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KNOWLEDGE AND PRACTICES ABOUT HEPATITIS AMONG POLICEMEN IN POLICE LINES, QUETTA, BALUCHISTAN

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ABSTRACT

Background: Hepatitis is a major public health issue throughout the world. Frequency of hepatitis B virusis 2.4% and hepatitis C virus is 4.9% in Pakistan. Policemen in everyday expose with people having high risk infections like hepatitis. **Objective:** The objective of the study was to assess knowledge and practices about viral hepatitis among policemen. **Material and Methods:** It was cross-sectional descriptive study in which 384 policemen of Police Lines Quetta Pakistan participated. Data was collected from January 2018 to July 2018, through questionnaire, which was developed through literature review and expert opinion. Consent was taken before data collection. Data was analyzed through SPSS version 20. **Results:** Among 384 policemen, 232(60.4%) were ≤ 35 years old and 152(39.6%) were > 35 years of age. 56.2% had knowledge about prevention of viral hepatitis, by using gloves (20.8%) and through vaccination (35.5%) respectively. A mainstream (93.8%) of policemen were aware about types viral hepatitis including (77.8%) about hepatitis B virus (HBV) and (22.2%) hepatitis C virus (HCV). 69(12.5%) Policemen were having knowledge about spread sources of viral hepatitis through Blood, sharing tooth brush, syringes etc. Majority (79.2%) of policemen were never used gloves while handling prisoners. **Conclusion:** More than half of policemen were aware about prevention of hepatitis. Major proportions were found vaccinated against hepatitis. Uses of gloves were found unsatisfactory. Policemen must be educated to use gloves regularly and vaccination policies should be followed by the police department for the prevention of hepatitis.

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INTRODUCTION

Hepatitis is an inflammation of the liver. There are many causes like viral hepatitis, alcoholic hepatitis, drug-induced hepatitis, metabolic disorders, autoimmune, alpha 1-antitrypsin deficiency, non-alcoholic fatty liver disease, ischemic hepatitis and giant cell hepatitis, while viral hepatitis is one of serious global public health problems. At present, six distinct types of viral hepatitis A, B, C, D, E and G viruses have been identified. The primary source of Hepatitis A and E viruses is fecal-oral route. Hepatitis B, C and D are blood borne viruses and are primarily transmitted through a cut in the skin or mucosa. All hepatitis viral infections can be acute and chronic (B, C and D) .

The World Health Organization (WHO) shows257 million individuals living with hepatitis B and 71 million people living with hepatitis C worldwide. Viral hepatitis causes cirrhosis, cancer and ultimately liver failure. Viral hepatitis causes

more than one million deaths per year.

Hepatitis D virus co infection with hepatitis B virus associated with intravenous drug abuse or male-to-male sex, Approximately 10 to 15 million people are infected worldwide. There is 4 million people having hepatitis B virus and 8 million hepatitis C virus in Pakistan due to transfusion of unscreened blood, improper sterilization of invasive medical devices.— According to the Pakistan national general population survey 2007-2008, the prevalence of HBsAg was 2.5% and anti hepatitis C virus was 4.8%, while combined infection rate was 7.6% associated with reuse of syringes.

Hepatitis B and C occurs after exposure to infected blood or other bodily fluids containing blood.

The World Health Organization estimates that unsafe injections accounted for 2 million new hepatitis C virus infections and 21 million new hepatitis B virus infections worldwide in 2000. Transmission of hepatitis C virus occurs after 2-8% of accidental needle stick exposures; the rate is significantly higher for hepatitis B virus (~30%).

All policemen are at high risk. They have to work with prisoners, drug users, drunks and first responders to motor vehicle accidents and domestic disputes. Policemen have to use physical force to restrain or arrest. So by this they are prone to contact with blood and bodily fluids acquiring viral hepatitis. Hepatitis is a major concern in Pakistan now these days. Several studies have been conducted on hepatitis but not much data is available on policemen keeping this gap, it is realized to conduct a study in order to assess the knowledge and practices about viral hepatitis among policemen in police lines, Quetta Baluchistan Pakistan. This study provides us current knowledge and practices of policemen and it will also help health planners for better health planning.

LITERATURE REVIEW

Study was held by Servet kolgelier et al; 2015 on knowledge of 360 policemen of adiyaman. They observed that 329(92.9%) were male. 73 (16.7%) were FA, 305(83.3%) were BA and 6(1.4%) were Master.315 (87.5%) had no idea about Hepatitis while 45(12.5%) had information regarding hepatitis through Television 20(44.44%), News paper 15(33.33%) Friends 10(22.22%).195(54%) had knowledge about type of hepatitis (HBV virus).315(87.5%) Policemen had no information about spread sources of hepatitis, while 45(12.5%) had idea about sources.160 (36.6%) were using gloves before handling

Fifa rahman conducted research on 53 malaysian police men and concluded that 88.7% were male, 50% were having knowledge about type of hepatitis HCV virus The study was conducted by Lorentz J et al; 2000 on 238 policemen of the San Diego Police Department They observed 85% were male and 73% were having practices of using gloves during handling prisoners or injured

Research was carried by Maria Luisa Mittal et al; 2016 on 503 policemen in Tijuana Mexico. They observed that 435(86.5%) were male,214(42.5%) were having less than 35 years of age,while289(57.5%) were of more than 35 years old.60% were having Matric and 60% were BA.486(96.62%) were used to wear gloves during handling . Data was collected of 12 policemen by Maroe A.de perio et al; 2019 from 2011-2016.They observed that during handling only 7(53.84%) were doing practices of gloves

Study was held by PK etal; 2017 on 2500 policemen. Results showed that 2220(88.8%) were males. Among them less than 40 years of age were 86.8% and more than 40 years were 24.4%. Study was conducted by AJ et al; 2016 on 105 policemen which showed that Overall 80% were

aware about types of hepatitis B, C

Study was held by AB Jessop et al; 2014 on 169 municipal police departments and concluded that 60% policemen were having knowledge about types of viral hepatitis while 50% were having knowledge and vaccinated for hepatitis.

MATERIAL AND METHODS

It was cross-sectional descriptive study. Convenient sample technique was used for this study. Duration of study was from January 2018 to July 2018.Questionnaire was used for the data collection which was developed from literature review and expert opinion. Questioner consists of two parts, 1st part having demographic information (age and qualifications) and 2nd part having questions about viral hepatitis. The place of study was Police lines Quetta Baluchistan Pakistan.

The sample size of the study was 384 policemen using following formula:

$$n = \frac{z2p(100-p)}{d2}$$

Whereat 95% confidence interval

Z = (1.96)2= 3.84

P = Accepted knowledge of policemen using knowledge from previous studies which were

Q = 100—P

D = Acceptable margin of error which is 5%

P = Presumed knowledge of policemen .50 or 50%

= 384

Formal consent and permission was taken from Departmental review committee of, department of health professional technologies, The University of Lahore to conduct the study. Verbal consent was taken from respondents. Privacy and confidentiality was maintained. The policemen of police lines, Quetta Baluchistan Pakistan were interviewed by the researcher himself and responses were noted on the questionnaire. Policemen of any age, qualification were included in this study. Data was entered in computer and statistically analyzed in software SPSS 20. Frequencies and percentages were calculated and presented in tables.

RESULTS

Table-1 exhibits the demographic characteristics of policemen and found that out of 384 policemen,

Table 1. Frequency and Percentages according to demographic characteristics

Variables	Sub variable	Frequency	Percentage (%)
Age	≤ 35 years	232	60.4
	> 35 years	152	39.6
Education Level	FA	184	47.9
	BA	176	45.8
	Masters	24	6.3
	Total	384	100.0

Table 2. Frequency and Percentages according to knowledge and practices about viral hepatitis

	Options	Frequency	Percentage
Knowledge about viral Hepatitis	Yes	360	93.8
	No	24	6.2
Information sources about knowledge of viral hepatitis	Friend	16	4.4
	Newspaper	200	55.5
	TV	144	40
Knowledge about spread sources of viral hepatitis (Blood, Syringes, Ear piercing, Tooth brush etc)	Yes	69	12.5
	No	315	87.5
Knowledge about different types of viral hepatitis	Hepatitis B	280	77.8
	Hepatitis C	80	22.2
Knowledge about prevention by gloves	Yes	80	20.8
	No	304	79.2
Knowledge about prevention by vaccination	Yes	136	35.5
	No	248	64.5

232 (60.4%) were ≤ 35 years old and 152(39.6) were > 35 years. Among 384 policemen, 184 (47.9%) had passed their FA examination, 176 (45.8%) studied up to B.A and 24 (6.3%) had Master.

Result shows that 360 (93.8 %) policemen had knowledge about hepatitis out of 384.

Among these policemen, 16 (4.4%) got knowledge from friends, 200 (55.55%) from newspapers and

144 (40%) from T.V respectively.

Above table describes that out of 384 policemen, 360 (93.8%) had knowledge about any type of hepatitis while only 24 (6.2%) were having no knowledge.

Among 360 policemen, 280 (77.8%) believed that hepatitis B is a type of hepatitis while 80 (22.2%) said hepatitis C is a type of hepatitis.

DISCUSSION

Present study was conducted to assess the knowledge and practice about viral hepatitis among policemen in Police Lines, Quetta Baluchistan Pakistan. To acquire appropriate outcomes, a cohort of 384 policemen were included in the study and found that 232(60.4%) of policemen were ≤ 35 years old and 152(39.6%) were > 35 years of age group. Study was conducted by Maria Luisa Mittal et al; 2016 on 503 policemen in Tijuana Mexico. They observed that 214(42.5%) were having ≤ 35 years of age, while289 (57.5%) were of > 35 years old. Another research was held by PK et al; 2017 on 2500 policemen. Among them less than 40 years of age were 86.8% and more than 40 years were 24.4%.

Presentstudy showed that 184 (47.9%) policemen were FA, 176 (45.8%) were BA and 24 (6.3%) werehaving MastersDegree. Research was carried by Maria Luisa Mittal et al; 2016 and concluded regarding education level that.60% were FA and 40% were BA which is similar to our thesis. Servet kolgelier et al; 2015 conducted work and observed that 73 (16.7%) were FA, 305(83.3%) were BA and 6(1.4%) were Master which is also compatible to our study.

Present research showed that 360(93.8%) policemen were having knowledge about hepatitis, out of which 16(4.4%)information from friends, 200(55.5%) from newspapers and 144(40%) from TV/Internet sources. Servet kolgelier et al, 2015 held research and observed that 45(12.5%) had information regarding hepatitis through TV 20(44.44%), News paper 15(33.33%) and Friends 10(22.22%) which is not comparable to this study. Study held by PM Caner et al; 88 on 284 policemen and concluded that 19(6.6%) were having knowledge about hepatitis, which is less than present study. This present work showed that 360(93.8%) were having idea about type of hepatitis like 280(77.8%) about HBV and 80(22.2%) about HCV.Work was held by Servet kolgelier in which195 (54%) had knowledge about type of hepatitis (HBV virus). Study was conducted by fifa rahman et al; 2012 and observedthat, 50% were having knowledge about type of hepatitis especially HCV virus. Study was conducted by AJ et al; 2016 on 105 policemen which showed that Overall 80% were aware about types of hepatitis B, C Study was held by AB Jessop et al; 2014 and concluded that 60% policemen were having knowledge about types of viral hepatitis. which is compatible to our research work.

This study revealed that 80(20.8%) policemen had information about spread sources of hepatitis. Similar Study was also held in2015 and observed that 45(12.5%) Policemen had information about spread sources of hepatitis.160 (36.6%) were using gloves before handling. Present study showed that 136(35.5%) had Knowledge about prevention by vaccination. Study held by PM Caner et al; 88 on 284 policemen and concluded that 19(6.6%) were having idea and vaccinated about hepatitis. Research was held by AB Jessop et al; 2014 on 169 municipal police departments and concluded that 50% were having knowledge and also vaccinated for hepatitis B.

Conclusion and recommendations:

This research concluded that the most of policeean do not have knowledge about viral hepatitis and its transmission.

It is suggested that to enhance knowledge among

policemen regarding hepatitis, health education program should be held regularly to provide a clear idea about the risk factors and mode of transmission.Hepatitis should be observed among policemen as well as their families. Health department intervention and media role could be more helpful to prevent policemen from ill effects of hepatitis.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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3	Qasima Agha	Data Analysis	
4	Madhia Sikander	Review of Article	
5	Farida Agha	Data collection and Analysis	
6	Azima Sultana	Final review of article	