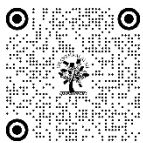# TO STUDY THE EFFECT OF TRANSFORMATION IN ONLINE EDUCATION ON MENTAL HEALTH OF SOUTH ASIAN UNIVERSITIES IN THE CONTEXT OF INDIA, SRI LANKA AND NEPAL (BEFORE AND DURING COVID19)

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ABSTRACT

The demand for quality education always creates new inventions and Massive Open Online Courses (MOOC) is one of that which is an online course with no limit of class size and provides free education via the web. In recent years, there has been an increasing interest in MOOCs as it provides a platform to large number of learners. No doubt, it enhanced the quality of education by including blended learning but it also affects the mental health of the students of universities. The main objective of this research paper is to study the mental health of students studying in South Asian Universities during Covid19. To achieve this objective, the investigator compared the scores of mental health of students of South Asian Universities before and during Covid19 in the context of India, Sri Lanka and Nepal. Descriptive research method was used in this research paper. 3000 students were selected randomly from different South Asian Universities. One self-made questionnaire of mental health was constructed by investigators to know the mental health of the students towards online education during Covid19. Question wise deep analysis of Mental Health of Students has also been done by the investigator and presented in the form of percentage. After analysis it was revealed that students felt anxiety, tension, depression, headache, tiredness and suffer eye problem in studying online mode during covid19. Finally, the investigator concluded that mental health of students of South Asian Universities was affected through transformation of online education during covid19.

Keywords: Online Education, Transformation, Mental Health, South Asian Universities

1. INTRODUCTION
1.1. PARADIGM SHIFT FROM FACE TO FACE LEARNING TO ONLINE LEARNING

Face to face method is used in most of our regional educational institutions. It is also known as traditional and "chalk and talk" method of teaching. In this method of teaching, teachers show topics to pupils using chalked and a chalkboard. Pupils utilize the chalkboard to take crucial notes and to write essential things about the content. After the lecture, students go through their notes again and try to recall them. The primary aim of traditional education is to pass the test. Traditional schooling has both benefits and drawbacks. Many students have benefited from traditional schooling. Traditional education is the best mode of education, but it does have certain disadvantages that can be overcome with careful planning and execution of these policies (Hooda and Vedpal, 2018). In contrast to the new methods that demand active student participation, face-to-face instruction is generally used in Indian classrooms, where the "chalk and talk" method is frequently used to spoon-feed the material. The students can actively participate in a variety of activities thanks to strategies including cooperative learning, blended learning, flipped classrooms, and smart classrooms. Among

these, the online teaching method is one that involves students in a way that allows them to build their new knowledge by connecting it to what they have already learned (Sharma and Poonam, 2015). Online learning has been called web-based learning, e-learning, digital learning, and a type of distance education. It is provided online and makes use of web-based resources and exercises. Paudel (2021). Digital-age students seem to be more self-reliant, tech-savvy, and disciplined, making them ideal for online learning environments. Getting a top-notch college degree can be facilitated by self-paced online learning Sun and Chen (2016). Every course offering, whether it is given online or on campus, must adhere to the same exacting standards and stringent requirements. The manner in which the course is taught is the only distinction. Generally speaking, pupils must have access to a computer system with fast Internet Basilaia, Giorgi, Kvavadze and David (2020).

2. REVIEW OF RELATED LITERATURE

Bansal, Neha, Singh, Pruthi and Singh (2023) conducted a study on "A Systematic Literature Review on Student Engagement in Online Learning amid COVID-19" This analysis was conducted based on 24 research published between 2020 and 2022,. They discovered that web learning helps educators better engage their students in the context of online learning. Hendradi, Ghani and Mahfuzah (2023) investigated a research work which title was "A Literature Review of E-Learning Technology in Higher Education". They demonstrated that in order to support e-learning systems in universities during the COVID-19 pandemic, technology must take into account domestic resources, specifically infrastructure and applications for instructors and students. Chu and Li (2022) conducted a study entitled "The impact of online learning on physical and mental health of university students during the covid 19 pandemic". They concluded that there was statistically significant difference between the in-class and online learning sessions in terms of psychological discomfort or life stress. In conclusion, Taiwanese university students engage in significantly less physical exercise when they are learning online. Male students may be more likely than female students to engage in inadequate amounts of vigorous physical activity. Noor, Mumtaz, Malik and Maqsood (2024) Conducted a study to explore various challenges related to E-learning dynamics faced by high-education academicians during the COVID-19 period. Data were collected from 14 university teachers. The investigator focused on group discussions in which respondents were mandatory to provide written narrations about the teaching-related challenges as well. Finally, they suggested for education policymakers, senior management of universities, and researchers which will enable them to have a better understanding of E-learning challenges in developing countries.

2.1. OBJECTIVE OF THE STUDY

In the present research work, the following objectives were undertaken:
1) To study the effect of transformation in online education on mental health of University students of South Asian universities (Before and During Covid19)
2) To study the mental health of University students of South Asian Universities (India, Sri Lanka and Nepal) during COVID-19 period
3) To compare the mental health of Universities students of India, Sri Lanka and Nepal during COVID-19 period

2.2. HYPOTHESES OF THE STUDY

There is no significant effect of transformation in online education on mental health of University students of India (Before and During Covid19)
1) There is no significant effect of transformation in online education on mental health of University students of Sri Lanka (Before and During Covid19)
2) There is no significant effect of transformation in online education on mental health of University students of Nepal (Before and During Covid19)
3) There is no significant difference between the mental health of universities students of India and Sri Lanka during COVID-19 period.

4) There is no significant difference between the mental health of university students of India and Nepal during COVID-19 period.

5) There is no significant difference between the mental health of universities students of Sri Lanka and Nepal during COVID-19 period.

6) There is no significance difference between the mental health of Universities Students of India, Sri Lanka and Nepal during COVID-19 period.

Tools Used

To achieve the above stated objectives, one questionnaire related to mental health in the form of Google Form was developed with the help of Mental Health Check-List by Dr. Pramod Kumar. It has 30 statements related to mental health of students in studying online mode in which 15 statements are related to pre covid19 situation and other 15 are related to during covid19 situation with the symptoms; anxiety, tension, depression, insomnia, hopelessness, somnambulism, eye problems, brainsickness etc.

3. METHOD OF THE STUDY

To achieve the above stated objectives, descriptive research method was applied in this study.

Statistical Techniques

There are following statistical techniques were applied:

Descriptive statistics such as Mean, Standard Deviation and Standard Error of Mean were occupied to analyze and explain the features and nature of sample or data. 't' value was computed in order to check main difference between the group. ANOVA (ONE WAY) was computed in order to check difference between and within groups. SPSS 21.0" was used in order to compute mean, S.D., t-value and p-value and ANOVA (ONE WAY) of scores of mental health of students of South Asian Universities during COVID19.

Population of the Study

In this research work, South Asian Universities students were identified as a Population. A list of of south Asian universities was obtained from https://www.google.com/search?q.

Sample of the Study

In this research work, South Asian Universities students were identified as a Population. A list of south Asian universities was obtained from https://www.google.com/search?q. 1000 students of Indian universities, 1000 students from Nepal universities and 1000 students from Sri Lanka Universities were selected as sample. The data were collected from21st December, 2022 to 30 May, 2023 from South Asian universities. Layout of the sample is shown below:
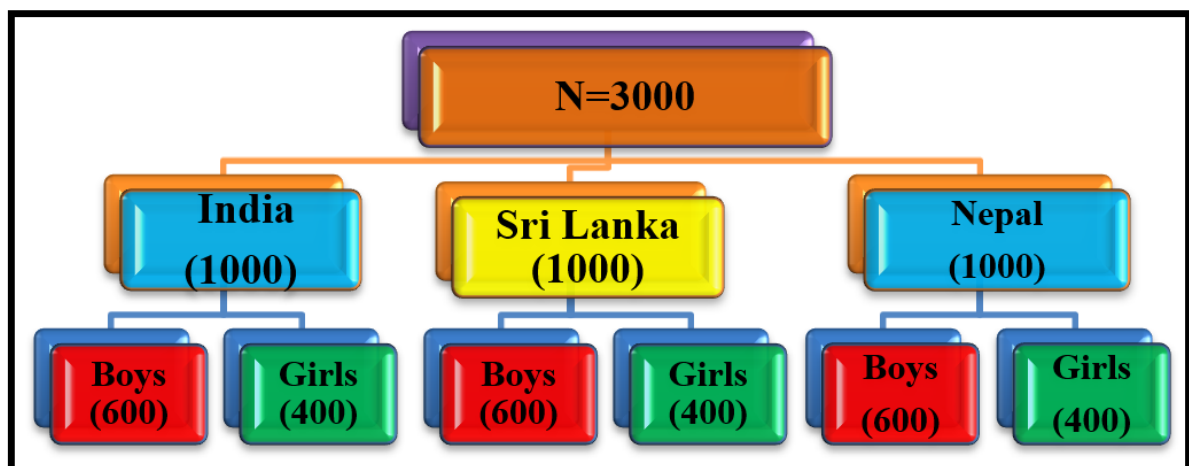

Figure 1.1
Sample of the Study

4. ANALYSIS AND INTERPRETATION

Objective 1

To study the effect of transformation in online education on Mental Health of University students of South Asian universities (Before and During Covid19)
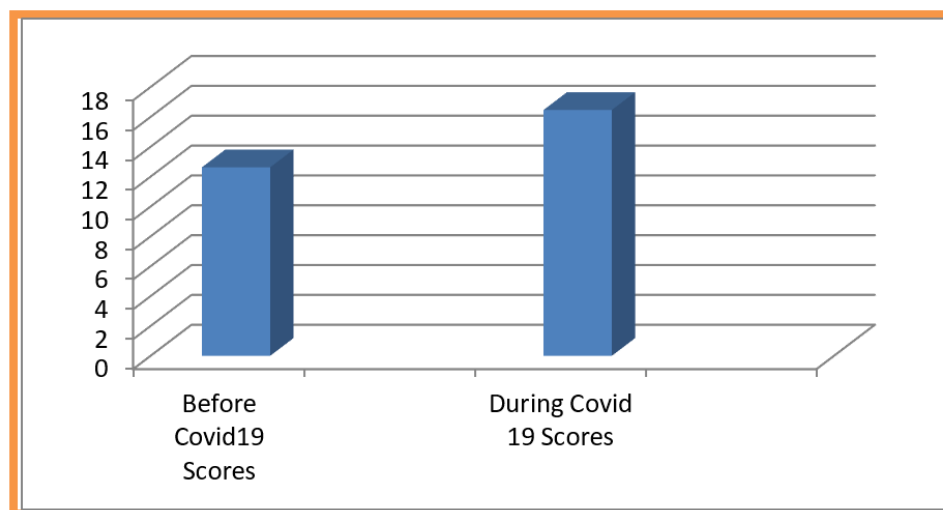
Hypothesis (i)

There is no significant effect of transformation in online education on mental health of University students of India (Before and During Covid19)

Table 1

Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. levels
Before covid19 scores	1000	12.62	4.22	.133	15.08	000	1998	Sig.
During covid19 scores	1000	16.46	6.88	.217				

Figure 1.2

Mean Scores of Mental Health of Universities Students of India (Before and During Covid19)

Table 1.1 and Fig.1.2 showed that mean scores of mental health of universities students of India before COVID19 is 12.62 and during COVID19 is 16.46 and 't' value is 15.08 which is significant at both levels of significance, meaning thereby that there is significant difference between the mean scores of mental health of universities students of India before and during COVID 19. Thus, the hypothesis, "there is no significant effect of transformation in online education on mental health of University students of India (Before and During Covid19)" is not accepted. Mean scores of mental health of universities students of India before and during COVID19 indicated that the both groups are differ significantly. Therefore, the investigator concluded that significant effect of online education is found on mental health of universities students of India before and during COVID19.

Hypothesis (ii)

There is no significant effect of transformation in online education on mental health of University students of Sri Lanka (Before and During Covid19)

Table 1.2

Mean, S. D. and 't' value of Mental Health of Universities Students of Sri Lanka (Before and during COVID 19)

Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. (0.05 level)

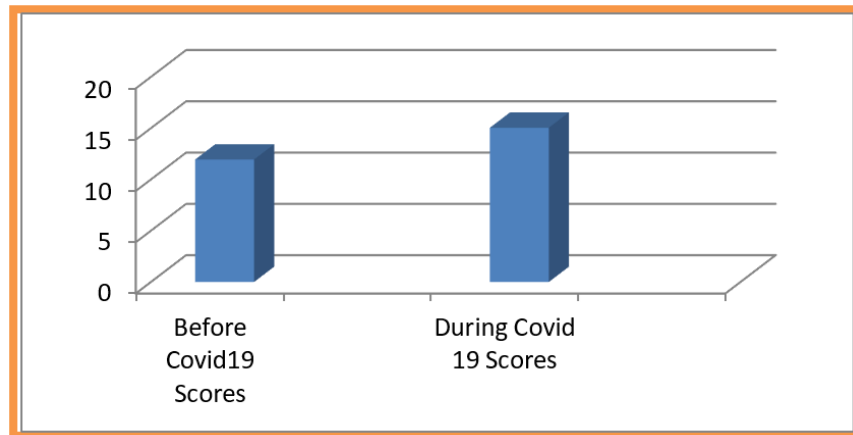|								
Before covid19 scores	1000	11.94	3.72	.118	13.006	000	1998	Sig.
During covid19 scores	1000	15.04	6.56	.207				

Figure 1.3
Mean Scores of Mental Health of Universities Students of Sri Lanka (Before and During Covid19)

Table 1.2 and Fig.1.3 showed that mean scores of mental health of universities students of Sri Lanka before COVID19 is 11.94 and during COVID19 is 15.04 and 't' value is 13.006 which is significant at both levels of significance, meaning thereby that there is significant difference between the mean scores of mental health of universities students of Sri Lanka before and during COVID 19. Thus, the hypothesis, "there is no significant effect of transformation in online education on mental health of University students of Sri Lanka (Before and During Covid19)" is not accepted. Mean scores of mental health of universities students of Sri Lanka before and during COVID19 indicated that the both groups are differ significantly. Therefore, the investigator concluded that significant effect of online education is found on mental health of universities students of Sri Lanka before and during COVID19.

Hypothesis (iii)

There is no significant effect of transformation in online education on mental health of University students of Nepal (Before and During Covid19)

Table 1.3

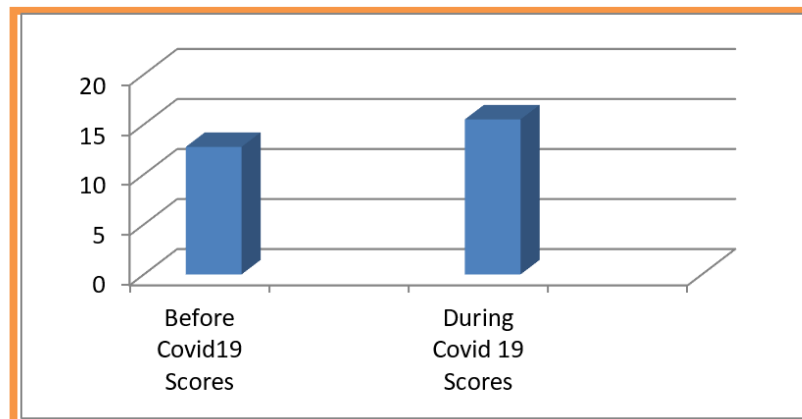| Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. (0.05 level)
Before covid19 scores	1000	12.75	3.60	.113	16.704	.001	1998	Sig.
During covid19 scores	1000	15.50	3.77	.119				

Figure 1.4
Mean Scores of Mental Health of Universities Students of Nepal (Before and During Covid19)

Table 1.3 and Fig. 1.4 showed that mean scores of mental health of universities students of Nepal before COVID19 is 12.75 and during COVID19 is 15.50 and 't' value is 16.704 which is significant at both levels of significance, meaning thereby that there is significant difference between the mean scores of mental health of universities students of Nepal before and during COVID 19. Thus, the hypothesis, "there is no significant effect of transformation in online education on mental health of University students of Nepal (Before and During Covid19)" is not accepted. Mean scores of mental health of universities students of Nepal before and during COVID19 indicated that the both groups are differ significantly. Therefore, the investigator concluded that significant effect of online education is found on mental health of universities **students of Nepal before and during COVID19.**

Objective 2

To study the mental health of University students of South Asian Universities (India, Sri Lanka and Nepal) during COVID-19 period

Hypothesis (i)

India and Sri Lanka

There is no significant difference between the mental health of universities students of India and Sri Lanka during COVID-19 period.

Table 1.4

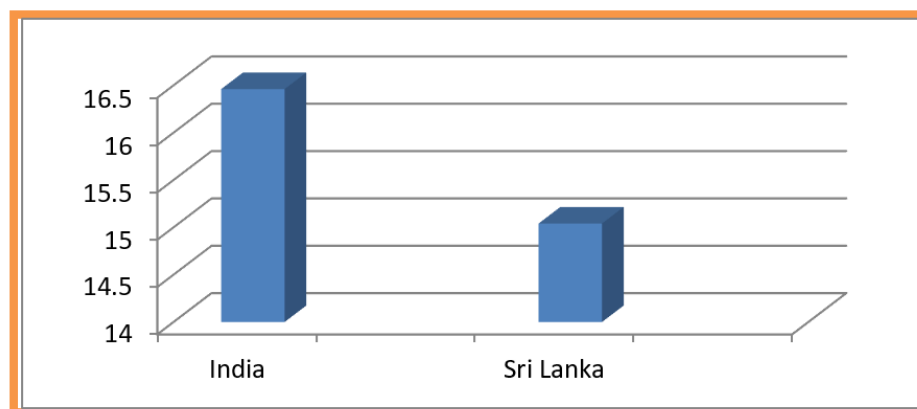| Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. (0.05 level)
India	1000	16.46	6.87	.217	4.730	000	1998	Sig.
Sri Lanka	1000	15.04	6.55	.207				

Figure 1.5

Mean Scores of Mental Health of Universities Students of India and Sri Lanka (during Covid19)

Table 1.4 and Fig. 1.5 showed that mean scores of mental health of universities students of India and Sri Lanka during COVID19 is 16.46 and 15.04 during COVID19 and 't' value is 4.730 which is significant at both levels of significance, meaning thereby that there is significant difference between the mean scores of mental health of universities students of India and Sri Lanka during COVID 19. Thus, the hypothesis, "There is no significant difference between the mental health of university students of India and Sri Lanka during COVID-19 period." is not accepted. Mean scores of mental health of universities students of India and Sri Lanka during COVID19 indicated that the both groups are differ significantly. Therefore, the investigator concluded that significant difference is found between the mental health of universities students of India and Sri Lanka during COVID19.

Hypothesis (ii)

India and Nepal

There is no significant difference between the mental health of university students of India and Nepal during COVID-19 period.

Table 1.5

Mean, S. D. and 't' value of Mental Health of University Students during COVID 19

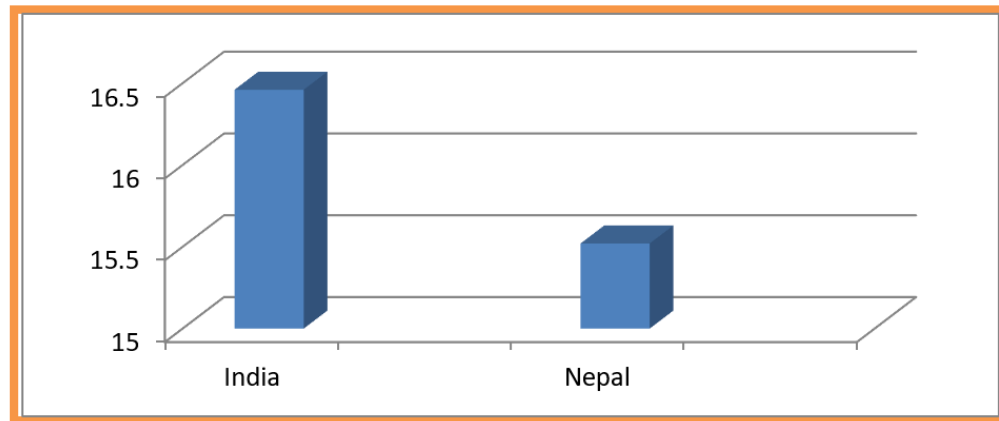| Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. (0.05 level)
India	1000	16.460	6.87	.217	3.901	000	1998	Sig.
Nepal	1000	15.501	3.76	.119				

Figure1.6

Mean Scores of Mental Health of Universities Students of India and Nepal (during Covid19)

Table 1.5 and Fig. 1.6 showed that mean scores of mental health of universities students of India and Nepal during COVID19 is 16.46 and 15.50 during COVID19 and 't' value is 3.901 which is significant at both levels of significance, meaning thereby that there is significant difference between the mean scores of mental health of universities students of India and Nepal during COVID 19. Thus, the hypothesis, "There is no significant difference between the mental health of universities students of India and Nepal during COVID-19 period." is not accepted. Mean scores of mental health of universities students of India and Nepal during COVID19 indicated that the both groups are differ significantly. Therefore, the investigator concluded that significant difference is found between the mental health of universities students of India and Nepal during COVID19.

Hypothesis (iii)

Sri Lanka and Nepal

There is no significant difference between the mental health of universities students of Sri Lanka and Nepal during COVID-19 period.

Table 1.6

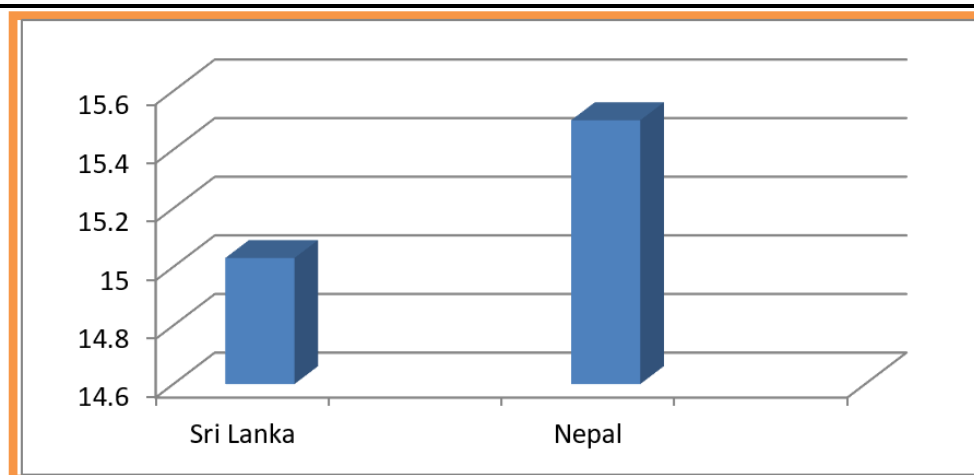| Groups	N	Mean	S. D.	SEM	't'	p value	Df	Sig./non-sig. (0.05 level)
Sri Lanka	1000	15.03	6.55	.207	-1.898	000	1998	Non-Sig.
Nepal	1000	15.50	3.76	.119				

Figure 1.7

Mean Scores of Mental Health of Universities Students of Sri Lanka and Nepal (during Covid19)

Table 1.6 and Fig. 1.7 showed that mean scores of mental health of universities students of Sri Lanka and Nepal during COVID19 is 15.03 and 15.50 during COVID19 and 't' value is -1.898 which is non-significant at both levels of significance, meaning thereby that there is not-significant difference between the mean scores of mental health of universities students of Sri Lanka and Nepal during COVID 19. Thus, the hypothesis, "There is no significant difference between the mental health of universities students of Sri Lanka and Nepal during COVID-19 period." is accepted. Mean scores of mental health of universities students of Sri Lanka and Nepal during COVID19 indicated that the both groups are not differ significantly. Therefore, the investigator concluded that significant difference is not found between the mental health of universities students of Sri Lanka and Nepal during COVID19. It means condition of mental health of universities students of Sri lanka and Nepal was mostly equal during COVID19.

Objective 3

To compare the mental health of Universities students of India, Sri Lanka and Nepal during COVID-19 period

Hypothesis 3

There is no significance difference between the mental health of Universities Students of India, Sri Lanka and Nepal during COVID-19 period.

Table 1.7

Mental Health of Universities Students of India, Sri Lanka and Nepal during COVID 19

Groups	N	Mean	S. D.	SEM	'F'	p value	Sig./non-sig. (0.05 level)
India	1000	16.46	6.88	.217	15.13	000	Sig.
Sri Lanka	1000	15.04	6.56	.207			
Nepal	1000	15.50	3.77	.119			
Total	3000	15.66	5.93	.108			

Table 1.8

ANOVA

Groups	Sum of Squares	df	Mean Squares	F	Sig./Non. Sig.
Between Groups	1053.482	2	526.741	15.13	Sig.
Within Groups	104372.811	2997	34.826		
Total	105426.263	2999			

To study the main effect of transformation of online education on mental health of students of south Asian universities (between groups and within groups), data were subjected to analysis of variance (ANOVA). The table 1.7 and 1.8 revealed that F- ratio (15.13) for the effect of transformation of online education on mental health is significant at both levels. Therefore, the null hypothesis, "There is no significance difference between the mental health of Universities Students of India, Sri Lanka and Nepal during COVID-19 period" is rejected.

Mean scores of mental health of universities students of India, Sri Lanka and Nepal during COVID19 indicated that the all groups are equal significantly. Therefore, the investigator concluded that significant difference is found between the mental health of universities students of India, Sri Lanka and Nepal during COVID19. It means condition of mental health of universities students of India, Sri lanka and Nepal was mostly equal during COVID19.

5. DISCUSSION ABOUT RESULTS

The primary aim of this study is to study the mental health of students studying in South Asian Universities during Covid19. To achieve this objective, the investigator compared the scores of mental health of students of South Asian Universities before and during Covid19 in the context of India, Sri Lanka and Nepal. Results were calculated with the help of mean, S.D. and 't' test, ANOVA (one way) and presented by bar graph. Finally, the investigator concluded that mental health of students of South Asian Universities was affected through online education during covid19. Sato and Moreno (2024) revealed in their study that mental health of students was affected through online education during covid19. Noor, Mumtaz, Malik and Maqsood (2024) also concluded in their study that condition of mental health of students were poor due to online classes during covid19. Chu and Li (2022) also said that online education has negative on mental health of students. These all studies are supporting the findings of this research work. These all studies revealed that transformation of online education was affected the mental health of students of South Asian Universities during COVID19. It has no substitute.

6. CONCLUSIONS

Results were calculated with the help of mean, S.D. and 't' test, Percentage, ANOVA (one way) and presented by bar graph in the context of India, Sri Lanka and Nepal. The results showed that mean scores, 't' value and ANOVA (Analysis of Variance) value of mental health of students of South Asian Universities (India, Sri Lanka and Nepal) found significant at both levels before and during COVID 19. Question wise deep analysis of Mental Health of Students has also been done by the investigator and presented in the form of percentage and found that students feel anxiety, tension, depression, headache, tiredness and suffer eye problem in studying online mode during covid19. Finally, the investigator concluded that mental health of students of South Asian Universities was affected through transformation of online education during covid19.

CONFLICT OF INTERESTS

None.

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None.

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