

## **IMPACT OF COVID-19 PANDEMIC ON THE PREPAREDNESS OF CANDIDATES FOR THE EARLY CHILDHOOD DEVELOPMENT AND EDUCATION 2020 EXAMINATION - A CASE STUDY OF SAMBURU COUNTY IN KENYA**

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### **Abstract**

*The reporting of the first case of the COVID-19 pandemic in Kenya on 13<sup>th</sup> March 2020 greatly affected the education sector in Kenya due to the abrupt closure of all learning institutions. The candidates preparing for the Early Childhood Development and Education (ECDE) 2020 examination were also affected by the closure of their training colleges. The objective of this study was to examine how the COVID-19 pandemic affected students' preparedness in the ECDE 2020 national examination in terms of payment of college fees and completion of the syllabus. The study adopted a descriptive research design with 185 participants representing 61.60% females and 38.40% males purposely selected to participate in the study since they had registered for the ECDE 2020 examination. Data was collected using a Structured Student Questionnaire (SSQ) and analyzed using SPSS version 26.0. The findings of the study show that a larger proportion of the candidates (Mean = 3.31 and SD = 1.29) felt that the closure of colleges to prevent the spread of the COVID-19 pandemic gave them less time to prepare for the ECDE 2020 examination. The test of Chi-square  $\chi^2(1,185) = 72.268, p = .00$  at 0.05 level of significance indicated that the outbreak of Coronavirus significantly affected the payment of college fees by the candidates. The chi-Square  $\chi^2(3, 185) = 56.022, p = .00$  also indicated that the candidates were not adequately prepared for the ECDE 2020 examination because most tutors had not completed the syllabus due to the abrupt closure of all learning institutions in Kenya. The study recommended the provision of bursaries and subsidized tuition fees for ECDE candidates to allow them to fully concentrate on their training.*

**Keywords** - Candidates, COVID-19 pandemic, Early Childhood Development and Education, Examination

### **Introduction**

The outbreak of the COVID-19 pandemic in Kenya led to the unexpected closure of all learning institutions hence paralyzing the teaching and learning process. World Health Organization (WHO) explains that Coronavirus disease is an ailment triggered by a novel strain of coronavirus that is a group of viruses that affect both human beings and animals (Watkins, 2020). WHO defined a novel COVID-19 as a new strain of Coronavirus that has not been previously identified in human beings. The human coronaviruses trigger mild illnesses while other trigger Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). The study by Roser, (2020) titled "*Coronavirus disease (COVID-19): Statistics and research*" indicated that the incubation period of the COVID-19 pandemic is 1 to 14 days but mostly takes five days to exhibit symptoms. The symptoms of Human Coronavirus include; respiratory symptoms, fever, cough, shortness of breath, and breathing difficulties (WHO, 2020). Severe cases of infection can have symptoms ranging from pneumonia, severe acute respiratory syndrome, kidney failure, and even death. The study by Barasa, et al. (2021) observed that 80% of people infected by Coronavirus recover without the need for specialized treatment but it is critical to note that one out of six people infected by the disease becomes seriously ill and therefore develops breathing difficulty. Chen et al. (2020) noted that the disease spreads from an infected patient to another person through small droplets from the nose or mouth when the person with COVID-19 pandemic coughs or exhales. Ouma (2020) noted that the virus also spread by touching surfaces having the viruses and using the same hands to touch your nose or mouth. According to Ministry of health protocols in

preventing the spread of COVID-19 pandemic; it is important to maintain a social distance of 1.5m, correctly wear face masks, keep rooms well ventilated, clean hands, avoid crowded places, and coughing in the elbow or tissue. According to WHO (2020), people are encouraged to clean their hands regularly and thoroughly with an alcohol-based rub or wash them with soap and water. Watkins (2020) stressed that all working areas and surfaces must be frequently cleaned and disinfected, and people should adhere to the general cleanliness of their bodies and the surrounding environment.

The first Coronavirus was detected and reported in China, Wuhan in December 2019. The disease spread spontaneously to other parts of the World. Kenya reported her first Coronavirus case on 13<sup>th</sup> March 2020 (Nanyingi, 2020). According to WHO (2020), it was estimated that over 66 million people had been infected by the COVID-19 pandemic with Kenya having a total cumulative caseload of 88,380. The total number of deaths worldwide was over 1.5 Million while Kenya had lost 1,526 people to the deadly virus. Samburu County had reported 137 active cases of people infected with the COVID-19 Pandemic (MOH, December 2020).

**Table 1.0:** *The Statistics of COVID-19 infections and Modalities by 7<sup>th</sup> December 2020*

Name	WHO Region	Cases - a cumulative total	Cases - newly reported in last 7 days	Cases - newly reported in last 24 hours	Deaths - a cumulative total	Deaths - newly reported in last 7 days	Deaths - newly reported in last 24 hours	Transmission Classification
Global		66422058	4008417	549946	1532418	74085	8768	
South Africa	Africa	814565	26863	4116	22206	729	139	Community transmission
Ethiopia	Africa	113295	3761	555	1747	47	2	Community transmission
<b>Kenya</b>	<b>Africa</b>	<b>88380</b>	<b>5064</b>	<b>396</b>	<b>1526</b>	<b>74</b>	<b>8</b>	<b>Community transmission</b>
Algeria	Africa	88252	7040	750	2516	123	15	Community transmission
Nigeria	Africa	69255	1843	318	1180	7	0	Community transmission
Ghana	Africa	52274	705	178	325	2	0	Community transmission
Cameroon	Africa	24752	307	0	443	6	0	Community transmission
Uganda	Africa	22499	2354	311	206	5	0	Community transmission

**Source:** WHO Coronavirus (COVID-19) Statistics Dashboard

From table 1.0, it was clear that the spread of the virus was through community transmission and not imported from one country to another. Table 1.0 shows the COVID-19 infection cases globally and in eight African countries in order of the infection caseload by 7<sup>th</sup> December 2020. In Kenya, the COVID-19 pandemic was first reported in Nairobi County and quickly spread to other Counties through community transmission due to the movement of people (Hoseinpour

et al., 2020). The preparation of the Early Childhood Development Examination (ECDE, 2020) was affected after the president closed all the learning institutions from 16<sup>th</sup> to 20<sup>th</sup> March 2020 to curb the spread of the virus. The subsequent spike in infection rates made it difficult for the stakeholders of education to decide on reopening of the learning institutions (Daniel, 2020). Mabeya, (2020) observed that the outbreak of the COVID-19 pandemic has greatly affected the preparation of national examinations in the Country. In Samburu County, a third of the candidates who had registered for the ECDE 2020 examination were absent. The absenteeism was attributed to the effects of the COVID-19 pandemic such as abrupt closure of the schools to minimize the spread of the disease, lack of school fees, insecurity, cattle rustling, and taking up family responsibilities for married students. Due to poor network connectivity and nomadic activities in the region, most candidates could not be reached on their cellphones by the college administrators hence they had no information as to when the examination was being administered. The outbreak of the COVID-19 pandemic also affected the coverage of the syllabus by tutors hence most of them had not cleared the syllabus of which they were supposed to sit for the examination. Aoko (2015) observed that if the syllabus of teachers' curriculum is poorly covered by the tutors, it is very difficult for candidates to adequately prepare for the national examination. The candidates get affected by psychological emotions of fear of failure and anxiety about how they would perform in the examination. According to a study done by Henaku (2020) titled "*COVID-19 pandemic online learning experience of college students: The case of Ghana*" the government of Ghana encouraged tutors to use online platforms and local media in the teaching and learning process but due to lack of technology infrastructure, it could not be attainable. The complete coverage of the syllabus is very important for candidates preparing to sit for national examinations since it helps to construct self-esteem and confidence among the candidates. Wangare (2020) noted that the component of syllabus coverage is very crucial to candidates preparing to sit for any examination. When the teachers complete the syllabus early enough, it gives time for the candidates to prepare for the forthcoming examination confidently. It is the government's responsibility to ensure that teachers and students have other forms of alternative instruction like online learning especially during times of calamities like the outbreak of the COVID-19 pandemic (Burgess & Sievertsen, 2020). The government has greatly invested in primary and secondary education, but the teacher education training colleges are still underfunded hence they are faced with numerous challenges of uncertainty especially during calamities such as harsh climatic conditions, the outbreak of diseases, and unpredictable weather patterns. This study focuses on the impact of the COVID-19 pandemic on preparedness of the candidates for the ECDE 2020 examination in Samburu County.

### **Research Hypotheses**

- H0: The preparation for the ECDE 2020 examination was not affected by the source of finance for the course of study, completion of the course syllabus by tutors, clearance of college fees, and effect of the outbreak of COVID-19 pandemic.
- H0<sub>1</sub>: The closure of the ECDE colleges due to the outbreak of COVID-19 pandemic gave candidates enough time to prepare for the examination.
- H0<sub>2</sub>: The candidates adhered to the ministry of health COVID-19 pandemic prevention protocols.

### **Research Methodology**

The study adopted a descriptive research design in examining how the COVID-19 pandemic has affected the candidates in the preparation for ECDE 2020 examination. Etikan & Bala, (2017) opined that for an effective sampling procedure, the sample selected should be a true representative of the entire population. The participants were selected through multi-stage and purposive sampling such that one hundred and eighty-five (185) candidates from the five (05) ECDE colleges within Samburu County participated in the survey. The data was collected using a structured student questionnaire that had two sections A and B. Section A captured information on the Bio data of the participants while section B captured information on the effects of the COVID-19 pandemic on the preparedness of candidates for the ECDE 2020 examination. The data were coded, tabulated, and analyzed using SPSS version 26.0. The analysis of the data involved both descriptive and inferential statistics for generalization and drawing of inferences. The next section discusses the results of the research findings.

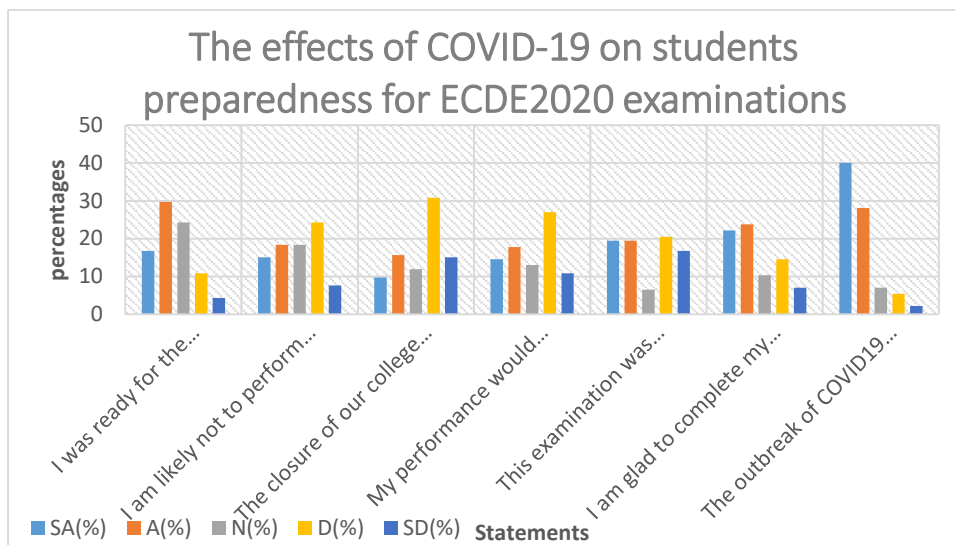
### **Results and Discussion**

The sample population of one hundred of eighty-five (185) participants comprising 61.60% females and 38.40% males participated in the study. The highest enrolment age of 47.60% among the candidates was between 18-23 years while 4.30% represented the age of 36 and above years. It is significant to note that close to a half of the candidates were either single (49.70%) or married (49.2%) with a slightly small proportion of 1.10% that were divorced as they were sitting for the ECDE 2020 examination. It was also observed that 81.10% of the candidates in Samburu County stay in rural areas as compared to 18.40% living in urban areas. The objective of the study was to examine how the outbreak of the COVID-19 pandemic affected the candidates' preparedness to sit for the ECDE 2020 examination. The candidates were provided with statements in the questionnaire to rate their level of preparedness towards sitting for the ECDE 2020 examination. Table 1.1 shows the effects of the COVID-19 pandemic on the candidates' preparedness to sit for ECDE 2020 examination. The descriptors of the statements were measured from Strongly Agree (SA) to Strongly Disagree (SD) on five points Likert scale. The data for each specific statement rated by the candidates were tabulated and analyzed using descriptive statistics of frequency and percentages.

**Table 1.1:** *The effect of the outbreak of COVID-19 pandemic on the student's preparedness for ECDE 2020 Examination*

<i>S</i>	<i>Statement</i>	<i>Strongly Agree</i> <i>F (%)</i>	<i>Agree</i> <i>F (%)</i>	<i>Neutral</i> <i>F (%)</i>	<i>Disagree</i> <i>F (%)</i>	<i>Strongly Disagree</i> <i>F (%)</i>	<i>M</i>	<i>SD</i>
1	I was ready for the examination	31(16.8)	55(29.7)	45(24.3)	20(10.8)	8(4.3)	2.49	1.096
2	I am likely not to perform well due to the COVID-19 pandemic outbreak	28(15.1)	34(18.4)	36(18.4)	45(24.3)	14(7.6)	2.89	1.254
3	The closure of our college due to the COVID-19 pandemic outbreak gave me enough time to prepare for the examination	18(9.7)	29(15.7)	22(11.9)	57(30.8)	28(15.1)	3.31	1.291
4	My performance would not be affected by the COVID-19 pandemic	27(14.6)	33(17.8)	24(13.0)	50(27.0)	20(10.8)	3.02	1.331
5	This examination was administered at the right time	36(19.5)	36(19.5)	12(6.5)	38(20.5)	31(16.8)	2.95	1.499
6	I am glad to complete my course despite the COVID-19 pandemic outbreak	41(22.2)	44(23.8)	19(10.3)	27(14.6)	13(7.0)	1.81	1.018
7	The outbreak of the COVID-19 pandemic has traumatized me	74(40.0)	52(28.1)	13(7.0)	10(5.4)	4(2.2)	2.49	1.322

Table 1.1 shows that less than half (45.90%) of the candidates expressed that the closure of their colleges due to the COVID-19 pandemic outbreak gave them enough time to prepare for the examination. The data for frequencies and percentages in table 1.1 was transformed into a bar graph for clear visualization and interpretation. Figure 1.0 shows the effects of the COVID-19 pandemic on the candidate's preparedness for the ECDE 2020 examination. The bars in the graph represent the ratings by the candidate's statements about the effects of the COVID-19 pandemic on their preparation of ECDE 2020 examination from Strongly Agree (SA) to Strongly Disagree (SD) on a Likert scale.



**Figure 1.0:** *The effects of COVID-19 pandemic on the Candidate`s preparedness for the ECDE 2020 Examination*

Figure 1.0 shows that the outbreak of the COVID-19 pandemic in Kenya greatly traumatized most candidates such that slightly more than half (68.10%) of the candidates indicated that they were traumatized by the disease. The study by Upoalkpajor & Upoalkpajor (2020) on the impact of COVID-19 on education in Ghana indicated the education system in Ghana was highly affected by the outbreak of the COVID-19 pandemic resulting in psychological disorder among students. It was noted that when candidates are traumatized by any condition affecting their wellbeing on their psychological preparation for the national examination then their performance is compromised (Upoalkpajor & Upoalkpajor, 2020). The findings of this study correlate with the findings of Batubara (2021) such that it was only less than half (38.70%) of the candidates who felt that the closure of the college due to the outbreak of the COVID-19 pandemic gave them enough time to prepare for the national examination. Despite the outbreak of the COVID-19 pandemic in Kenya, it was noted that 29.70% of the candidates agreed that they were ready for the national teacher examination while only 4.30% of the candidates strongly disagreed that they were not ready for the examination. It was also observed that more than 50% of the candidates agreed that their performance in ECDE 2020 examination will be affected by the COVID-19 pandemic indicating that the outbreak of the COVID-19 pandemic in the country had a devastating effect on the normal preparation for the national examination. It was further noted that most of the candidates (Mean= 1.81 and SD = 1.018) were very happy to complete the teacher education program by sitting for the ECDE 2020 examination despite the outbreak of the COVID-19 pandemic.

The study sought to find out the adherence of colleges to the Ministry of health's protocols in Samburu County in preventing the spread of the COVID-19 virus among the candidates and examination contracted professionals. It is important to note that if the candidates adhered to the ministry of health COVID-19 prevention protocols then they would experience less effect. A chi-square test statistic was used to determine how the candidates adhered to the prevention measures of COVID-19.

**Table 1.2: Measures of Preventing the spread of COVID-19 in Examination Centre's**

	Washing points are available in our college	Every student wear a mask in	There is social distancing in our college	The college has a standby isolation room	We have been briefed about measures of preventing COVID-19	The college has talking walls and labeled positions for sitting
Chi-Square	140.174 <sup>a</sup>	150.588 <sup>c</sup>	135.906 <sup>c</sup>	30.552 <sup>d</sup>	145.852 <sup>e</sup>	65.157 <sup>f</sup>
df	1	1	1	1	1	1
Asymp. Sig.	.000	.000	.000	.000	.000	.000

Table 1.2 shows that at 0.05 level of significance that  $\chi^2(1, 167) = 140.174, p = .00$  for having washing points available in the college,  $\chi^2(1, 170) = 150.588, p = .00$  for every student wearing a mask,  $\chi^2(1, 170) = 135.906, p = .00$  for social distancing in the college,  $\chi^2(1, 165) = 30.552, p = .00$  for having a standby isolation room,  $\chi^2(1, 169) = 145.852, p = .00$  for briefing candidates on measures of preventing COVID-19 pandemic and  $\chi^2(1, 166) = 65.157, p = .00$  for having talking walls and labeled positions for sitting of examination. It was noted that the examination Centres were adhering to the measures of preventing COVID-19 by the ministry of health. Watkins, (2021) noted that the outbreak of the COVID-19 pandemic in Kenya greatly affected the economic livelihoods of many families. The measures taken by the government in the prevention of the spread of the COVID-19 pandemic have had a drastic economic implication on the ECDE 2020 candidates since a significant proportion of them were either absent or did not register due to a lack of examination registration fee. It was noted that 80.5% of the candidates were affected by the outbreak of the COVID-19 pandemic in payment of their fees and only 18.4% had no effect with the outbreak of the pandemic. Further scrutiny of data revealed that 20% of the candidates were highly prepared, 45.4% were averagely prepared, 25.4% were slightly prepared and 7.6% were not prepared to sit for the 2020 ECDE examination.

**Table 1.3: The effect of COVID-19 on the payment of fees and preparation of ECDE 2020 Examination**

	The effect of the outbreak of Coronavirus on the payment of college fees	Level of preparedness towards sitting of ECDE 2020 examination
Chi-Square	72.268 <sup>a</sup>	56.022 <sup>b</sup>
df	1	3
Asymp. Sig.	.000	.000

Table 1.3 shows the Chi-square test at 0.05 level of significance indicated that the outbreak of the Coronavirus had a significant effect on the candidates' payment of college fees as well as the level of preparedness towards sitting for the examination. The test of Chi-square  $\chi^2(1, 185) = 72.268, p = .00$  indicated that the outbreak of Coronavirus significantly affected the payment of college fees by the candidates. It is also significant to note that the candidates were not well prepared for ECDE 2020 examination since the  $\chi^2(3, 185) = 56.022, p = .00$  at 0.05 level of significance.

For candidates to be registered for the ECDE examination by Kenya National Examinations Council (KNEC), they must complete the pre-requisite course within the stipulated time and pay examination registration fees (Chepkonga, 2017). The outbreak of the COVID-19 pandemic greatly affected the teaching and learning process of students in Kenya due to the abrupt closure of schools by the government and restriction of movements.

A regression model was used to determine how the candidate's preparedness to sit for ECDE 2020 examination was affected by payment of fees, the outbreak of COVID-19, and completion of the syllabus.

**Table 1.4: Coefficient Factors of the Regression Model**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	2.927	.317		9.233	.000	2.298	3.555
Completion of the course syllabus by tutors	-.665	.149	-.392	-4.473	.000	-.960	-.370
Effect of the outbreak of COVID-19 pandemic on examination preparation	.093	.246	.035	.379	.706	-.394	.580
Clearance of college fees	.068	.320	.022	.213	.832	-.567	.703
Reason for not clearing college fees	.015	.079	.020	.192	.848	-.142	.173
Source of finance for the course of study	-.206	.075	-.243	-2.734	.007	-.356	-.057

The regression model was stated as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon_0 \dots \dots \dots \text{eq 1}$$

Where y = level of preparedness towards sitting of examination

$\beta_0$  is the constant

$\beta_1, \beta_2, \beta_3, \beta_4,$  and  $\beta_5$  are coefficients of the variables  $X_1, X_2, X_3, X_4,$  and  $X_5$  respectively

$\epsilon_0$  is the prediction estimation error

$X_1$  = Source of finance for the course of study

$X_2$  = Completion of the course syllabus by tutors

$X_3$  = Clearance of college fees

$X_4$  = Reason for not clearing college fees

$X_5$  = Effect of the outbreak of COVID-19 pandemic on examination preparation

When the constants and variables are substituted in equation1 from table 1.4, the regression equation becomes.

$$Y = 2.927 - 0.206X_1 - 0.665X_2 + 0.068X_3 + 0.015X_4 + 0.093X_5 \dots \dots \dots \text{eq 2}$$



The hypothesis stated that the preparation for the ECDE 2020 examination was determined by the source of finance for the course of study, completion of the course syllabus by tutors, clearance of college fees, the reason for not clearing college fees, and the effect of the outbreak of COVID-19 pandemic on examination preparation. From equation 2, the null hypothesis is true if and only if  $\beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ . It was observed that  $y = \beta_0 = 2.927$  if and only if the null hypothesis is true. Using a single sample t-test to test the level of significance at 0.05 on how each variable affected the candidate's preparation for the ECDE 2020 examination, it was observed that the regression model was significant despite the identified factors that affected the student's preparation to sit for ECDE 2020 examination such that  $t(107) = 9.233$ ,  $p = .00$ . The completion of the course syllabus by the college tutors ( $X_2$ ) was a significant factor that affected the candidates' preparedness for sitting for the examination. The t-test statistic  $t(107) = -2.734$ ,  $p = 0.007$  indicated that the source of finance at 0.05 level of significance was also a significant variable that hindered candidates from adequately preparing for the ECDE 2020 examination.

It was noted that most college tutors could not manage to clear the syllabus on time due to the closure of all learning institutions as a containment measure on the spread of the virus. The ECDE candidates lacked internet connectivity and electronic gadgets for learning hence the tutors could not continue with the instruction process as had earlier planned before the pandemic as depicted in the study of Koech (2020) that focused on the Enrolment Trends of Teacher Trainees in ECDE Colleges in Keiyo North and South Sub-Counties.

### **Conclusion and Recommendations**

The study focused on the impact of the COVID-19 pandemic on the preparedness of the candidates for the ECDE 2020 examination. The study found out that less than half (45.90%) of the candidates were of the view that the closure of colleges in Kenya by the ministry of education due to the outbreak of the COVID-19 pandemic gave them less time to prepare for the ECDE examination. The study revealed that more than half (68.10%) of the candidates felt that they were traumatized by the outbreak of the COVID-19 pandemic. The contracted KNEC officials and the candidates strictly adhered to the ministry of health prevention protocols of COVID-19. A significant number of 80.5% of the candidates had not cleared the college fees due to economic constraints caused by COVID-19 pandemic prevention restrictions. The test of Chi-square  $\chi^2(1,185) = 72.268$ ,  $p = .00$  indicated that the outbreak of Coronavirus significantly affected the payment of college fees by the candidates. It was noted that most tutors did not complete the syllabus due to the abrupt closure of all learning institutions in the country hence this significantly affected candidates' preparedness for the examination. The regression model indicated that the source of finance for the course of study and the completion of the course syllabus by the college tutors were the major factors that affected candidates in preparing for the ECDE 2020 examination because of the outbreak of the COVID-19 pandemic. The following were the recommendations for the study.

1. The ministry of education in Kenya needs to subsidize the tuition fees for the ECDE candidates to improve the completion rates.
2. There is a need for sensitization and enhancement of the measures for the prevention of the COVID-19 pandemic by the ministry of health in all learning institutions in the country.

3. The Ministry of education needs to provide psych-social support of enhancing the guiding and counseling department in teacher training colleges to ensure that they provide the necessary support to the students affected by the COVID-19 pandemic.

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