only one question at a time. Researcher firstly conducted interview related to demographic data from study subjects. After that interview on practices related to self-protection against Hepatitis C was conducted from the study subjects. Researcher repeated question if the study subject had not understood the question. Researcher observed the language of the tool was clear and easily understood. After that interview was over, researcher thanked the study subject.

3. Result
Section A: Description of socio demographic variables among staff nurses.

Table 1: Frequency and percentage distribution of staff nurses based on demographic variables such as gender, age, professional qualification, professional clinical experiences, professional teaching experiences, area of working.

S. No	Socio demographic Variables	No.	%
A.	**Gender**		
	Male	1	2.5%
	Female	39	97.5%
B.	**Age**		
	Less than< 25	0	0%
	25-35	17	42.5%
	35-45	20	50%
	>45	3	7.5%
C.	**Professional qualification**		
	A.N.M.	0	0%
	G.N.M.	38	95%
	Post basic nursing	1	2.5%
	B.sc nursing	0	0%
	M.sc nursing	1	2.5%
D.	**Professional clinical experiences**		
	0-5	4	10%
	5-10	12	30%
	10-15	5	12.5%
	15-20	3	7.5%
	>20	16	40%
E.	**Professional teaching experiences**		
	0-5	2	5%
	5-10	0	0%
	10-15	0	0%
	15-20	0	0%
	>20	0	0%
F	**Area of working**		
	Emergency department	12	30%
	Labor room or postnatal ward	10	25%
	O.T. & Pre -post operation room, recovery room	6	15%
	General ward	11	27.5%
	Dialysis unit	1	2.5%

N=40

Data presented in table showed, 2.5 % study subjects were male and 97.5% females. 42.5% study subjects were under 25-35 years of age, 50% study subjects were in 35-45 year of age, 7.5% study subjects were under >45 year of age. 95% study subjects had professional qualification in G.N.M, 2.5% in post basic nursing and 2.5% study subjects in M.sc nursing. 10% study subjects had 0-5years professional clinical experiences, 30% belongs to 5-10 years of professional clinical experience, 12.5% nurses had 10-15 years, 7.5 % nurses had clinical experiences from 15-20 year, 40% nurses had clinical experiences from >20 year. 5% nurses had 0-5 years of teaching experience. 30% nurses were working from emergency department, 20% nurses were concerned with labor room or postnatal ward, 15% nurses from Operation Theater & pre –post room, recovery room, 27.5% nurses were concerned from general ward or other 2.5% were from dialysis unit. From de addiction ward there were no working nurses.

Section B: Assessment of level of practices related to self-protection against Hepatitis C among nurses.

Table 2

Level of practices	Frequency no.	%
Good practice >75%(>15)	12	30%
Fair practice 50-75% (10-15)	28	70%
Poor practice <50% (< 10)	0	0%

N=40

Table 2 revealed the frequency and percentage with level of practices related to self-protection against Hepatitis C among nurses. Table revealed that staff nurses who had good practice>75% were only 12 (30%), fair practice level were 50-75% only 28 (70%) and none of them had poor practice.

Section C: Association of practices scores of staff nurses with selected socio demographic variables.

Table 3: Association of practices scores of staff nurses with gender.

Gender	Poor practice	Fairly practices	Good practices	Chi square value	Df	Table value	Results
Male	NIL	NIL	1	2.393	2	5.99	NS*
Female	3	25	11				

*NS-Not significant N=40

Table no. 3 showed the association of practices scores of staff nurses with gender. The calculated value of chi square is 2.393 at df- 2, p >0.05%. The results showed that association of gender with practices score was not significant. Hence conclusion was drawn that practices related to self-protection against Hepatitis C among nurses were not affected by gender.

Table 4: Association of practices scores of staff nurses with age

Age	Poor practice	Fairly practices	Good practices	Chi square value	Df	Table value	Results
Less than <25years	NIL	NIL	NIL	5.902	4	9.49	NS*
25-35years	1	13	3				
35-45years	2	9	9				
>45years	NIL	3	NIL				

NS*- Not significant, N=40

Table no. 4 showed the association of practices scores of staff nurses with age. The calculated value of chi square is 5.902 at df – 4, $p<0.05\%$. As the calculated value is less than the table value, it indicated that age and practices are not associated that is age is not affected level of practices.

Table 5: Association of practices scores of staff nurses with Professional qualification.

Professional qualification	Poor practices	Fairly practices	Good practices	Chi square value	Df	Table value	Results
A.N.M.	NIL	NIL	NIL	1.263	4	9.49	NS*
G.N.M.	3	23	12				
Post basic nursing	NIL	1	NIL				
B.sc nursing	NIL	NIL	NIL				
M.sc nursing	NIL	1	NIL				

NS*- Not significant, N=40

Table no. 5 showed the association of practices scores of staff nurses with professional qualification. The calculated value of chi square is 1.263 at df - 4, $p<0.05\%$. The result is not significant because the calculated value of chi square is not higher than table value. So the inference was drawn that practices were not affected with professional qualification.

Table 6: Association of practices scores of staff nurses with Professional clinical experiences.

Professional clinical experiences	Poor practices	Fairly practice	Good practices	Chi square value	Df	Table value	Results
0-5	1	3	NIL	5.644	8	15.51	NS*
5-10	1	8	3				
10-15	NIL	3	2				
15-20	NIL	1	2				
>20	1	10	5				

NS*- Not significant, N=40

Table no. 6 showed the association of practices scores of staff nurses with professional clinical experiences. The calculated value of chi square is 5.644 at df 8, $p<0.05\%$. As the calculated value of chi square is not higher than table value that indicated that professional clinical experiences and practices are not associated that is professional clinical experiences is not affected level of practices.

Table 7: Association of practices scores of staff nurses with Professional teaching experiences.

Professional teaching experiences	Poor practices	Fairly practices	Good practices	Chi square value	Df	Table value	Results
0-5	3	23	12	1.263	2	5.99	NS*
5-10	NIL	2	0				
10-15	NIL	NIL	NIL				
15-20	NIL	NIL	NIL				
>20	NIL	NIL	NIL				

NS*- Not significant, N=40

Table no. 7 showed the association of practices scores of staff nurses with professional teaching experiences. The calculated value of chi square is 1.263 at df-2, $p<0.05\%$. and table value is 5.99 that show the result is not significant because the calculated value of chi square is not higher than table value. So the practices score of staff nurses with professional teaching experiences is not significant.

Table 8: Association of practices scores of staff nurses with area of working.

Area of working	Poor practices	Fairly practice	Good practices	Chi square value	Df	Table value	Results
Emergency department	1	7	4	2.916	8	15.51	NS*
Labor room or post natal ward	1	6	3				
OT, Pre-post operation room, Recovery room	0	3	3				
General ward	1	8	2				
Dialysis	NIL	1	NIL				
De addiction	NIL	NIL	NIL				

NS*- Not significant, N=40

Table no. 8 showed the association of practices scores of staff nurses with area of working. The calculated value of chi square is 2.916 at df- 8, $p<0.05\%$. So the result is not significant because the calculated value of chi square is not higher than table value. Therefore the practices were not affected by area of working.

4. Discussion
The findings of the study were discussed in terms of objective. The present study was conducted on "Practices related to self-protection against Hepatitis C among nurses in Civil Hospital Phase 6, Ajitgarh, 2013-2014". First objective was to assess and describe practices related to self-protection against Hepatitis C among nurses working in Civil Hospital Phase 6. The data showed the frequency and percentage distribution of socio demographic variables with respect to gender, age, professional qualification, professional clinical experiences, professional teaching experiences, area of working. Data presented in table showed, 2.5 % were male and 97.5% females. 42.5% study subjects were under 25-35 years of age, 50% study subjects were in 35-45 year of age, 7.5% study subjects were under >45 year of age. 95% study subjects had professional qualification in G.N.M, 2.5% in post basic nursing and 2.5% study subjects in M.sc nursing. 10% nurses had 0-5years professional clinical experiences, 30% belongs to 5-10 years of professional clinical experience, 12.5% nurses had 10-15 years of professional clinical experiences. 7.5 % nurses had clinical experiences from 15-20 year or 40% nurses had clinical experiences from >20 year. 5% nurses had 0-5 years of teaching experience. 30% nurses were working in emergency department. 20% nurses were working in labor room or postnatal ward. 15% nurses were working in Operation Theater & pre –post room, recovery room. 27.5% nurses were working in general ward or other 2.5% were in dialysis unit. In de addiction ward there were no working nurses. Study results also revealed that staff nurses who had good practice>75% were only 12 (30%), fair practice level were 50-75% only 28 (70%) and none of them had poor practice. The present study finding was supported by J Sreedharan - Year 8, Volume 7, Number 1, 2010, who was conducted a study to assess the knowledge and practices of preventive measures in occupational exposure to blood and body fluids among nurses in a university hospital in UAE. The results showed that 92% had adequate practices.

5. Conclusion
The following conclusion is drawn from the findings of the study:-
Nurse had good practices and fair practices related to self-protection against Hepatitis C among nurses and none of them had poor practice. No significant association was observed between practices scores of staff nurses with selected socio demographic variable.

6. Recommendations
A descriptive study on knowledge and practices related to self-protection against Hepatitis C among nurses in selected hospital. A comparative study on practices related to self-protection against Hepatitis C among nurses and doctors in selected hospital. A descriptive study on knowledge and practices related to self-protection against Hepatitis C among students in selected hospital. A descriptive study on knowledge, attitude and practices related to self-protection

against Hepatitis C among nursing students in selected hospital. A descriptive study on knowledge related to self-protection against Hepatitis C among nurses in selected hospital.

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