

Impact of lockdown and COVID-19 on the learning status of postgraduate students during the pandemic in India: A questionnaire-based study

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ABSTRACT

Observations have suggested that during the coronavirus disease 2019 pandemic, because of lockdown students who are in process of doing their thesis related work exhibit responses related to stress due to the fear of spread contagion and because of various limitations in performing thesis work, especially patient-oriented collection of data and clinical work. The present study aimed to determine various problems faced by the students in postgraduate courses for completing their thesis during pandemic. This was a prospective and cross-sectional study based on a questionnaire. This study was comprised of a total sample size of 300 postgraduate students of different disciplines in the health stream. The study was conducted between June 2021 and December 2021. The prepared study questionnaire was sent to postgraduates by use of electronic mail. Of the total selected students, 280 had responded with complete answers to the questionnaire. Collected data were entered into a Microsoft Excel sheet and analyzed for percentage distribution. 50.7% of postgraduates were found in the age range of 26–30 years, 73.1% were female and 35.6% were in their final year of postgraduation. It was seen that 6.5% were unable to procure ethical approval due to the pandemic, and 43.1% were not able to get permission from the board due to the sudden pandemic. 64.9% were unable to collect data for their thesis, and 18% were unable to report to supervisors. 86.9% of postgraduates suffered from anxiety due to the inability to perform thesis work. 78.9% of postgraduate students had a decrease in motivation for a thesis and 89.1% suffered from anxiety. Due to the ongoing pandemic, postgraduate students are facing many problems in completing their thesis work. This resulted in anxiety and stress themselves.

Key words: Anxiety, coronavirus disease 2019, problems, stress, thesis

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INTRODUCTION

First-ever case of “severe-acute respiratory syndrome coronavirus-2” which is the etiological organism responsible for “coronavirus disease 2019” (COVID-19) was observed in December 2019. The “World Health Organization” had

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declared COVID-19, a disease of pandemic proportion on March 11, 2020.^[1] This pandemic has resulted in serious socio-economic effects worldwide. Furthermore, the current restrictions and lockdowns due to this disease have resulted in challenges for students doing their postgraduate courses along with their respective supervisors.^[2-7]

Especially in the field of health sciences medicine, dentistry, nursing, and physiotherapy, the majority of research work is performed in “wet-lab” experiments that require physical work at colleges or universities. Further, students who have been enrolled in medical postgraduate programs require accessibility to hospitals and human subjects for conducting research work.^[8]

The students pursuing postgraduation have to undergo the process of designing, implementing, and writing a result-oriented scientific project that has been typically named either a dissertation or a thesis. It is an important part of the entire process of learning.^[9]

Beginning in the early 2020s, various measures have been undertaken for curbing the spread of this virus, for example, closing of campuses, lockdowns, and staying in the required period of quarantine. All of this has drastically altered academic lives as well as the learning process of postgraduate students.^[10]

Especially, in the higher level of education, postgraduate students, faculties, and research staff are still trying to adjust to newer strategies for smooth conduct of research work. The majority of research groups have begun adapting to various methods of working from a remote location whereas others may be returning slowly to their research laboratory for limited work. Although some of the groups, for example, those who have undertaken research work on human subjects using clinical data have not been able to resume research activities normally. Since the current COVID-19 situation is still in a fluid state complete resuming of services is still in very much doubt, hence, facilitating research is a major challenge in near future and all investigators must be prepared for working and performing research in a likelihood event of a break and/or complete shutdown.^[11]

The present study aimed to determine various problems that are faced by postgraduate students due to the current COVID-19 pandemic.

MATERIALS AND METHODS

This prospective, cross-sectional questionnaire-based study was conducted on a total sample of 300 postgraduate students who belonged to various disciplines in health sciences. The study was conducted from June 2021 to December 2021. Ethical clearance was obtained from the “Institutional Ethical Review Board” (Ethical Approval number-PD/ETH/2021/03).

The study questionnaire was distributed to postgraduate students through electronic mail. Of 300 selected participants, 280 responded with a completely filled questionnaire. Inclusion criteria for subjects’ selection were (a) postgraduate students pursuing any course at the time of conducting the study and (b) only students who had enrolled for a master’s degree in health sciences. Exclusion criteria included (a) candidates who had mailed incompletely filled questionnaire forms, (b) any duplicate replies, and (c) postgraduate students who had enrolled in courses other than health sciences.

Method of collecting data

The study questionnaire containing the survey form was made using Google forms.

Opinions of postgraduate students on the quality of distance education and the visual analog scale (VAS) to analyze the stress were used. The questionnaire form for conducting this survey included 22 items which comprised of participants’ age as well as gender along with demographic data which were required for postgraduate thesis work. Open-ended two-way questions also included solutions for the primary questions along with various problems, these postgraduate students had experienced during this ongoing pandemic.

Use of the “visual analog scale” to analyze stress

The “VAS” is a tool to analyze subjective features and attitudes that cannot be measured directly. The VAS or VAS is typically a “100 mm” long horizontal line marked with the verbal description or the word-based anchors at either end for expressing any extreme feeling.

The entire questionnaire was coded in form of “yes” and “no” answers. All observations were recorded in Microsoft Excel sheet format and responses were noted in the form of percentages. Fisher’s exact test was applied as a statistical tool for the comparison of percentages using the Statistical Package for Social Science (SPSS) 21.0 package (IBM, Chicago).

RESULTS

Of all the postgraduate students who were included in the current study; 50.7% were found to be aged between 26 and 30 years of which, 73.1% were of female gender and 35.6% were pursuing postgraduation in their final year [Table 1].

Table 1: Age and gender distribution of postgraduate students

	Percentage distribution
Age range (years)	
26–30	50.7
>30	49.3
Gender distribution	
Males	26.9
Females	73.1

It was observed that 65% of postgraduates had already applied for ethical approval while 6.5% were not able to procure ethical approval due to a sudden pandemic, 42.7% had applied for institutional review board permission; of which 43.1% could not get permission from the board due to sudden pandemic situation. 64.9% could not collect data for their thesis work, and 18% could not report to their academic supervisors due to the COVID-19 pandemic. 86.9% of postgraduates reported anxiety due to a block in research [Graph 1].

78.9% of postgraduate students reported that this pandemic reduced their motivation for completing their thesis work. 89.1% felt that the uncertain situation of the total pandemic caused anxiousness [Table 2].

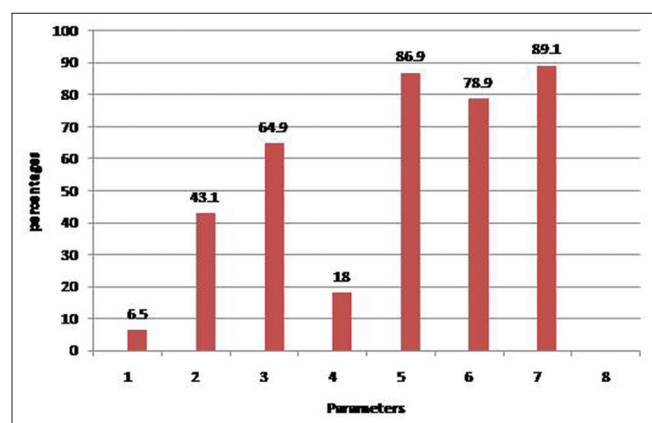
77.8% of postgraduate students desired their thesis protocol presentation through direct meeting. 60.1% desired to take thesis defense through the direct meeting [Table 3].

On evaluating various problems that were experienced by postgraduate students in the thesis working stage during this pandemic, it was found that most of the results were in a stage of implementation, cancellation of research permission, failure in the gathering of data, and lack of motivation. The majority of postgraduate students found it difficult to gather data for their thesis work.

A few observations concerning various problems that were experienced by postgraduate were:

- Difficulty conducting a research study as it involved patients' work
- It was very risky to travel for collecting patient data as well as to perform laboratory work due to widespread infection.

On assessing the levels of stress using the VAS among postgraduate students concerning following issues were observed to be as under (a) students feared freezing of their registration = 7.01 ± 1.69 ; (b) failure to perform approval by the ethical committee as a result of pandemic = 7.29 ± 1.42 ; (c) failure in obtaining institutional reviewer board permission



Graph 1: Problems faced by students pursuing postgraduation during the COVID-19 pandemic

as a result of pandemic = 6.30 ± 1.11 ; (d) failure to collect data for conducting thesis work because of pandemic situation = 8.99 ± 0.98 ; (e) failure in meeting one's supervisor directly as a result of restrictions imposed due to the pandemic = 7.76 ± 2.12 ; and (f) fear related to course extension due to inability to complete the thesis work in a time-bound manner = 8.97 ± 1.43 [Table 4].

DISCUSSION

Both postgraduate students along with the involved faculty must be able to work out options for allowing a good

Table 2: Various issues faced by postgraduate students in thesis work during a pandemic

Issues faced	Percentage of postgraduate students
Those who could not apply applied for ethical approval due to sudden lockdown	6.5
Those who could not get approval from the institutional review board	43.1
Those could not collect data for thesis work	64.9
Those who could not report to their academic supervisor	18
Presence of anxiety due to hampering of related thesis research work	86.9
Lack or decline in motivation for thesis work	78.9
Anxiety due to uncertainty prevailing due to the COVID-19 pandemic	89.1

Table 3: What did the postgraduate students want for finalizing their final thesis

Thesis finalization	Percentage of postgraduate students
Thesis protocol presentation through direct meeting	77.8%
Thesis defense through a direct meeting	60.1%

Table 4: Stress levels using visual analog scale among postgraduate students

Stress level	Mean \pm SD
Students feared freezing of their registration	7.01 ± 1.69
Failure to perform approval by the ethical committee as a result of the pandemic	7.29 ± 1.42
Failure in obtaining institutional reviewer board permission as a result of the pandemic	6.30 ± 1.11
Failure to collect data for conducting thesis work because of a pandemic situation	8.99 ± 0.98
Failure in meeting one's supervisor directly as a result of restrictions imposed due to the pandemic	7.76 ± 2.12
Fear related to course extension due to the inability to complete the thesis work in time-bound manner	8.97 ± 1.43

SD: Standard deviation

research-based experience during the currently ongoing COVID-19 pandemic.^[11] Requirements for conducting research work in these degree programs may have variations depending on the type of academic discipline, university, the standard of accreditation as well as national system of education. Hence, any modifications to the already existing requirements for conducting research must be thoroughly discussed among the postgraduate students, faculty advisors and the research committee members.^[12]

The current outbreak involving the COVID-19 disease has caused an unprecedented impact on the field of academics as well as research-based activities.^[13] The current study had aimed to evaluate various problems which were experienced by the postgraduates in their thesis period during this ongoing pandemic and also, analyzed the levels of stress that may be due to problems related to postgraduate students. After examining the data collected, the conclusion was made that all postgraduate students, in general, had higher levels of stress due to failure in gathering data related to the thesis as a result of this pandemic.

Students pursuing postgraduation have experienced a variety of problems during the process of thesis work including finalizing the topic for the thesis, searching for references, and failing in getting a sufficient amount of support from the research supervisor.^[14]

The ongoing spread of the COVID-19 pandemic has resulted in significant alterations in the working style of all individuals that includes the process of pursuing a Postgraduate course.^[15] The ongoing pandemic situation has put a stop to this process due to which postgraduate students lose critical time that is required for conducting and finalizing their thesis work.^[16]

The major problems faced by the students during this pandemic include the nonavailability of patients as most of the hospitals and institutions have reduced their outpatient departments. Moreover, the majority of postgraduates have been deployed in emergency or intensive care units of the hospitals due to scarcity of staff.^[17]

In support of our findings, Ergin and Sahar in 2021 observed that 83.7% of studied students who were pursuing postgraduation had experienced anxiety due to the ongoing pandemic as they feared getting an extension of their study period while 77.8% lost motivation levels for thesis work due to this pandemic, 86.9% stressed upon the uncertainty associated with the pandemics.^[18]

Dubey and Ranjan, in 2020, reported a decrease in the numbers of patients who came to polyclinics that were located in various training institutes and hospitals due to the pandemic. This has resulted in the hampering of postgraduate research works.^[16]

Kapasia *et al.*, in 2020, also reported the prevalence of stress in 42% of Postgraduate students.^[13]

This ongoing situation of the pandemic has affected the entire system of education and has significantly increased the workload of faculty along with staff and students. This pandemic has forced various colleges, all universities, and schools to remain nonfunctional and even forced them to operate using extreme limitations of resources for minimizing one's risk of contracting COVID-19 infection.^[19,20] This pandemic has affected the practical skills of students as well as their interactions with each other.^[21]

With the rapid increase in numbers of deaths and devastation that this pandemic has caused, one must remain cautious regarding the re-opening of academic and educational institutions for functioning "too early" as it might further cause complications in this situation. Hence, adopting healthy and appropriate behavior against COVID-19 is mandatory for the normal functioning of academics and the smooth conduct of research and patient activities.

CONCLUSION

The onset of COVID-19 infection has led to the initiation of an online mode of learning. However, this is not possible. This harmed the mental health status of postgraduate students which resulted in the development of 'moderate to high levels of stress and anxiety.

High levels of stress among postgraduate students is mainly due to failure to do their thesis work as required by the protocol and also, due to lower performance in academics.

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Conflicts of interest

There are no conflicts of interest.

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