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A descriptive study to assess the impact of COVID-19 lockdown on education among students of class 9th to 12th at selected schools of district Mohali, Punjab

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Abstract
Background: COVID-19 Lockdown was something which anyone was not prepared for. It was very sudden outspread of deadly virus globally. To stop this virus for growing so fast Government of India announced lockdown in the country on 24th March 2020. Due to which, there was shut down of all educational institutions. When there was a complete lockdown due to pandemic the learning of children from nursery to post graduate gets badly affected.
Aim of study: The aim of the study is to assess the impact of COVID-19 Lockdown on education among the students of class 9th to 12th of selected schools of district Mohali.
Material and Method: A Descriptive Research Design and quantitative approach was used in the study. 200 samples were selected by using convenient sampling technique from class 9th to 12th in Anees School, Mohali, Punjab. Likert rating scale was used for data collection and analysis was done by using descriptive and inferential statistics.
Result: The result showed that 0% students strongly disagree, 0% students disagree, 13% students were Neither agree nor disagree, 9.5% students were strongly agreeing but 77.5% students were agreed that COVID-19 really affects the education. Hence, we accept the assumption that there is a significant impact of COVID-19 on education. There was no significant association between COVID-19 on education score with socio demographic variables are Age, Gender, Class, Type of Family, No.of Siblings, Monthly family income, Fathers and Mother Occupation except 02 variables i.e Habitat and Mother's Education.
Conclusion: The conclusion was that COVID-19 lockdown has negative impact on education. The students found it difficult to concentrate on studies in online classes and the performance of students was compromised.

Keywords: COVID 19, Education and Lockdown

Introduction
Nation development is not possible without education. Education is the most important factor in the development of mind. It is said that a healthy mind dwells in a sound body so a developed mind can create new ideas for upbringing of the nation. As health is an asset so a deficient person is wealthier than the rich person as a rich person who is unhealthy. In this contemporary era everyone is suffering from COVID19 which is commonly knownas corona virus. COVID-19 is an intercontinental rife which is caused due to the spread of SARS-CoV-2 coronavirus for which lockdowns has been implemented in several countries around the world. The World Health Organization declared COVID-19 as a global pandemic on 11th March 2020 [1].

This has wreaked havoc across the world and like any critical sector; education has been hit hard due to which the students, schools, colleges and universities have been deeply impacted. As the result of this pandemic, Government of India announced lockdown in the country on 24th March 2020. Due to which, there was shut down of all educational institutions. Most of the countries around the world shifted to online teaching. Maximum spreading rate of COVID19 was seen in children as compared to adults. When there was a complete lockdown due to pandemic the learning of children from nursery to post graduate gets badly affected.

As we all know due to the lockdown people use to sit at their homes because of the fear to get infected so, educational departments and government join hands to approve online classes for all the students [2].

Some children face difficulty in attending online classes due to the network issues whereas some face difficulty to concentrate in their homes because of their domestic environment. A large portion of the nations all over the planet moved to internet educating. In, 2019 and in any event, during Coronavirus, there was at that point high development and reception in schooling innovation, with worldwide ventures of US $ 18.66 billion of every 2019, assessed to reach$ 350 billion by 2025. In,2015, the annual growth rate of online enrolment was increasing with an extremely rapid rate over 30% every year, and in 2019, the number of students taking at least one online course has been grown to 34.7% of the total learner's population worldwide [3].

Each and every Class was suspended and all examinations of schools, Colleges and universities including entrance test were postponed. Thus, lockdown destroyed the schedules of every student. Initially, the educators and the students were quite confused and did not know how to cope up with this situation. Due to the closure of all the academic institutions across the country, the government of India released "Pragyata" guidelines for online classes; the Union HRD (Human Resource Development) Ministry recommended a cap on daily sessions and their durations for different levels of school students. Till the date online classes were an option rather than being the only choice left. All the students and teachers had to switch and transform from the regular teaching method which was face to face teaching to e-learning. Thus COVID-19 has created many challenges and opportunities for the educational institutes to strengthen their technological knowledge and infrastructure [4].

Thus, the students who are not able to study online, or those who prefer to attend classes on-campus are in totally different situation as compare to those being given a choice. Rather, it becomes the only way of continuing their studies by maintaining the social distancing norms of the government as an emergency response. The COVID-19 was reduced to nearly 67% during June 2020.Theory and evidence suggest that closure of schools and restrictions on social interaction between children and adolescents have the potential to be related to harm for students [5].

The impact of this lockdown is so heavy that several schools' colleges and universities have discontinued one on one lecture cum discussion method and the need for innovating and introducing alternative educational and evaluation strategies has been increased. The pandemic has many banes but it also provided us with an opportunity to pave the way for commencing digital learning. The main concern that impacts the education of the students is their satisfaction with the new learning methods and environment. There are several factors linked with the student's satisfaction, including the interaction between teacher and student, interaction between the students, course assessment quality, internet quality, self-efficacy, and students' learning process, the surrounding environment, etc [6].

Therefore, e-learning played a very important role during this critical situation of the pandemic and gained a reputation. Hence, it could be one of the factors that affected education of the students and their academic performance as

this was their first approach towards learning online and therefore, their level of satisfaction from e-learning is also significant to be measured. This study examines the general opportunity for growth after the abrupt shift from one face to another to online distance learning because of the Coronavirus lockdown [7].

The current study is carried out to analyse the impact of COVID-19 lockdown on the academic performance of the students of selected schools of district Mohali, Punjab. Research 15 highlights certain paucities such as weak online teaching infrastructure, the limited exposure of students to online learning, the communication gap, non-productive environment for learning at home, and the loss faced in the academic capabilities. The study deals with the various factors which influenced the student's educational attainment [8].

Need of the study
Corona Virus (SARS-CoV-2) outbreak was sudden which shook the entire world. Around 33.6 crore students were restricted to move to schools/colleges and all educational activities were ceased in India. According to UNESCO report, it had affected more than 90 % of total world's student population. So, every country started an action of lockdown to avoid the spread of this disease [9].

Three-hundred-and-ten young people from North India (51% male, 12–18 years) reported on their personal experiences of being infected by the coronavirus, the impact of the pandemic and its' restrictions across life areas, their top concerns, social limitations, and levels of negative effect. Discoveries showed that most members had no private experience (97.41%) or knew anybody (82.58%) with Coronavirus, yet embraced moderate-to-serious effect of Coronavirus on their scholastics, public activity, and work. These effects thus connected with negative effect. Members' top concerns centered around scholastic fulfilments, social and sporting exercises, and actual wellbeing. A bigger number of females than guys stressed over scholarly fulfilment and actual wellbeing while additional guys stressed over friendly and sporting exercises. Indian young people report was especially stressed over scholarly accomplishments, social and sporting exercises, and physical health. More females than males worried about academic attainment and physical health while more males worried about social and recreational activities. Indian adolescents report was particularly worried about academic attainments, social and recreational activities and physical health. These findings call for a need to ensure provisions and access to digital education and medical care [10].

Childhood is the best time for children to learn, and closure of Schools has changed home dynamics and may have an impact on children cognitive and social development, due to which, clinically experienced investigator felt to create in depth information of how the students managed to learn during this critical time period. Hence the researcher planned to find out about how the students feel about the lockdown in relation to their studies. Therefore, everyone related to the educational institutions would ensure that every student must get an opportunity to succeed in school and develop the knowledge, skills, attitudes and values that will allow them to contribute to the society. The researcher planned to conduct a Descriptive Study. This study can give

an upper hand to the future generations about how to stay focused towards study in difficult times [11].

Problem statement
A descriptive study to assess the impact of COVID-19 lockdown on education among students of class 9th to 12th at selected schools of District Mohali, Punjab.

Aim of the study
The aim of the study is to assess the impact of COVID-19 Lockdown on education among the students of class 9th to 12th of selected schools of District Mohali Punjab

Objectives of the study
1. To develop tool to assess the impact of COVID-19 lockdown on education among students.
2. To find out the association of impact of COVID-19 lockdown on education score with selected demographic variables.
3. To disseminate the findings.

Operational Definitions
COVID-19: It is a communicable respiratory illness, caused by SARS-Corona virus, which causes damaging of the lungs and further leads to difficulty in breathing. was initially recognized in China in 2019 and became pandemic in 2020.

Lockdown: A state of isolation or restricted access in order to control the movement of people instituted as a security measure because of a dangerous condition.

Education: It is a process of facilitating, learning, or the acquisition of knowledge, skills, values, morals, beliefs, habits, and personal development.

Assumptions
It was tested at 0.05 level of significance
1. There was a negative impact of COVID-19 lockdown on students' education.
2. There was significant association of COVID-19 lockdown on education score with selected demographic variables.

Methodology
Research approach
A Quantitative approach was used to assess the impact of COVID-19 lockdown on education among students of class 9-12th of selected schools of District Mohali, Punjab.

Research design
Descriptive Research Design was used for study.

Research settings
The present study was conducted at Anee's School, District Mohali Punjab.

Population
Target population: In the present study the population consists of 9th -12th class students.

Sample size: The total sample size of the research study was 200 school students.

Sampling technique: Convenient sampling technique was used to select the sample for the present study.

Sampling Criteria
Inclusion Criteria
- Both male and female students of class 9th to 12th
- Students who was willing to participate.

Exclusion criteria
- The students who was absent at the time of data collection.

Variables
Independent variable: COVID-19 lockdown
Dependent variable: Education

Selectionand development of tool
The tool was formulated according to the need of study.

Section A: Socio Demographic Profile
The data sheet deals with demographic variables such as age, gender, habitat, class, type of family, number of siblings, monthly income, educational status of father, occupation of father, educational status of mother, occupation of mother, health status during COVID-19 lockdown.

Section B: Rating scale (Likert Scale):
This would consist of closed-ended survey questions which was used to represent respondent's feedback in a comparative form like, strongly agree, agree, neither agree nor disagree, disagree, strongly disagree, to assess what impact did the COVID-19 lockdown had on the children's education.

Validity of tool
The prepared tool along with problem statement and objective were sent to experts for the content validity which were from nursing field. All suggestion of the tool validation was incorporated and final tool was prepared after consultation with research guide.

Reliability of Tool
Internal consistency of tool was calculated by Split half method and Karl Pearson Method. The reliability of this tool was 0.7

Pilot study
It was conducted on 10% of total sample size (20) at Rayat Bahra International School, District Mohali.

Procedure for data collection
The data collection for the study was done at Rayat Bahra International School and Anee's School, District Mohali, Punjab after getting written permission from the concerned authority of the schools. The purpose of the study will be explained to the subjects and informed consent was obtained. The respondents were assured of confidentiality. The data was collected by administering the Self Structured Questionnaire on 200 students of class 9th to 12th.

Ethical Consideration
- Written permission was taken from the Director Principal of Rayat Bahra College of Nursing.

- Written permission was taken from Principal of selected schools.
- Informed Consent was taken from each study subject.

Plan of Data Analysis

The analysis was done by using descriptive and inferential statistical. Descriptive statistics used was frequency, Percentage, Mean, Standard deviation. Inferential statistics and chi square were used.

Table 1: Demographic profile of the subjects (n=200)

Variables	Opts	Frequency(f)	Percentage (%)
Age	14-15 Years	17	8.5%
	16-17 Years	175	87.5%
	>18 Years	8	4.0%
Gender	Male	104	52.0%
	Female	96	48.0%
Class	9th class	65	32.5%
	10th class	48	24.0%
	11th class	36	18.0%
	12th class	51	25.5%
Habitat	Rural	22	11.0%
	Urban	131	65.5%
	Semi-urban	47	23.5%
Type of family	Nuclear	128	64.0%
	Joint	72	36.0%
Number of siblings	None	30	15.0%
	One	107	53.5%
	Two	45	22.5%
	More than two	18	9.0%
Monthly family income	Below 10,000	9	4.5%
	10,001- 20,000	17	8.5%
	20,001-50,000	81	40.5%
	Above 50,000	93	46.5%
Father's occupation	Agriculture	10	5.0%
	Private job	75	37.5%
	Government job	51	25.5%
	Others	64	32.0%
Mother's occupation	Housewife	147	73.5%
	Private job	26	13.0%
	Government job	14	7.0%
	Others	13	6.5%
Health during COVID-19	COVID-Negative	36	18.0%
	Any Other Health Issue	10	5.0%
	Healthy	143	71.5%
	Illiterate	0	0.0%
Father's education	Primary	7	3.5%
	Secondary	38	19.0%
	Graduate	155	77.5%
	Illiterate	2	1.0%
Mother's education	Primary	12	6.0%
	Secondary	59	29.5%
	Graduate	127	63.5%

Table 2: Frequency & Percentage distribution of level of Impact of COVID-19 on education score. N=200

Variable	Opts	Percentage (%)	Frequency
Impact Score Category	Strongly Disagree	0.0%	0
	Disagree	0.0%	0
	Neither agree nor disagree	13.0%	26
	Agree	77.5%	155
	Strongly Agree	9.5%	19

The result showed that 0% students Strongly Disagree, 0% students Disagree, 13% students were Neither Agree Nor Disagree, 77.5% students were Agree an 9.5 students were Strongly Agreed that COVID-19 really affects the education. Hence we accept the assumption that there is significant impact of COVID-19 lockdown on education.

Table 3: Table Showing Association of Scores and Demographic Variables (N=200)

Demographic data		Levels (N=200)			Association with impact score			
Variables	Opts	Severe impact	Moderate impact	Mild impact	Chi test	P value	DF	Table value
Age	13-15 Years	12	5	0	0.198	0.906	2	5.991
	16-17 Years	122	53	0				
	>17 Years	5	3	0				
Gender	Male	70	34	0	0.491	0.483	1	3.841
	Female	69	27	0				
Class	9th class	49	16	0	2.288	0.515	3	7.815
	10th class	31	17	0				
	11th class	26	10	0				
	12th class	33	18	0				
Habitat	Rural	15	7	0	6.219	0.045	2	5.991*
	Urban	98	33	0				
	Semi-urban	26	21	0				
Type of family	Nuclear	91	37	0	0.426	0.514	1	3.841
	Joint	48	24	0				
Number of siblings	None	22	8	0	2.963	0.397	3	7.815
	One	74	33	0				
	Two	28	17	0				
	More than Two	15	3	0				
Monthly family income	Below 10,000	6	3	0	0.449	0.930	3	7.815
	10,001- 20,000	13	4	0				
	20,001-50,000	56	25	0				
	Above 50,000	64	29	0				
Father's occupation	Agriculture	7	3	0	6.224	0.101	3	7.815
	Private job	57	18	0				
	Government job	38	13	0				
	Others	37	27	0				
Mother's occupation	Housewife	100	47	0	3.521	0.318	3	7.815
	Private job	22	4	0				
	Government job	9	5	0				
	Others	8	5	0				
Health status during COVID	COVID-Positive	8	3	0	2.367	0.500	3	7.815
	COVID-Negative	27	9	0				
	Any Other Health Issue	5	5	0				
	Healthy	99	44	0				
Father's education	Illiterate	0	0	0	2.035	0.362	2	5.991
	Primary	5	2	0				
	Secondary	30	8	0				
	Graduate	104	51	0				
Mother's education	Illiterate	0	2	0	8.632	0.035	3	7.815*
	Primary	9	3	0				
	Secondary	47	12	0				
	Graduate	83	44	0				

*Significant

The Chi-square value shows that there is significance association between the score level and demographic variables (Habitat and Mother's education). The calculated chi-square values were more than the table value at the 0.05 level of significance.

There is no significance association between the level of scores and other demographic variables (Age, Gender, Class, Type of family, Number of siblings, Monthly family income, Father's occupation, Health status during COVID-19 lockdown, Father's education, Mother's education). The calculated chi-square values were less than the table value at the 0.05 level of significance.

Discussion
The findings of study had been discussed in accordance with the objective of the study. A descriptive study to assess the impact of COVID-19 Lockdown on education among the students of class 9th to 12th in selected schools of District Mohali. For the study, convenient Sampling Technique was used and the sample size was 200 students of class 9th to 12th.

These findings reveal that there was a noticeable negative impact on the COVID -19 lockdown on education among students of class 9th to 12thThese findings were supported by Anderson Shaun *et al* (2022) [13] in which the impact of COVID-19 on academic performance and personal experience among first year medical students. Results showed that during the COVID-19 pandemic, first semester students did not score above the national average as much as first semester student's pre-COVID (55% vs. 77). Consistent findings were supported by Camacho barbosajose Francisco, Limon roneromoramyolaya (2022) [14] conducted a study on depression and anxiety and academic performance in COVID_19: A cross sectional study in June 2022 by questionnaire method. The result of the study indicates that the COVID_19 pandemic had a direct effect on student's mental health and academic performance. The findings were also supported by

Nooriqawi Abdul (2021) [15] conducted research design on the impact of COVID 19 pandemic on students learning in higher education in Afghanistan. It revealed that almost all of the respondents agreed that the COVID-19 pandemic has negatively affected their learning and they felt that they did not study for year.

A study bySakpere B Aderonke, Oluwadebi G Ayomiposi (2021) [16] conducted a study on impact of COVID-19 on education in Nigeria. The sample was collected from 1533 students. The results from the descriptive analysis reveals that 11.6% of the respondents have been able to continue school online and 41.4% have a level of doubt about the ability of their school. Results from Chi-Square Test of association show that students from public universities are economically more affected than those from private universities (P-value<. 005). Results from the logistic model showed that the future effect of COVID-19 on career/academic progression of students hold, irrespective of discipline or degree of study or university category or level/year of study. Furthermore, 30% of the students, regardless of their discipline, degree of study, or university category expressed extreme or moderate hopelessness about their academic future concerning the pandemic.

Conclusion
The conclusion was drawn on the basis of findings of the study. The findings showed that 0% students strongly disagree, 0% students disagree, 13% students were Neither agree nor disagree, 77.5% students were agreeing and 9.5% students were strongly agreeing with the impact of COVID-19 lockdown on education.

The findings are a testament to the dedicated work of teachers during the 2020 pandemic to ensure that learning for most students was not compromised, despite unusually trying circumstances.

Recommendations
On the basis of the findings of the study recommendations are offered for further research:
- Similar study can be undertaken with a large sample to generalize the findings.
- Similar study can be undertaken which not only assesses impact of lockdown on education but also focuses on other aspects like mental health.
- Instead of Descriptive study, an exploratory study and experimental study can be conducted to assess the impact of COVID-19 lockdown on education.

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