



ISSN: 2091-2749 (Print)  
2091-2757 (Online)

#### Correspondence

Ganga Pokharel  
Nursing Program, Manipal  
College of Medical Sciences,  
Pokhara, Kaski, Nepal  
Email: gangapk06@gmail.com

#### Peer Reviewers

Prof. Nabees MS Pradhan,  
Patan Academy of Health  
Sciences, Nepal

Assist. Prof. Ashis Shrestha,  
Patan Academy of Health  
Sciences, Nepal

#### Submitted

25 Dec 2020

#### Accepted

18 Apr 2021

#### How to cite this article

Ganga Pokharel, Nona Shakya,  
Kalpana Shrestha, Nirsuba  
Gurung. Impact of COVID-19  
lockdown on nursing and  
medical students studying in  
selected medical colleges,  
Pokhara, Nepal. Journal of  
Patan Academy of Health  
Sciences. 2021Aug;8(2):72-84.

<https://doi.org/10.3126/jpahs.v8i1.37000>

## Impact of COVID-19 lockdown on undergraduate nursing and medical students of a medical college in Pokhara, Nepal

Ganga Pokharel , Nona Shakya , Kalpana Shrestha , Nirsuba Gurung 

Lecturers, Nursing Program, Manipal College of Medical Sciences, Pokhara, Kaski, Nepal

### Abstract

**Introduction:** Coronavirus disease 2019 (COVID-19) is a highly infectious disease declared a pandemic on March 11, 2020, by WHO. As a preventive measure, Nepal was put into lockdown from 24 March to 21 July, 2020 for the first wave of COVID-19 infection. Sudden lockdown prompted the widespread closure of educational institutions. This study aimed to assess the academic and social impact due to COVID-19 lockdown on undergraduate students.

**Method:** A web based cross sectional study was conducted among 403 undergraduate students of Manipal College of Medical Sciences (MCOMS), Pokhara Nepal using the total enumeration method after the ethical approval from Institutional Review Committee (IRC), MCOMS. Data was collected through online self-administered questionnaires by using Microsoft Form. Analysis of the results was done by using descriptive and inferential statistics.

**Result:** High academic (55.6%) and social (53.8%) impact was seen in the students. Female (OR: 1.76; CI 1.1-2.82), Nepalese students (OR: 2.05; CI 1.19-3.51), data pack users (OR: 2.09; CI 1.16-3.78) were more likely to have a high academic impact. Foreign students (OR: 1.88; CI 1.11-3.11) and students having a daily update of COVID-19 (OR: 2.2; CI 1.03-4.66) were more likely to have a high social impact.

**Conclusion:** Academic impact was seen more in female and Nepalese students while the social impact was high among foreign students. Educational activities need to continue in this critical situation. Concerned authorities need to focus on the improvement of digital infrastructure and technology along with the continuation of clinical learning with safety precautions during this pandemic time for better learning among students.

**Keywords:** COVID-19 lockdown, impact, medical, nursing, undergraduate students

## Introduction

Coronavirus disease 2019 (COVID-19) is a highly infectious disease declared a pandemic on 11 Mar 2020 by WHO.<sup>1,2</sup> Lockdown has been one of the strategies to slow down the spread of infection.<sup>3</sup> Nepal was put into lockdown from 24 Mar to 21 Jul 2020 for the 1st wave of COVID-19 infection.<sup>4</sup> After the ease of nationwide closure, the central government of Nepal authorized local authorities to impose lockdowns within their jurisdictions as appropriate.<sup>5</sup> Preventive measures of social distancing, use of face masks, and self-isolation prompted the closure of educational institutions.<sup>6</sup>

Worldwide 1.54 billion (89%) children and youth enrolled in schools and universities were affected.<sup>7</sup> In Nepal, over eight million were forced to stay home.<sup>8</sup> The outbreak greatly influenced the learning, leading to the transition of learning and assessments to untested online platforms on an unprecedented scale.<sup>9</sup> Access to education and socio-economic issues has been affected by the COVID-19 pandemic.<sup>10</sup>

This study aimed to assess the academic and social impact due to the COVID-19 lockdown on undergraduate students studying in a medical college in Pokhara, Nepal.

## Method

This web-based cross-sectional study was conducted using an online self-administered questionnaire among undergraduate nursing and medical students through the total enumeration sampling method at Manipal College of Medical Sciences (MCOMS), Pokhara, Nepal from 09 July to 31 Jul 2020. The total sample size was 403, medical students 310, and nursing students 93.

A well-validated questionnaire developed after the consultation with experts and with the help of an extensive literature review was used for the data collection.

The final research tool consisted of five parts. Part I included a structured questionnaire on socio-demographics and part II included dichotomous questions on the academic aspect. Part III included sixteen items to assess the negative impact on the academic life of undergraduate students due to COVID-19 lockdown rated on a 5-point Likert scale (not at all=0, a little bit=1, moderately=2, quite a bit=3 and extremely=4). Reverse scoring was given for item 16. Scoring ranged from 0 to 64. Part IV included seven items related to involvement in social activities by students. The responses for this were recorded as increased, same as before, and decreased. Part V included ten items to assess the negative impact on the social life of undergraduate students due to COVID-19 lockdown rated on a 5-point Likert scale (not at all=0, once or twice=1, few times=2, often=3 and very often=4). Reverse scoring was given for items 1 and 2. Scoring ranged from 0 to 40.

In this study, steady family income means earning the approximately same amount of money each month.

Categorization as high and low impact was done according to the mean score separately for academic and social impact. The mean for academic impact was 42. Those undergraduate nursing and medical students who scored less than 42 were categorized as having a low academic impact and those who scored more than or equal to 42 were categorized as having a high academic impact. Similarly, the mean score for social impact was 22. Those undergraduate nursing and medical students who scored less than 22 were categorized as having a low social impact and those who scored more than or equal to 22 were categorized as having a social impact.

Data was collected after the ethical approval from Institutional Review Committee (IRC), MCOMS (MEMG/IRC/352/GA). The final tool was developed into a web-based system using an online Microsoft (MS) form as students were attending classes through MS Team during the lockdown. The initial page of the MS Form contained the background, objectives of

the study and consent, followed by the questionnaires only after the voluntary approval by the respondents. After taking the email address of undergraduate nursing and medical students of the MS Team from the Information Technology (IT) department of MCOMS, the link of MS Form was sent to 644 students studying in MCOMS.

Among these 644 students at MCOMS, 548 were Bachelor of Medicine and Bachelor of Surgery (MBBS) and 96 Bachelor of Science in Nursing (BSc. Nursing). In BSc. Nursing there were 15 students in 1st y, 26 students in 2nd y, 30 students in 3rd y, and 25 students in the 4th y. All the students in BSc Nursing were Nepalese. In MBBS there were 100 students in 1st y. Among them 50 were Nepalese and 50 were foreign students. In 2nd y there were 99 students. Among them 51 were Nepalese and 48 were foreign students. There were 101 students in 3rd y. Among them 51 were Nepalese and 50 were foreign students. There were two batches in the 4th y during the data collection period. One batch was learning in 4th y and the next batch was preparing for the university examination. In the batch learning in 4th y there were 115 students. Among them 69 were Nepalese and 46 were foreign students. In the next batch, there were 133 students and among them 67 were Nepalese and 66 were foreign students. In total there were 288 Nepalese and 260 foreign students in MBBS.

On the 1st day (09 Jul 2020) and 2nd day (10 Jul 2020) of data collection we received 98 and 78 responses respectively. On the 3rd, 4th, 5th, and 6th days there were very minimal responses. On the 6th day, we contacted the class representative of each class and told them to fill the form and to tell their friends also to fill the form. Then there were 25 responses on the seventh day. Then again there were very minimal responses on the 8th, 9th, and 10th day. Till the 10th day, there were almost complete responses from the nursing students. On the 11th day, we contacted the class teacher of each class of MBBS students and requested them to tell the students to fill the form. Then the responses increased to 139 responses on the 12th day, 17 responses on

the 13th day, and 35 responses on the 14th day. Then again we started getting minimal responses. Then we waited for one week for the responses and closed the MS form on 31 Jul 2020.

The time taken to fill the form was 11m on average. The questionnaires did not contain any identifying data of the participants to ensure the confidentiality of the undergraduate nursing and medical students. Confidentiality and anonymity were maintained during all the phases of the research process.

All the data received from the online system were checked for completeness. We received 415 responses; however, 12 forms were incomplete and hence excluded. The final response was 403(62.5%). Data were exported in MS Excel v.2010 and analyzed in IBMSPSS version 20 software. Analysis was done by descriptive (frequency, percentage, mean, standard deviation) and inferential (regression analysis) statistics. Confidence Intervals (CIs) of 95% were used to quantify the association and a p-value <0.05 was considered significant.

## Result

Among 403 undergraduate nursing and medical students, 243(60.3%) belonged to age group 17-21y, 154(38.2%) to age group 22-26y, and 6(1.5%) to age group 27-31y. There were 248(61.5%) females and 310(76.9%) were studying MBBS. Among the respondents, 270(67%) were Nepalese (included all the BSc Nursing students i.e. 93) and MBBS 177, whereas 109(27%) were Indian students. For the internet connectivity, 304(75.4%) students used WiFi, and 99(24.6%) students used a data pack. Regarding residence 281(69.7%) were from the urban region and 387(96%) students were staying with their parents while only 16(4%) did not stay with their parents during COVID-19 lockdown. A total of 323(80.1%) had a steady family income. The COVID-19 infection was not seen in 350(86.8%) students' friends and relatives and 368(91.3%) students

used to follow daily updates of COVID-19, Table 1.

Among the 2nd year students (N=95), 76 (80%), 83 (87.4%), and 65(68.4%) were not ready for extra fee payment, post-pandemic online learning, and online university exam respectively. Out of 115 students from 4th y, 84(73%) felt the current lockdown would affect their future career. Among 403 undergraduate nursing and medical students, only 22(5.5%) from 2nd, 3rd and 4th year were writing supplementary examination when lockdown started. Although all of them i.e. 22(100%) were worried about the timely completion of the supplementary examination and the effect in the current academic year's

university examination, and 7(31.8%) students were preparing seriously for the remaining supplementary examination during the COVID-19 lockdown period.

This study indicated that 385(95.5%) students were worried about university examination postponement, and 400(99.3%) about practical requirement completion. Technical errors during the online class created stress among 380(94.3%) students, whereas 389(96.5%) students felt that online learning strategies require lots of effort and posed challenges for the teachers and students alike. Although timely internal assessments were not conducted, 334(82.9%) students were doing course revision themselves, Table 2.

**Table 1. Socio-demographic characteristics of undergraduate medical and nursing students of Manipal College of Medical Sciences, Pokhara, Nepal (N=403)**

Sample characteristics	Category	Frequency (f)	Percentage (%)
Age (y)	17-21	243	60.3
	22-26	154	38.2
	27-31	6	1.5
Gender	Male	155	38.5
	Female	248	61.5
Course of study	MBBS	310	76.9
	BSc. Nursing	93	23.1
Academic year	1st y	97	24.1
	2nd y	95	23.6
	3rd y	96	23.8
	4th y	115	28.5
Nationality	Nepalese	270	67
	Indian	109	27
	Srilankan	18	4.5
	Maldivian	5	1.2
	Australian	1	0.2
Internet connectivity	WiFi	304	75.4
	Data pack	99	24.6
Place of residence	Urban	281	69.7
	Semi-urban	97	24.1
	Rural	25	6.2
Living with parents in current lockdown	Yes	387	96
	No	16	4
Steady family income	Yes	323	80.1
	No	80	19.9
Family member or friend infected with COVID-19	Yes	53	13.2
	No	350	86.8
Daily update of COVID-19	Yes	368	91.3
	No	35	8.7

The mean academic impact score was 42(42.19±10.117). Among 403 students, 224(55.6%) had a high academic impact ( $\geq 42$ )

and 179(44.4%) had a low academic impact ( $< 42$ ).

The academic impact was significantly associated with gender, nationality, internet connectivity, friend/relative infected with COVID-19, online university examination, post-pandemic online learning, and the possible effect in the future career. Female vs. male (OR: 1.76; CI 1.1-2.82), Nepalese student vs.

foreign students (OR:2.05; CI 1.19-3.51), data pack user vs. WiFi user (OR: 2.09; CI 1.16-3.78), students whose friend/relative were infected vs. not infected (OR: 2.38; CI 1.19-4.78) were more likely to have a high academic impact. Similarly, students who were not ready for online university examination vs. ready (OR: 1.83; CI 1.08-3.1), students who felt post-pandemic online learning should not continue vs. should continue (OR: 2.14; CI 1.35-3.39), effect in future career vs. no effect (OR: 2.44; CI 1.53-3.87) were also more likely to have a high academic impact, Table 3.

**Table 2. Responses on questions related to academic life during COVID-19 lockdown among undergraduate nursing and medical students of Manipal College of Medical Sciences, Pokhara, Nepal (N=403)**

Questions	Not at all N(%)	A little bit N(%)	Moderately N(%)	Quite a bit N(%)	Extremely N(%)
Worried of current academic year completion on time	9(2.2)	36(8.9)	43(10.7)	121(30)	194(48.1)
Worried of university examination postponement	18(4.5)	39(9.7)	53(13.2)	111(27.5)	182(45.2)
Worried of year loss	15(3.7)	35(8.7)	38(9.4)	100(24.8)	215(53.3)
Studying from home is stressful	53(13.2)	60(14.9)	70(17.4)	122(30.3)	98(24.3)
Worried about not getting preparation time before university examination	11(2.7)	23(5.7)	31(7.7)	109(27)	229(56.8)
Worried of practical requirement completion	3(0.7)	16(4)	34(8.4)	96(23.8)	254(63)
Lack of clinical will have difficulty in performing a practical examination	5(1.2)	15(3.7)	29(7.2)	89(22.1)	265(65.8)
Sudden transition to online class is stressful	40(9.9)	67(16.6)	93(23.1)	119(29.5)	84(20.8)
Physical stress due to continuous online class	74(18.4)	61(15.1)	51(12.7)	94(23.3)	123(30.5)
Difficulty attending class due to internet connectivity and irregular power supply	38(9.4)	94(23.3)	72(17.9)	94(23.3)	105(26.1)
Difficulty clearing doubts from teachers	97(24.1)	111(27.5)	80(19.9)	78(19.4)	37(9.2)
Online learning requires a lot of effort and challenges for teachers and students	14(3.5)	73(18.1)	87(21.6)	120(29.8)	109(27)
Stress due to technical errors	23(5.7)	76(18.9)	76(18.9)	95(23.6)	133(33)
Course taken during online class should be repeated	69(17.1)	109(27)	95(23.6)	67(16.6)	63(15.6)
Attendance will be hampered	64(15.9)	79(19.6)	81(20.1)	89(22.1)	90(22.3)
Able to do course revision themselves although timely internal assessments are not conducted	69(17.1)	135(33.5)	136(33.7)	54(13.4)	9(2.2)

**Table 3. Factors associated with high academic impact among undergraduate nursing and medical students of Manipal College of Medical Sciences, Pokhara, Nepal (N=403)**

Variables	Category	Odds Ratio (95% CI)	p-value
Gender	Male	1	0.01*
	Female	1.76(1.1- 2.82)	
Nationality	Foreign <sup>#</sup>	1	0.00*
	Nepalese	2.05(1.19-3.51)	
Internet connectivity	WiFi	1	0.01*
	Data pack	2.09(1.16-3.78)	
Living with parents	Yes	1	0.33
	No	0.58(0.19-1.74)	
Steady family income	Yes	1	0.07
	No	1.74(0.94-3.22)	
Friend/ relative infected with COVID-19	No	1	0.01*
	Yes	2.38 (1.19-4.78)	
Daily update of COVID-19	Yes	1	0.33
	No	0.68(0.31-1.48)	
Extra fee payment	Yes	1	0.47
	No	1.2(0.72-1.99)	
Online university exam	Yes	1	0.02*
	No	1.83(1.08-3.1)	
Post pandemic online learning	Yes	1	0.00*
	No	2.14(1.35-3.39)	
Effect in future career	No	1	0.00*
	Yes	2.44(1.53-3.87)	

CI= confidence interval, \*Significant (p<0.05), # Indian, Srilankan, Maldivian, Australian

**Table 4. Responses on questions related to social life during COVID-19 lockdown among undergraduate nursing and medical students of Manipal College of Medical Sciences, Pokhara, Nepal (N=403)**

Questions	Not at all N(%)	Once or twice N(%)	Few times N(%)	Often N(%)	Very often N(%)
Attended friends gathering	256(63.5)	103(25.6)	35(8.7)	9(2.2)	0
Attended large-scale functions	354(87.8)	40(9.9)	8(2)	1(0.2)	0
Involved in distribution of relief package	281(69.7)	70(17.4)	37(9.2)	11(2.7)	4(1)
Involved in community awareness	304(75.4)	72(17.9)	16(4)	7(1.7)	4(1)
Put mask while sitting with other people	9(2.2)	6(1.5)	35(8.7)	138(34.2)	215(53.3)
Maintained one-meter distance	16(4)	7(1.7)	42(10.4)	160(39.7)	178(44.2)
Encouraged quarantine stay who came from other districts	61(15.1)	37(9.2)	73(18.1)	116(28.8)	116(28.8)
Attended any webinar/online meeting	146(36.2)	137(34)	78(19.4)	21(5.2)	21(5.2)
Social distancing has affected social relationship	175(43.4)	44(10.9)	98(24.3)	68(16.9)	18(4.5)
Asked you regarding COVID-19 or preventive measures	45(11.2)	92(22.8)	121(30)	87(21.6)	58(14.4)

Here, the use of mobile phones and social media were found to have increased in 339(84.1%) and 316(78.4%) students respectively. Similarly, chatting/calling with friends and relatives increased in 248(61.5%), and visiting nearby relatives and neighborhoods decreased in 327(81.1%) students.

Friends gathering and large-scale functions such as marriage were not attended by 256(63.5%) and 354(87.8%) students, respectively. While going out from home 387(96%) students maintained at least one-meter distance<sup>11</sup> and 228(56.6%) students thought social distancing has affected the social relationship as well. Only 122(30.3%) students were involved in the distribution of

relief package and 99(24.6%) in community awareness, Table 4.

The mean social impact score was 22(21.67±4.022). Among 403 students, 217(53.8%) had a high social impact (≥22) and 186(46.2%) had a low social impact (<22).

The social impact was significantly associated with nationality, a daily update of COVID-19, extra fee payment, and online university examinations. Foreign students (vs Nepalese students; OR: 1.88; CI 1.11-3.11), students having daily updates (vs not having daily update; OR: 2.2; CI 1.03-4.66), should not pay an extra fee (vs should pay an extra fee; OR: 1.82; CI 1.12-2.94), students not ready for online university examination (vs ready; OR: 1.86; CI 1.11-3.14) were more likely to have a high social impact, Table 5.

**Table 5. Factors associated with high social impact among undergraduate nursing and medical students of Manipal College of Medical Sciences, Pokhara, Nepal (N=403)**

Factors	Category	Odds Ratio (95%CI)	p-value
Gender	Male	1	0.55
	Female	1.14(0.73-1.77)	
Nationality	Nepalese	1	0.01*
	Foreign <sup>#</sup>	1.88(1.11-3.11)	
Internet connectivity	WiFi	1	0.13
	Data pack	1.52(0.88-2.63)	
Living with parents	Yes	1	0.48
	No	0.68(0.24-1.97)	
Steady family income	Yes	1	0.24
	No	1.4(0.79-2.46)	
Friend /relative infected with COVID-19	Yes	1	0.58
	No	0.842(0.45-1.56)	
Daily update of COVID-19	No	1	0.04*
	Yes	2.2(1.03-4.66)	
Extra fee payment	Yes	1	0.01*
	No	1.82(1.12-2.94)	
Online university exam	Yes	1	0.01*
	No	1.86(1.11-3.14)	
Post pandemic online learning	Yes	1	0.15
	No	0.72(0.46-1.12)	
Effect in future career	Yes	1	0.3
	No	0.79(0.5-1.23)	

\*Significant (p<0.05)

<sup>#</sup> Indian, Srilankan, Maldivian, Australian

## Discussion

Our study found significant academic and social impact due to COVID-19 lockdown on the undergraduate nursing and medical

students; more than half of the students, 224(55.6%) had a high academic impact. Similar findings were revealed from different studies; there was academic performance effect (57.5%)<sup>12</sup> and negative impact on

education (76.7%)<sup>13</sup> in India, negative impact on education in US<sup>14</sup> and negative attitude towards e-learning (61.6%) in Egypt.<sup>15</sup> The COVID-19 school and university closures have a negative impact on students' knowledge and skills development in Nepal.<sup>16</sup> Negative impact on students could be due to the unprecedented step of taking an online class all of a sudden that led to major changes in learning among students. The other reason could be due to the largest disruption in the education sector because of the COVID-19 pandemic which has caused universal impact on learners and teachers from technical and vocational education, training institutions, universities, adult learning, and skills development establishments.<sup>17</sup>

In the current study, more than half of the undergraduate nursing and medical students, 217(53.8%) had a high social impact. Similar findings were revealed from different studies; social problems were reported among 53.5% in India<sup>12</sup>, women experienced a disproportionate burden of the social impact of the pandemic compared to men in Pakistan<sup>18</sup> and COVID-19 created social disparities in Nepal.<sup>19</sup> Few more studies noted similar findings which stated students faced the changes in social life<sup>20</sup>, social disruption caused by a pandemic is devastating<sup>21</sup>, COVID-19 pandemic has created tremendous social impact in societies<sup>22</sup> and much more than a health crisis COVID-19 pandemic has created a social crisis.<sup>23</sup> In contrast to our study positive social changes were seen in India.<sup>24</sup> This could be due to the shutdown of the cultural and traditional life of people because lockdown as many communities - level events, rituals, and key festivals have been canceled due to the spread of the coronavirus.<sup>17</sup> another reason could be due to changes in daily habits, way of living and restrictions in travel and movement during the COVID-19 lockdown.

In the present study, the academic impact was significantly associated with gender. A similar finding was seen in Egypt; attitude towards e-learning was significantly associated with gender.<sup>15</sup> In contrast to our study a global study reported that academic life during

COVID-19 had a strong impact on male students.<sup>20</sup> The reason for this association might be due to the more anxious nature of females than males.<sup>25</sup> The other reason could be a sudden change in academic activities and workload of students due to COVID-19 lockdown. Unlike our age and academic year were also significantly associated with the attitude of e-learning in Nepal<sup>26</sup> and Egypt.<sup>15</sup>

This study illustrated that almost all students were worried regarding completion of the current academic year on time and university examination postponement. Among them only 22(5.5%) writing supplementary examinations when lockdown started. Similar findings were noted in few studies which stated that when lockdown started, some students were taking examinations while some were about to complete the academic year. These students were under high stress regarding the uncertainty of the future due to the postponement of the examination.<sup>3,9</sup>

Our study revealed almost all students were worried about practical requirement completion and felt inadequate clinical exposure will affect their performance in practical examination. A similar finding was reported in the US, COVID-19 has affected the training process of medical students.<sup>27</sup> This could be due to the severe hamper in students' clinical exposure and learning because of COVID-19 closure.

In this study 389(96.5%) students felt online learning strategies require a lot of effort and challenges for teachers and students. Students felt stress due to technical errors during the online class 380(94.3%) and physical stress due to continuous online class 329(81.6%). A study from Egypt showed a similar finding, whereby 86.2% reported that they lacked technical assistance to handle technological problems.<sup>15</sup> Contrary to our findings, only 42% of the students felt stress due to online study in India.<sup>13</sup> This could be due to interruptions during the online class and lack of proper access to technology.<sup>28</sup>

In the present study, 350(86.8%) students felt studying from home is stressful which is

relatively higher than another study from Nepal (54.8%).<sup>26</sup> Contradictorily, only 12.6% of students did not have a favorable environment to study from home in India.<sup>13</sup> In this study, 339(84.1%) students reported attendance would be hampered due to online class which is in line with the finding from India (75.9%).<sup>13</sup> This could be due to the unavailability of a proper studying environment at home for the online class and no face-to-face contact with teachers. Another reason could be the lack of access for students to contact teachers, despite their desire to learn because of poor internet connectivity and technical error.

In fact, in our study, 365(90.6%) students reported disturbance in class due to internet connectivity and irregular power supply. Similar to our findings, 89.1% reported disturbances during online class due to internet and electricity problems in Nepal<sup>26</sup> and 83.1% reported internet connection problems in Egypt.<sup>15</sup> Conversely, only 32.4% of students reported internet connectivity problems in India.<sup>13</sup>

Our study revealed mainly the 4th y students felt the current lockdown will affect their future career. Medical residents of Italy were worried about subsequent future careers.<sup>29</sup> Similar finding was noted in a global study which stated that students worried about their professional career in future.<sup>20</sup> The finding is also supported by an article that stated careers of this year's university graduates may be severely affected due to major teaching and learning interruptions experienced by the students in the final year of their studies.<sup>9</sup>

The current study showed 256(63.5%) students have not attended any social gatherings with friends, 354(87.8%) students did not attend any large-scale functions and 228(56.6%) students thought that social distancing has affected the social relationship as well. Visiting nearby relatives and neighborhoods decreased in 327(81.1%) students. These findings are similar to a study, which stated the prevention of gathering of people in social events such as weddings, parties, and funerals, and increased social

distancing due to COVID-19 has affected social interactions.<sup>28</sup> The disruption in a social relationship in our study is also supported by the study from Egypt which showed that 34.8% of students stated that there is a lack of interaction with their colleagues through an e-learning platform.<sup>15</sup>

This study was limited to undergraduate students from only one medical college so the findings may not be generalized for other students and medical colleges. 2ndly, a self-administered web-based online questionnaire was used for data collection. This might have possibly led the students to randomly select the responses.

### Conclusion

This study found a significant impact on the academic and social life of undergraduate nursing and medical students due to COVID-19 lockdown. Though the high social impact was seen among the students, it is crucial to follow these precautions to prevent transmission of COVID-19. Educational activities also need to continue in this critical situation. Concerned authorities need to focus on the improvement of digital infrastructure and technology along with the continuation of clinical learning with safety precautions.

### Acknowledgment

We extend our appreciation to Dr. Pabin Thapa, Dr. Anjali Subedi, Mr. Sudesh Gyawali, Mr. Naval Kishor Yadav, Dr. Asmita Thapa, and Dr. Biplav Adhikari for their help during the data collection. We thank all the student participants for their time

### Conflict of Interest

None

### Funding

None

### Author Contribution

Concept, design, planning: All; Literature review- GP, KS; Data collection/analysis: GP, NS, KS, NG; Draft manuscript- GP, NS, KS, NG;

Revision of draft: All; Final manuscript: All;  
Accountability of the work: All

## Reference

1. Coronavirus; World Health Organization(WHO)[Cited on Sept, 2020] | [Weblink](#) |
2. WHO announces COVID-19 outbreak pandemic; World Health Organization(WHO) [Cited on Sept, 2020] | [Weblink](#) |
3. Goothy SSK, Goothy S, Choudhary A, et al. COVID-19 lockdown impact on the mental health of students: need to start a mental health cell. *MOJ Anatomy and Physiology*. 2020;7(2):51–52. | [Google Scholar](#) | [Full Text](#) |
4. COVID-19 pandemic in Nepal; Wikipedia [Cited on Sept, 2020] | [Weblink](#) |
5. COVID-19 Information; U.S. Embassy in Nepal [Cited on Sept, 2020] | [Weblink](#) |
6. Impact of the COVID-19 pandemic on education; Wikipedia [Cited on Sept, 2020] | [Weblink](#) |
7. COVID-19 school closures around the world will hit girls hardest; UNESCO, 31/3/2020 [Cited on May, 2020] | [Weblink](#) |
8. Nepal: Education unionists mobilise during COVID-19 lockdown. *Education International*, 2020 [Cited on May, 2020] | [Weblink](#) |
9. Burgess S, Sievertsen HH. Schools, skills and learning: The impact of COVID-19 on Education, *Vox Multimedia* 2020 [Cited on Sept, 2020] | [Weblink](#) |
10. Yesodha KC. Opportunities and Challenges in Education due to COVID-19. *Public Health Update* [Cited on Aug, 2020] | [Weblink](#) |
11. COVID-19: Physical distancing; WHO [Cited on Jun,2021] | [Weblink](#) |
12. Bhat Bilal A. A Study on Impact of COVID-19 Lockdown on Psychological Health. *Economy and Social Life of People in Kashmir, IJSHR*. 2020;5(2):36-46. | [Google Scholar](#) | [Full Text](#) |
13. Kapasia N, Paul P, Roy A, Saha J, Zaveri A, Mallick R, Barman B, Das P, Chouhan P. Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. *Children and Youth Services Review*. 2020 Sep 1;116:105194. | [PubMed](#) | [Google Scholar](#) | [Full Text](#) |
14. Calhoun KE, Yale LA, Whipple ME, Allen SM, Wood DE, Tatum RP. The impact of COVID-19 on medical student surgical education: implementing extreme pandemic response measures in a widely distributed surgical clerkship experience. *The American Journal of Surgery*. 2020 Apr 28. | [PubMed](#) | [Google Scholar](#) | [Full Text](#) |
15. Diab GM, Elgahsh NF. E-learning During COVID-19 Pandemic: Obstacles Faced Nursing Students and Its Effect on Their Attitudes While Applying It. *American Journal of Nursing*. 2020 Aug 17;9(4):295-309. | [DOI](#) | [Google Scholar](#) |
16. Dawadi S, Giri R, Simkhada P. Impact of COVID-19 on the Education Sector in Nepal- Challenges and Coping Strategies. *Sage Submissions*. 2020 May 21;12344336:v1. | [Google Scholar](#) | [Full Text](#) | [DOI](#) |
17. Gyanwali GP. Socio-Cultural Impacts of COVID-19 in Nepal. *Molung Educational Frontier*. 2020 Dec 31;10:13-26. | [Google Scholar](#) | [Full Text](#) |
18. Rabbani F, Khan HA, Piryani S, Khan AR, Abid F. Psychological and social impact of COVID-19 in Pakistan: Need for Gender Responsive Policies. *medRxiv*. 2020 Jan 1. | [DOI](#) | [Google Scholar](#) | [Web link](#) |
19. Poudel K, Subedi P. Impact of COVID-19 pandemic on socioeconomic and mental health aspects in Nepal. *International Journal of Social Psychiatry*. 2020 Dec;66(8):748-55. | [DOI](#) | [PubMed](#) | [Google Scholar](#) | [Full Text](#) |
20. Aristovnik A, Keržič D, Ravšelj D, Tomaževič N, Umek L. Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*. 2020 Jan;12(20):8438. | [DOI](#) | [Google Scholar](#) | [Full Text](#) |
21. Impact of COVID-19 on people's livelihoods, their health and our food systems; Joint statement by ILO, FAO, IFAD and WHO; 13 October 2020 [Cited on Jun, 2021] | [Weblink](#) |
22. Bhattacharya S. The Social Impact of the COVID-19 Pandemic, *Observer Research Foundation*; Oct 2020 | [Google Scholar](#) | [Full Text](#) | [Web link](#) |
23. Everyone included: Social impact of COVID-19, Department of economic and social affairs, United Nations [Cited on Jun, 2021] | [Weblink](#) |
24. Saji JA, Babu BP, Sebastian SR. Social influence of COVID-19: An observational study on the social impact of post-COVID-19 lockdown on everyday life in Kerala from a community perspective. *Journal of Education and Health Promotion*. 2020 Jan 1;9(1):360. | [PubMed](#) | [Google Scholar](#) | [Weblink](#) |
25. Bahrami F, Yousefi N. Females are more anxious than males: a metacognitive perspective. *Iranian journal of psychiatry and*

- behavioral sciences. 2011;5(2):83. | [PubMed](#) | [Google Scholar](#) | [Full Text](#) |
26. Subedi S, Nayaju S, Subedi S, Shah SK, Shah JM. Impact of E-learning during COVID-19 pandemic among nursing students and teachers of Nepal. *International Journal of Science and Healthcare Research*. 2020:68-76. | [Google Scholar](#) | [Full Text](#) |
27. Meneses E, McKenney M, Elkbuli A. Reforming our general surgery residency program at an urban level 1 Trauma Center during the COVID-19 pandemic: towards maintaining resident safety and wellbeing. *The American Journal of Surgery*. 2020 Oct 1;220(4):847-9. | [PubMed](#) | [Google Scholar](#) | [Full Text](#) |
28. Bright EM. Impact of COVID-19 on social, economic, educational and research activities in Tanzania. *Authoraid 2020* [Cited on Aug, 2020] | [Weblink](#) |
29. Gallo G, Trompetto M. The effects of COVID-19 on academic activities and surgical education in Italy. *Journal of Investigative Surgery*. 2020 Aug 8;33(7):687-9. | [DOI](#) | [PubMed](#) | [Google Scholar](#) | [Weblink](#) |

## Supplementary files

### TOOL

**Instruction:** Kindly put tick mark on that you feel most correct/ suitable against the given options.

#### Part I : Socio-demographic Proforma

1. Age
2. Gender
3. Course of study
4. Academic Year
5. Nationality
6. Type of internet connectivity
  - a. WiFi
  - b. Data Pack
7. Place of residence
  - a. Urban
  - b. Semi-urban
  - c. Rural
8. Are you living with parents in current lockdown period?
  - a. Yes
  - b. No
9. Do you have steady family income?
  - a. Yes
  - b. No
10. Has COVID 19 infected your relative or friend?
  - a. Yes
  - b. No
11. Are you following daily updates of COVID-19?
  - a. Yes
  - b. No

#### Part II: Academic Questions.

**Instruction:** - Questions with \* mark need to be filled by those students who were writing the supplementary examination when the lock down started.

SN	Questions	Yes	No
1	Do you feel you need to pay extra fee if the current running year is not completed on time?		
2	Do you feel online university examination should be conducted?		
3	Do you feel adoption of online learning should be continued post pandemic?		
4	Do you feel this lockdown will affect your career in the future?		
5	Were you writing university supplementary examination?		
6*	If yes, are you worried regarding the completion of supplementary examination in time?		
7*	Do you feel the remaining supplementary examination will affect the current year's university examination?		
8*	Are you reading/ preparing seriously for the supplementary examination?		

**Part III. Impact of COVID-19 lockdown on Academic life**

SN	Questions	Not at all	A little bit	Moderately	Quite a bit	Extremely
1	Are you worried regarding the completion of current academic year in time?					
2	Are you worried regarding the postponement of the university examination?					
3	Are you worried as you may have a year loss due to lock down?					
4	Do you feel studying from home is stressful?					
5	Are you worried as you may not get enough time for the preparation before the university examination?					
6	Are you worried regarding the completion of the practical requirement?					
7	Do you feel lack of proper exposure to the clinicals will have difficulty in performing the practical examination?					
8	Do you feel adaptation to the sudden transition from routine teaching method to online class is stressful?					
9	Do you feel physical stress such as eye problem due to continuous online class?					
10	Are you having difficulty in attending online class due to internet connectivity and irregular power supply?					
11	Are you facing difficulty clearing your doubts regarding the class through online class from your teachers?					
12	Do you feel online learning strategies require lot of efforts and challenges for the teachers and students?					
13	Do you feel technical errors during the online class creates stress among the students?					
14	Do you feel the course taken during online class should be repeated?					
15	Do you feel your attendance will be hampered due to online classes?					
16	As there is no conduction of the regular internal assessment, are you able to revise the course by yourself?					

**Part IV. Involvement in social activities**

SN	Questions	Increased	Same as before	Decreased
1.	Use of mobile phone			
2.	Use of social media			
3.	Chatting/ calling with friends and relatives			
4.	Visiting nearby relatives and neighborhood			
5.	Watching movies and documentaries			
6.	Making own videos for the uploading purpose			
7.	Playing online games with friends			

**Part V. Impact of COVID-19 lockdown on Social life**

SN	Questions	Not at all	Once or twice	Few times	Often	Very often
1	Have you attended any type of friends gathering after the lockdown started?					
2	Have you attended any type of large-scale functions such as marriage with your family members?					
3	Are you involved in any type of social activities such as distribution of relief package?					
4	Are you involved in any type of community awareness programme related to COVID-19?					
5	Do you use mask while sitting with other people?					
6	Do you maintain one-meter distance while going out from home?					
7	Have you encouraged people to stay in quarantine who came outside from the district?					
8	Have you attended any kind of webinar/online meeting related to COVID-19?					
9	Have you felt social distancing with the family members and peer has affected the social relationship as well?					
10	As you are also the health personnel, has anyone asked you regarding the COVID- 19 or the preventive measures?					