



ORIGINAL RESEARCH PAPER

Healthcare

FEASIBILITY OF STRENGTH AND DIFFICULTY IN STUDENTS ATTENDING ONLINE CLASSES – A QUESTIONNAIRE SURVEY

KEY WORDS: Strength and difficulties, Online classes, COVID-19 lockdown

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ABSTRACT

AIM: To check strength and difficulty in children attending online classes before and during COVID-19 lockdown

METHOD: The survey was designed as an observational questionnaire study and sampling consists 151 students between 12-18 years age group. The survey was conducted through web-based data collection (Google form) across India and Nepal

RESULT: Data shows lockdown impact on strength and difficulties in students attending online classes before and during COVID-19 lockdown. The student seems to have more strength factors in regular classes compared to online classes

CONCLUSION: This web-based survey shows significant results to highlight the children showed more strength and less difficulties in direct schooling than in online classes.

INTRODUCTION

Direct schooling has been an **education system** with a classroom setting and professor giving lectures and students listening and writing notes. The question, answer session between the professor and students has been viewed as an essential learning session within this setting, often referred to as the 'Sage on the stage'¹

Technological improvements in communication have advanced from postal services to telephone, radio and television and more recently the internet, all of which have been the driving force yielding new delivery method of teaching. These new learning methods are being used to deliver **online (distance) education** and are proliferating in various lower secondary and higher secondary level classes amid **COVID-19 lockdown**.²

The **internet** has helped to overcome distance globally with the ease of sitting at home, clicking a few buttons on the computer and listening live to a professor who is hundreds or thousands of miles away sharing his latest research findings along with the ability to interact with him at the same time and solving one's queries – it's just amazing! But does such distance learning offer the same value as learning in classroom? Does it help to imbibe the same knowledge as one would if one went to a class? To answer these questions, a meta-analytic approach was carried by Shachar and colleagues to determine the difference between traditional and distance academic performances by comparing the final course grades/ scores of two groups of students between 1990 and 2002. Eighty-six studies with over 15000 students were included in the analysis, it concluded that in two-third of cases students by direct education outperformed the students taught by online method.³

Online learning is difficult in developing countries as they lack access to modern curricula and equipment along with good internet facility. In addition to this the practical aspects of the course is difficult to conduct as they will be lacking the modern equipment.²

The **COVID-19** pandemic has forced leaders in politics and at schools, universities to take drastic measures that affect how citizens and students interact and socialized with each other⁴. In many countries around the world, individuals are required to reduce physical contact to others (social distancing).

Additional measures including curfews, quarantine and lockdown were also imposed. As many schools suspended classroom teaching, the lives of students have changed drastically. While social distancing measures may successfully slow down the spread of the infection, they may eventually increase the social isolation of students and affect their psychological well-being and mental health. Being under a lot of pressure to perform academically, students are prone to develop mental health problems⁵. Reduced social interactions, lack of social support and newly arising stressors associated with COVID-19 crisis could potentially affect students' mental health negatively.

The current findings on the condition of student emotional health and well-being in **online classes** are clear indications that the existence of the psychosocial needs have to be addressed through psychosocial support. As valuable stakeholders the safety and welfare of the students must be the priority of the schools, especially during the pandemic. Studies show that an online class supported by full array of psychosocial supports in the form of student services such as: enrichment and remediation tutorial, academic advising guidance and counselling program, fitness and wellness resources, spiritual formation activities and faculty- student consultation can result to very satisfactory performance of the students.⁶

In line with other research studies conducted across the globe we examined the effects of COVID-19 crisis and lockdown on a student population. A questionnaire survey regarding the **strength and difficulties** of students attending **online classes** was conducted to assess the mental and psychological well-being of the children.

Need for the study

The mental health, psychological health and social well-being of the children amid COVID-19 pandemic and lockdown has been severely affected. So, to assess and examine the effects of COVID-19 pandemic on students mental and social aspects was the main need of this study.

METHODOLOGY

STUDY DESIGN

Cross sectional, structured closed questionnaire survey.

STUDY SETTING

The study was conducted through web-based data collection

(Google form) across India and Nepal.

Sampling Technique

Observational sampling technique, questionnaire link was shared through the online website and only students with 12-18 years age group could enter the data. The data collected were highly confidentially maintained.

Sample Size

The study sampling consists of 151 students who participated in the survey.

Study Population

Students between 12-18 years of age group who were attending *online class* during *COVID-19 lockdown* were included in this study.

Study Duration

The study was conducted for a period of 2 months.

Selection Criteria

Inclusion Criteria

- Age: 12-18 years age group
- Both the gender (boys and girls)

Exclusion Criteria

- Age group below 12 years and above 18 years
- Not willing participants
- General health investigation was not done

Study Tool

Strength and difficulty questionnaire tool was used for the survey were used in the study.

Data Processing

This was a cross sectional, questionnaire study carried out in India and Nepal in which an easy web linked questionnaire survey was created from Google form and sent via Whatsapp and messenger application by friends of friends share method and piloted prior to the main study to 10 people and necessary changes were made. Privacy was strictly protected during the entire study. The survey data collection was initiated on 10th may 2021 and closed on 10th July 2021.

Outcome Measures

Strength and difficult questionnaire were used to assess the strength and difficulty in children attending online classes before and during *COVID-19 lockdown*.

This includes:

- EMOTIONAL SYMPTOMS SCALE
- CONDUCT PROBLEM SCALE
- HYPERACTIVITY SCALE
- PEER PROBLEM SCALE
- PROSOCIAL SCALE

Data Analysis And Results

Total of 151 students between 12-18 years of age group participated in the study. **46.4%** were boys and **53.6%** were girls. ***STRENGTH AND DIFFICULTY QUESTIONNAIRE*** was used as an outcome measure. It indicated how much the participants have experienced certain conditions under categories like mental health, psychological health, social relationship and environmental factors before and after *COVID-19* pandemic and lockdown.

Table 1: Table showing the sample student's emotional symptoms scale

EMOTIONAL SYMPTOMS SCALE						
BEFORE LOCKDOWN			DURING LOCKDOWN			
0- not true	1- somewhat true	2- certainly true	0- not true	1- somewhat true	2- certainly true	
Q.1	108	29	14	64	73	14

Q.2	102	37	12	49	81	21
Q.3	120	23	8	62	67	22
Q.4	112	30	9	72	72	18
Q.5	103	37	11	57	75	19



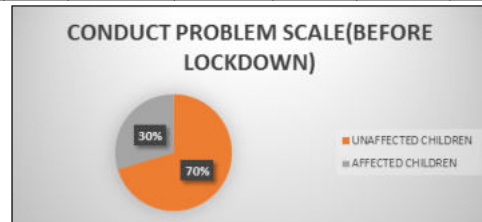
Graph 1: Graph showing affected and unaffected children in emotional symptoms (before lockdown)



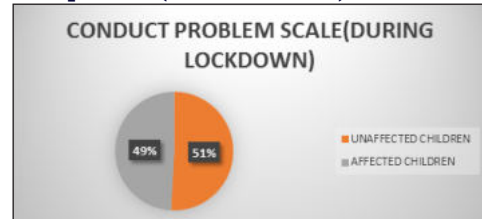
Graph 2: Graph showing affected and unaffected children in emotional symptoms (during lockdown)

Table 2: Table showing the sample student's conduct problem scale

CONDUCT PROBLEM SCALE						
BEFORE LOCKDOWN			DURING LOCKDOWN			
0- not true	1- somewhat true	2- certainly true	0- not true	1- somewhat true	2- certainly true	
Q.6	91	42	18	45	81	25
Q.7	95	44	12	57	73	21
Q.8	101	33	17	76	61	14
Q.9	114	32	5	91	47	13
Q.10	130	16	5	115	29	7



Graph 3: Graph showing affected and unaffected children in conduct problem (before lockdown)

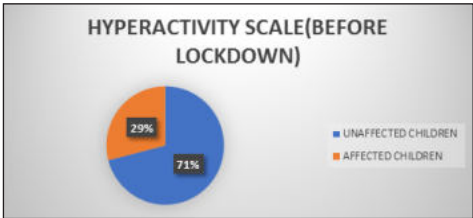


Graph 4: Graph showing affected and unaffected children in conduct problem (during lockdown)

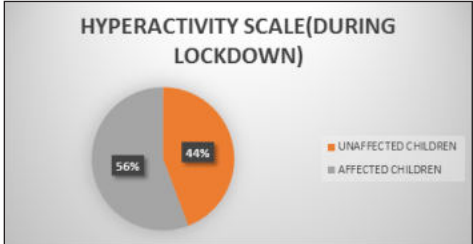
Table 3: Table showing sample student's hyperactivity scale

HYPERACTIVITY SCALE						
BEFORE LOCKDOWN			DURING LOCKDOWN			
0- not true	1- somewhat true	2- certainly true	0- not true	1- somewhat true	2- certainly true	
Q.11	118	26	7	62	70	19
Q.12	110	36	5	78	60	13
Q.13	96	42	13	51	70	30
Q.14	110	27	14	81	49	21

Q.15	102	40	9	62	70	19
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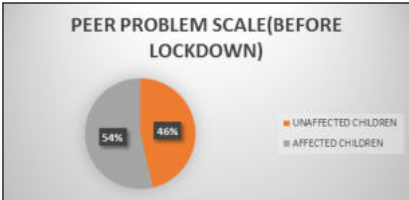
Graph 5: Graph showing affected and unaffected children in hyperactivity scale (before lockdown)



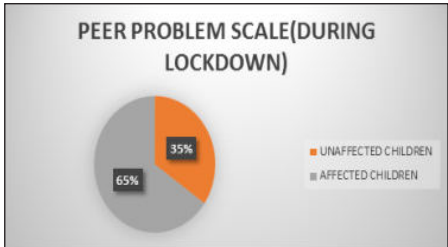
Graph 6: Graph showing affected and unaffected children in hyperactivity scale (during lockdown)

Table 4: Table showing sample children's peer problem scale

	PEER PROBLEM SCALE					
	BEFORE LOCKDOWN			DURING LOCKDOWN		
	0- not true	1- somewhat true	2- certainly true	0- not true	1- somewhat true	2- certainly true
Q.16	111	30	10	65	59	27
Q.17	15	21	115	13	51	87
Q.18	17	43	91	20	65	66
Q.19	110	33	8	96	46	9
Q.20	97	38	16	68	61	22



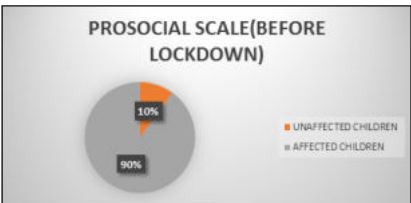
Graph 7: Graph showing affected and unaffected children in peer problem scale (before lockdown)



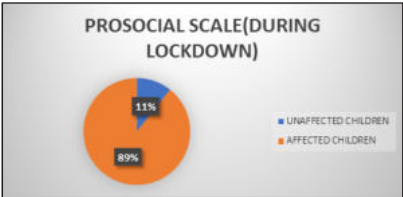
Graph 8: Graph showing affected and unaffected children in peer problem scale (during lockdown)

Table 5: Table showing sample children's prosocial scale

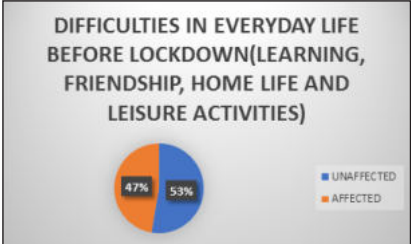
	PROSOCIAL SCALE					
	BEFORE LOCKDOWN			DURING LOCKDOWN		
	0- not true	1- somewhat true	2- certainly true	0- not true	1- somewhat true	2- certainly true
Q.21	19	29	103	17	34	100
Q.22	16	36	99	20	42	89
Q.23	16	26	109	16	38	97
Q.24	11	26	114	9	36	106
Q.25	14	31	106	19	34	98



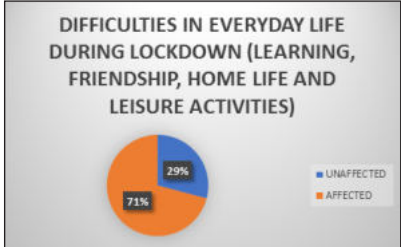
Graph 9: Graph showing affected and unaffected children in prosocial scale (during lockdown)



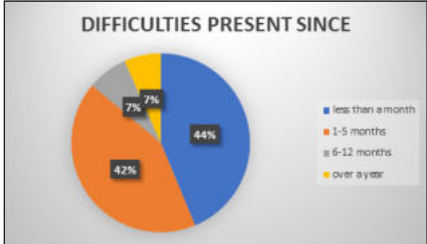
Graph 10: Graph showing affected and Unaffected children in prosocial scale (during lockdown)



Graph 11: Graph showing affected and unaffected children in learning, friendship, home life and leisure activities (before lockdown).



Graph 12: Graph showing affected and unaffected children in learning, friendship, home life and leisure activities (during lockdown)



Graph 13: Graph showing the time since the difficulties are present in the children.

DISCUSSION

The mental health effects associated with lengthy school closures owing to the COVID-19 lockdown among children concludes that during the period of school closure and COVID-19, students were having negative thoughts and depressive symptoms than the pre COVID period ⁷. Because of the COVID-19 pandemic and online classes children spend considerably less time studying during lockdown and there has been learning loss in children due to school closure. ⁸

The study aimed at analyzing and comparing the mental, social, emotional and psychological health of children during COVID-19 lockdown and online classes. The study included 151 samples of children of age 12-18 years. Among them 47.3% were boys and 53.6% were girls who participated in

this questionnaire survey. *Strength and difficulty questionnaire* was used as an outcome measure in which five scales were included

- Emotional symptoms scale
- Conduct problem scale
- Hyperactivity scale
- Peer problem scale
- Prosocial scale

Initially the consent was taken from the students and then they were asked the questions related to the above scale and their opinion was recorded. The obtained data was then tabulated and graph for the same data was prepared.

Out of 151 samples taken 72.185 % of the samples were not affected in any emotional symptoms problem before lockdown (Graph1) while during lockdown 59.73% of the children were affected in any emotional symptoms scale (Graph2). In conduct problem scale 70% of the samples were not affected before lockdown (Graph 3) while during lockdown 49.135% of the children were affected (Graph 4). In hyperactivity scale 70.99% of the samples were not affected before lockdown (Graph 5) while 56.76% of the samples were affected during lockdown and had different hyperactivity issues. (Graph 6). In peer problem scale 46.35% of the samples were not affected before lockdown (Graph 7) while during lockdown 65.298% of the children were affected (Graph 8) In prosocial scale 90% of samples were not affected before lockdown (Graph) while during lockdown 10.728% of the samples were affected (Graph 10).

In this lockdown and *online classes* children faced other difficulty in their daily life. This includes difficulties in learning, home life, friendships and leisure activities. Out of 151 samples 47% of them were unaffected before lockdown (Graph 11) while 71% of the samples were affected and found difficulties in their daily life during lockdown. (Graph 12). Out of 151 samples 44% of the samples are finding difficulties since less than a month, 42% of them for 1-4 months, 7% of them for 6-12month time period and 7% of them since last year (Graph 13).

From the graph and the results, the study came to the conclusion that before lockdown and during physical classes children were mentally, socially, emotionally and psychologically healthier than during lockdown and *online classes*.

CONCLUSION

It was concluded from the present study that the children found more difficulties in home life, emotions, friendship, mental and psychological health and social life during lockdown and online classes compared to before lockdown and physical classes. The lockdown and *online classes* had some negative effect in the quality of life of the children.

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