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Unveiling Novel insights in healthcare through exploring knowledge, Attitude, and practice (KAP) toward Covid-19: A Cross sectional study among Nepalese College students

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Article History	Abstract
	Purpose: *The goal of this study was to evaluate the COVID-19 knowledge, attitude, and practise of college students in Lalitpur, Nepal, and to investigate how these factors relate to sociodemo graphic factors.* ***Design/Methodology/Approach:*** *College students were surveyed through questionnaire to learn more about their understanding, attitudes, and COVID-19-related behaviours. Binary logistic regression was used to examine the association between these variables.* ***Findings:*** *The survey found that a fair amount of people had a general understanding of COVID-19 symptoms (29.32%), whereas a smaller number had a good understanding of preventive actions (16.42%). It was discovered that students' knowledge of COVID-19 was highly influenced by income, education, and age. The majority of those surveyed (82.11%) thought that following preventive guidelines was very helpful in limiting the spread of the virus. Students' perceptions towards COVID-19 were found to be highly influenced by their age, education, and income. A considerable percentage of the students avoided large gatherings in practise (88.26%), showing the influence of age, education, income, and occupation on preventive practises. However, there was no discernible connection between marital status and COVID-19 preventive strategies.* ***Originality/Value:*** *This study advances knowledge of college students' beliefs, practises, and knowledge of COVID-19. In order to effectively stop the virus from spreading among college students, it emphasises the significance of focused interventions and educational campaigns that emphasise knowledge enhancement, the promotion of preventative measures, and consideration of socio-demographic factors.* **Keywords:** *Covid 19, Nepalese, Cross Sectional Study, Socio-demo factors,*

1. Introduction

The infectious coronavirus disease 2019 (COVID-19) was initially discovered in Wuhan, Hubei Province, China in December 2019 (2). On January 30, 2020, the World Health Organisation (WHO) deemed this illness a Public Health Emergency of International Concern, and on March 11, 2020, it was deemed a pandemic (2). It has now been recorded in practically every nation on earth. On January 23, 2020, Nepal made the initial COVID-19 case confirmation (5). In light of the current situation with the emergence of new SARS-CoV-2 variants, prevention and control of the spread of COVID-19 remains a challenge. Although a vaccination has been created that can lessen the chance of the disease spreading and becoming severe, it cannot stop the spread of the disease. Furthermore, the practise of preventive measures like personal hygiene, social isolation, mask wearing, etc., is greatly dependent on the

transmission of disease. Therefore, effectively implementing these preventive strategies in addition to immunisation is more successful in lowering population vulnerability as well as morbidity and death rates for creating a society that is disaster-resistant (4–7).

The Nepali government is working with other stakeholders to carry out a number of initiatives, including the creation of information, education, and communication (IEC) materials and information dissemination to raise community awareness of COVID-19 through a variety of media, including social media, TV, radio, and mobile phones. However, the community awareness raising efforts are still not meeting community expectations. Many impoverished and marginalised populations lack access to these resources (8–11). Additionally, owing to their lack of digital literacy, those who have access to these media sources are also unable to choose the accurate and legitimate information because a lot of false material about COVID-19 is also disseminated through these means (12). The timely and effective execution of preventative measures has also been hampered by the lack of good coordination, well-planned, and clearly defined duties and responsibilities of the three tiers of government (local, provincial, and federal) addressing the COVID-19 pandemic (13). Lack of timely information can exacerbate anxiety and increase worry of being unfairly judged and dismissed when dealing with the situation during a pandemic. As a result, the general public may be unwilling to undergo testing, which further delays the start of therapy and leaves many populations untreated (14, 15). Therefore, in this situation, early symptom recognition and prompt treatment are crucial for limiting the progress of the illness and promoting quick healing.

Due to the pandemic's extension, the general public (16–18) may face hitherto unheard-of difficulties, including economic instability, the loss of employment and businesses, and an increase in domestic violence. This would eventually have an impact on one's bodily health, including discomfort, pain, a lack of physical activity, weight gain, and an increased risk of cardiovascular disease, as well as one's mental and spiritual health, including depression (19-22). With enhanced transmissibility, detrimental effects on human health, and a higher risk of hospitalisation, it is quite likely that there will be a significant number of mutations and the appearance of several variants of the SARS CoV-2 concern (VOCs) in the future as well (23). Given these facts, Nepal's healthcare system is ill-equipped to deal with a significant rise in morbidity rates during the pandemic. Additionally, in comparison to other industrialised nations, providing effective health care is highly difficult and difficult owing to the lack of infrastructure, equipment, and experienced human resources. Although the Nepali government raised the overall health budget during the pandemic in the fiscal years 2020–21 and 202–22, the reduction in funding for hospitals and academic institutions compared to the previous fiscal years has made the situation worse (24–26). increased comorbidity rates also exacerbate the problems that lead to increased mortality (27–29).

In situations like this, it is extremely important to grasp the areas of knowledge, beliefs, and acceptance, as well as the areas of behaviour when it comes to COVID-19 prevention measures.The significance of the study was heightened by the requirement for a high level of psychological preparation, namely belief and acceptance towards the seriousness of sickness (30). The significance of the study was further underlined by earlier research on COVID-19 knowledge, attitude, and practise (KAP) in Ethiopia, Bangladesh, Turkey, China, Malaysia, Iran, Indonesia, and Cameroon that also provided support for a clear understanding of these issues.There are, however, little research on KAP on COVID-19 in the context of Nepal's general population.

2. Materials And Methods
Study Design and Setting

A quantitative, prospective, cross-sectional study using a self administered questionnaire was undertaken from January to February 2023.This study was conducted among the college students of.

Study Participants and Data Collection Procedure

This study included college students. Random selection method have been used to select students as respondents for this study.

Study Instruments

The study questionnaire was designed based on extensive literature review of previously published studies and according to the WHO and Ministry of Health and Population of Nepal guidelines for COVID-19.The questionnaire have been reviewed by five experts and Inter-rater reliability have been obtained. The questionnaire consists of four sections.

The First part of the questionnaire consists of socio-demographic parameters. It consists of gender as categorical response(Female, Male).The Socio-demographic parameters in the questionnaire includes age (<20 years, 20-30years, 31-40 years), income(<NPR 5000, NPR 5000-10,000, NPR 10,000-15,000, NPR 15,000-20,000,NPR>20,000), Occupation of the respondents (White Collar occupation service,business,house rent; blue collar occupation-agriculture,labor;and others-self employed, remittance and others).

The second part of the questionnaire consists of `12 questions.The response to each question is based on the dichotomous response of "Yes" and "No".The questions in this section consist is aimed to assess knowledge about the overall symptoms of COVID-19.The questionnaire is also based to assess knowledge about the pre-condition to stay in quarantine,knowledge of comorbidities during the COVID-19, and knowledge of prevention on COVID-19 among the respondents.

The final section of the survey comprises of questions to gauge respondents' attitudes regarding Covid-19. The aforementioned survey aims to gauge respondents' attitudes towards COVID-19 and their perceptions of its impact on public health, personal responsibility in preventing its spread, the effectiveness of preventive measures, trust in health authorities, the need to modify daily routines, the role of exercise and diet in boosting immunity, the significance of adhering to recommended measures, the need to stay informed, and the importance of being actively involved in one's community. These inquiries are intended to measure peoples' degree of worry for the virus, their comprehension of their part in halting its spread, their confidence in medical professionals, and their readiness to change their habits and behaviours for the benefit of both themselves and others. Insights on people's attitudes, beliefs, and behaviours towards COVID-19 will be gained through the replies, which will also provide light on their degree of involvement and adherence to advised policies and procedures.

The questionnaire's fourth section asks questions to gauge the respondents' efforts to avoid COVID-19. The questionnaire's aforementioned section evaluates respondents' methods for reducing COVID-19. It contains advice on using masks in public places, avoiding large crowds, cleaning frequently touched surfaces, refraining from touching the face, isolating oneself when experiencing symptoms or a risk of exposure, adhering to official guidelines, finding trustworthy information, washing hands frequently, and keeping a physical distance from others. The purpose of these questions is to gauge how frequently respondents use these preventative measures. The replies will provide light on the degree to which people are actively putting these practises into practise in their day-to-day lives, demonstrating their level of adherence to advised safeguards. The purpose of these questions is to gauge how frequently respondents use these preventative measures. The replies will provide light on the degree to which people are actively putting these practises into practise in their day-to-day lives, demonstrating their level of adherence to advised safeguards. This data is useful for measuring the efficacy of public health messages and actions and for gauging the overall success of respondents' practises in halting the spread of COVID-19.

Sample Size

According to statistics obtained from the MOHP during the initial framework, the city of Lalitpur consists of students at ug level,pg level,and doctoral level.The sample size was calculated using the online Raosoft Sample Size Calculator based on the assumption that the proportion of response to most of the main questions would be 50.Using a margin of error of 5% and a confidence interval (CI) of 95%,the minimum sample size was determined to be 341.

Piloting Phase

A pilot study was initially performed to evaluate the clarity of the questionnaire and the feasibility of the study procedures.For this purpose, 15 questionnaires were distributed to students.The pilot study ended with no modifications.

Data Analysis

Statistical Analysis was performed using SPSS version 27 (IBM Corp.,NY,USA).Data from closed-ended questions were initially coded and entered into SPSS. Binary logistics regression have been used to identify the relation between the Socio-Demographic Characteristics and Knowledge, Attitude and Practice Parameters towards Covid-19.

Statistical Analysis:

Descriptive Analysis was used to calculate frequencies, proportions and averages. The reliability of the questionnaire used to measure Knowledge, Attitude and Practice was evaluated using Cronbach's Alpha. The alpha value of 0.68 is acceptable.

The response given by the respondents are coded in case of assessment of Knowledge. Since the assessment of knowledge is done through dichotomous response of Yes and No. In this case, The Yes is coded as 1 and No is coded as 0.The cut off value of 8 is considered as Good Knowledge. The assessment of Attitude and Practice is done through Likert-Scale. In case of Attitude, the response to Strongly Agree or Agree is coded as 1.The cut off value of 7 and above is considered as sensistive. In case of assessment of Practice, the response to Strongly Agree or Agree is coded as 1.The cut off value of 8 and above is considered as Good Practice. The data is analysed through Bionomial Logistics regression. The socio demographic characteristics have been compared with the Knowledge score by Binary Logistics Regression.

3. Results and Discussion
Knowledge

The Study revealed that a higher proportion of respondents showed good knowledge of the necessity of handwashing or use of alcohol-based sanitiser, covering of nose and mouth while sneezing and coughing, maintain social distance and avoiding of crowd. During then Covid-19 Period, a moderate percentage of the population have overall knowledge of symptoms of Covid-19(29.32%).About 16.42% of the population have good knowledge about the preventive measures in order to get themselves protected from Covid-19. The pre-conditions necessary to continue in quarantine are satisfactorily understood by about 35.29 percent of the responders. Regarding the appropriate diet and exercise routine that can successfully boost the immune system, about 22.87% of respondents show awareness. The transmission of SARS-CoV-2 by aerosols is understood by about 35.19% of the responders. About 52.19% of those surveyed are aware of how important it is to have a minimum physical distance of 1 metre (3 feet) between two people in order to reduce the spread of Covid-19. About 26.39% of the respondents show knowledge of the groups most likely to have serious COVID-19 sickness. About 26.09% of the respondents show knowledge of the PPE kinds advised for use by healthcare professionals and anyone who are in close proximity to COVID-19 patients. About 32.35% of those surveyed are aware of the COVID-19 vaccinations' current state of availability and their importance in preventing the pandemic.

Table 1

S.N.	Items	Yes(%)
K1	Do you have good knowledge of the overall symptoms of COVID-19 as mentioned by WHO?	100(29.32%)
K2	Do you have good knowledge of preventive measures to be protected from COVID-19?	56(16.42%)
K3	Do you have good knowledge of pre-conditions to stay in quarantine?	120(35.19%)
K4	Do you know a proper diet and exercise to boost the immune system?	78(22.87%)
K5	Do you know SARS-CoV-2 can transfer from aerosols?	120(35.19%)
K6	Do you know SARS-CoV-2 will stay alive for seventy-two hours in plastic, and stainless steel?	89(26.09%)

K7	Do you know the importance of maintaining physical distance (at least 1 meter or 3 feet) to prevent the spread of COV ID-19?	178(52.19%)
K8	Are you aware of the most vulnerable populations who are at a higher risk of severe illness from COVID-19?	90(26.39%)
K9	Are you familiar with the types of personal protective equipment (PPE) recommended for healthcare workers and those in close contact with COVID-19 patients?	89(26.09%)
K10	Do you know the current status of COVID-19 vaccine availability and its importance in curbing the pandemic?	110(32.25%)
K11	Do you know the recommended duration for handwashing to effectively reduce the risk of COVID	190(55.71%)
K12	Do you have proper knowledge regarding several chronic diseases that increase the death rate of COVID	134(39.29%)

Table 2

Case Processing Summary			
Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	341	100
	Missing Cases	0	0
	Total	341	100.0
Unselected Cases		0	.0
Total		341	100.0
a. If weight is in effect, see classification table for the total number of cases.			

Table3

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	5.570	2	.062
2	8.180	4	.085

The value of the Hosmer and Lemeshow is 0. 062.This value is more than 0.05.It means the model adequately fits the data.

Table 4

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	215.466[a]	.039	.252
2	209.185[b]	.076	.301
a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.			
b. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.			

The value of Nagelkerke R Square is 0. 301.It means model 2 is showing variation in the dependent variable.

Table 5

			Predicted		
	Classification Table^a				
	Observed		Knowledge Scores		Percentage Correct
			Good Knowledege	Poor Knowledge	
Step 1	Knowledge Scores	Good Knowledege	63	18	77.8
		Poor Knowledge	45	34	43.0
	Overall Percentage				60.6
Step 2	Knowledge Scores	Good Knowledege	74	7	91.4
		Poor Knowledge	53	26	32.9
	Overall Percentage				62.5
a. The cut value is .500					

In Table 2, the step 2 is explaining the relation between Dependent variables and Independent Variables by 62.5%.

Table 6

		B	S.E.	Wald	df	Sig.	Exp(B)
	Variables in the Equation						
Step 1^a	Income	1.573	.342	21.211	1	.000	4.822
	Constant	-2.247	.539	17.356	1	.000	.106
Step 2^b	Income	1.615	.349	21.439	1	.000	5.026
	Education	.358	.169	4.475	1	.034	1.430
	Constant	-3.045	.687	19.659	1	.000	.048
Step 3^c	Income	.835	.389	4.615	1	.032	2.305
	Education	1.029	.439	5.501	1	.019	2.798
	Age	.482	.185	6.792	1	.009	1.620
	Constant	-3.793	.822	21.278	1	.000	.023
a. Variable(s) entered on step 1: Income							
b. Variable(s) entered on step 2: Education.							
c. Variable(s) entered on step 3: Age.							

As we can observe in the above Table 6, the Income is added in the first step.Then in the second step,the income and Education is added.In the third step,Income,Education and age is added.The value of significance for income,Education and Age are 0.032,0.19.and 0.009 respectively.This values are less than 0.005.Hence the impact of Income,Education and Age are significant on the knowledge of youths towards Covid-19.

Attitude

According to the poll, 82.11% of accounts indicated that they strongly agreed or agreed.They believe that COVID-19 poses a significant risk to the general public's health. In the same vein, a substantial majority of respondents (87.1%) express the opinion that individuals must assume personal responsibility for reducing Covid-19 transmission. According to 82.11% of study participants, following preventive guidelines including using masks and practising good hygiene will greatly reduce the spread of COVID-19. 86.22% of poll respondents, a sizable majority, show trust in the veracity and accuracy of the information on COVID-19 supplied by respectable health authorities. The majority of survey participants—about 87.97%—believe that following the COVID-19 prevention recommendations is essential for one's general health and safety as well as the protection of others. Approximately 79.17% of the participants believe it is crucial to be educated and updated with the most recent COVID-19 standards and information. The majority of survey participants—about 78.88%— believe that everyone must actively participate in preventing the spread of the virus.

Table 7

S.N.	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A1	**Do you believe that COVID-19 poses a significant threat to public health?**	180(52.79%)	100(29.32%)	10(2.93%)	30(8.80%)	21(6.16%)
A2	**Do you think it is important for individuals to take personal responsibility in preventing the spread of COVID-19?**	172(50.44%)	125(36.66%)	11(3.23%)	20(5.87%)	13(3.81%)
A3	**Do you think that practicing preventive measures such as wearing masks and practicing good hygiene can effectively reduce the transmission of COVID-19?**	170(49.85%)	110(32.26%)	6(1.76%)	30(8.80%)	25(7.33%)
A4	**Do you believe that the information provided by reputable health authorities is trustworthy and reliable regarding COVID-19?**	179(52.49%)	115(33.73%)	9(2.64%)	11 (3.23%)	27(7.92%)
A5	**Do you think it is necessary to adapt daily routines and behaviors to protect yourself and others from COVID-19?**	169(49.56%)	131(38.42%)	4(1.17%)	8(2.35%)	29(8.50%)
A6	**Do you think that exercise` and diet can improve immunity?**	156(45.75%)	136(39.88%)	9(2.64%)	10(2.93%)	32(9.38%)
A7	**Do you believe that following recommended COVID-19 preventive measures is essential for the well-being of**	160(46.92%)	140(41.05%)	7(2.05%)	13(3.81%)	21(6.16%)

	yourself and others?					
A8	**Do you think it is important to stay updated with the latest information and guidelines regarding COVID-19?**	135(41.05%)	135(38.12%)	6(1.76%)	30(8.80%)	35(10.26%)
A9	**Do you believe that everyone should actively participate in efforts to control the spread of COVID-19?**	129(37.83%)	140(41.05%)	5(1.47%)	30(8.80%)	37(10.85%)

Table 8

Case Processing Summary			
Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	341	100
	Missing Cases	0	0
	Total	341	100.0
Unselected Cases		0	.0
Total		341	100.0
a. If weight is in effect, see classification table for the total number of cases.			

Table 9

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	3.305	1	.069

As depicted in Table 9,the value of the Hosmer and Lemeshow is 0.069.This value is more than 0.05.It means the model adequately fits the data.

Table 10

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	155.423[a]	.076	.117
a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.			

The value of Nagelkerke R Square is 0.117.It means model is showing variation in the relation between dependent variable and independent variable.

Table 11

			Predicted		
	Observed		Attitide towards Covid-19		Percentage Correct
			Sensitive	Insensitive	
Step 1	Attitide towards Covid-19	Sensitive	7	28	20.0
		Insensitive	2	123	98.4
	Overall Percentage				81.3
a. The cut value is .500					

Classification Tableᵃ

In Table 11, the step 1 is explaining the relation between Dependent variables and Independent Variables by 81.3%.

Table 12

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1ᵃ	Age	1.030	.436	5.591	1	.018	2.802
	Education	20.630	40193.106	.000	1	.021	910663788.698
	Income	.442	.188	5.532	1	.019	1.556
	Constant	3.192	.871	13.420	1	.000	.041
a. Variable(s) entered on step 1: Age,Education, Income							

As we can see in the Table 12, the age ,education and income is added in the first step.The value of significance for Age,Education and Income are 0.018,0.021,and 0.019 respectively.The values of significance is less than 0.05.Hence the age,education,and Income have significant impact on the Attitude of College Students of Lalitpur towards Covid-19.

Practice

The majority of participants—87.68%—follow the custom of wearing masks in public or among other people. Many large gatherings and occasions where it is difficult to maintain physical distance are avoided by about 88.26% of survey participants. When coughing or sneezing, almost 90.02% of the participants develop the habit of covering their mouth and nose with a tissue or their elbow.Most study participants—73.3%—take the effort to sanitise commonly touched surfaces and items in their immediate environment. The majority of the participants, or about 82.11%, made a deliberate effort to avoid touching their face (eyes, nose, and mouth) with dirty hands. When individuals suffer COVID-19 symptoms or have been exposed, about 80.1% of survey participants choose remaining at home and engaging in self-isolation as the best course of action. The survey also found that around 89.72% of respondents mostly follow the official advice and guidance made by health authorities regarding COVID-19 measures. Approximately 87.08% of survey respondents actively look for trustworthy sources of accurate and reliable information regarding COVID-19 on a regular basis. The majority of survey respondents—about 87.09%—consistently wash their hands often. In social contexts, keeping a physical distance of at least 1 metre (3 feet) from others is prioritised by 92.14% of survey participants as their preferred strategy.

Table 13

S.N.	Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Wearing a mask in public places or around others.	180(52.79%)	119(34.89%%)	4(1.17%)	20(5.87%)	18(5.27%)

2	Avoiding large gatherings and events where physical distancing is difficult to maintain most of the time.	196(57.47%)	105(30.79%)	5(1.47%)	19(5.57%)	16(4.69%)
3	Covering my mouth and nose with a tissue or elbow when coughing or sneezing most of the time.	170(49.85%)	137(40.17%)	1(0.29%)	23(6.74%)	10(2.93%)
4	Sanitizing frequently-touched surfaces and objects in environment sometimes.	165(39.58%)	115(33.72%)	2(0.58%)	27(7.91%)	32(9.38%%)
5	Avoiding touching my face (eyes, nose, and mouth) with unwashed hands most of the time.	160(46.92%)	120(35.19%)	8(2.34%)	18(5.27%)	35(10.26%)
6	Staying at home and self-isolate when experiencing COVID-19 symptoms or after potential exposure most of the time.	158(46.33%)	122(35.77%)	5(1.46%)	20(5.86%)	36(10.55%)
7	**Following official guidelines and recommendations provided by health authorities regarding COVID-19 precautions most of the time.**	150(43.98%)	156(45.74%)	8(2.34%)	21(6.15%)	6(1.75%)
8	**Seeking accurate and reliable information about COVID-19 from trusted sources most of the time.**	162(47.50%)	135(39.58%)	8(2.34%)	21(6.15%)	15(4.39%)
9	**Practicing frequent handwashing with soap and water for at least 20 seconds most of the time.**	134(39.29%)	163(47.80%)	9(2.63%)	21(6.15%)	14(4.10%)
10	**Maintaining physical distance (at least 1 meter or 3 feet) from others**	145(42.52%)	159(46.62%)	9(2.63%)	16(4.69%)	12(3.51%)

	in social settings most of the time.				

Table 14

Case Processing Summary			
Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	341	100
	Missing Cases	0	0
	Total	341	100.0
Unselected Cases		0	.0
Total		341	100.0
a. If weight is in effect, see classification table for the total number of cases.			

Table 15

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	5.446	3	.095

The Table 15 indicates that the value of signifinace for Hosmer and Lemeshow is more than 0.095.Hence it can be inferred that the model adequately fits the data.

Table 16

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	185.901[a]	.198	.264
a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.			

As indicate in Table 16,it can be indicated that the value of the Nagelkerke R Square is 0.264.It means that the dependent variable is showing variation with the independent variables.

Table 17

Classification Table[a]					
	Observed		Predicted		
			Practice to prevent Covbid-19		Percentage Correct
			Good Practice	Poor Practice	
Step 1		Good Practice	42	33	56.0

Practice to prevent Covbid-19	Poor Practice	11	74	87.1
Overall Percentage				72.5
a. The cut value is .500				

The Table 17 presents the Classification Table,which provides a comprehensive overview of the classification results.The Classification table is indicating that the dependent variables is showing variation in the independent variables by 72.5%.

Table 18

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Age	1.030	.436	5.591	1	.018	2.802
	Marital Status	19.656	40193.106	.000	1	.113	.000
	Education	20.630	40193.106	.000	1	.079	910663788.698
	Income	.442	.188	5.532	1	.019	1.556
	Occupation	.400	.252	2.513	1	.063	.670
	Constant	3.192	.871	13.420	1	.000	.041
a. Variable(s) entered on step 1: Age, Marital Status, Education, Income, Occupation.							

The Table 18 indicates that the Age, Marital Status, Education, Income, and Occupation have significance value of 0.018,.113, and 0.079,0.019,0.063 respectively. It means that the Age, Education, Income and Occupation have significant impact on practice of college students towards prevention of Covid-19. The significance value for marital status is 0. 113. It indicates that there is no significant relationship between marital status and practice top prevent Covid-19.

Discussion of Results

An in-depth comprehension of the knowledge, attitudes, and practises of college students in Lalitpur about COVID-19 has been provided by the study. During the Covid-19 era, a sizable majority of respondents demonstrated strong understanding of preventative practises such handwashing, sanitising, and covering the nose and mouth. However, only a modest proportion of people were aware of all Covid-19 symptoms, and even fewer were aware of how to take precautions. The results of the study show that a sizeable majority of respondents express a variety of favourable attitudes and opinions about COVID-19, with percentages ranging from 78.88% to 87.98%.The relevance of altering habits for safety, the importance of exercise and a nutritious diet in boosting the immune system, and the necessity of sticking to preventative measures for general health and safety are all included in this. Additionally, a sizeable majority believes that remaining informed and actively taking steps to stop the spread of the virus are essential. Overall, the survey results show that participants have a positive attitude and are aware of COVID-19 and the steps that must be taken to safeguard themselves and others. According to the classification table (Table 5), the independent factors are thought to be responsible for 72.5% of the variance in the dependent variable. As we can observe in the above Table 6, the Income is added in the first step. Then in the second step,the income and Education is added. In the third step, Income, Education and age is added. The value of significance for income,Education and Age are 0.032,0.19.and 0.009 respectively. This values are less than 0.005.Hence the impact of Income, Education and Age are significant on the knowledge of youths towards Covid-19.

Regarding Attitude, as shown in Table 7, over 82.11% of accounts have indicated that they Strongly Agree and Agree. They believe that COVID-19 poses a significant risk to the general public's health. In the same vein, a substantial majority of respondents (87.1%) express the opinion that individuals must assume personal responsibility for reducing Covid-19 transmission. According to 82.11% of study participants, following preventive guidelines including using masks and practising good hygiene will greatly reduce the spread of COVID-19. The majority of survey respondents, 86.22%, express trust in the veracity and accuracy of the data on COVID-19 supplied by credible health organisations. The outcomes of the survey show that participants have strong ideas and convictions about COVID-19 safety precautions and preventative strategies. A substantial majority, or about 87.98%, think that changing daily habits and behaviours is essential for protecting oneself and others from the virus. Additionally, roughly 85.63% believe that it's crucial to maintain a strong immune system through exercise and a balanced diet. About 87.97% of respondents, or about the same proportion, agree that following advised preventative measures is important for overall health and safety. Approximately 79.17% of the participants believe it is crucial to be educated and current with the most recent information and recommendations. Finally, a sizable percentage, at 78.88%, emphasise the need for everyone to actively participate in halting the virus' spread. Overall, the poll shows that participants strongly agree on the significance of individual activities, preventative measures, and group efforts in the fight against COVID-19. According to the findings shown in Table 11, the independent factors may account for 81.3% of the variation in the dependent variables. As we can see in the Table 12, the age, education and income is added in the first step. The value of significance for Age,Education and Income are 0.018,0.021,and 0.019 respectively.The values of significance is less than 0.05.Hence the age, education,a nd Income have significant impact on the Attitude of College Students of Lalitpur towards Covid-19.

The study provided information on the strategies used by college students to prevent COVID-19. Approximately 87.68% of the participants follow the custom of donning masks in public or while around other people. Approximately 88.26% of poll participants choose to stay away from sizable gatherings and events where it is difficult to maintain physical distance. When coughing or sneezing, almost 90.02% of the participants develop the habit of covering their mouth and nose with a tissue or their elbow. About 73.3% of study participants go out of their way to sanitise commonly handled objects and surfaces in their environment.

The survey's results show that the respondents adhered to COVID-19 safety measures and acted responsibly. 82.11% of people, a large majority, deliberately refrain from touching their face with dirty hands. About 80.1% of people prefer to stay at home and isolate themselves when they are suffering symptoms or a possible exposure. Additionally, 89.72% of people mostly adhere to the official recommendations made by health authorities. about 87.08% of the participants regularly seek accurate and trustworthy information on COVID-19.

About 87.09% of the respondents said their favourite habit is to consistently wash their hands for at least 20 seconds. Additionally, 92.14% of the participants prioritise keeping a physical distance of at least 1 metre (3 feet) in social situations. These results show that survey participants have a strong commitment to acting responsibly and following suggested safety measures in order to slow the spread of COVID-19. Table 17's data provide an extensive summary of the categorization results. It demonstrates that 72.5% of the variance in the dependent variables' values can be attributed to the independent variables. The Table 18 indicates that the Age, Marital Status, Education, Income, and Occupation have significance value of 0.018,.113, and 0.079,0.019,0.063 respectively. It means that the Age, Education, Income and Occupation have significant impact on practice of college students towards prevention of Covid-19. The significance value for marital status is 0.113.It indicates that there is no significant relationship between marital status and practice top prevent Covid-19.

4. Conclusion
The results of our study are crucial because they provide light on how Lalitpur locals regarded their knowledge, attitudes, and behaviours during the COVID-19 epidemic. These understandings are essential for comprehending how people view and react to the current crisis, especially in light of their socio-demographic traits.We can better understand how variables like age, gender, education level, and socioeconomic position may affect knowledge, attitudes, and behaviours linked to COVID-19 by

examining the data across various sociodemographic groups. Although a sizable majority of respondents demonstrated strong understanding of preventative measures, general awareness of Covid-19 symptoms and self-protection was only modest. The results show that a majority of people had favourable attitudes and beliefs, including trust in reliable information, the need to change habits for safety, and the significance of a healthy diet, regular exercise, and preventative actions. It was thought essential to stay informed and actively participate in preventing the spread of the virus. The extracted data demonstrates the impact of age, education, and income on young people's awareness of COVID-19. These factors' significant effects are all shown by their significance levels, which are all below 0.005. This implies that age, education, and income are significant determinants of young people's understanding of Covid-19.

According to the survey, the majority of participants had a high belief in the dangers of COVID-19 (82.11%) and the value of human responsibility (87.1%) in preventing its spread. Additionally, they place a strong emphasis on the value of preventative measures (82.11%), have high confidence in the accuracy of health authorities' information (86.22%), and are aware of the necessity of changing routines, having a strong immune system, and following preventive measures (87.98%, 85.63%, and 87.97%, respectively). Both remaining aware (79.17%) and actively taking steps to avoid viruses are thought to be essential (78.88%). There is general agreement about individual activities, preventative measures, and group initiatives. The study also shows that independent factors may account for 81.3% of the variation in dependent variables. Attitude has been used to examine the link between socio-demographic factors. The findings showed that the age, education, and income significance values (0.018, 0.021, and 0.019, respectively) are all less than 0.05, showing a substantial influence on the perception of COVID-19 among college students in Lalitpur. In conclusion, it is discovered that wealth, education, and age all have an impact on how college students feel about the epidemic.

A considerable majority of college students (87.68%) practise wearing masks, and 88.26% avoid big gatherings, according to the study's assessment of student practise. The vast majority of participants wear masks, stay away from crowded areas, and cover their mouths and noses when they cough or sneeze. They also place a high priority on surface sanitization and hand hygiene. Responsible behaviours include refraining from touching your face and isolating yourself when symptoms are severe. Common practises include looking for trustworthy information, cleaning your hands, and keeping a physical distance. These results show that college students have a significant desire to stop the spread of COVID-19. A sizeable amount of the variance in the dependent variables is explained by the independent variables. The results of the study show that college students' practises for avoiding COVID-19 are substantially influenced by age, education, income, and occupation (significance values of 0.018, 0.079, 0.019, and 0.063, respectively). However, there is no correlation between COVID-19 preventative strategies and marital status (significance value: 0.113).

Implications:

As the COVID-19 epidemic spreads, the findings of the research will have a significant impact on public health initiatives aimed at college students. Interventions can be adapted to target specific socio-demographic aspects by determining the important influence of income, education, and age on students' knowledge, attitudes, and practises. Increased awareness of COVID-19 symptoms and precautions might be the goal of educational initiatives, which should also stress the need of following precautions. Interventions that are specifically targeted can be created to encourage responsible behaviour like staying away from crowded areas and keeping a physical distance. When formulating plans to stop the spread of COVID-19 among college students, these findings will be an invaluable resource for decision-makers in policy, healthcare, and education.

Limitations:

There are a number of limitations that apply to this study. First, the study's exclusive emphasis on university students in Lalitpur, Nepal may restrict how broadly the results may be applied to other groups. Secondly, the data were gathered by a questionnaire survey, which depends on self-reported replies and may be susceptible to recollection bias or social desirability bias. Third, binary logistic regression analysis, which identifies relationships but not causality, was used in the study. In addition, the study did not evaluate additional characteristics like access to healthcare services or cultural views

that can have an impact on students' knowledge, attitudes, and practises. By using a more diversified sample and mixed-method techniques for a thorough understanding, future research may be able to overcome these constraints.

Scope of Study:

The focus of this study is on college students in Lalitpur, Nepal, and how they understand, perceive, and use COVID-19. The study sheds important light on how sociodemographic factors affect these variables and emphasises the need of treatments that are specifically designed for this community. The findings can guide policy choices, educational initiatives, and public health initiatives aimed at college students during the continuing COVID-19 epidemic. The study's scope is constrained to a certain region and population, thus future research is required to increase its generalizability and look at other variables impacting college students' COVID-19-related behaviours.

References:

1. World Health Organization. Naming the coronavirus disease (COVID-19) and the virus that causes it. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technicalguidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it .

2. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19-11 March 2020. Available from: https://www.who.int/directorgeneral/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid 19---11-march-2020.

3. Bastola A, Sah R, Rodriguez-Morales, AJ, Lal BK, Jha R, Ojha HC, Shrestha B, Chu D, Poon L, Costello A, Morita K, Pandey BD. The first 2019 novel coronavirus case in Nepal. The Lancet. Infectious diseases. 2020; 20(3), 279–280. 2020. https://doi.org/10.1016/S1473-3099(20)30067-0

4. Chirwa GC. Who knows more, and why? Explaining socioeconomic-related inequality in knowledge about HIV in Malawi. Scientific African. 2020;7:e00213.

5. Chirwa GC. Socio-economic inequality in comprehensive knowledge about HIV in Malawi. 410 Malawi Medical Journal. 2019; 31(2):104-111.

6. World Health Organization. COVID-19 Advice for the Public: Getting Vaccinated. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19- 413vaccines/advic .

7. Julietwalker (2021) Are people letting down their guard too soon after covid-19 vaccination?, The BMJ. Available at: https://blogs.bmj.com/bmj/2021/03/18/are-people-letting-down-their-guard-too-soon-after-covid-19-vaccination/(Accessed: 01 July 2023).

8. Rayamajhee B, Pokhrel A, Syangtan G, Khadka S, Lama B, Rawal LB, Mehata S, Mishra SK, Pokhrel R, Yadav UN. How well the government of Nepal is responding to COVID-19? An experience from a resource-limited country to confront unprecedented pandemic. Frontiers in public health. 2021; 9:597808

9. Himalayan Climate Initiative. COVID-19 and the new normal for women in the economy in Nepal. 2021. Available from : https://asiafoundation.org/wp-content/uploads/2021/03/Covid-19-TheNew-Normal-for-Women-in-the-Economy-in-Nepal.

10. Available from: https://mohp.gov.np/attachments/article/703/Responding%20to%20COVID 19,%20Health%20sector%20preparedness,%20response%20and%20lessons%20learnt.pdf

11. Ministry of Health and Population, Government of Nepal. Coronavirus disease (COVID-19) 431 outbreak updates & resource materials. 2021. Available from: https://heoc.mohp.gov.np/update432 on-novel-corona-virus-covid-19/

12. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel corona virus in Wuhan, China. Lancet 2020;395(10223):497-506. https://doi.org/10.1016/S0140-6736(20)30183-5

13. Wu Z and McGoogan JM. Characteristics of and Important Lessons from the Corona virus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention. JAMA 2020; 323(13): 1239-1242. https://doi.org/10.1001/jama.2020.2648

14. Munster VJ, Koopmans M, van Doremalen N, van Riel D and de Wit E. A Novel Corona virus Emerging in China - Key Questions for Impact Assessment. N Engl J Med 2020; 382:692-694. https://doi.org/10.1056/NEJMp2000929

15. World Health Organization. 2019-nCoV outbreak is an emergency of international concern. 2020. http://www.euro.who.int/en/health-topics/emergencies/pages/ news/news/2020/01/2019-ncov-outbreak-is-an-emergency-ofinternational-concern.

16. Ajilore K, Atakiti I and Onyenankey K. College students' knowledge, attitudes and adherence to public service announcements on Ebola in Nigeria: Suggestions for improving future Ebola prevention education programmes. Health Education Journal 2017;76:648-660.

17. Tachfouti N, Slama K, Berraho M and Nejjari C. The impact of knowledge and attitudes on adherence to tuberculosis treatment: a case-control study in a Moroccan region. Pan Afr Med J 2012; 12:52.

18. Person B, Sy F, Holton K, Govert B and Liang A. National Center for Inectious Diseases SCOT. Fear and stigma: the epidemic within the SARS outbreak. Emerg Infect Dis 2004; 10:358-363. https://doi.org/10.3201/eid1002.030750

19. Tao N. An analysis on reasons of SARS-induced psychological panic among students. Journal of Anhui Institute of Education 2003; 21:78-79.

20. Update on Covid-19 in Nepal. Ministry of Health and Population: MOHP Nepal COVID-19 Update. 2020. Retrieved from, https://covid19.mohp.gov.np/#/ [Accessed 18 May 2020]

21. Paudel S, Shrestha P, Karmacharya I, Pathak OK. Knowledge, attitude, and practices (KAP) towards COVID-19 among Nepalese residents during the COVID-19 outbreak: An online cross-sectional study. Research Square; 2020. DOI: 10.21203/rs.3.rs-31044/v1.

22. Health sector emergency response Plan. Ministry of Health and Population Government of Nepal. 2020. Retrieved from https://www.who.int/docs/default-source/nepal-documents/novel-coronavirus/health-sector-emergency-response-plan-covid-19-endorsed-may-2020.pdf?sfvrsn=ef831f44_2 [Accessed 19 May 2020]

23. Kathmandu Post. After second Covid-19 death, government extends lockdown to June 2. 2020. Retrieved from: https://kathmandupost.com/national/2020/05/17/government-extends-nationwide-lockdown-until-june-2 [Accessed 18 May 2020]

24. Nepal Telecommunications Authority MIS Report: 2076. 2020; 182: 134.

25. Ministry of Education. Government of Nepal. Education in Figures 2017. Ministry of Education, Science & Technology, Planning and Monitoring. Singhdurbar, Kathmandu: Division, Statistics, Policy and Research Section; 2017.

26. Fielding N, Lee R, Blank G. The SAGE Handbook of Online Research Methods. Online Research Methods. 2012: 161-76.

27. Zhong BL, Luo W, Li H-M, Zhang Q-Q, Liu X-G, Li W-T, Li Y. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. International Journal of Biological Science. 2020; 16(10): 1745-52. https://doi.org/10.7150/ijbs.45221

28. Hussain A, Garima T, Singh B, Ram R, Tripti R. Knowledge, attitudes, and practices towards COVID-19 among Nepalese Residents: A quick online cross-sectional survey. Asian Journal of Medical Sciences. 2020; 11(3): 6-11. https://doi.org/10.3126/ajms.v11i3.28485

28. Miguel Carlos, González Rios. Knowledge, attitudes and practices towards COVID-19 in Paraguayans during outbreaks: a quick online survey. 2020. https://doi.org/10.1590/SciELOPreprints.149

29. Azlan AA, Hamzah MR, Sern TJ, Ayub SH, Mohamad E. Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia. PLoS ONE. 2020; 15(5). https://doi.org/10.1371/journal.pone.0233668

30. Mohd Hanafiah Khayriyyah, Da Wan Chang. Public knowledge, perception and communication behavior surrounding COVID-19 in Malaysia. Research Gate. 2020. 31124/advance.12102816.v1

31. Austrian K, Pinchoff J, Tidwell JB, White C, Abuya T, Kangwana B, et al. COVID-19 related knowledge, attitudes, practices and needs of households in informal settlements in Nairobi, Kenya. Bulletin World Health Organization. 2020. https://doi.org/10.2471/BLT.20.260281

32. Abdelhafiz AS, Mohammed Z, Ibrahim ME, et al. Knowledge, Perceptions, and Attitude of Egyptians towards the Novel Coronavirus Disease (COVID-19). Journal of Community Health. 2020; 1(10). https://doi.org/10.1007/s10900-020-00827-7

33. Ghosal, I., & Chatterjee, D. (2014). Online shopping: An empirical study in West Bengal from the customer point of view. International Journal of Scientific Research and Education, 2(11), 2405-2418.

34. Ghosal, I., Prasad, B., & Gupta, B. (2022). Restructuring the green consumerism through e-commerce portals: a behavioural congruence during post-covid-19. In Future of Work and Business in Covid-19 Era: Proceedings of IMC-2021 (pp. 89-99). Singapore: Springer Nature Singapore.

35. Prasad, B., & Ghosal, I. (2022). Forecasting buying intention through artificial neural network: an algorithmic solution on direct-to-consumer brands. FIIB Business Review, 11(4), 405-421.