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Original article

A demographic study on causes of hepatitis transitions among the agricultural community

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ABSTRACT

HCV (Hepatitis virus) has been identified as a foremost cause of long-lasting liver disease and has been linked to severe attacks of cirrhosis and liver cancer. Diabetes is a chronic metabolic disorder that causes abnormal glucose homeostasis. Insulin resistances (IR) and diabetes can occur at any stage of HCV infection. There are several mechanisms for the development resistance against insulin and diabetic patients with chronic hepatitis C. The study was carried out during year 2109–2020 in the Department of Zoology, Ghazi University, D.G. Khan. The result of the research ware good and matches the findings of other researcher too. Maximum numbers of respondents have never practiced smoking, alcohol, aspirin, urination, fatigue, exercise, hunger and thirst. Diabetic patients have also gone for all type of their diabetes test. While HCV responds were good as maximum number of respondents have done test and they have also stop smoke, alcohol etc.

1. Introduction

The virus of HCV has been identified as a foremost cause of liver illness and has been linked to severe attacks of cirrhosis and liver cancer (Elfiky and Elshemey). According to the latest statistics, the global HCV infection rate is around 3% and affects around l70 million people worldwide (Gacche and Al-Mohani, 2012). Hepatitis C chronic contamination chiefly disturbs the liver, nonetheless can also be related with numerous extrahepatic symptoms such as cryoglobulinemia, osteoadenitis and skin porphyria (Fabrizi et al., 2013; Hafeez et al., 2019; Ali et al., 2020).

Diabetes is a chronic metabolic disorder that causes abnormal glucose homeostasis (K. Imam). Diabetes affects more than 171 million people around the world, and that number is probable to increase to 3.66 million (Gul, 2010) since 2030. A systematic review and meta-analysis of South Asia by Jayawardena et al. (2012) presented that the load of diabetes in the general population of Pakistan is between 3% and 7.2% (Jayawardena et al., 2012). Compared to Europeans, the incidence of type II diabetes in South Asia is four to six times higher (Rees et al., 2011). Numerous findings have stated that HCV contagion can also underwrite to the growth of diabetes. In developed countries, the commonness of

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type 2 diabetes in patients with HCV infection is higher (2–9.4%) compared with patients of other chronic diseases. Hepatitis (Lonardo et al., 2009; Naing et al., 2012). This connotation between HCV contamination and diabetes was first suggested by Allison et al. (1994). Many observational studies have been issued since then.

There are quite a lot of organized factors that impact the expansion of diabetes in HCV infested patients, such as age, gender, family history of diabetes and H.I.V co-infection (Lecube et al., 2006).

Insulin resistance (IR) and diabetes can occur at all stage of HCV infestation. There are several mechanisms for the development of insulin resistance and diabetes in patients with chronic hepatitis C. It mainly promotes IR by disrupting the insulin signaling pathway in liver cells, increasing inflammation, and producing cytokines such as TNFα increases oxidative stress (Pearlman and Traub, 2011).

There have been many studies in the past of the incidence of diabetes in HCV infections. Elhawary et al. (2011) showed that the prevalence of type-II diabetes in seropositive HCV patients was 13.84% and also related the relationship between liver cirrhosis and diabetes.

HCV infested and type II diabetes are 2 chronic diseases that both are reason of noteworthy morbidity and death. The basis of the study is to find those patients with type II diabetes who are most profoundly infected with the hepatitis C virus, and the relationship amongst cirrhosis of the liver and patients who are seropositive for type 2 diabetes. We will make a powerful link between type 2 diabetes in HCV positive people.

2. Material method

Deciding on a methodology will be informed by the following factors:

- The chosen topic is very complex and many aspects are responsible for its existence. In order to get a better understanding of how and why the current situation with sugars will arrive at where it will be, different methods will be needed to be considered. Numbers and statistics can tell how big a problem will become for example, but it can be difficult to comprehend how these numbers came to be. Hence, qualitative and quantitative data will be needed to be gathered and analyzed.
- Several parts of this project will be subjected to different opinions and experiences. Research studies, best practice guides or results of case studies, they all will be partly based on interpretations. Other researchers or different participants will have depended on alternative results (especially when working with children).
- This project will focus on aspects that are rather difficult to measure and to prove. It will also be expected that the reactions to the app will be different for each participant. There are many factors that impact how a person approaches an experience like the one in this project and also how he/she reacts to it during and especially after. Cultural background, existing knowledge, or available options at a participant's home can be some of them. This is important to realize because even if this project will be able to make a positive impact on a child, it is probable that the previously stated factors may "overturn" the caused reactions. The child's behavior or opinion can then revert back to the same state it will prior to interacting with the app used in this project.
- Furthermore, the project and its results will likely going to be influenced by myself and the involved people. Other researchers may therefore arrive at other findings and may not reproduce the same results.

A similar choice was made for the research methods. Since this project will touch on many different areas like nutrition, psychology, child development, health, I feel that it is necessary to approach this project from multiple angles to get the best possible understanding. Using more than one method will help me to collect, create and analyses additional information, which is not possible with one method alone. Of course, this also means that not each aspect can be researched and analyzed in depth, unlike a single topic method may have allowed.

3. Results

In this chapter we will discuss about the results of our findings. The questionnaire-based research was carried out during year 2019–2020.

3.1. Hepatitis-viral disease

Out of 250 respondents only 1 responded no and 1 responded don't know while all other 248 respondents (99%) responded that hepatitis is a viral disease (Fig. 1).

3.2. Hepatitis-age group

From the findings of our research it is evident that age group is crucial for hepatitis. 249 respondents that sum up 99.5% agreed that age group matter (Fig. 2).

3.3. Hepatitis- liver cancer

From Fig. 3 it can be seen that 246 respondents responded that hepatitis is the main cause of liver cancer while only 1 respondents agree that hepatitis has nothing to do with liver cancer.

3.4. Vaccine for hepatitis C

From Fig. 4 it can be seen that 247 respondents (98%) agree with the point that there is vaccination of hepatitis C.

3.5. Symptoms of hepatitis

There are different type of symptoms that shows that one is suffering from Hepatitis C, 248 (98%) of the respondents are agreed with the point discussed above.

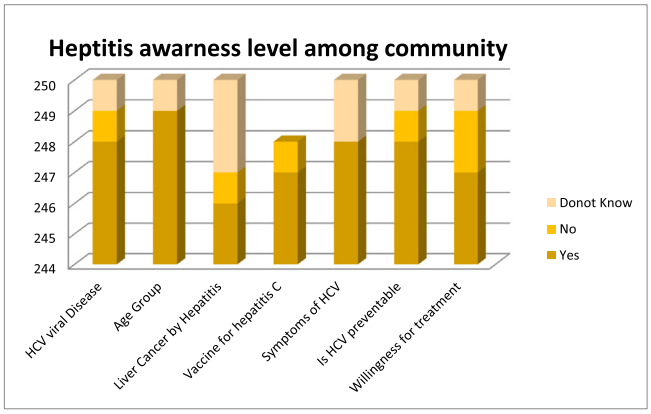

Fig. 1. Community awareness level Hepatitis as a disease.

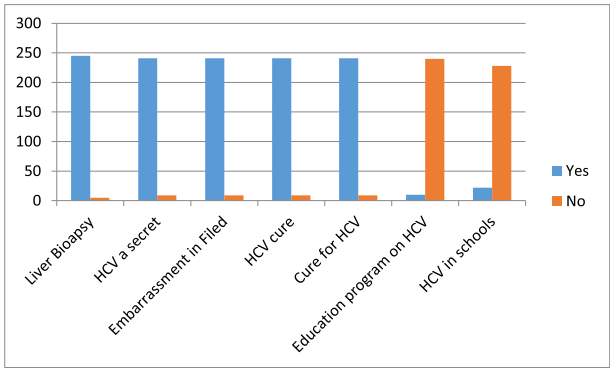

Fig. 2. Community awareness treatment and effects of Hepatitis.

3.6. Hepatitis C- preventable

248 respondents out of 250 respondents responded that Hepatitis C is preventable while 1 said that it is not preventable and 1 don't know the answer that weather it is preventable or not.

3.7. Willing for treatment

247 respondents out of 250 were willing for the treatment of hepatitis C.

3.8. Liver biopsy

It is evident that liver biopsy was answered yes from 245 respondents and other remaining 5 respondents responded no for the same question.

3.9. Hepatitis C, secret

From the figure given below it is clear that major number of respondents responded yes for the question that they will keep it secret that they are suffering from hepatitis C. 99% of the respondents answer positive for the question.

3.10. Embarrassed for diagnosis

It can be clearly seen from the figure that 241 respondents responded that they are embarrassed it they are diagnosed for hepatitis C. while other 9 have no issue if they are diagnosed with hepatitis C.

3.11. Cure of hepatitis

It can be clearly seen that 241 respondents responded that they are there is cure of Hepatitis C, while other 9 have no issue and are not interested if they are connected with permanent services area.

3.12. Cure from hepatitis C

It is clear from the figure that 241 agreed that hepatitis can be cure while 9 have the opinion that it cannot be cure.

3.13. Educational program for hepatitis C

It can be seen that educational program regarding hepatitis c are very less. And 240 have answered that they are not educational seminar are being conducted.

3.14. Hepatitis C in school

From the figure it can be seen that 228 respondents responded that Hepatitis C shall not be discussed in the school as it may cause disturbance among the students if someone may panic.

3.15. Precautionary practices

It can be seen from the figure that total respondents were taking steps of precaution during hepatitis C as they quit smoking, alcohol and they take therapeutic treatment and dental treatment from experts. 5 respondents responded for blood transfusion, 2 respondents responded for surgical history, 2 responded for shaving at barber shop, 7 responded for toothbrush sharing and 3 responded for other practices.

Major number of respondents responded for blood transfusion (245), surgical history (248), shaving at barber shop (248), toothbrush sharing (243) and other (247 respondents).

3.16. Cause of increasing hepatitis C

It is evident from the figure that major number of respondents (78) responded that the reason for the spreading of hepatitis is upsurge due to limited affordability followed by limited access to doctors (66). Minimum number of respondents 2 use traditional medicine for curing hepatitis C and this can also be the part for increasing the number of hepatitis C patients.

3.17. HCV transmission cause

From the figure it can be seen that 249 respondents responded that HCV is transmitted due to blood products, barber instruments.

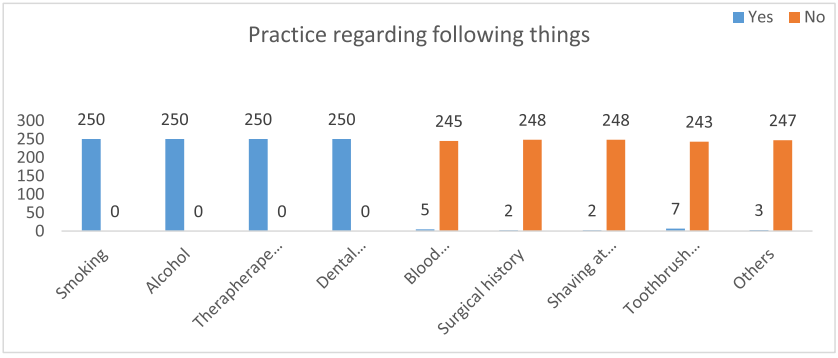

Fig. 3. Community perception and awareness Practices.

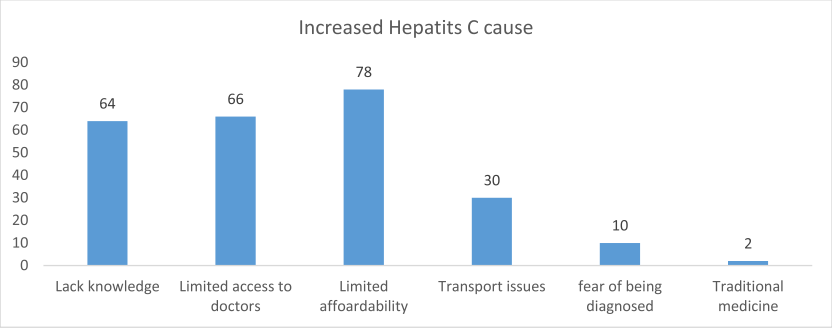

Fig. 4. Increment in HCV.

247 respondents responded that HCV is transmitted by dental instruments, 245 respondents responded that it is transmitted by sharing of utensils, 249 responded that surgical instruments are the cause of HCV transmission, sexual contact can also be the cause of HCV (248 respondents), breast feeding can also be the reason of the transmission of HCV from mother to infant, illegal use of drugs can also be the reason of HCV transmission (248 respondents), 246 respondents responded that dialysis can be cause of HCV transmission, tattoo and piercing can also initiate HCV transmission (245 respondents), shaking hands (246 respondents), polluted water (247 respondents), heat exposure (246 respondents), mosquito bites (240 respondents),flies (245 respondents) and other means (244 respondents) respondents for the cause of transmission of the HCV.

Organ transplant is not the reason for the transmission of the HCV (248 respondents). Reused injections or needles do not cause the transmission of HCV (250 respondents). Sharing of the tooth brush is also not the reason of the transmission of HCV (246 respondents) (Fig. 5).

3.18. Test

It can be seen from the figure that maximum numbers of respondents have not carried out the test for the HCV. 245 responded negative to genotype, 243 responded negative to BMI and blood glucose, 245 responded negative for insulin resistance, 240 responded negative for total cholesterol, 241 responded negative for HDL cholesterol, 238 responded negative for LDL, 241 responded negative for triglycerides and 245 responded negative for liver functioning (Fig. 6).

4. Discussion

We observed 250 hepatitis patients. Frequency of people who knew hepatitis is a viral disease was 248/250. Percentage was 99.2%. While only 0.4% considers that no it is not a viral disease. Hepatitis can affect any age of group says 99.6% patient. The most common risk factor for **liver cancer** is chronic (long-term) infection with **hepatitis** B virus (HBV) or **hepatitis** C virus (HCV). I asked in questionnaire whether hepatitis C causes liver cancer or not 98.4% answers were in Yes, that hepatitis C causes liver cancer. 98.8% of the patients says that yes vaccine of hepatitis C is available in market, while 0.8% says that they don't know about that.

99.2% patients share their experience that if Hepatitis C Is cured timely it can be prevented. 98.8% of people are willing to get treated for Hepatitis c. Out of 250 patients who were suffering from Hepatitis C, 245 already had liver biopsy. 99.2% of the patients keep it secret that they are patient of Hepatitis C. 96.4% people feel

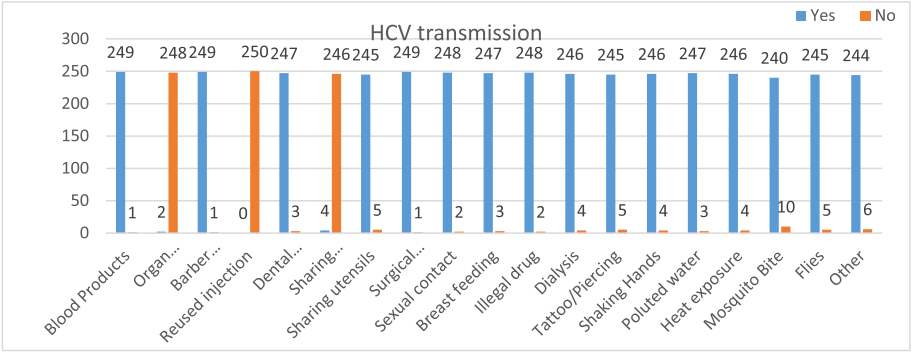

Fig. 5. Community responses about HCV transmission.

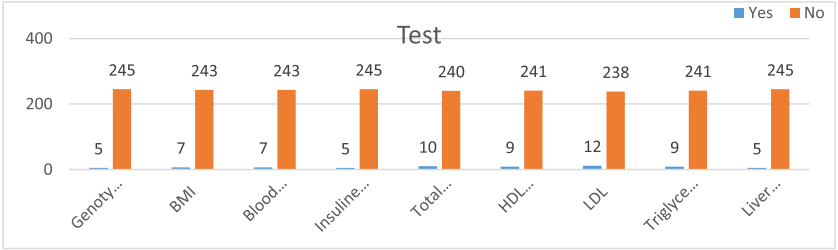

Fig. 6. HCV test results among the focused agriculture community.

embarrassed after diagnosis of hepatitis C. Major portion of the patients who filled questionnaire were hopeful that they will cure Hepatitis C. Only 4% people attended educational programs related to hepatitis C, while 96% people doesn't attended any such programs. Only 8.8% of the patients consider that Hepatitis C should be discussed in school. Nobody in my survey was smoker. Similarly nobody was alcoholic. 100% of the patients were using Therapeutic Injection. Before widespread screening of the blood supply in 1992, hepatitis C was also spread through blood transfusions and organ transplants. So only 2% people did blood transfusion while having Hepatitis C disease. Only 0.8 patients had surgical history. 99.2% of the patients do not go to barber's shop for shaving. Only 2.8% patients were sharing toothbrush.

I asked some general questions in my questionnaire about major causes of Hepatitis C. 25.6% people had lack of knowledge about hepatitis C, 26.4% patients had limited access to doctor, 31.2% were having limited affordability, 12% said they have transport issue, only 4% said that they have fear of being diagnosed. Only 0.8% people had done organ transplantation. 99.6% people check barber's instrument whether they are hygienic or not before shaving. Nobody reuse needles for injection. 98.4% people do not share toothbrush. Most of the people share utensils because of our traditions. 99.6% people had undergone under the use of surgical instruments according to my survey. 99.2% people were having sexual contracts as major portion of patients I approached were adults. 100% of answers I got for my question that Is this disease passed from mother to baby were in No. 99.2% of the people were injecting illegal drugs. 98.4% people had gone under the process of dialysis. Only 2.0% of the patients have tattooed their body. 97.6% people were working together. 98.8% people were having sneezing problems while having hepatitis C.

Our survey shows that members who have accurate information about hepatitis C have the highest number of people visiting routine therapists as follow-up contacts. The reason for the correct information among these members may be that on their first visit, these members simply sought expert help and became aware of their condition. When they were disappointed by the experts, they definitely turned to traditional therapists. Another explanation could be that these members may receive expert treatment that is compatible with traditional therapists. However, this shows that patients who are aware of the disease cycle, complexity and clinical management have made non-clinical methodological requirements. There are several important reasons members may hire non-clinical experts to treat hepatitis C. Initially, half of the inspection members announced that they had received HCV from clinical staff. As a result, they may feel like they no longer need to return to clinical staff to avoid further contamination. This shows, like the results of other public surveys (Haslina et al., 2012; Watson et al., 1999), the level of forgetfulness and helplessness of Pakistani medical experts. Another explanation might be that amateur behavior and the helpless ability of health professionals to make clinical treatment of patients impossible. The results of Jiwani et al. (2013) and Zickmund et al. (2004) are reliable. They found that health care professionals' ability to relate is a critical factor in whether patients choose homeopathy versus homeopathy or conventional therapy (Hakim). one. After all, the people of Pakistan are used to relying on conventional therapists and trusted therapists for the treatment of any disease. A survey in Pakistan found that the primary purpose of consulting Hakim, homeopathic doctors, and otherworldly therapists is to have members believe "they are successful medical providers" (Qidwai et al., 2002). In addition, the orientation of older women in the family is seen as convincing and cannot be ignored in the Pakistani population (Salahuddin et al., 2010). Hence, it is not only the lack of awareness of the disease that prevents people from finding suitable medical providers, but also the behavior of medical experts and the family's steadfast reliance on non-clinical methods. They also affect patients' treatment decisions. Health care provider. Even so, the current review again found that most of the people with basic hepatitis C information were homeopathic patients who had the first and second visits. This is in line with the results of ongoing inspections in Australia (Guirgis et al., 2012) and the United States (Lu et al., 2010), where the lack of information on hepatitis C was identified as one of the main barriers to treatment in the following countries to search suitable for medical service providers.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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