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A CROSS-SECTIONAL RESEARCH ON HEPATITIS INFECTION ASSOCIATION WITH DIETARY IN TERMS OF AWARENESS AND PRACTICE

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Abstract:
OBJECTIVES: *Research was aimed at the assessment of the practice and awareness of various dietary intakes by the HBV and HCV patients.*
PATIENTS AND METHODS: *Our cross-sectional survey comprised of 145 patients which was conducted at Mayo Hospital, Lahore in the time frame of six months commencing from December, 2016 to May, 2017. Sample was selected randomly and they were distributed a pre-tested questionnaire with the consent of the patients.*
RESULTS: *Research outcomes were analyzed on SPSS software. Male to female proportion was as that forty-seven percent of the patients were male and remaining fifty-thee percent were females. Female population was dominant over male. Majority of the cases were under matric or just matric and no formal education was extended to nineteen percent of the cases. The main reason behind the incidence of HBV and HCV was the intake of nuts and spicy food (92% cases); whereas, the avoidance of spicy foods was observed in (85%). Diet and hepatitis relation was not known to eight percent of the population.*
CONCLUSIONS: *Although the population was selected from the low status of the social and economic group but awareness about the hepatitis was adequately confirmed in this population. However, there was a misconception about the spicy foods that it attributes in the incidence of hepatitis.*
KEY WORDS: *Knowledge, Hepatitis, Practices, Attitudes and Dietary Habits.*

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INTRODUCTION:

Globally HBV and HCV are considered as serious healthcare threat as HBV has infected two billion people [2]. Chronic infection cases are estimated about 170 million and every year there is an increase in the infection incidence of about 3 – 4 million [2]. HBV and HCV cause one million deaths all over the world [3]. Pakistan is no exception to these infections as a research held at a native city reports the incidence of HBV and HCV in 4.3% and 6.5% respectively of the total population [4]. In the northern areas of Pakistan, 3.3% HBsAg was positive in the healthy blood donors, anti-HCV positive cases were 4% and anti-human immunodeficiency was observed positive in 0.007% cases [5].

There is a risk of increase in the infection transmission because of the thalassemia patients, unsterilized therapeutic injections, hemodialysis patients and in the street barber regular customers [6]. In adults the HBV can be transmitted through body fluids or infected blood, sexual activity, unsafe injections or other sources of iatrogenic or horizontal transmission [7].

Health indicators of Pakistan are poor as it is an under developed country. In the UN charter Pakistan stands at 125th position in the total of 174 nations in terms of human development index [8]. One third of the total Pakistani population is poverty stricken with very weak healthcare infrastructure as treatment is out of access and affordability of many patients [9].

No diet prohibition is evinced in the HBV and HCV cases in order to recover from the disease; however, there is a prescription of special diets for the patients of HBV and HCV infection. There is an association of the complications such as cirrhosis and kidney failure with these infections [10, 11]. The reduction in the fat is for the fatty liver diseases affecting the non-alcoholic conditions of the liver [12, 13]. Disease outcomes can be increased and complications can be delayed as per the outcomes of numerous chronic liver illness research studies [14, 15]. Chronic liver disease can be induced by the intake of high fat ration diets.

There is a scarcity of literature about the subject topic on numerous literary resources. Therefore, we planned to conduct a research on the assessment of the practice and awareness of various dietary intakes by the HBV and HCV patients.

PATIENTS AND METHODS:

Our cross-sectional survey comprised of 145 patients which was conducted at Mayo Hospital, Lahore in the time frame of six months commencing from December, 2016 to May, 2017. Sample was selected randomly and they were distributed a pre-tested questionnaire with the consent of the patients. Sample was selected through WHO guidelines and they were interviewed with the help of a pre-tested and semi-structured questionnaire. Every OPD visitor patients was interviewed and information about the practice, knowledge and socio-demography was obtained for the mentioned variables. There were eighteen close-ended questions in the questionnaire which was pre-tested on sixteen patients of HBV and HCV before the commencement of research. We also reviewed weak areas of the questionnaire and finalized it with the directions of experts. Reviewed version was employed in the final selected sample of 145 HBV and HCV patients. We provided a possible diet menu list to the patients, but most of them were not in a routine of eating those items regularly. We used regular and most colloquial names and terms of the food which were in fashion of the population in target such as “Paratha” instead of “Bread”.

Quality and transparency was maintained in the data collection process, outcomes were analyzed on SPSS software and categorical data was presented in tabular form (frequencies and percentages).

RESULTS:

Research outcomes were analyzed on SPSS software. Male to female proportion was as that forty-seven percent of the patients were male and remaining fifty-thee percent were females. Female population was dominant over male. Majority of the cases were under matric or just matric and no formal education was extended to nineteen percent of the cases. The main reason behind the incidence of HBV and HCV was the intake of nuts and spicy food (92% cases); whereas, the avoidance of spicy foods was observed in (85%). Diet and hepatitis relation was not known to eight percent of the population. Family history of hepatitis was found in majority of the cases (78%) and spicy food intake proportion was observed as (92%). Spicy food was avoided by 85% of the cases. Low paid (< 5000 PKR) patients were found more in number about the disease occurrence (47.6%) and above 20,00 PKR income incidence was low as (2.8%). Oil intake prohibition was reported in many cases in order to skip liver disease; whereas, non-awareness about the HBV, HCV and diet relation was found in (8%).

Detailed outcomes analysis about the socio-demographic detail has been shown in Table – I with respective pictorial presentation, food avoidance pattern has been displayed in Table – II with

corresponding figure and per week consumption of meat and diet by the participants have been elaborated in Table – III with corresponding figure.

Table – I: Sociodemographic details of the respondents surveyed

Social and Demographic Detail		Percentage
Awareness	Jaundice	75.2
	Weakness	8.3
	Appetite Loss	13.8
	Epigastrium Pain	0.7
	Vomiting/Nausea	2.1
Monthly Income (PKR)	More than 20000	2.8
	15000 to 19000	4.1
	10000 to 14000	9
	5000 to 9000	36.6
	Below 5000	47.6
Education	No Education	18.6
	Under Matric	35.9
	Matric	29.7
	Intermediate	10.3
	Graduate	3.4
	Postgraduate	2.1
Gender	Male	47
	Female	53

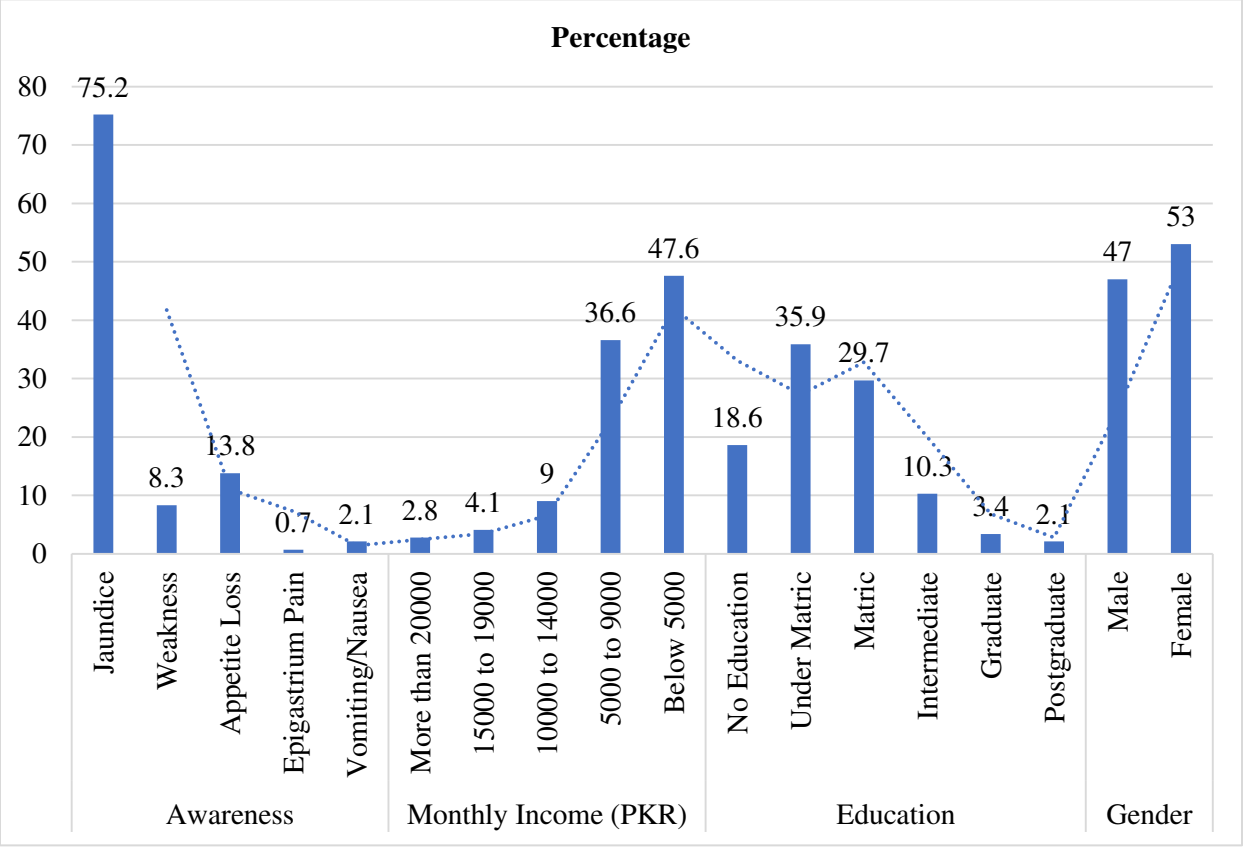


Table – II: Pattern of avoidance of foods as reported by respondents

Variable	Number	Percentage
Deep Fried such as Fish fried, French fries, etc.	36	24.8
Oily Diet such as Butter, Creams, Ghee, etc.	93	64.1
Heavy Diet such as Naan, Paratha, etc.	5	3.4
Do not Know	11	7.6

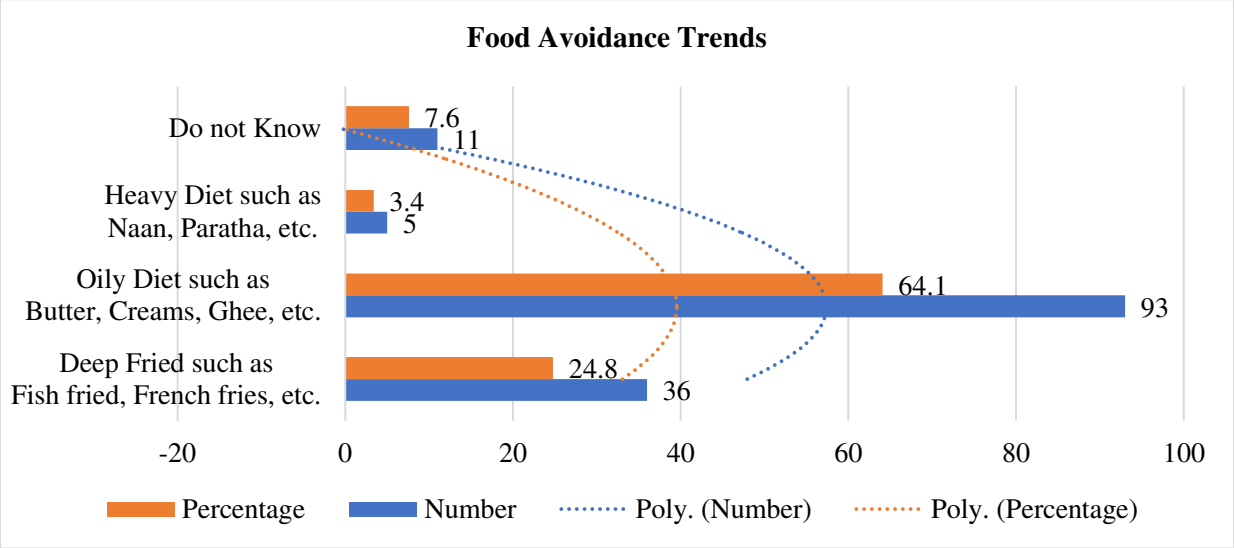
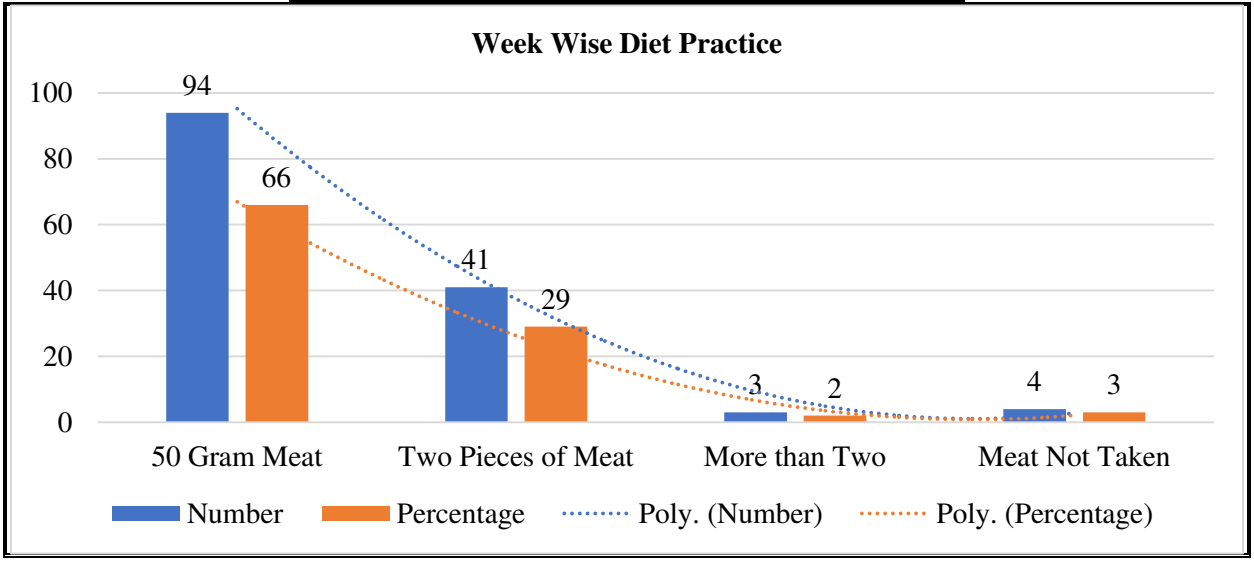


Table – III: Weekly dietary practices of respondents about meat

Variable	Number	Percentage
50 Gram Meat	94	66
Two Pieces of Meat	41	29
More than Two	3	2
Meat Not Taken	4	3



DISCUSSION:

Spicy food was the basic reason of Hepatitis as observed in 92% cases among the total population; whereas, spicy food avoidance was observed in 85%. No association of diet and hepatitis was not known to 15% patients. We can presume that there is a direct relation of hepatitis with the diet. According to outcomes of another local research a number of cases reported abstinence of diet as a precautionary measure against hepatitis including meat, oily and dairy products [17]. However, specific diet schedule was followed by seventy percent of the respondents in the disease time frame. Dietary intake variations have been reported by another research by the hepatitis cases which was conducted to explore the lifestyle in the hepatitis patients [18]. Food prohibition was reported a number of cases (65%) in this research specifically the oily items of the food intake. An Italian research reports about the diet modification by hepatitis patients (64%) specially a reduction in the fatty diet items and fried diet [19].

Hepatitis is related to liver was known to 86% respondents; whereas, 14% patients were unaware about the organ damage in side human body. Liver disease was graded as hepatitis by sixty percent of the research population in a research held in Karachi [17]. A research was conducted on the dental students in Taiwan where knowledge about HBV and HCV was observed in 80% and 75% respectively [20]. Disease consciousness may be attributed to a reason behind these trivial variations in the research of Karachi, Taiwan and ours.

Low educational status was also associated with the patients of HBV and HCV. A local research also revealed the same in the low educated populations which can be compared with our research. There is a need for the educational campaigns in order to spread awareness and knowledge about the disease of hepatitis [21]. Media can be helpful in order to disseminate awareness about the hepatitis infection disease. There was a positive correlation of economic and educational level with the disease severity. More sufferers were reported from less educated and low socio-economic status communities.

CONCLUSIONS:

Our research had small sample size and generalized data as its limitations, which need extra cautious approach in order to implement its outcomes. Although the population was selected from the low status of the social and economic group but awareness about the hepatitis was adequately confirmed in this population. However, there was a misconception about the spicy foods that it attributes in the incidence of hepatitis.

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