Knowledge Regarding Gastritis among Late Adolescence in Central Nepal

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ABSTRACT

Gastritis is an inflammation or irritation of the lining of the stomach, can be a brief and sudden illness (acute gastritis), a long-lasting condition (chronic gastritis). Gastritis is the top most common cause of morbidity. This study is designed to find out knowledge regarding gastritis among late adolescence. A descriptive research design was used for the study. A semi-structured self-administered questionnaire was used to collect the data. Data were analysed and the descriptive and inferential test was applied by using SPSS. The study finding revealed eighty percent of the participants knew the definition of gastritis, 66% on risk factors, 50% respondents on causes, 23.7% on sign and symptom, 56.66% on management and 48.5% respondents on complications, and 66.55% on prevention of gastritis. The level of knowledge is average in causes, signs and symptoms, management and complications. More specifically, 68% of respondents had average knowledge on gastritis and 4% had excellent knowledge. The level of knowledge of respondents is statistically significant with sex (p=0.021) and socio-economic status (p=0.008). The finding of the study revealed that knowledge on gastritis is average among the respondents. So the health education is needed for students to increase their knowledge.

Keywords: gastritis, central Nepal, late adolescence, knowledge level

INTRODUCTION

Gastritis is an inflammation or irritation of the lining of the stomach, can be a brief and sudden illness (acute gastritis), a long-lasting condition (chronic gastritis). Occasionally, a rare form of gastritis can be serious or even life-threatening due to ongoing symptoms or internal bleeding (Smeltzer et al., 2008). This disease is also described as peptic ulcer or acid peptic disease (Sakya, 2014).H. pylori are the causative agent in more than 90% of cases of chronic gastritis/peptic ulcer disease (Adisa et al., 2011). An estimated 50% of the world population is infected with H. pylori, an infection that leads to the greater majority of Gastritis cases; therefore, chronic gastritis is extremely frequent. Gastritis is highly prevalent in Asia and in developing countries and etiological factor for gastritis was autoimmune disorders, life style changes, stress, intake of coffee and acidic beverages, spicy and carbonated foods, backflow of bile into the stomach (bile reflux), pernicious anaemia, long term use of NSAIDs, smoking and alcoholism (Lewis et al., 2007).

Prevalence in developing countries is generally over 80% as compared to 20-50% in industrialized countries. The overall prevalence of H. pylori infection is strongly correlated with socioeconomic conditions and prevalence tends to increase with age (Suerbaum & Michetti, 2002). The incidence of gastritis by H pylori in European adults is 70%, Asian countries such as 90% in Bangladesh adults and 88% among Indian adults. There may be similarly wide variations in the prevalence between more affluent urban populations and rural populations (Hunt et al., 2010). In India, nearly 10% of people who come to a hospital emergency department with abdominal pain have gastritis (Rugge et al., 2011).In Nepal, the most common endoscopic findings are gastritis (47.6%) followed by normal findings of 17.87%. Among the cases, three hundred nineteen are dyspeptic patients (Male 161 and female 152) with a mean age of 20.12 years (Shrestha et al., 2012).

Gastritis is a National illness for Nepalese all over the country as their timing of taking food and their daily life chores are supporting to suffer from gastric for each people (Sakya,2014). However, chronic gastritis is still one of the most common serious pandemic infections with such severe killing sequelae as peptic ulcer or gastric cancer (Sipponen & Maaroos, 2015)Various studies have revealed that the occurrence of gastritis is increasing with age and knowledge on it is inadequate. It has recognized one of the most prevailing diseases which have been resulting elevating rate of morbidity among peoples but limited studies are available on gastritis in Nepal (Shakya et al., 2017). Therefore, this study aims to explore the knowledge on gastritis among youngsters in Central Nepal which might provide baseline information for other similar settings.

METHODS

Research Design

A descriptive cross-section research design was employed to identify the knowledge regarding gastritis among bachelor students. The study was conducted at Presidency College of Management Sciences Bharatpur -10, Chitwan. All bachelor-level students from the commerce stream were the population for the study. The Census method was used and all the 50 students were taken as sample size. Data were entered into Excel and analyzed using SPSS software.

Data Collection

A semi-structured questionnaire was administered for data collection procedure to identify the knowledge regarding gastritis among bachelor students and a questionnaire was prepared by researchers based on reviewed literature. The research instrument was divided into two parts:

Part I: Question related to demographic information
Part II: Question related to knowledge regarding gastritis

To observe the Level of Knowledge among youngsters, a separate leveling scale was prepared which explained the score achieved by respondents that were measured by calculating

the total score and then classified into 4 categories. Level of knowledge: Below average < 40%, Average knowledge 41-60%, Good knowledge 61-80%, and excellent knowledge 81-100%.

Validity and Reliability

Validity of the research instrument was ascertained with the help with literature review and by consulting the research advisor and subject expert. The reliability of the research instrument will be maintained through pretesting in 10% of the sample size (5 respondents) in a similar setting. The necessary modification was done after pretesting.

Data Collection Procedure

Ethical approval was taken from Chitwan medical college. Permission was taken from the Presidency College of Management Sciences. Written consent was taken from all respondents. Privacy was maintained by taking the information from respondents separately. The researcher collected the data herself within 2 weeks from 2071/08/14 to 2071/08/21 by questionnaire schedule. Confidentiality of the subjects was maintained by assuring them that the information given by them would not be disclosed and would be used only for study.

Data Analysis

The collected data was checked, reviewed and organized for accuracy and completeness. After that data was coded and entered in SPSS. The collected data was analyzed using descriptive (Frequency percentage) and inferential (chi-square test) statistical methods.

RESULTS

Respondents'Socio-demographic Characteristics

Of the total respondents, less than half of the participants (38%) were19 years of age, very few participants (10%) were 22 years of age. Mean ±SD age was 19.70 ± 1.19 years. Similarly, the minimum age was 18 and the maximum was 22 years. Concerning gender, less than half (46%) of the respondents were male & more than half respondents (54%) were female. Concerning part-time jobs, 40 (80%) respondents have no part-time job and the remaining respondents 10 (20%) had part-time jobs (Table 1). Among the respondents who had part-time jobs, 9 (18%) were employed in private service and 1 (2%) was in government service. As regards socioeconomic status, half of the respondents answered their socio-economic status is sufficient for more than 12 months and 5 (10%) respondents answered their socio-economic status is sufficient for 6 months for their livelihood. Concerning the previous history of gastritis, more than half of respondents had no previous history and 18 (36%) had mentioned the history of gastritis. However, the majority of respondents (70%) had mentioned the history of gastritis in their family. About 30% of respondents had no family history and among them who had a previous history of gastritis, 17 (36%) were mothers (highest) and 3(6%) were aunty and grandmother.

Table 1: Demographic and Social Aspects of the Participants

Variables	Frequency	Percentage
Age (in years)		
18	7	14
19	19	38
20	11	22
21	8	16
22	5	10
(Mean ±SD) age = (19.70 ± 1.19) years		
Sex		
Male	23	46
Female	27	47
Part-time job		
Yes	10	20
No	40	80
If yes types of occupation (n=10)		
Private service	9	18
Government service	1	2
Socioeconomic status of their family		
Sufficient for livelihood less than six months	9	18
Sufficient for six month	5	10
Sufficient for 6-12 month	11	22
Sufficient for more than 12 months	25	50
Previous History of Gastritis		
Yes	18	36.0
No	32	64.0
Family History of Gastritis		
Yes	35	70,0
No	15	30.0
If yes relation with respondents		
Aunty	1	2.0
Mother	17	36.0
Father	12	24.0
Grandfather	1	2
Grandmother	2	4.0
Brother	4	8.0
Sister	2	4.0

Out of the total, more than half of the respondents (60%) got the information from newspapers and magazines while 42% of respondents got the information from health personal (Table 2).

Table 2: Source of Knowledge for Gastritis

Source of Information	Frequency	Percentage
Newspaper and magazine	30	60.0
Radio	25	50.0
Television	30	60.0
Health worker	21	42.0
College/ teacher	28	56.0
Family friend ,neighbor	23	46.0

Of the total participants, a majority (80%) of them answered inflammation of stomach mucosal lining as the definition of gastritis and very few (2%) respondents answered inflammation of the liver (Table 3).

Table 3: Knowledge regarding Definition of Gastritis

| Definition	Frequency	Percentage
Inflammation of stomach mucosal lining*	40	80
Inflammation of the large intestine	4	8
Inflammation of the small intestine	5	10
Inflammation of liver	1	2

*Correct response

Knowledge on Risk Factors and Personal Habits for Developing Gastritis

Of the total participants, almost all (98%) respondents answered contaminated food as a risk factor for developing gastritis and few (4%) respondents answered eating green vegetables (Figure 1). Regarding personal habits, 34 (68%) respondents answered the use of coffee as the personal habits causing gastritis and 5 (10%) respondents answered drinking plenty of water (Figure 2).
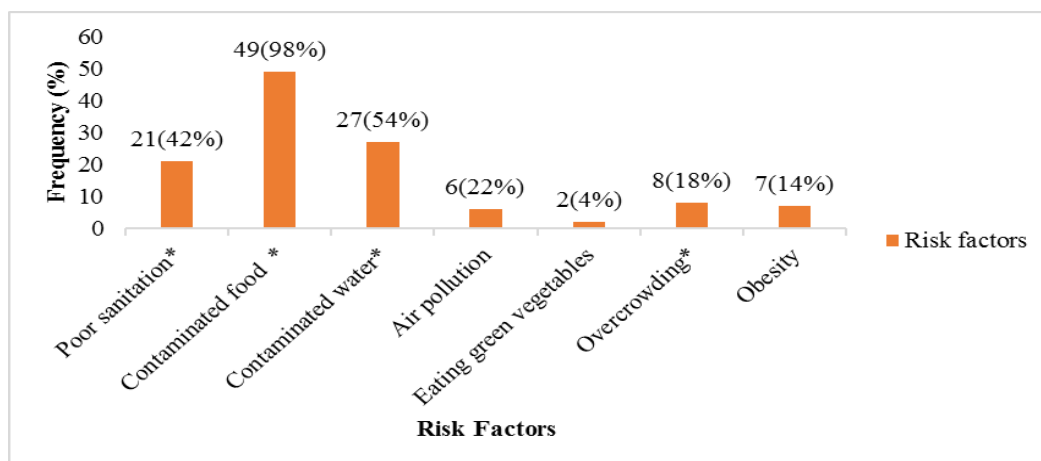
Figure 1: Knowledge of Risk Factors

*Correct response, ** Multiple responses
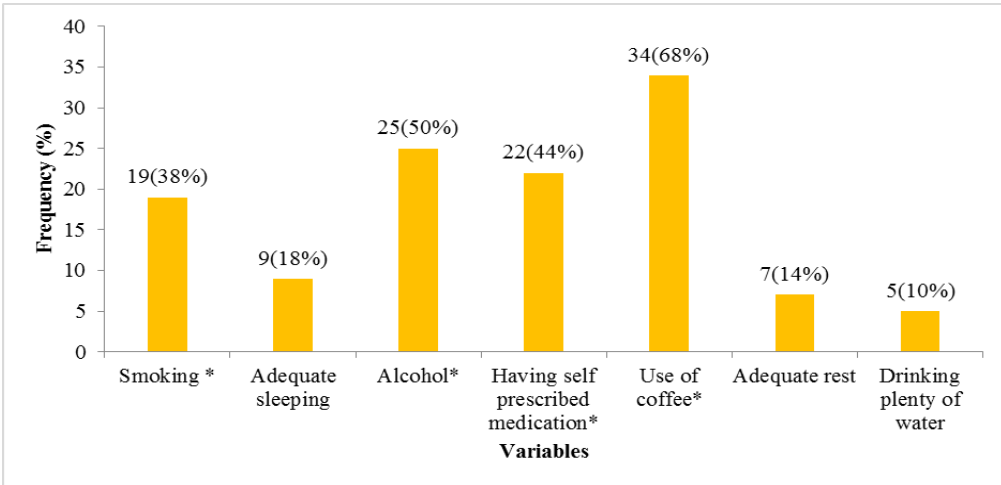

Figure 2: Knowledge of Personal Habits

*Correct response, ** Multiple responses

Knowledge on Causative Organism and Stress Causing Gastritis

Out of total respondents, less than half (42%) respondents answered bacteria as the causes of gastritis and 10%) respondents answered helminthes (Figure 3). About stress causes gastritis, 58% of respondents stand for favor and 42% of respondents seem not in favor.
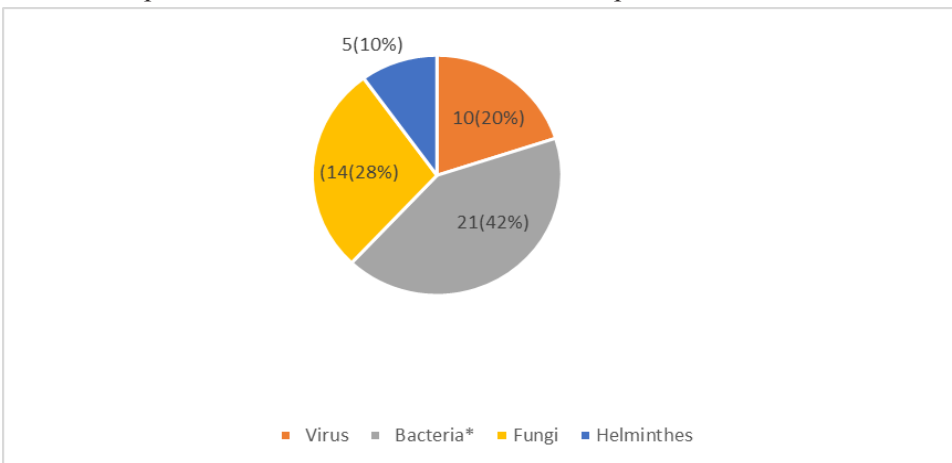
Figure 3: Knowledge on Causative Organism

*Correct response ** Multiple responses

Knowledge on Foods and Disease Condition for Developing Gastritis

Out of all respondents, it is seen that majority of the respondents (84%) answered spicy food trigger for developing gastritis whereas few respondents (4%) answered green vegetables as triggering food for developing gastritis (Table 4). Similarly, more than half of the respondents

(60%) answered that gastritis can be caused by Chorns disease and 10% of youngsters believed in heart disease.

Table 4: Knowledge on Foods and Disease Condition for Developing Gastritis

Variables	Frequency	Percentage
Triggering food**		
Fruits	5	10.0
Spicy food *	42	84.0
Junk food*	40	80.0
Fat diet *	32	64.0
Soft drink*	8	16.0
Calcium and vitamin intake	3	6.0
Green vegetables	2	4.0
Disease condition**		
Diabetic mellitus*	24	48.0
Chronic obstructive pulmonary disease*	9	18.0
Heart disease*	5	10.0
Chorns disease*	30	60.0
Urinary tract infection	12	24.0
Ear disease	11	22.0
Chlolelithesis	10	20.0

*Correct response ** Multiple responses

Knowledge regarding Signs and Symptoms and Complications of Gastritis

Out of the total respondents, the majority of the youngsters (70%) reacted for abdominal pain and more than half of them (58%) responded vomiting and only 2% believed fever as a symptom of gastritis (Table 5). Concerning the complication of gastritis, 64% of the youngsters answered stomach cancer and 6% of the participants answered pneumonia.

Table 5: Description of Sign and Symptoms and Complications of Gastritis

Variables	Frequency	Percentage
Sign and symptoms		
Hiccups *	15	30.0
Vomiting*	29	58.0
Indigestion*	42	84.0
Abdominal pain*	35	70.0
Headache	8	16.0
Back pain	6	12.0
Fever	1	2.0

| Complication		
Stomach cancer	32	64.0
Heart attack	4	8.0
pneumonia	3	6.0
Joint pain	10	20.0
Anemia	13	26.0
Chronic gastritis	36	72.0
Gastrointestinal bleeding	16	32.0

*Correct response ** Multiple responses

Knowledge regarding Management of Gastritis

Out of the total respondents, almost 90% of them replied that gastritis is curable and 15% responded gastritis is not curable, majority of the respondents (68%) answered eating a balanced diet as self-management of gastritis at home and 14% youngsters answered eating too much (Table 6). The majority of the respondents (70%) reacted gastritis can be treated by medicine and more than a quarter (30%) respondents mentioned gastritis cannot be treated by medicine. Out of 35 respondents' majority of the respondents (74.28%) believed that gastritis can be managed by medicine and there is a need for the complete course of medicine to treat gastritis (Figure 4).

Table 6: Management of Gastritis

| Variables	Frequency	Percentage
Managed by Medicine		
Yes*	35	70
No	15	30
If yes Complete course of medicine n=35		
Yes*	26	74.28
No	9	25.71

*Correct response   ** Multiple responses
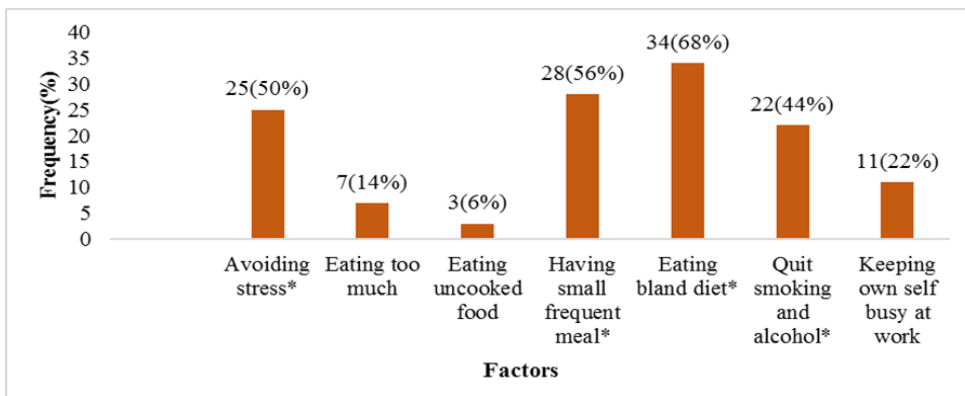
Figure 4: Self-management of Gastritis at Home

Knowledge regarding Prevention of Gastritis

It is observed that almost 98% of youngsters believed that gastritis can be prevented by avoiding spicy foods and 12% of respondents purported having bedtime snacks for prevention of gastritis.
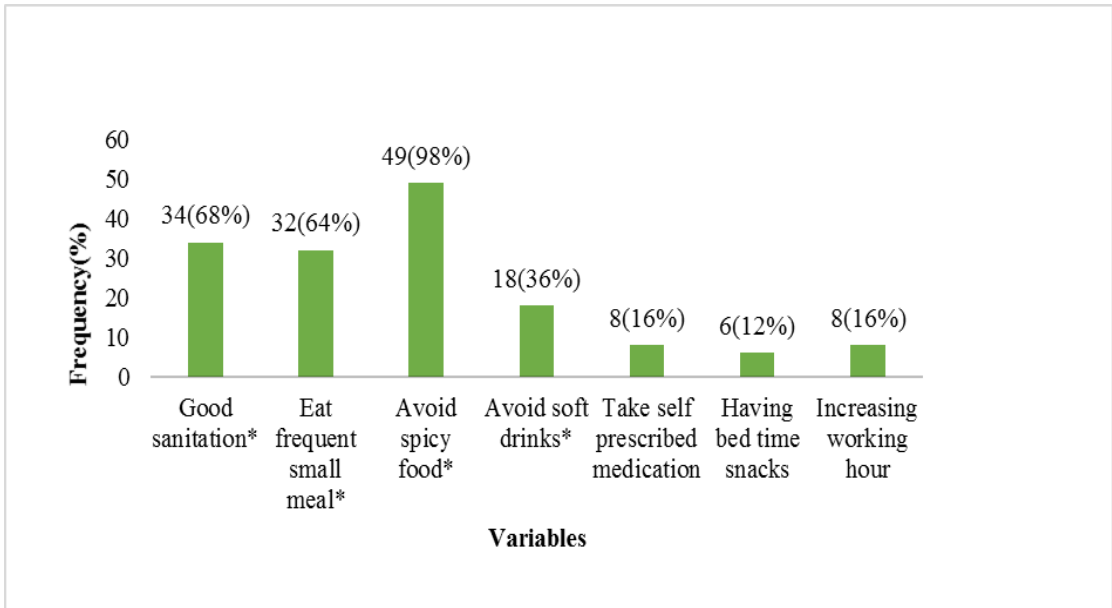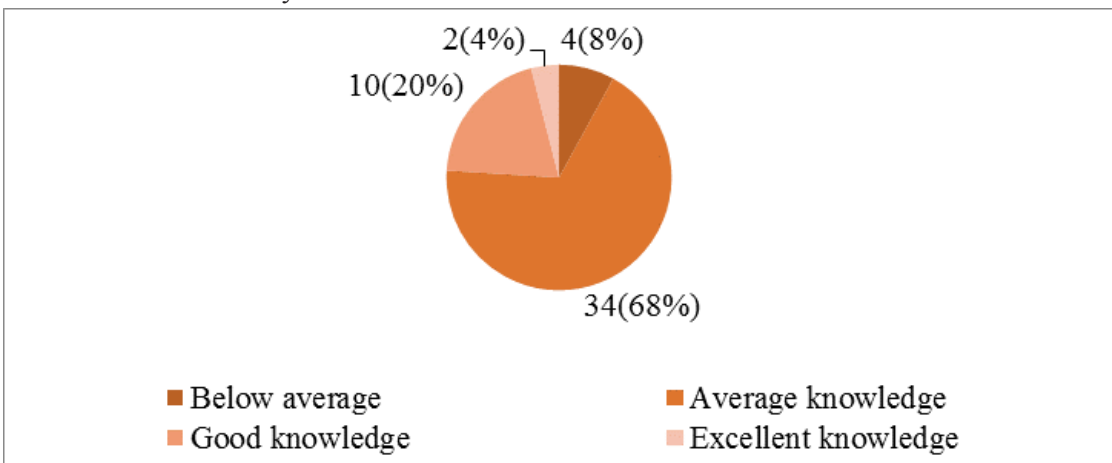

Figure 5: Knowledge regarding Prevention of Gastritis

*Correct response   ** Multiple responses

Respondents' Level of Knowledge regarding Gastritis

Out of all respondents, it is seen that the majority (68%) respondents had average knowledge and a few respondents 2 (4%) had excellent knowledge (Figure 6). The level of knowledge was merged (below average and average = average and good and excellent =good) for further statistical analysis to find out the association.

Figure 6: Youngster Level of Knowledge on Gastritis

Association between Respondent's Level of Knowledge and Selected Demographic Variables

Out of all respondents, it is shown that the level of knowledge regarding gastritis is significant with sex (p=0.021) and socio-economic status (p=0.008) χ2 is computed for statistical value (Table 7). Hence, it is seen that the level of knowledge is not significant with a part-time job (p=0.619), history of gastritis (p=0.639) and family history of gastritis (p=0.773).

Table 7: Results of Associations between Knowledge of Gastric and Demographic Variables

Variables	Level of knowledge		
	Poor	Good	P-value
Sex			
Male	14(60.9%)	9(39.1%)	0.021*
Female	24(88.9%)	3 (11.1)	
Socio economic status			
Low	23(92.0%)	2(8.0%)	.008*
High	15(60.0%)	10 (40.0%)	
Part-time job			0.619
Yes	7(70%)	3(30.0%)	
No	31(77.5%)	9(22.5%)	
History of gastritis			
Yes	13(72.2%)	5(27.8%)	0.639
No	25(78.1%)	7(21.9%)	
Family history of gastritis			
Yes	27(77.1%)	8(22.9%)	0.773
No	11(73.3%)	4(26.74%)	

*Correct response

DISCUSSION

The study was conducted to find out the knowledge regarding Gastritis among late adolescence in Central Nepal. It was revealed that adolescences agreed contaminated food as the major risk factor for gastritis while a few of them also reported green vegetables as the risk factor for gastritis. The study also showed that majority of adolescences believed - gastritis is curable. The majority of respondents said eating a balanced diet is the best way to manage gastritis at home, while according to the majority of respondents (70%) gastritis can be cured by medicine.

This study also showed that the male sex is significant to influence the level of knowledge. This result is opposite to a study conducted by Fating and Sharma (2019) which showed a significant association between the knowledge scores with demographic variables except for gender. However, for demographic variables, the finding of this study is consistent with a study conducted by Padmavathi (2013) which showed a significant association between the knowledge scores, factors influencing scores with selected demographic variables.

Our study revealed that 80 % of late adolescence knew the definition of gastritis, 66% on risk factors, 50% on causes, 23.7% on signs and symptoms, 56.66% on management, 48.5% on complication, 66.55 % on prevention whereas inconsistent findings by Padmavathi et al., (2013) revealed 54.80% adolescence had knowledge on definition regarding gastritis, 48.50% risk factor, 36% causes of gastritis, 47% sign and symptoms, 50.75% on management, 41% on complication, 40.50% had knowledge on prevention of gastritis.

In this study, 42% of late adolescence knew contaminated water as a risk factor for developing gastritis and 18% of them answered overcrowding. The finding of the study is supported by Charles et al. (2000) which revealed that 35.8% of participants knew overcrowding and 38.1% of participants on contaminated water. Similarly, the finding of the study regarding knowledge on smoking and alcohol as a personal habit causing gastritis are also inconsistent with the finding of the study Charles et al. (2000). However, our study findings are thoroughly consistent with Novelli, (1997) regarding the knowledge about causes of peptic ulcer caused by bacterial infection and spicy foods as a risk factor for developing gastritis. The finding of this study showed that stress is a cause of gastritis which is consistent with the results of a study by Novellli (1997) but inconsistent with Charles et al. (2000) and lee et al. (2001).

This study revealed that late adolescence has an average level of knowledge on gastritis and its consequences. Similarly, the finding of the study showed that male sex and demographic characteristics are major influencers on gastritis prevalence among late adolescence. It is critical to think that the health sector program needs to focus on a community-level knowledge enhancement programme regarding gastritis, focusing on the male sex and considering the socio-demographic characteristics of the community in central Nepal.

CONCLUSION

This study has explored the overall level of knowledge of gastritis among late adolescence. The level of knowledge regarding gastritis is good in a domain like definition, risk factors and prevention, average in causes, signs and symptoms, management, complication. The level of knowledge among late adolescence is at an average level and is significantly associated with gender and socioeconomic status. So the health sector program should focus on gastritis related health-education interventions to increase the level of knowledge on controlling the prevalence of gastritis problems among late adolescence.

Limitations of the Study

The study population is confined to bachelor-level students of Central Nepal. The study is limited to central Nepal, therefore the finding of the study cannot be generalized to the whole country.

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