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CSHE Center for Studies in Higher Education
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ASSOCIATION OF INDIAN UNIVERSITIES

SERU-INDIA

COVID-19 SURVEY

STUDENT EXPERIENCES IN INDIA DURING THE PANDEMIC

MARCH 2022

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Foreword

A global survey conducted by the UNESCO reveals that the onset of the COVID-19 pandemic has affected more than 220 million tertiary-level students around the world in an unprecedented way. The pandemic was followed by restrictions on national and international mobility imposed by Governments around the globe for months. The measures taken by educational institutions to address the challenges of campus lockdown brought by the pandemic, were through rapid digitalisation of education. However, the digital migration of education brought its own set of problems and issues in terms of access, equity, and quality of teaching and learning, university operations, and strategic responses.

India harbours the third largest higher education system in the world and like most nations, was unprepared for such an unforeseen global crisis. Suddenly, the higher education institutions were forced to resort to various unconventional measures to continue their routine functions. Among these measures switching over to online system, adopting blended mode, etc. were some of the prime strategies the institutions used to carry out the functions. Based upon this experience, currently, most of the universities around the world are preparing for safer and effective learning environment by altering their normal processes and policies at the institutional and national levels to minimise the academic loss faced by the students. In order to capture the real experience of the institutions and assess their preparedness to respond to the situation various surveys have been conducted. All the surveys point towards one common suggestion/ recommendation i.e developing an effective strategy is the need of the hour to minimise the adverse impact of the ongoing pandemic and to prepare for similar emergencies in future.

In order to assess the impact of COVID-19 on the campuses of academic institutions especially relating to the student experience, the Research Centre for Comparative and Global Education led by Dr. Mousumi Mukherjee under the aegis of the International Institute for Higher Education Research and Capacity Building (IIHEd), O.P. Jindal Global University, in collaboration with the Association of Indian Universities conducted the survey. The survey questionnaire was adapted from the Student Experience in the Research University (SERU) Consortium survey led by Dr. Igor Chirikov at the University of California, Berkeley. The questionnaire was customized keeping in mind the Indian conditions. The adapted SERU-INDIA survey was then administered across the universities in India to understand the impact of the pandemic on the student experience.

This report based on the SERU-INDIA survey presents findings on five key themes: 1) Students' transition to remote instruction; 2) The financial impact of COVID-19 on students; 3) Students' health and well-being during the pandemic; 4) Students' sense of belonging and engagement; and 5) Students' graduation and future plans. Based on the key findings from the survey, the report also includes some policy recommendations.

We hope that the report will serve as a ready reckoner for the academic community and higher education leaders, apex bodies of higher education and policy planners to develop a better understanding about the students' experiences during the pandemic. Though this report mostly reflects the experiences of the aspirational middle-class students, we expect that it will provide required insights to the universities for managing the institution by adequately responding to the situation and also putting the strategies for countering similar situations in future.

We gratefully acknowledge the support from the universities and higher education institutions to encourage their students to participate in the study. We thank the research team of AIU led by Dr. Amarendra Pani, Joint Director, Research; Dr. Usha Rai Negi, Assistant Director, Research; Dr. Sandeep Mishra, Senior Research Assistant; Dr. Rahul, Research Assistant for mailing the survey questionnaire to the universities and other higher education institutions, and following up through email reminders and telephonic calls. We appreciate the support of the research associates of the Centre for Comparative and Global Education (JGU), Ms. Nandita Koshal, Ms. Feroza Rastom Mody and Mr. Parth Parikh, who shared the mobile-friendly online survey link through monthly e-newsletters of the research centre, and student council members across various universities for data collection, without which it would not have been possible to gather data from students. Mr. Ankit Tyagi and Mr. Tarun deserve accolade and special acknowledgment for nicely designing the report and bringing it to this shape.

We hope that this report would be the beginning of more research initiatives and joint efforts that aim to improve our collective performance in uncertain times.

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Table of Contents

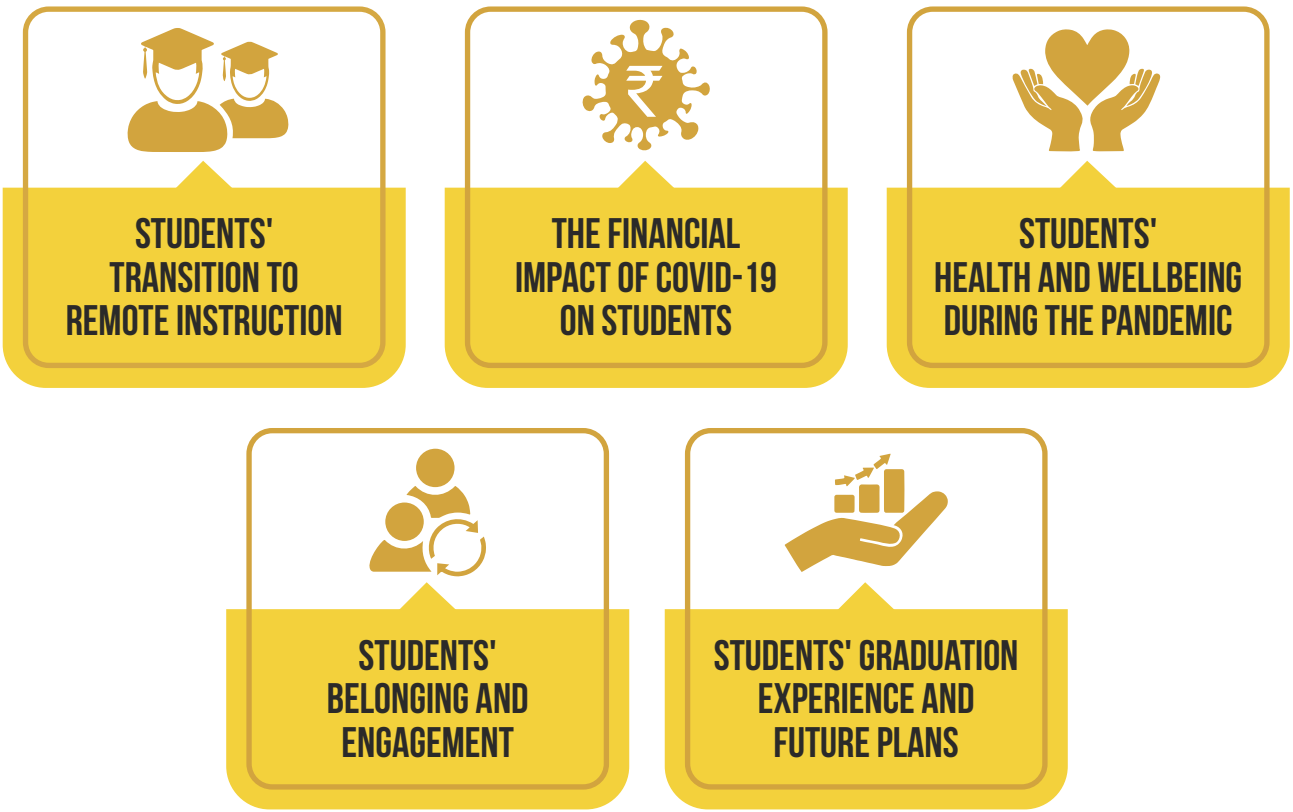
Table of Figures

Executive Summary

1 Executive Summary

The Student Experience in the Research University (SERU), a Consortium of the Research Universities at the University of California, Berkeley developed SERU COVID-19 survey to analyze and understand the impact of the pandemic on the student experience. Following the initiative, the Research Centre for Comparative and Global Education under the aegis of International Institute for Higher Education Research and Capacity Building (IIHEd), O.P. Jindal Global University sought to conduct the same survey in India. Since Association of Indian Universities is the apex inter university organization of the country which has outreach and access to the majority of the universities in the country, IIHEd collaborated with AIU for jointly conducting the survey. The purpose was to reach out to maximum number of institutions with maximum number of students. The SERU survey Questionnaire was adapted, and it was customized to suit to the context of India. The survey was administered in the universities and other institutions of higher education across the country.

The objective of the SERU COVID-19 survey was designed to assess student experiences during the pandemic in the following five areas:



The survey questionnaire was mailed to around 850 member universities of AIU and around 1800 colleges. A total 38 universities participated in the survey, out of which 4 were Central Universities, 20 were State Public Universities and 14 were State Private Universities. There was a total of 7688 responses from these 3 kinds of universities that are members of the AIU and accredited by National Assessment and Accreditation Council (NAAC). Taking into

consideration the large number of Indian universities (>1000), this participation rate in the online survey is very small. However, since the survey was conducted online, this could be also interpreted as a limitation to the study and also indicates the great digital divide among learners and higher education institutions (HEIs) within the larger Indian context.

The analysis of the survey provides some important findings about the student experiences:

1. The female and third gender students adapted well to the online transition compared to their male counterparts.
2. There were no significant differences across socio-economic status of the respondents in adaptation to online teaching and learning.
3. Lack of interaction and communication with peers in the classroom was found to be the most important obstacle faced by students during online classes.
4. The students from private universities appeared to be more satisfied with management strategies adopted by their institutions in responding to the COVID-19 pandemic compared to students from central and state-public universities.
5. The students from central universities faced more financial hardships compared to the students from state-public and private universities.

The major recommendations based on the main survey findings are:

1. Diverse approaches need to be followed to gather pan-India survey data about student experiences, rather than just online survey which restricts the sample size and rate of responses.
2. The universities need to focus on re-designing their courses to meet the requirements of online teaching, learning and research.
3. The faculty and administration need to provide greater support to students, especially when the classes are completely online during emergencies and campus lockdown following the COVID-19 pandemic.
4. Universities need to build a corpus of emergency crisis management fund to support students during similar emergencies in the future. This could be funded from CSR investment for both the private and public Universities.
5. Funding organisations irrespective of government, private or philanthropic should be geared up to help the universities by providing support without much bureaucratic or procedural impediments.
6. Irrespective of socioeconomic and gender backgrounds of students, universities need to develop a robust service for the mental health and well-being of students. Post-pandemic Universities need to work closely with the public healthcare sector.

Background of the study

2 Background of the study

The COVID-19 pandemic has been an unprecedented global emergency. None of us experienced anything like this pandemic and the resultant national lockdowns in recent human history. Though it is a global health pandemic, the measures taken by governments around the world following WHO recommendations, helped managing the situation in every sector of the society-health economy, business, environment, and education.

The education sector has been also deeply impacted by the pandemic. Millions of students around the world were deprived of attending schools and college campuses because of the strictly imposed campus lockdowns to contain the spread of the pandemic. There is not much empirical evidence to portray the real picture on the Student Experience in Research Universities, though there is a great deal of informal information available in the form of grey literature pertaining to the academic loss of the students with respect to teaching, learning, research and personal issues like their physical, emotional and mental wellbeing.

The Student Experience in the Research University (SERU) COVID-19 survey was designed by the SERU Consortium to fill this knowledge gap with regards to students enrolled in research universities. The SERU Consortium is an academic and policy research collaboration based at Center for Studies in Higher Education at the University of California – Berkeley (CSHE), working in partnership with the University of Minnesota and partner institutions across North America. The SERU-INDIA COVID-19 survey was adapted from the SERU Consortium COVID-19 survey by the Research Centre for Comparative and Global Education under the aegis of International Institute for Higher Education Research and Capacity Building at O.P. Jindal Global University with required customization keeping in mind the context of India. The Customized Survey Questionnaire was administered in collaboration with the Association of Indian Universities (AIU).

The SERU COVID-19 survey was designed to assess five areas of undergraduate, graduate, and professional students' experiences. The aim was to understand the student experiences in the following areas: 1) students' transition to remote instruction, 2) the financial impact of COVID-19 on students, 3) students' health and well-being during the pandemic, 4) students' sense of belonging and engagement, and 5) students' graduation and future plans. The aim was to better manage similar crisis in future. The survey was conducted in India during Spring 2021.

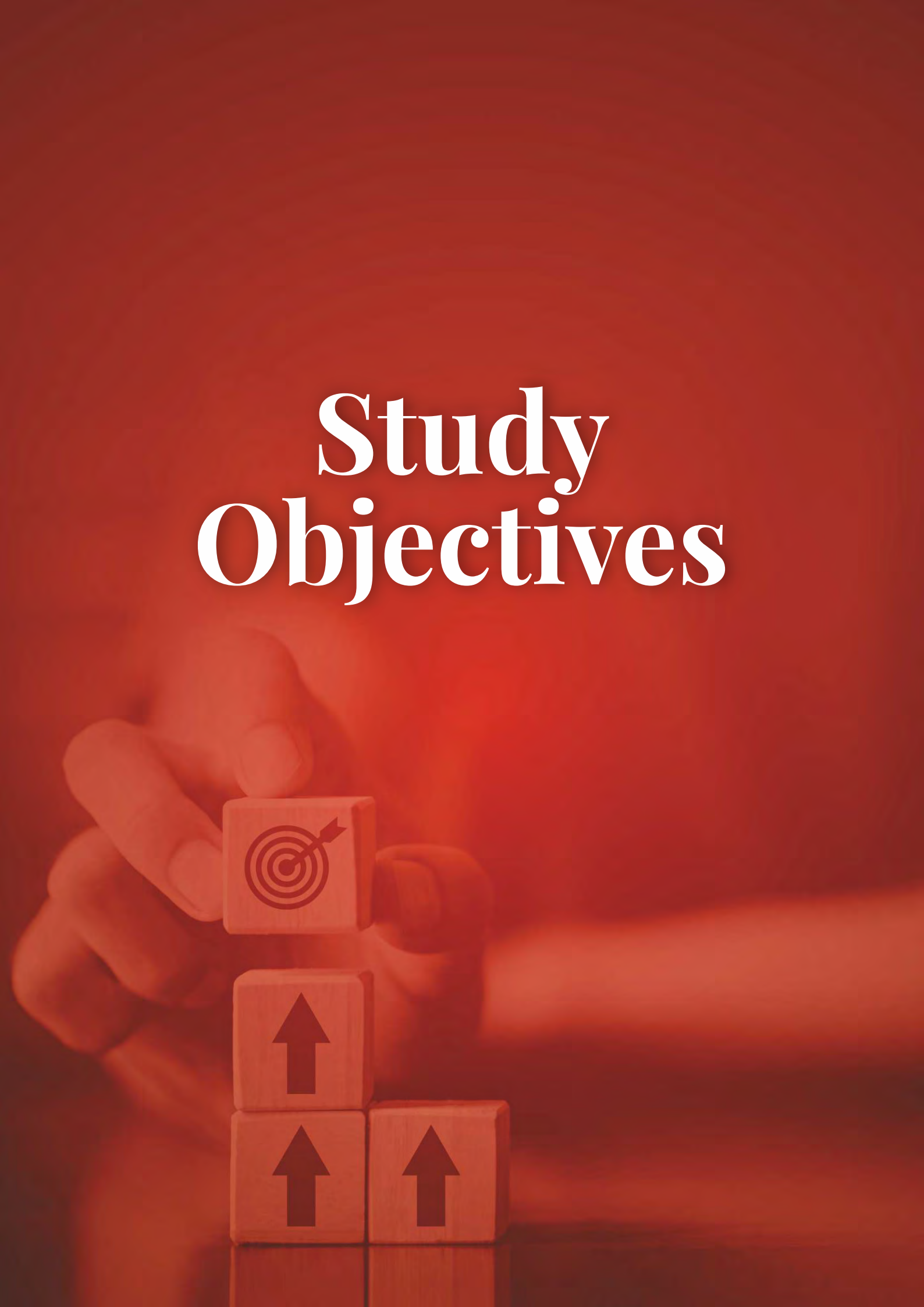
Rationale of the study

3 Rationale of the study

The COVID-19 pandemic has been a traumatic experience for all of us. The global health crisis has left its impact on every aspect of our lives. India is the 3rd largest higher education system in the world. Like most countries, the Indian higher education system was totally unprepared for such an unprecedented global emergency and national lockdown. Evidently, the Pandemic has caused serious damage to every sector including education. Complete shutdown of educational institutions for more than two consecutive years has caused irreparable academic loss to the students and also has affected their physical, mental and emotional wellbeing. In order to evaluate the situation and support the students in their academic pursuit, as well as maintaining the physical emotional and mental health, there is a need to analyze their experiences. Therefore, the study aimed at gathering insights on the student experiences during the pandemic with campus lockdown and sudden transition to online education and remote learning.

The research questions were: What has been the overall experiences of students within the Indian higher education sector? How have the students adapted to remote teaching and learning? What kind of financial impact the pandemic has had on the students? How has it impacted their physical and mental health? And finally, the survey also attempted to assess, how has the pandemic affected students' graduation and future plans.

Study Objectives



4 Study Objectives

This study was conducted in India by responding to a call by the SERU consortium to gather data on impact of pandemic on students across the world by administering the survey in different national contexts outside the United States of America. The survey tool designed by the SERU Consortium was customized to suit the Indian context. The objective was to make comparative analysis of the student experiences during the pandemic in different contexts of higher education, and to learn from each other's experiences. This would help the HEIs to effectively support and respond to students' need in the future during similar emergency situations, such as the COVID-19 pandemic. The key objectives of the study were as follows:

The key objectives of the study were as follows:

1. To find out and analyze the pattern in students' transition to remote instruction and related issues.
2. To analyze the financial impact of COVID-19 on students.
3. To develop an understanding about the experience of the students with respect to health and wellbeing during the pandemic.
4. To have an appraisal about the students' belonging and engagements.
5. To analyze the overall students' graduation experience and future plans.

Methodology

5 Methodology

Descriptive survey method of research was used for the present study. The Survey questionnaire adapted from SERU and customised as per Indian context was circulated online during Spring 2021. Within the larger Indian context, there are 11 different kinds of higher educational institutions (AISHE, 2019, P. 4). This survey was conducted in four broad categories of Higher Educational Institutions (HEIs): - Central Universities, State Public Universities and State Private Universities, and Affiliated Colleges.

1 **Central University:**

Created under a Union (Government of India) Act, all Central universities are assumed to be centrally funded. The Indian Institutes of Technology (IITs) generate a significant amount of funds on their own and some older Indian Institutes of Management (IIMs) do not take funding from the government. They are self-sustaining institutions. Yet, most central universities receive significant grants from government. However, the Central Universities cannot be private institutions (not allowed by law).

2 **State Public University:**

These universities are funded by state governments primarily and were created by the respective state's Acts. Almost all colleges[1] in India are affiliated to these universities, whether public or private, have been classified under this category.

3 **State Private University:**

These universities are created by State Act and are self-financed by promoters. These are not allowed to have affiliated colleges.

4 **Affiliated Colleges:**

These are undergraduate colleges affiliated under the State Public Universities.

The online survey was emailed to students in these 3 kinds of universities by the Association of Indian Universities (AIU) with the help of the respective university's administration and, the survey link[2] was also uploaded on the AIU website.

38 universities participated in the survey, out of which **4 were Central Universities, 20 were State Public Universities**, and **14 were State Private Universities.** There were total **7688 responses** from these four kinds of institutions.

Data from the survey was organized, scrutinized and cleaned. The incomplete submissions in any respect were eliminated. Finally, the total **6425 responses** were considered for analysis through SPSS.

[1]India has more than 39,000 colleges. Barring a handful of colleges affiliated to older central universities (Delhi University and Banaras Hindu University), all these colleges are affiliated to state public universities.

[2]Survey Link: https://www.aiu.ac.in/documents/research/Seru%20Survey.pdf

a Limitations

As per the report of AISHE (2019-20) released in June 2020, there are **1043 Universities, 42343 Colleges** and **11779 Stand Alone Institutions** in the country. **396 Universities** are privately managed. Taking into consideration the large numbers of Indian universities, the participation rate in the online survey is small, nonetheless it represents the major category of HEI in the country. This is the first limitation to the study. The Study is also limited to the online audience who use the digital platform. This could be interpreted as the problem of great digital divide among learners and HEIs within the larger Indian context.

A large proportion of respondents identified themselves as belonging to the middle classes. Only 2.4% belonged to the wealthy section of the society and only 12% said that they belonged to working class or lower income group. This is probably because those students belonging to the upper-middle or professional middle and middle class had better access to online technology to take the SERU-INDIA survey that was conducted online. This group in the SERU-INDIA COVID-19 survey could be representative of the aspirational Indian middle classes about whom much has been researched in recent years (Brosius 2010, Fernandes 2015, Ganguly-Scrase & Scrase 2009, Pushpendra 2022). Hence, the findings do not represent the experiences of all sections of Indian students across socioeconomic classes. This is the major limitation of the survey.

b Data Demographics

The Survey participants were in the age group of 18 years and above. They were pursuing either undergraduate, post-graduate, or doctoral studies in universities across India. These universities are Central, State Public and State Private Universities. In terms of disciplinary focus, some universities focused exclusively on Agriculture, Law, Medicine, or Technical courses. Several were non-specialized, multidisciplinary universities and these were tagged as General.

In terms of Gender, 13.3% students who participated in the survey identified as Men. Majority of respondents identified as Women at 55.3%. Less than one percent i.e. 0.4% identified as the Third gender, while 0.7% of respondents preferred to self-describe. 3.3% of respondents preferred to not to share their gender identity. Rest did not reveal their gender identity[3].

In terms of social group and class, the study mapped respondents in terms of Low-income/poor, Working-class, Middle-class, Upper-middle or professional middle and Wealthy. (see Figure 1).

[3]Due to the extraordinary situation created by pandemic, students were undergoing a lot of stress. Consequently, we did not want any of the survey questions to put them in spot and force them to answer questions thus increasing their stress. We therefore did not make any of the survey question as mandatory. This is the reason why a significant proportion of students did not respond even to demographic question concerning their gender identity or social class.

Out of the total respondents, 65.4% were studying at private universities, 32% in state universities[4], and only 2.5% were enrolled in central universities. 23% were enrolled in Masters or PhD programs while 77% were undergraduate students.

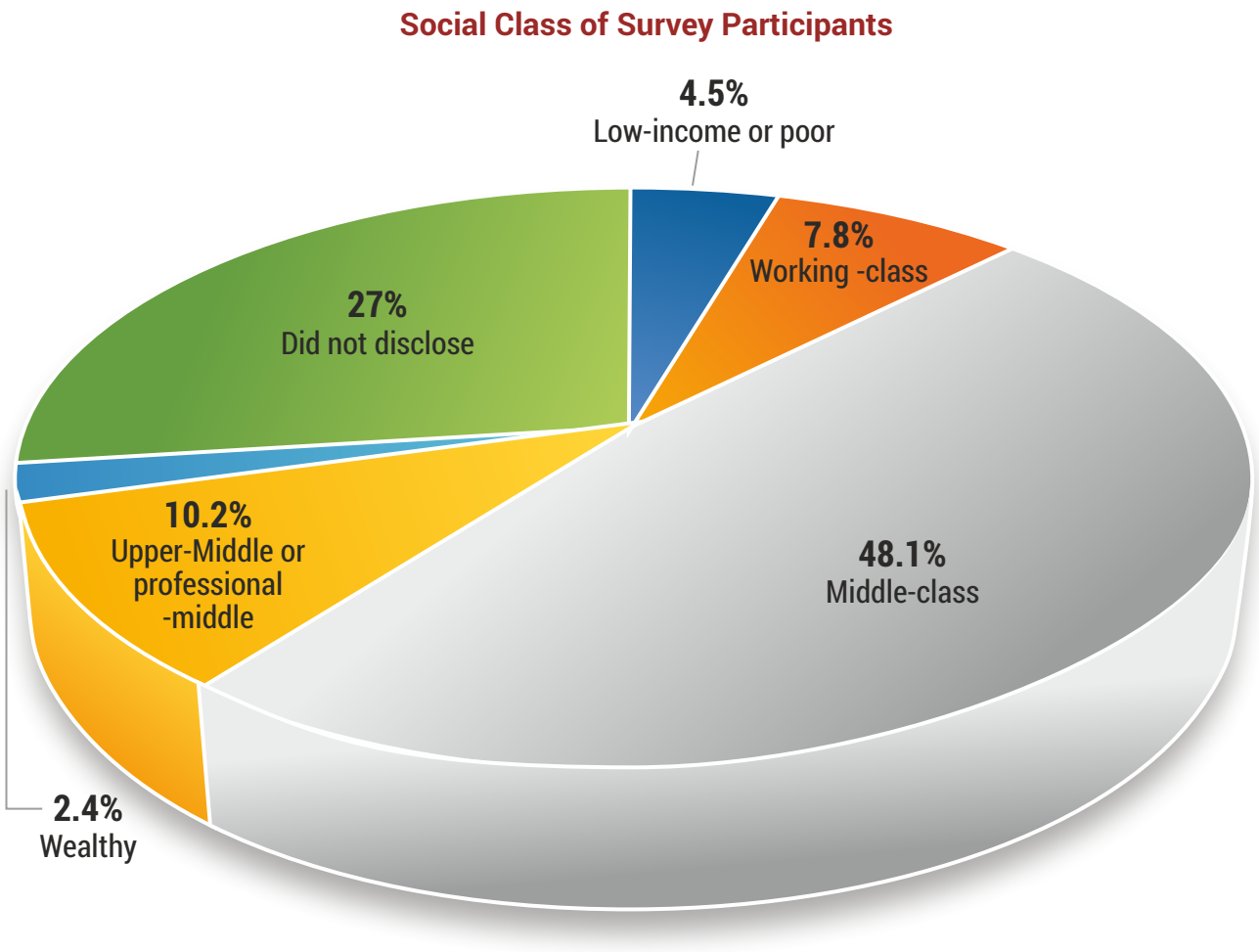


Figure 1 : Social Class of survey participants

[4]The survey did not distinguish between those studying in colleges affiliated to state public universities and the main campus of the state public university.

Data Analysis

6 Data Analysis

The consolidated data (after elimination of incomplete submissions) of the survey was analyzed through SPSS. Simple statistics in the form of percentage and frequency were used to analyze the data for the study. The findings of the study are depicted through bar chart, pie chart, etc. The report presents the key findings from the SERU-INDIA survey in the following five sections-

a Experience of Online Transition & Institutional Response*

The Covid-19 pandemic resulted in a complete lockdown around the world and India couldn't escape from its impacts. It started with a 21-day lockdown which then continued to be extended till cases dropped in India. During these pressing times, a huge gap was seen in the education system. All higher education institutions were shut and were forced to shift from physical classrooms to digital ones. Several universities shifted their entire operations to online mode and students started accessing course work online.

Coronavirus has changed higher education learning and teaching practises around the world. Students globally faced difficulties and opportunities in learning and adjusting to this change in the conveyance of education. It remained unclear as to how students in worldwide, are reacting to these changes. According to the 2020 SERU COVID-19 Student Experience Survey conducted by Victoria University of Wellington, the reasons for negative experiences included inability to access facilities on campus or carry out physical lab experiments. The students felt that they were not getting the same quality of teaching. The delivery and academic content was not up to the mark making it a less stimulating or engaging experience. The positive experiences included flexible work hours, enhanced productivity and decreased anxiety and mental health issues compared to in person lectures for some. In a study by Eri et al. (2021) the authors compared digital competence, resilience and confidence of students in the present times using surveys and data of tertiary students from Australia, Cambodia, India, China and Malaysia. It critically assessed ways to strengthen tertiary students' online academic success and helped them manage and bounce back from adversities during and after the pandemic in the transitioning educational scenarios.

The Graduate Student Experience in the Research University (gradSERU) COVID-19 survey of graduate and professional students- Adapting to Online Instruction: Disparities Among Graduate and Professional Students (Soria, 2020), showed us that Institutional pioneers ought to be aware of the ways in which the pandemic has had a disparate impact upon students from lower socio-economic backgrounds and those who are specially abled. In particular, higher education leaders, faculty, and staff ought to be mindful of the challenges

*In this report, in several graphs, the percentages have been rounded to nearest whole number for improving readability.

experienced by such students and extend additional support to help them transition to remote learning. Students from lower social class, may lack the social capital, cultural capital, and economic cash-flow to explore digital learning environments while students with disabilities may encounter challenges getting facilities in online classes. Along these lines, faculty should employ different kind of resources, multi-media and online platforms to facilitate online learning and provide students a wide assortment of resources to access course material and opportunities for learning. Higher education institutions should identify open sources from where learning materials can be accessed to guarantee access to textbooks and readings for all students. Institutions should create and extend crisis funds to students in need to enable them successfully complete their courses.

Adaptation to online instruction

Disparities Among Graduate and Professional Students, showed us that institutional pioneers ought to be aware of the ways in which the pandemic has had a disparate impact upon students from lower social class backgrounds and students who are physically challenged. In particular, higher education directors, faculty, and staff ought to be insightful of the challenges experienced by minimized and disenfranchised students and try to improve students' online and remote learning experiences, especially if campuses are planning to proceed with online teaching in the Spring & Fall 2022 semester. Students from lower social class, may lack the social capital, cultural capital, and economic cash-flow to explore digital learning environments while students with disabilities may encounter challenges of getting facilities and access to online classes. Along these lines, faculty should employ widespread informative plan standards in their online courses to guarantee that students from a wide assortment of capacities and foundations have access to course materials and opportunities for learning, look for open source class materials to guarantee reasonableness of textbooks and programming for all students, and associate students to crisis award subsidizing or other institutional assets to guarantee students can access the innovation needed to successfully complete online courses.

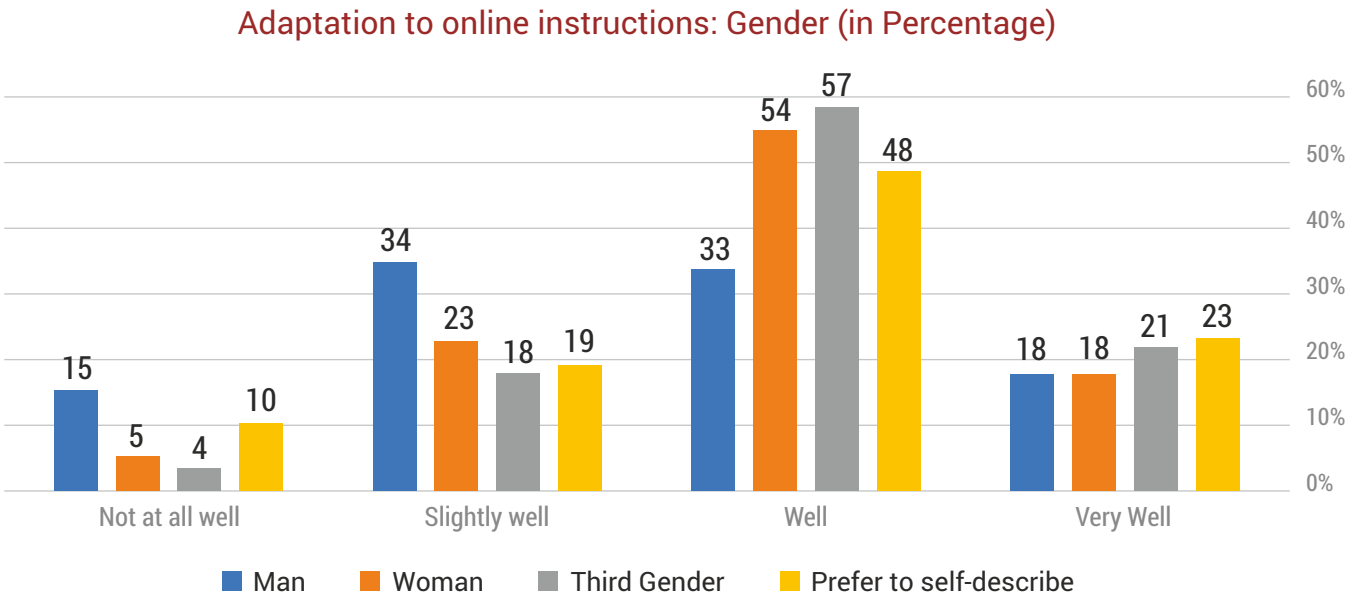


Figure 2 : Adaption to online Instructions: Gender

As many universities shifted to the online platform, the idea was to develop an understanding - whether students were able to adapt to the new online instructions implemented by their respective universities in response to the COVID-19 pandemic. The data received from the respondents in terms of gender, social class, and university type were analysed. The findings on these aspects have been depicted in the bar chart (Figure 2).

The above chart suggests that in the case of men, 15% said they were unable to adapt well to online instruction, 34% said they adapted slightly well, 33% were able to adapt while 18% were able to adapt extremely well to this shift from the offline mode of classes to the online mode. Other genders did much better than male students (see Figure 2).

Main Finding: Female and third gender students adapted well to the online transition compared to their male counterparts. This is probably because studying online from home was more accessible for the women and third gender students in the sample.

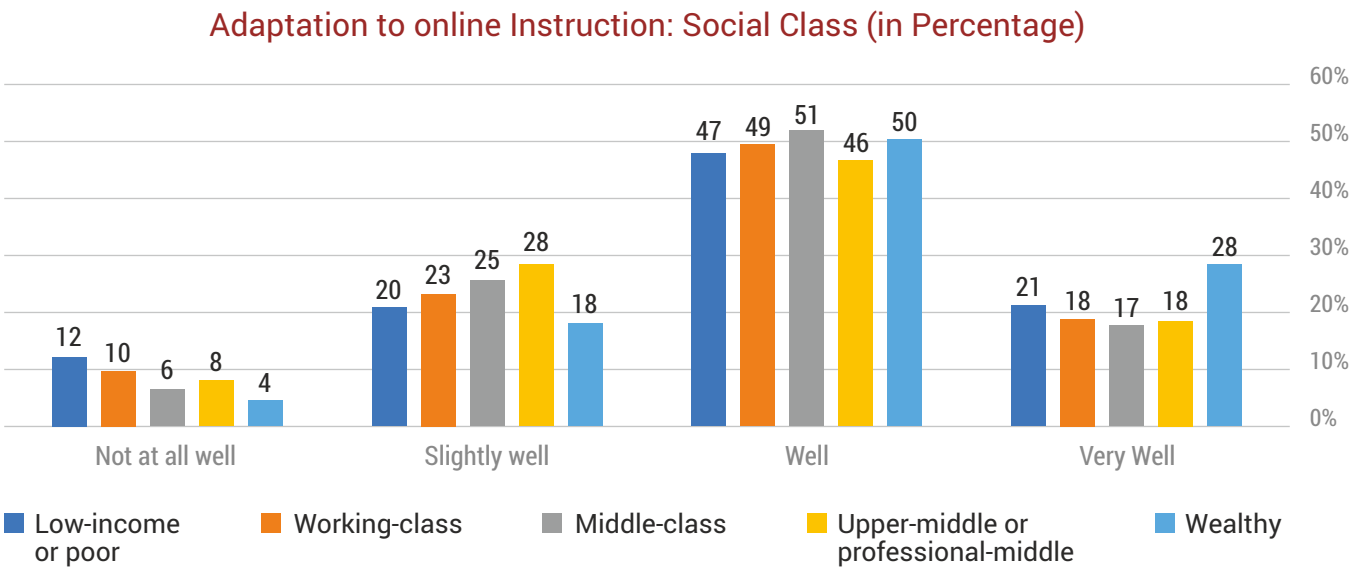


Figure 3 : Adaption to online Instruction: Social Class

Figure 3 above shows the responses of students from different socioeconomic classes to the question of adaptation to online instruction. Overall, the wealthy students adjusted much better compared to other classes. The differences among all other social classes were minuscule. Even among students belonging to poor/lower income families, more than two-thirds said that they were able to adapt well or very well (not significantly different from 78% for wealthy students).

Main Finding: There were not any major differences across socioeconomic groups in terms of adaptation to online learning. This could be because majority of the student respondents belonged to the middle, upper middle or professional middle class and the rest (irrespective of socioeconomic class), who took the online SERU-INDIA survey already had access to digital technology.

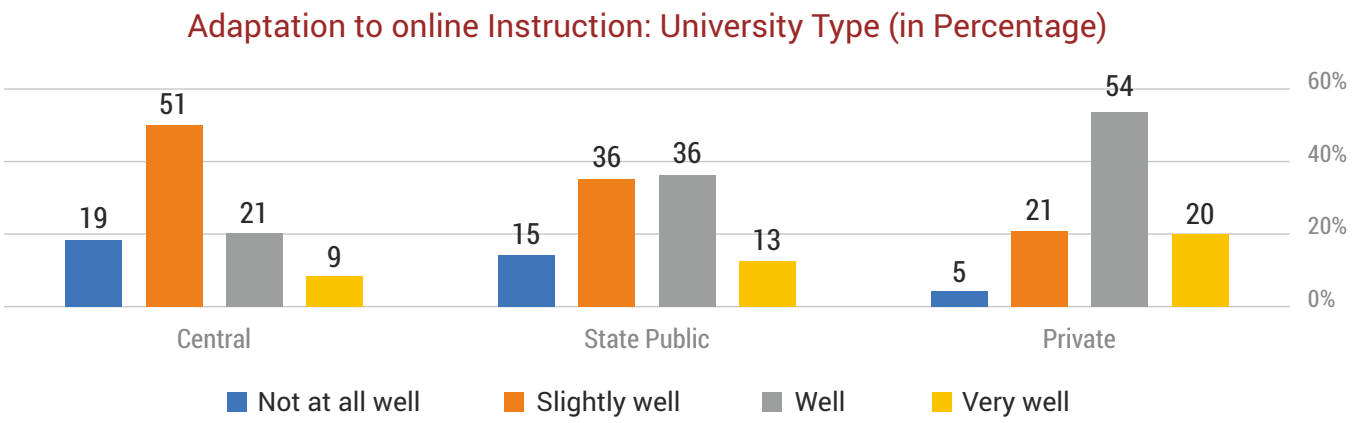


Figure 4 : Adaptation to online Instruction: University Type

Across different types of universities, there were significant differences (see figure 4). Among Central Universities, 19% students failed to adapt to this new change, whereas in State Public Universities, it was 15% and in private, only 5% found it very tough to adapt. Only 30% students in central universities were able to adapt well or very well, while the same number in state universities was 49% and in private was 74%.

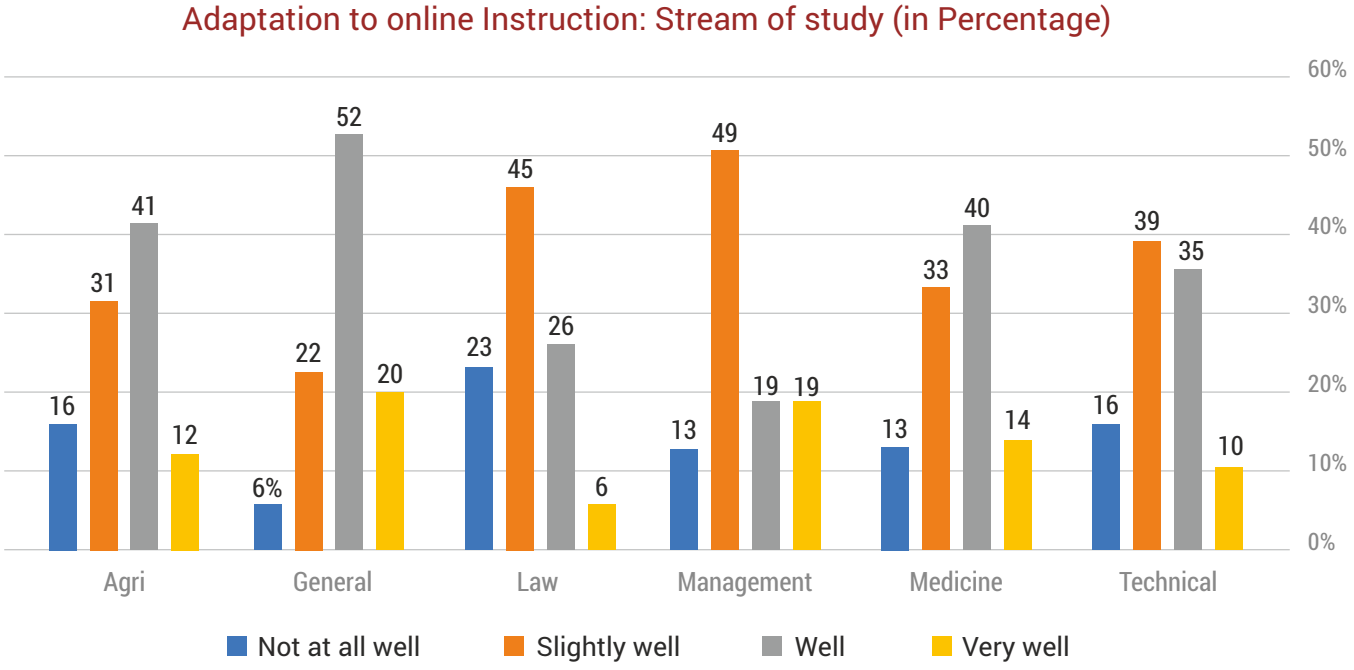


Figure 5 : Adaption to online Instruction: Stream of Study

Figure 5 shows the differences across university types with respect to their students' ability to adapt to the online mode of education. Multidisciplinary university students, referred to as 'General' were able to adapt the best, while law and management students struggled the most.

Main Finding: Multidisciplinary university students were able to adapt better. This was probably due to the higher proportion of students from these universities enrolled in courses, which did not require access to labs or practical work compared to students at other universities that need more hands-on learning.

Major obstacles to successful transition to online learning

Further, this analysis has examined the factors that were obstacles to successful transition to online learning. Students were asked to select multiple options as factors that posed as obstacles. Across the sample, 37% students highlighted lack of interaction and communication with other students as a major impediment to their online learning. 34% found themselves unable to learn effectively in an online format. Lack of motivation (27%) and lack of access to an appropriate study space (27%) were other top factors that led to challenges in transition to online learning. (see Figure 6).

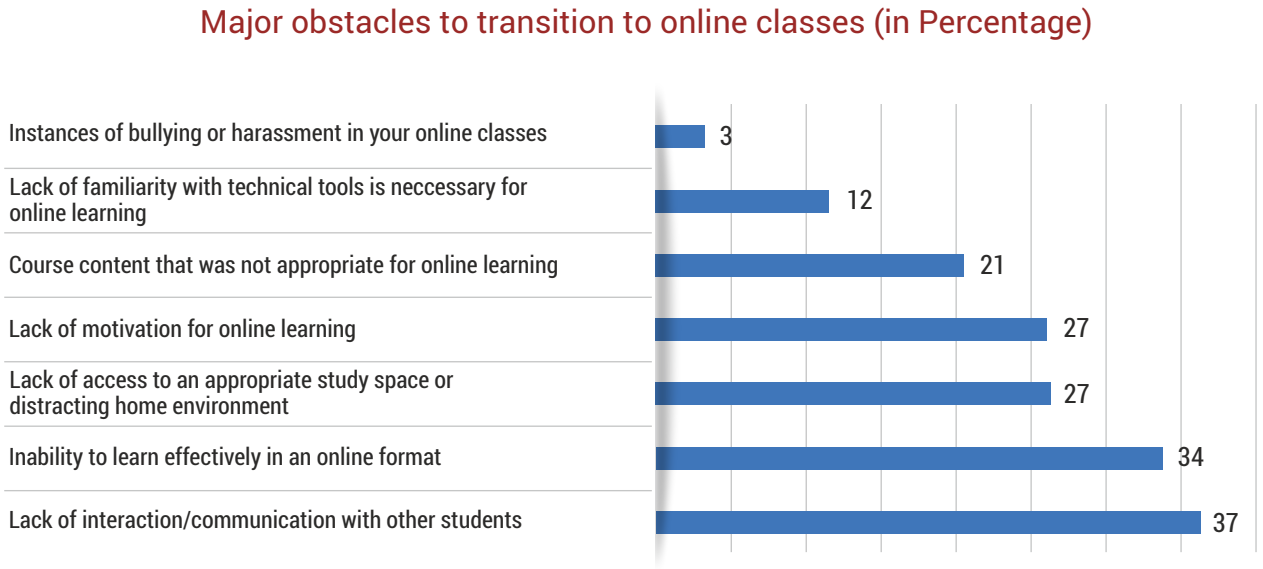


Figure 6 : Major obstacles to transition to online classes

There were significant differences across central, state, and private universities. It was found that 43% students from central universities, 33% from state universities, and 25% from private universities thought the course content to be inappropriate for online learning. Similarly, 57% central university students, 36% state university students and 24% private university students highlighted a lack of interaction and communication among the students as a challenge to online transition. They found it difficult and frustrating that they didn't know their classmates and hence were unable to make friends.

Students also felt that there was a lack of clear expectation setting for online learning from the instructors (Central: 57%, State: 33%, Private: 15%). Students shared that there was lack of access to academic advising and tutors (Central: 43%, State: 10%, Private: 9%). On most factors, central universities fared worst, followed by state public universities and state private universities (see Table 1 for responses across all factors). This may have been due to two reasons. One, the sample has fewer students from central universities and may have higher proportion of student respondents from central universities, who were frustrated with online learning. Two, in the sample, state public university students also include affiliated college students, which are mostly privately owned colleges. Hence, these colleges may have greater management flexibility to facilitate online transition as compared to central universities (lesser bureaucratic and budgetary hurdles) (see Table 1).

	University Type		
Obstacles in transition to online learning	**Central**	**State**	**Private**
Course content that was not appropriate for online learning	43%	33%	25%
Lack of interaction/communication with other students	57%	36%	24%
Inability to learn effectively in an online format	43%	39%	22%
Lack of motivation for online learning	43%	28%	21%
Lack of access to an appropriate study space or distracting home environment	57%	33%	20%
Lack of clear expectations for online learning from instructors	57%	33%	18%
Lack of access to technology necessary for online learning [e.g., computer hardware, software, access to reliable internet]	86%	33%	15%
Inability to attend classes at their scheduled online meeting time	29%	20%	11%
Inability to access learning support services	43%	21%	10%
Lack of familiarity with technical tools necessary for online learning	14%	20%	10%
Lack of access to academic advising	43%	10%	9%
Lack of access to your instructors	43%	18%	7%
Instances of bullying or harassment in your online classes	0%	5%	6%

Table 1 : Obstacles in transition to online learning

The students were asked about the challenges they faced in online learning on the basis of Gender. ***The top 5 obstacles in online learning for women were as follows:***

17% felt that the course content was inappropriate for online learning, 23% lacked the motivation for online learning, 23% lacked the access to an appropriate study space or had distracting home environments. 31% were unable to learn effectively in the online format and 34% felt that the lack of interaction and communication with other students was a major challenge (see Figure 7).

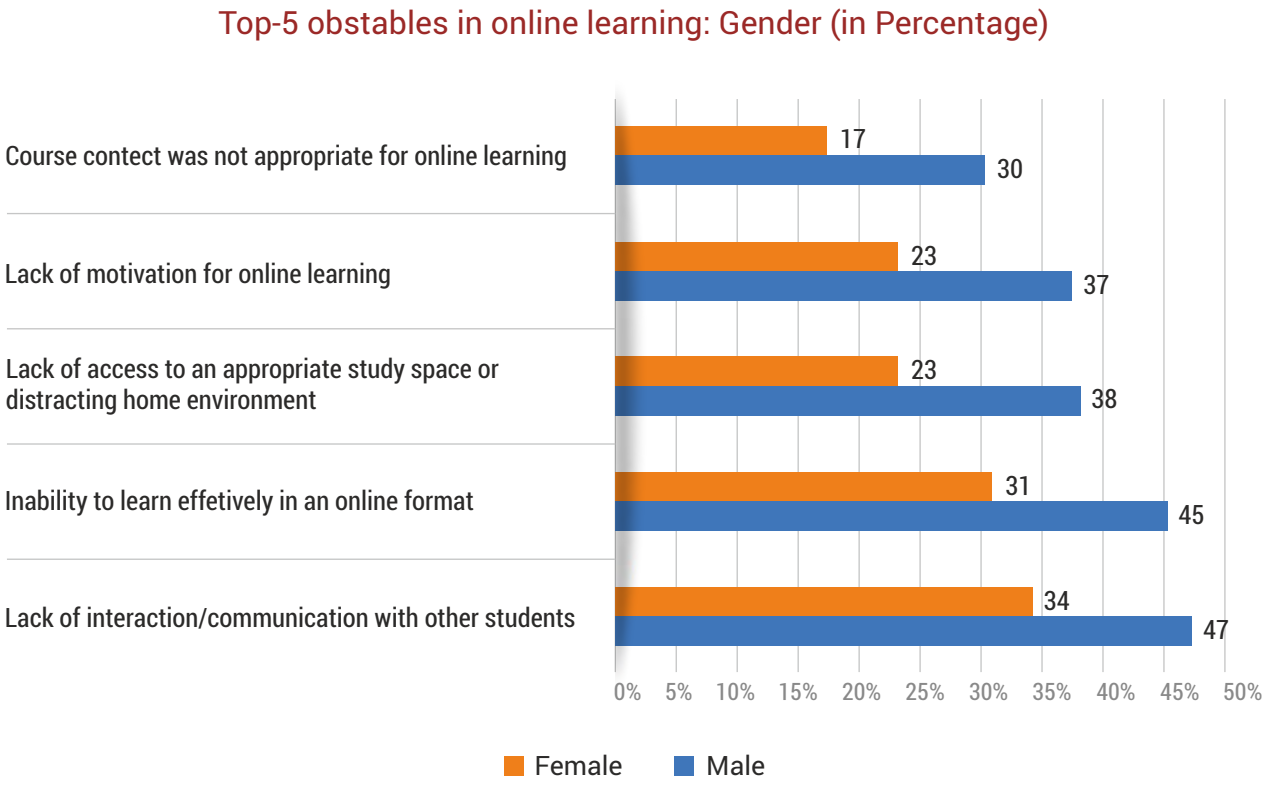


Figure 7 : Top 5 obstacles in online learning: Gender

Males were more likely to highlight all challenges compared to females (see Figure 7). For example, lack of interaction and communication with other students was considered as an obstacle by 47% males compared to 34% females. Similarly, lack of access to an appropriate study space was a problem for 38% males but only 23% females identified this as a challenge.

Similarly, there were differences among Undergraduate (UG) and Masters/PhD students and across central, state and private universities. Lack of access to technology necessary for online learning was highlighted as a challenge by 16% undergraduate students and 22% Masters and PhD students in private universities. 27% undergraduate students and 24% Masters and PhD in state universities and 50% undergraduate and 41% Masters and PhD students said they were unable to learn online due to the issue of access to technology (see Figure 8 & Figure 9).

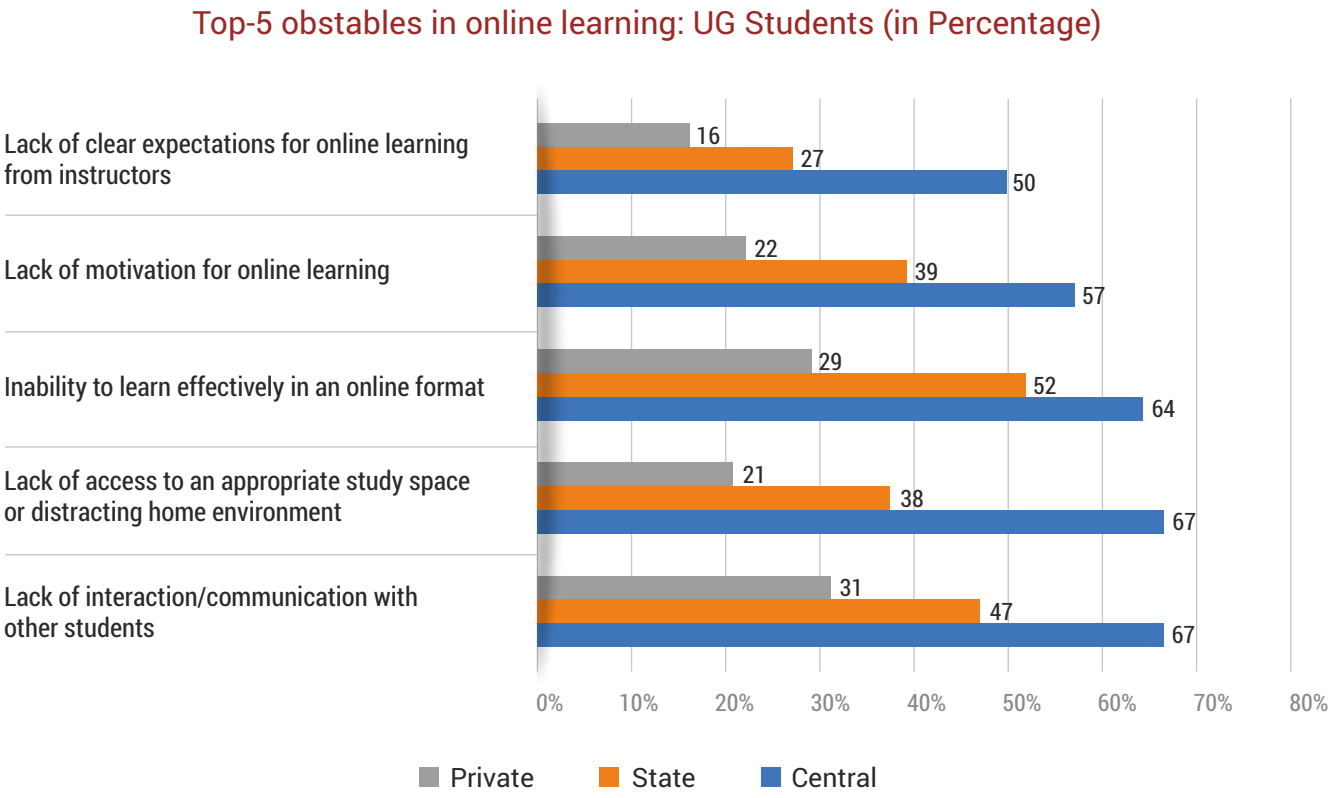


Figure 8 : Top 5 obstacles in online learning: UG students

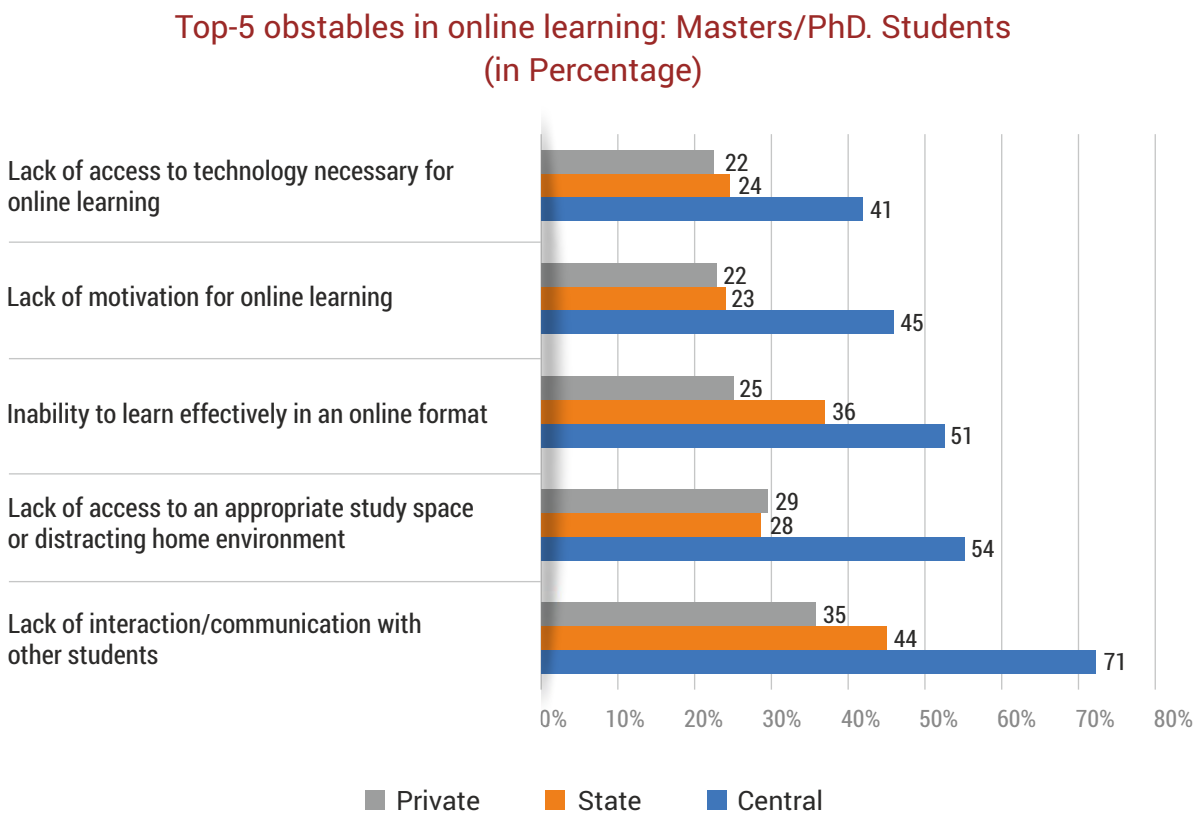


Figure 9 : Top 5 obstacles in online learning: Masters/PhD students

There was a lack of motivation for online learning and this phenomenon was generally more prevalent among UG students compared to Masters and PhD students (see Figure 8 & Figure 9). Across university type, relatively lesser private university students cited lack of motivation as a problem compared to students from state public universities. More central university students faced this challenge than state public and private universities. Similar pattern was observed across other factors including lack of access to technology and study spaces, or inability to learn effectively in online format (see Table 1 for analysis across all factors).

Main Finding: It appears from the survey that lack of interaction and communication with peers in the classroom is the most significant obstacle faced by students during online classes followed by inability to learn effectively in online format. Compared to women, more men found lack of interaction and communication, as well as the online format as major obstacles for learning.

Positive Experiences

The SERU survey also asked students about their positive academic experiences during remote instruction and online learning (see Figure 10 & Figure 11). 17% undergraduate and 23% masters/PhD students in private universities felt they were less stressed about their studies compared to physical classes format. These figures were 31% and 26% for state universities and 27% and 25% for central universities, respectively.

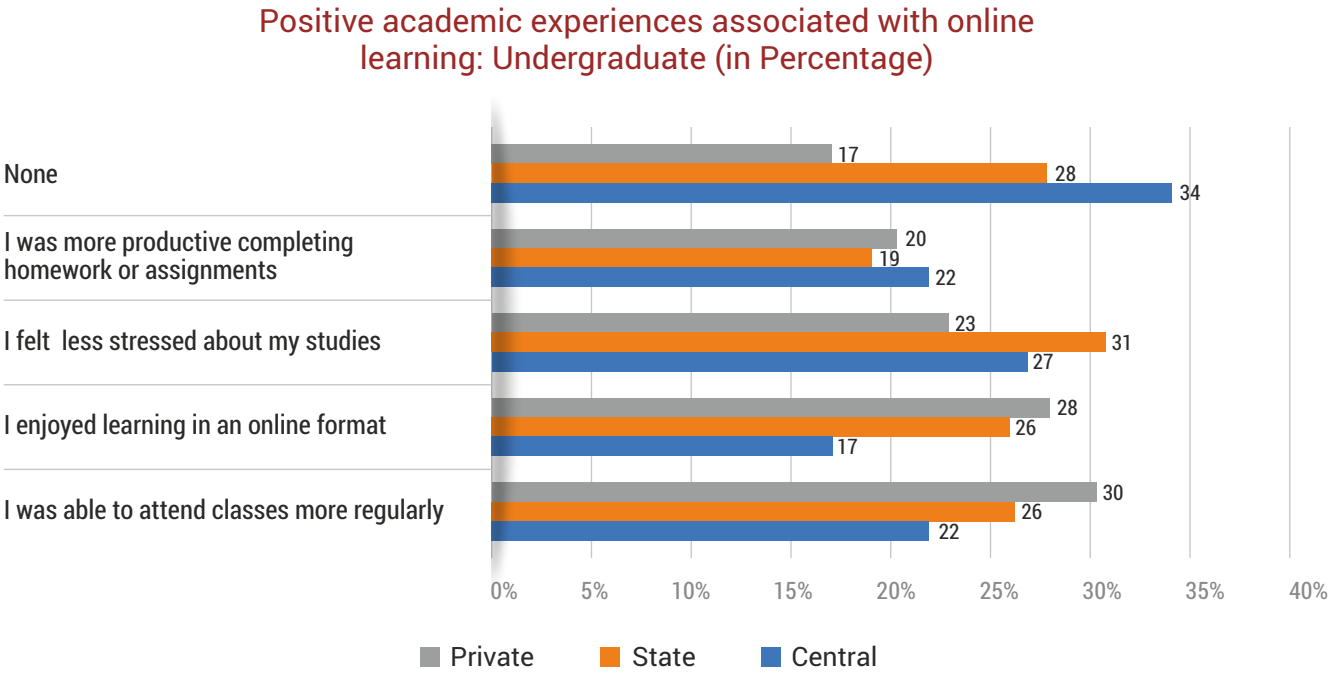


Figure 10 : Positive academic experiences associated with online learning: Undergraduate

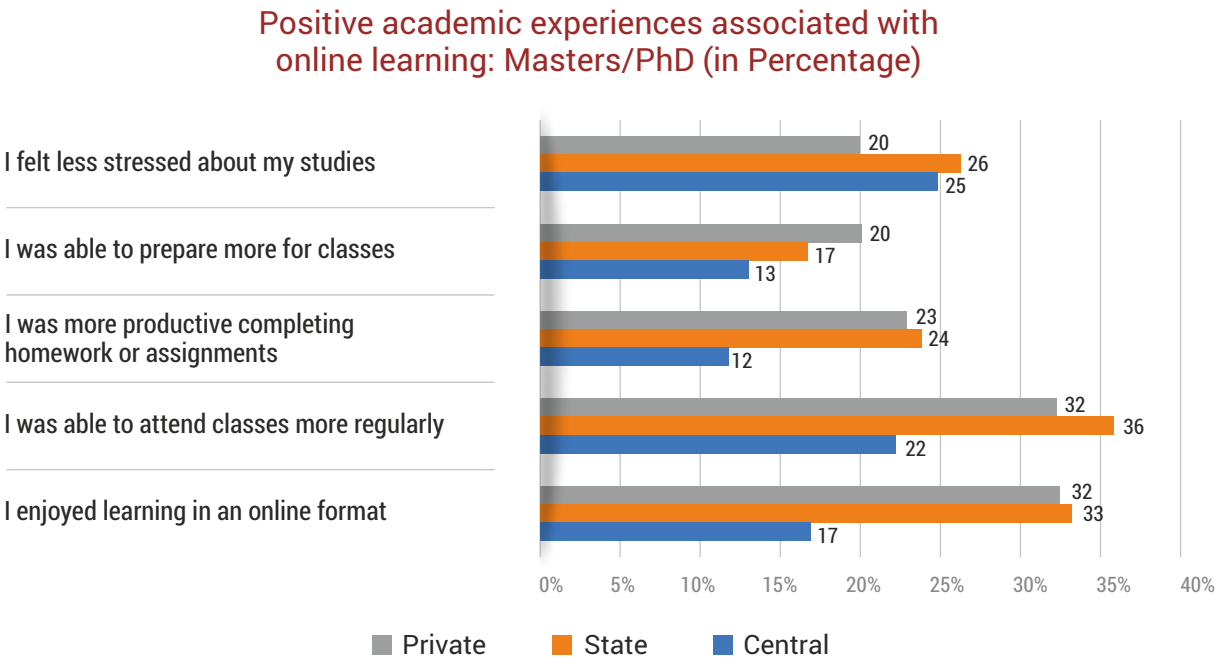


Figure 11 : Positive academic experiences associated with online learning: Masters/PhD

The second positive outcome was that students were able to prepare more for classes. Students were also more productive and completed their assignments on time. Several students also enjoyed learning in an online format.

Also, more students were able to attend classes regularly. The trends were strongest for private universities followed by state public universities and central universities. Similarly, stronger trends were observed among Masters/PhD students compared to UG students.

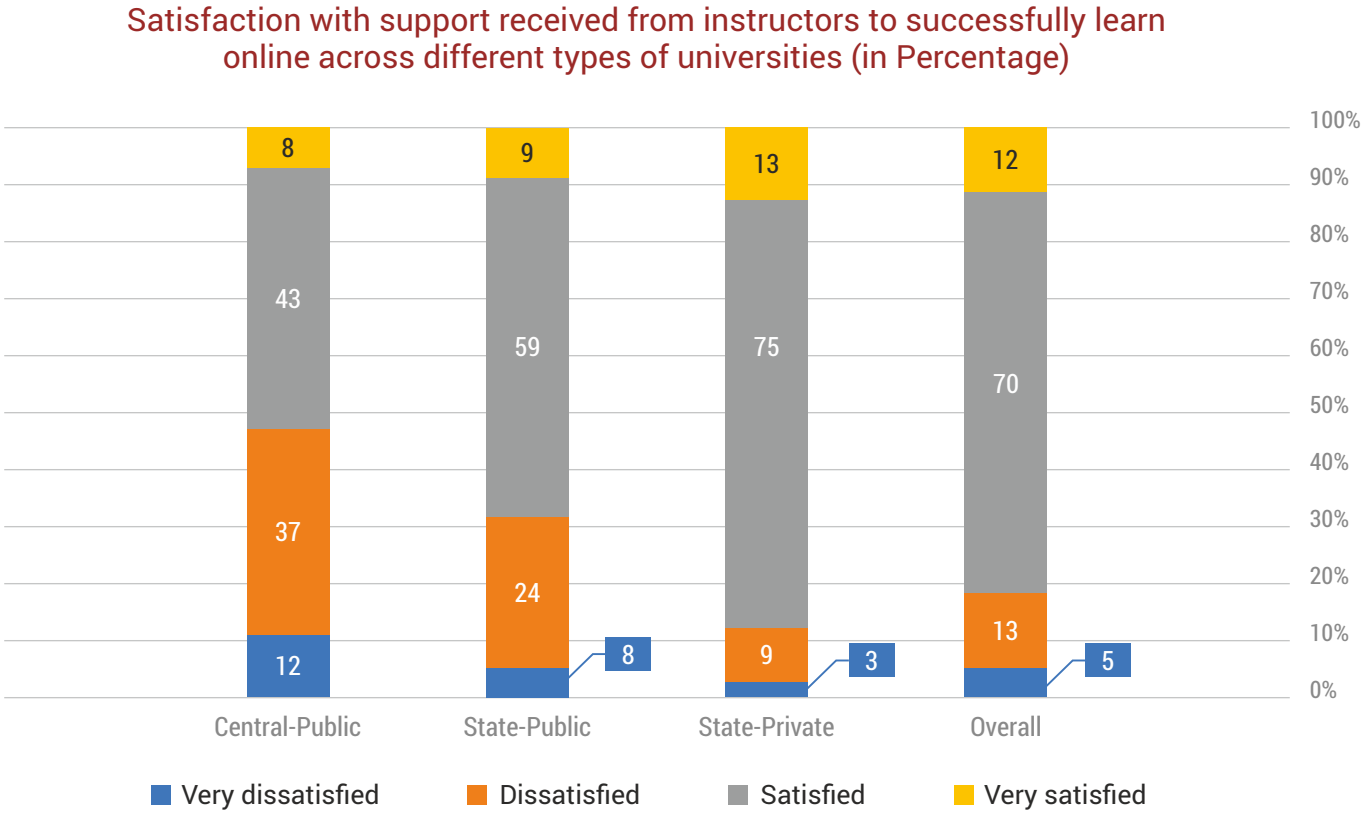


Figure 12 : Satisfaction with support received from instructors

Support from course instructors emerged as a crucial factor for learning within online spaces. 88% of private university students were satisfied or very satisfied with the support they received from course instructors (see Figure 12). This number was 68% for state public universities and only 52% for central universities.

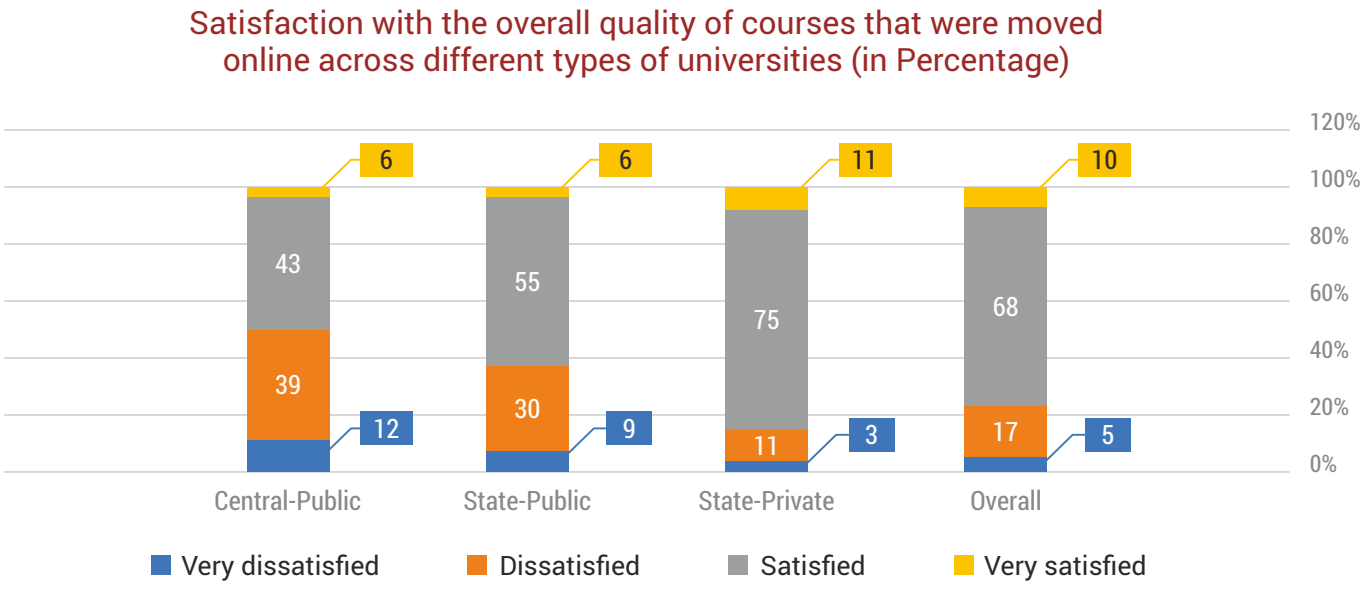


Figure 13 : Satisfaction with overall quality of courses that were moved online

Similarly, significantly larger proportion of students from private universities were satisfied with the quality of courses in the online mode compared to state public and central universities (86% vs 61% and 49% respectively; see Figure 13)

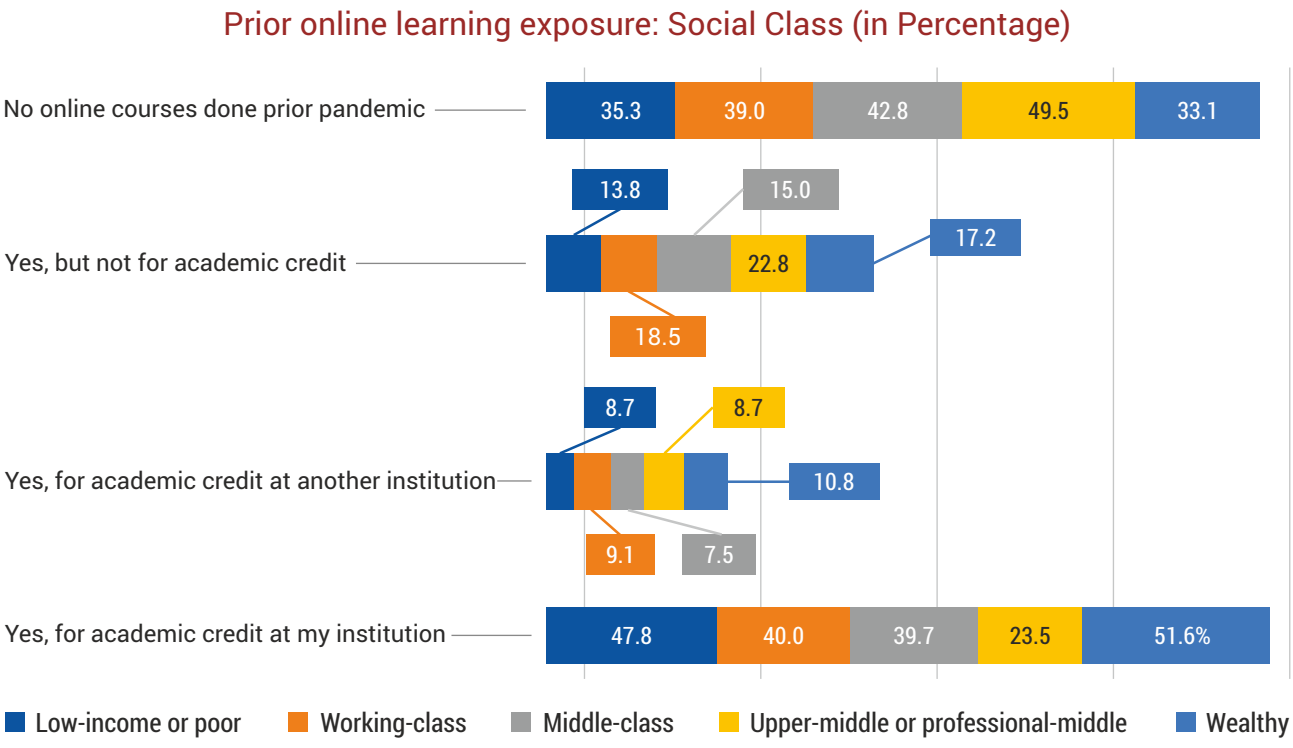


Figure 14 : Prior Online learning Exposure: Social Class

The pandemic forced all courses to go online. Under such circumstances, students who had a prior exposure to online learning can be expected to do better, at least in initial semesters. Surprisingly, a large proportion of students across all social classes had at least some prior online course experience. Even among low-income students, a social class we expect to have least exposure to online courses, only 35% had not done any online course prior to the pandemic (see Figure 14). Thus, 65% had some prior exposure to online learning. Interestingly, 42.8% middle class and 49.5% upper middle-class students had no prior exposure to online learning. More lower-income students with prior online learning experience was a surprising finding. Similarly, an interesting trend was observed in terms of gender. Those who self-identified as male or female had lower prior exposure to online learning (56% and 58% respectively) compared to those who identified as third gender (79%) or preferred to self-describe their gender (73%) (see Figure 15).

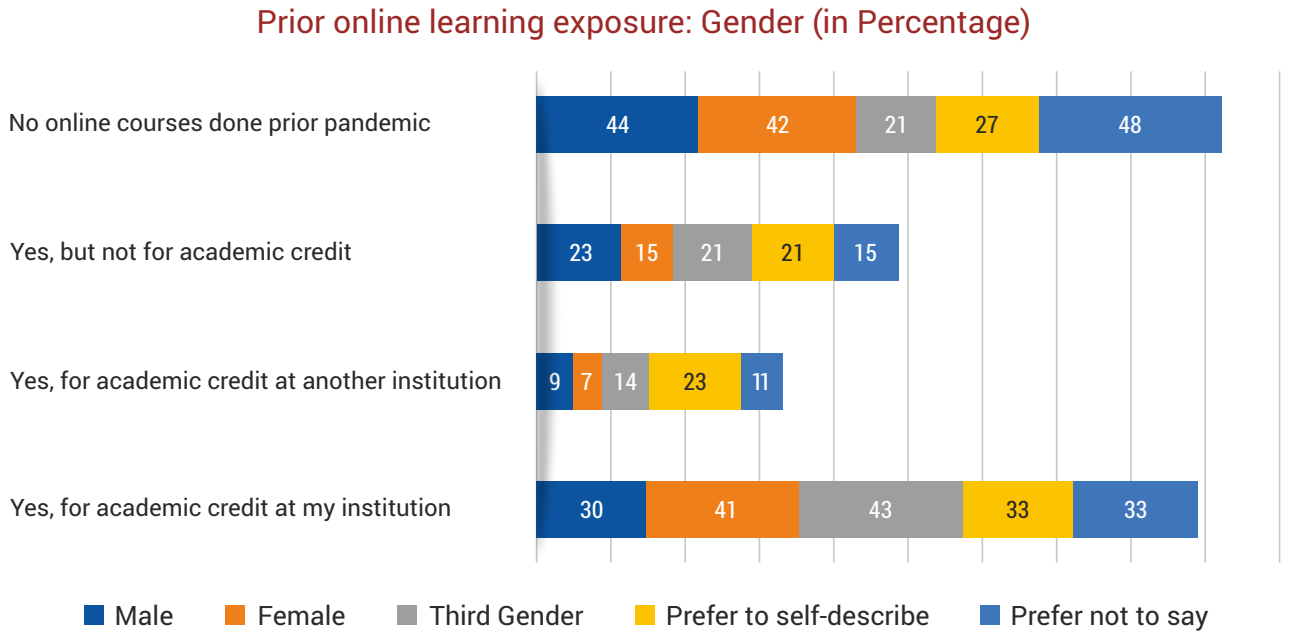


Figure 15 : Prior Online learning Exposure: Gender

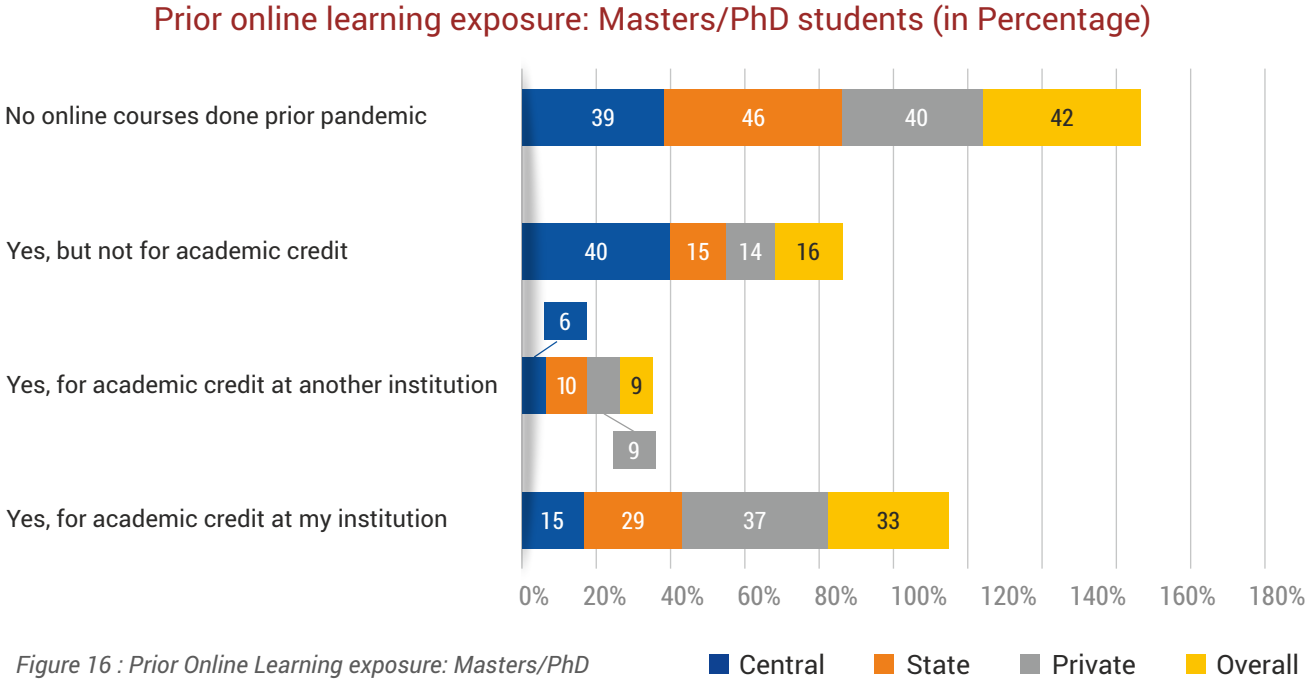


Figure 16 : Prior Online Learning exposure: Masters/PhD

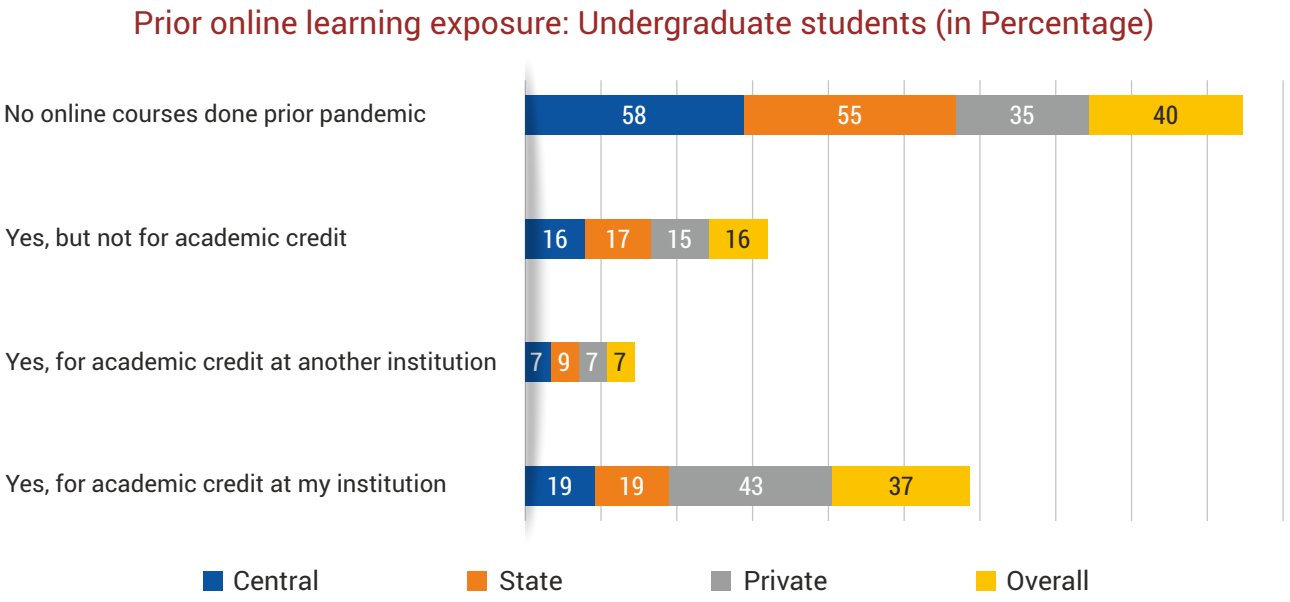


Figure 17 : Prior Online learning exposure: undergraduate students

The statistics for online exposure across degree levels were in line with expectations. More Masters/PhD students had at least some prior exposure to online learning compared to undergraduate students (see Figure 16 & Figure 17). The differences among public and private universities were wider at UG level (65% students from private universities had prior exposure to online learning compared to 45% from state public universities and 42% from central universities) (see Figure 17).

The pandemic has forced HEIs to shift to online modes of instruction, drastically transforming the teaching and learning experience, grading and assessment methods.

In the SERU survey, students were asked about their overall satisfaction with the university's response to the COVID-19 pandemic. In the case of central universities, 18% were very dissatisfied, 34% were dissatisfied, 44% were satisfied, and 4% were very satisfied.

In the case of state public universities, 9% were very dissatisfied, 24% were dissatisfied, 58% were satisfied, and 9% were very satisfied. In the case of private universities, 2% were very dissatisfied, 6% were dissatisfied, 72% were satisfied, and 20% were very satisfied. Overall, 4% were very dissatisfied, 11% were dissatisfied, 68% were satisfied, and 17% were very satisfied. It appears from the statistics that the private university students were more satisfied with the response of their university to the pandemic (see Figure 18).

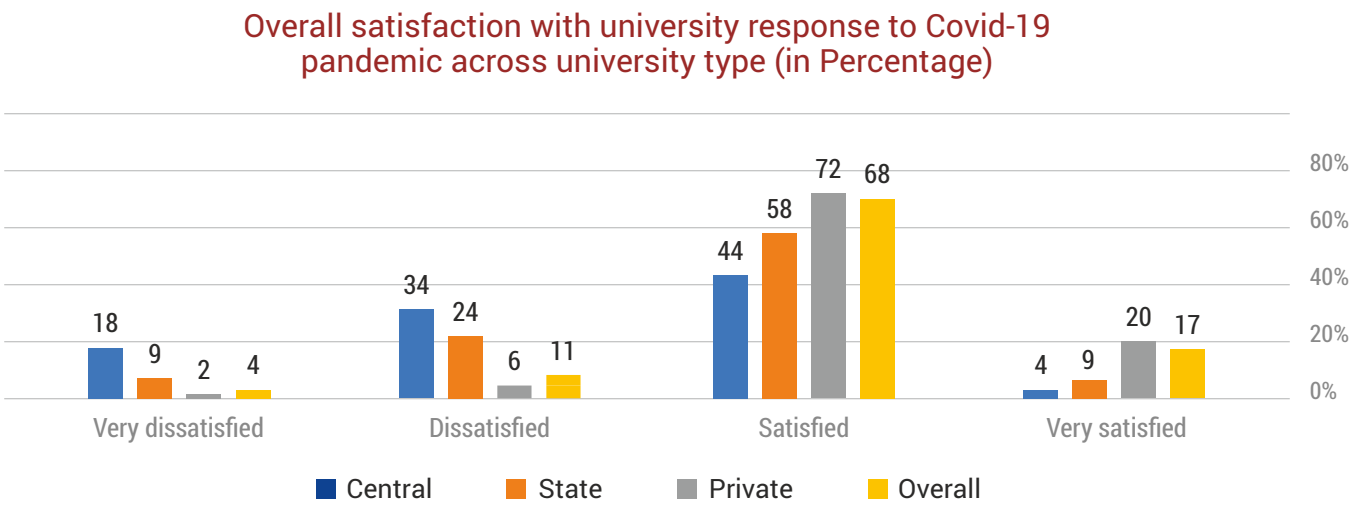


Figure 18 : Overall satisfaction according to university type

Interestingly, social class did not matter when it came to student satisfaction with university response (see Figure 19).

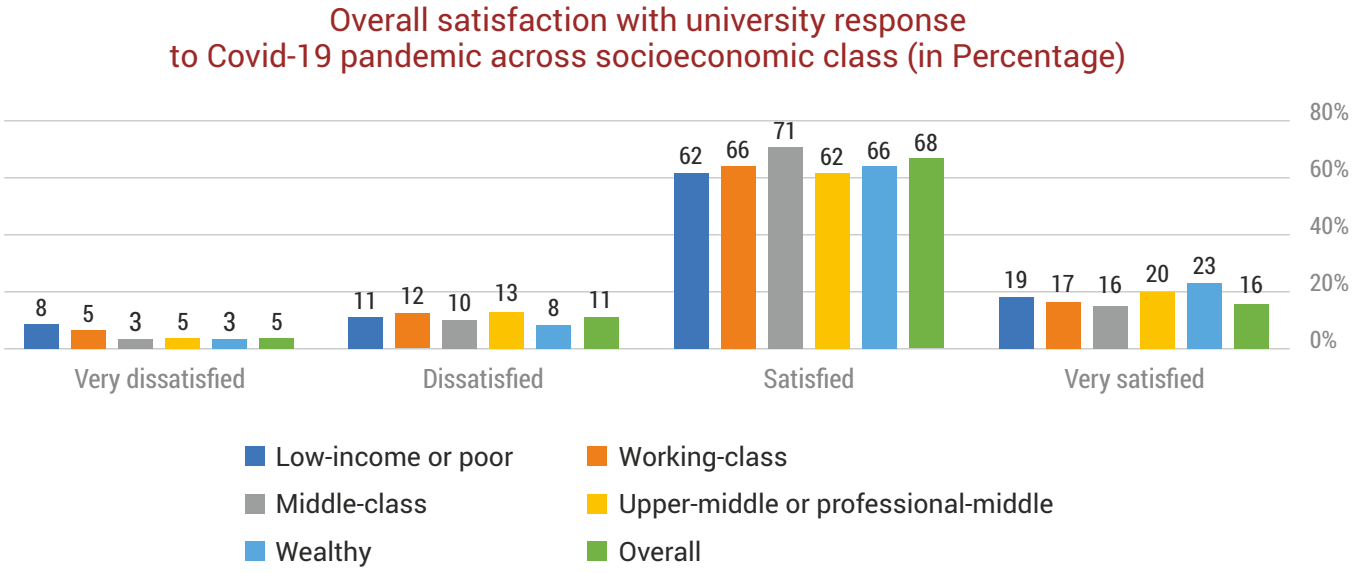


Figure 19 : Overall satisfaction with university response by socioeconomic class

Main Findings: Students from private universities appear to be more satisfied with the way their universities responded to the COVID-19 pandemic compared to students from central and state-public universities. These include satisfaction with the support received from instructors and the overall quality of courses.

The study found that a significant proportion of students from economically disadvantaged backgrounds have had prior exposure to online courses.

With regard to gender; women, third gender and those who prefer to self-describe or not to say, constitute the largest percentage of students, who had taken online academic courses for credit online, prior to the pandemic. Since, distance education always catered to the needs of those who were marginalized within the mainstream and whose needs fell outside of the mainstream system, this finding appears to be reasonable.

However, in terms of overall satisfaction with universities response, students from all socio-economic classes appear to be equally satisfied with the university's response to the COVID-19 pandemic, according to this survey.

b Financial Concerns

In response to the COVID-19 outbreak, to stop the spread of the virus, several countries, including India, imposed mandatory social distancing, quarantine, and lockdowns. While these measures were effective in slowing the spread of the virus, the prolonged social isolation, quarantine, and economic disruption caused by the virus resulted in an increase in financial hardships and mental health concerns. Such restriction had severely impacted the means of income and mental health of many. Recent studies (Chatterji et al, 2021) have looked at the link between financial hardships and COVID-19 and have recognised the need for and importance of financial assistance and job creation programmes to help families recover both financially and mentally.

A study mapping the mental health concerns during the pandemic indicated that the anxiety levels in study participants ranged from 15% to 42%, while depression levels ranged from 10% to 75% (Hossain et al., 2021). Individuals reported an increase in anxiety, depression, and stress symptoms during the lockdown, according to studies conducted in India using an internet-based and self-administered survey. Women, business/self-employed individuals, and individuals with poor health status had higher rates of anxiety.

Simultaneously, news reports of suicidal behaviour increased by 68% during the first nationwide lockdown. Suicidal individuals were more likely to be middle-aged, male, married, and employed (Pathare et al.,2020). A study examining the association between financial hardship, job loss, and mental health symptoms associated with COVID-19 in a rural area of Maharashtra conducted approximately nine months after the end of India's first nationwide lockdown suggested that social support and government assistance (both monetary and non-monetary) could be associated with improved mental health in both men and women (Chatterji et al, 2021).

All of the aforementioned factors have had an impact on many families, particularly those from the lower-income, working, and middle classes. The students belonging to these families experienced the digital divide as their families struggled to arrange the digital infrastructure due to the loss of jobs of their family members and a reduction in their scholarships, which they used to get from universities, trusts, government, and other organizations.

During the COVID-19 pandemic, since all the academic activities (including teaching, assessments, and classroom discussions) transitioned online, the students from non-privileged backgrounds faced financial hardships, such as having to arrange digital infrastructure to participate in academic activities. HEIs also had to introduce austerity measures regarding students' scholarships and allowances policies, thus causing financial hardship for students.

Analysis by Gender

In our analysis, we attempted to find the interaction of social class with gender. Interestingly, majority of students who identified as third gender were from the poor or working class (46%) or preferred to self-describe (33%) (see Figure 20). Most students who identified as man or woman belonged to middle class or upper middle class.

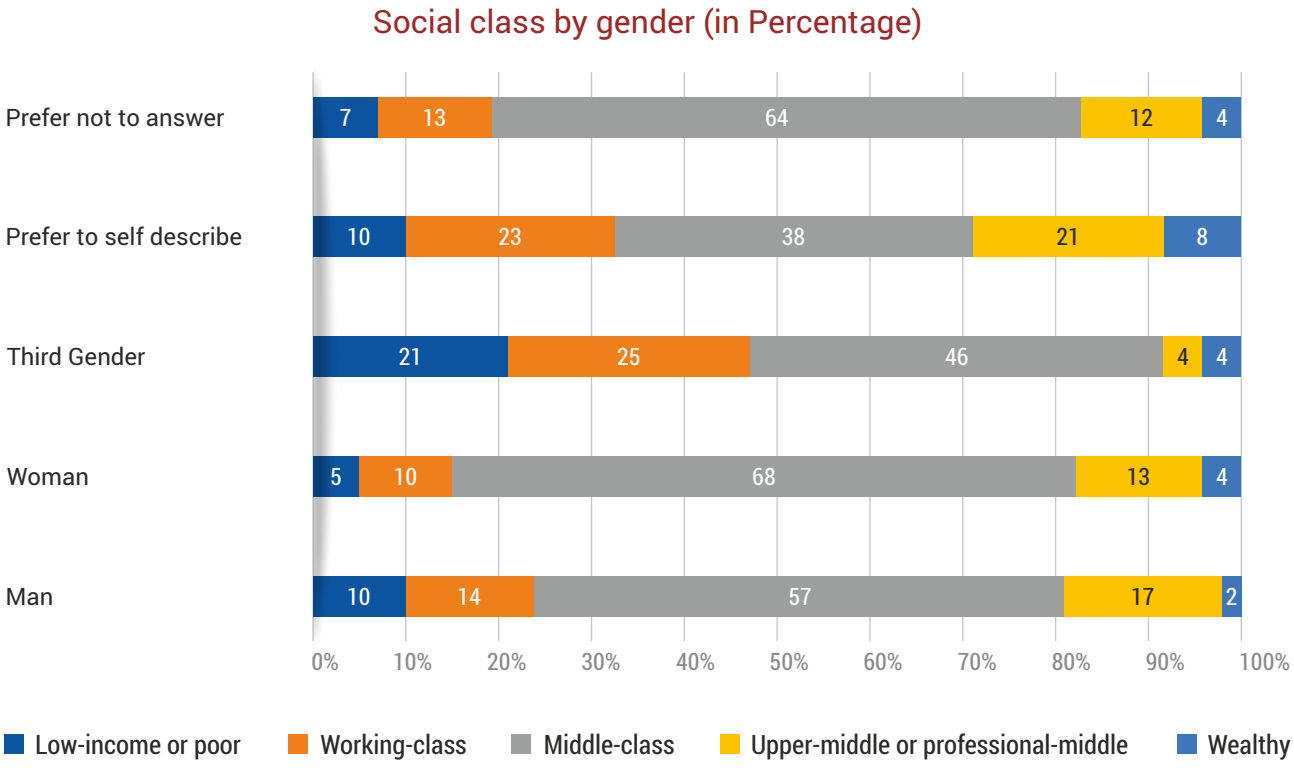


Figure 20 : Social Class by gender

Many students across all gender identities faced financial challenges including reduction in family income, increased living expenses, and loss of job/internship. Multiple factors added to the financial hardships of students (see Figure 21).

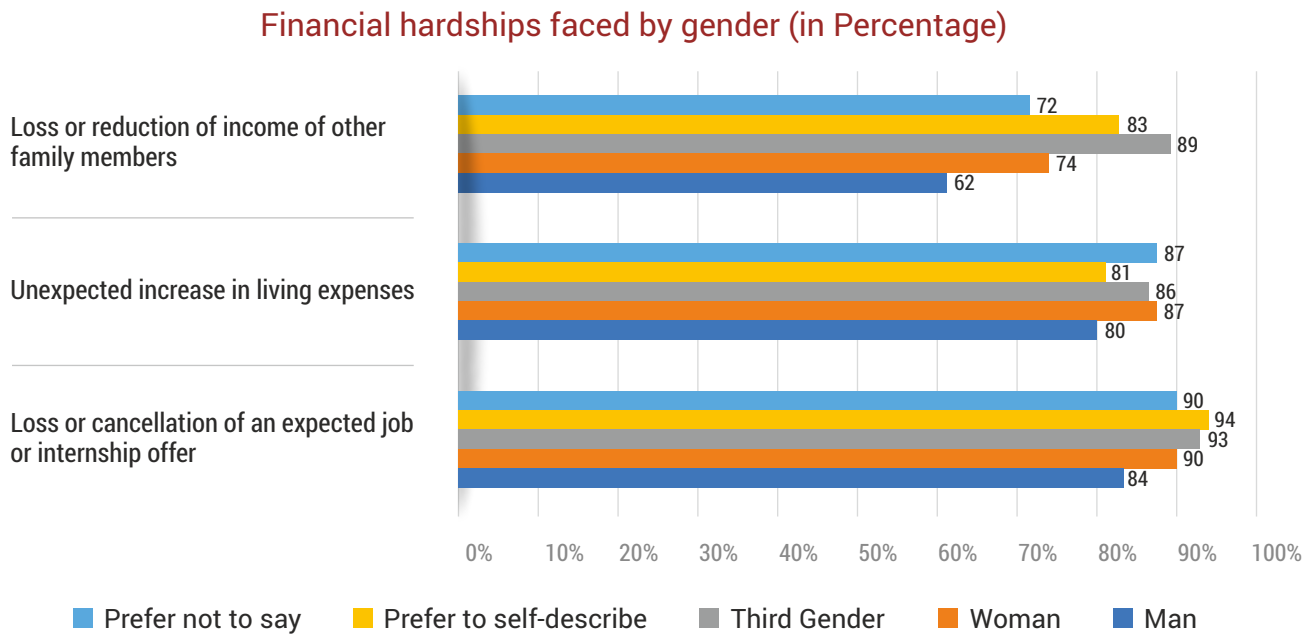


Figure 21 : Financial Hardships (by gender identity)

Analysis by Social Class

During the pandemic, as physical campuses shut down, classes shifted online. Thus, students were required to have access to electronic devices (smartphones, tablets, or laptops/computers). As expected, the students from lower income families faced most challenges when it came to access to devices (see Figure 22). 52% students cited unexpected increase in spending for technology as a challenge compared to only 26% from wealthy families (which was still high). Similarly, unexpected increase in living expenses posed a greater challenge for lower income families (19%). Loss of family income was a common theme across social classes (including upper middle class and wealthy families), with lower income families being worse impacted. Those who faced no financial challenges were in sync with expectations, i.e. lowest among poor families (13%) and highest among wealthy families (45%).

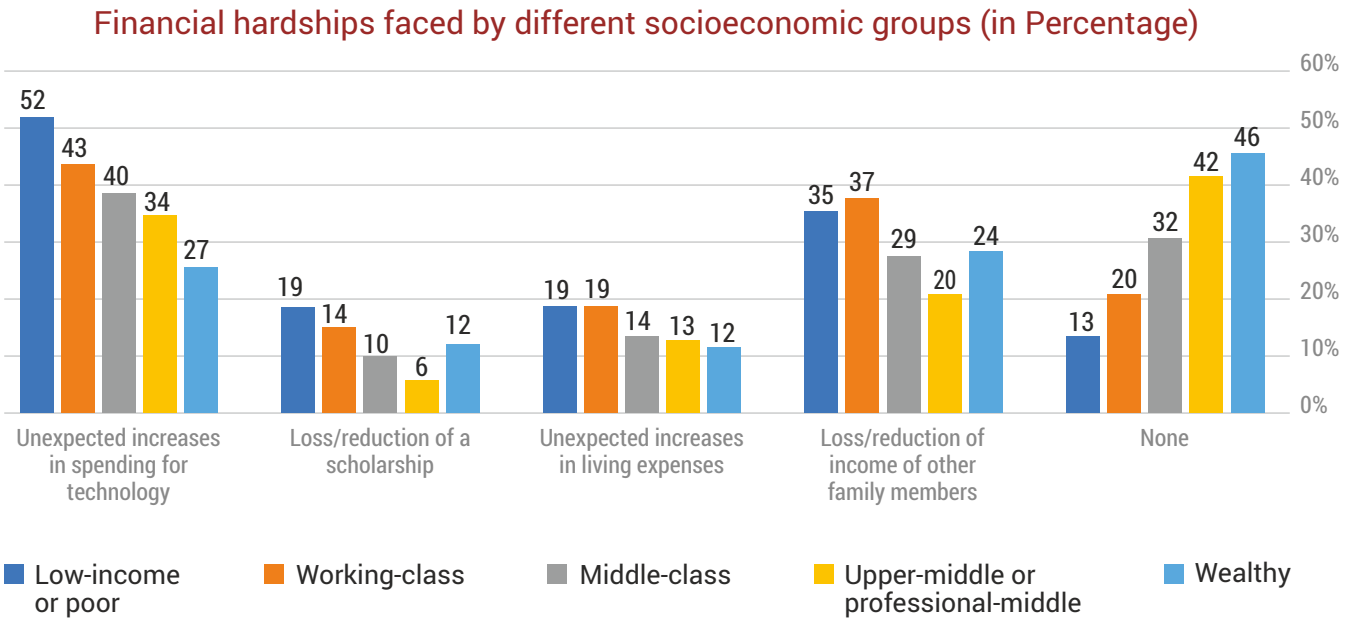


Figure 22 : Financial hardships faced by different socioeconomic groups

Students across all three types of universities cited similar challenges, with Central universities' students facing greater challenges (see Figure 23). This could be owing to a greater percentage of students in central university belonging to lower socioeconomic strata, as well as higher percentage of students on scholarships compared to state or private universities.

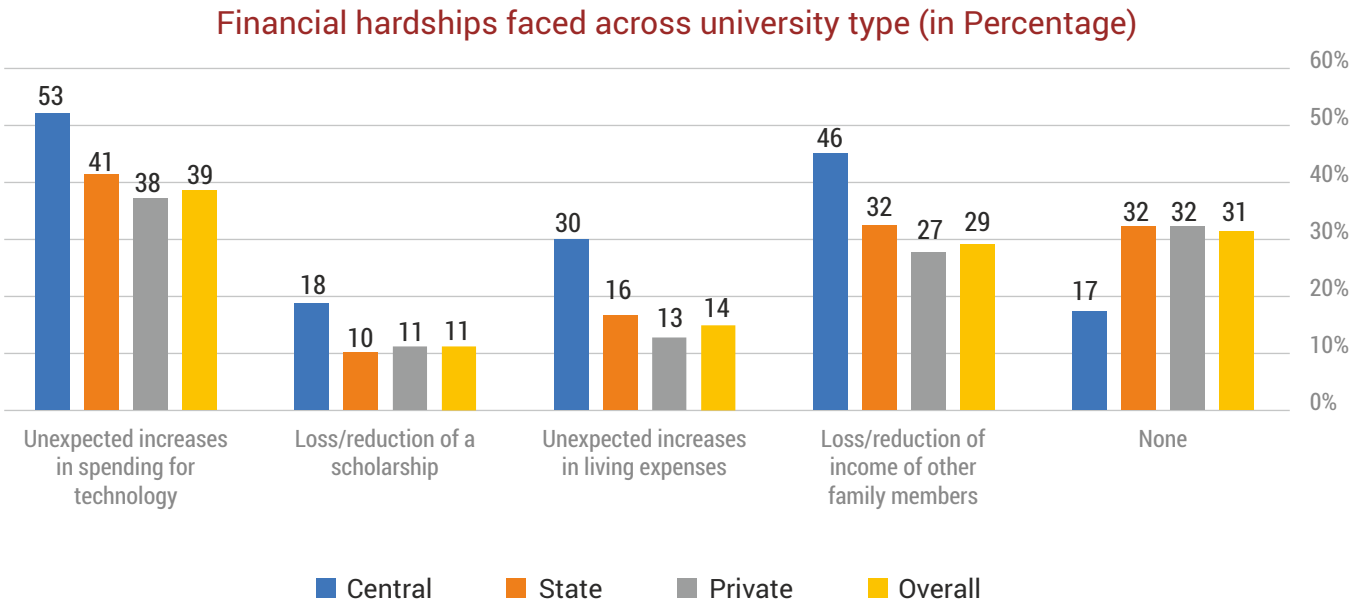


Figure 23 : Financial hardships faced across university type

Main Findings: The survey data shows that the students from low-income and working-class groups faced more financial challenges compared to students from other socio-economic groups, especially in arranging the digital infrastructure for their studies. Loss of family income happened across all socioeconomic classes which likely interfered with their university life. More students from central universities cited financial hardships compared to state public or private university students. This is probably because the student body is more diverse in central universities. There are more students from lower socio-economic class studying in central universities.

c Health and Well-being

A vast number of studies have concluded that the new coronavirus (SARS-CoV-2) and its accompanying variant (COVID-19) have had a significant impact on people's mental health and behaviour. (da Silva et al. 2021, Machada et al. 2020, Gijzen et al. 2020).

Suicide rates among the youth has been a major concern even prior to the pandemic. One person dies every 40 seconds due to suicide. The second leading cause of death among young people aged 15-29 years around the world has been suicide (WHO, 2019). These figures alone should be enough to alert the world to the reality that mental health among students is about to become the next catastrophe (Sher, 2020). Due to the severity of COVID-19 pandemic, many families have suffered income loss. Students enrolled in higher education institutes, had to adapt to online teaching, and learning along with taking care of families and friends suffering from COVID-19. All these factors have induced stress and anxiety among students.

As a result, students may require additional resources and services to cope with the physical and mental health consequences.

A cross national study (Rogowska et al., 2021) conducted in nine countries (Slovenia, the Czech Republic, Germany, Poland, Ukraine, Russia, Turkey, Israel, and Colombia) during the first wave of pandemic compared and identified the predictors of life satisfaction in university students. The study examined predictors of life satisfaction such as gender, place of residence, level of study, physical activity, exposure to the COVID-19, perceived negative impacts of COVID-19 on students' well-being. There is a universal pattern which suggests there is an association between life satisfaction and subjective physical health assessment and is relatively independent of country.

The result of SERU survey in India indicates that COVID-19 pandemic had negative impact on mental health and well-being of students across universities. This includes undergraduates, post-graduates, and doctoral students. Many felt increased stress levels, anxiety and depressive symptoms because of the changed delivery and uncertainties of university education, technological challenges, social isolation, decreased family income, unsafe home space, social identity and future employment. These impacts have been observed in responses of students from all three types of universities.

Analysis By Social Class

Students were asked how often they have felt, little interested or pleasured in doing things; or down, depressed, or hopeless; nervous, anxious or on the edge and not been able to stop worrying. This question further included the option to record whether the respondents have been feeling so for several days; more than half days; nearly every day or not at all. The results of the survey indicate that the students felt down, depressed, or hopeless, and there is no significant difference in the proportion of students feeling this way, across social classes (see Figure 24).

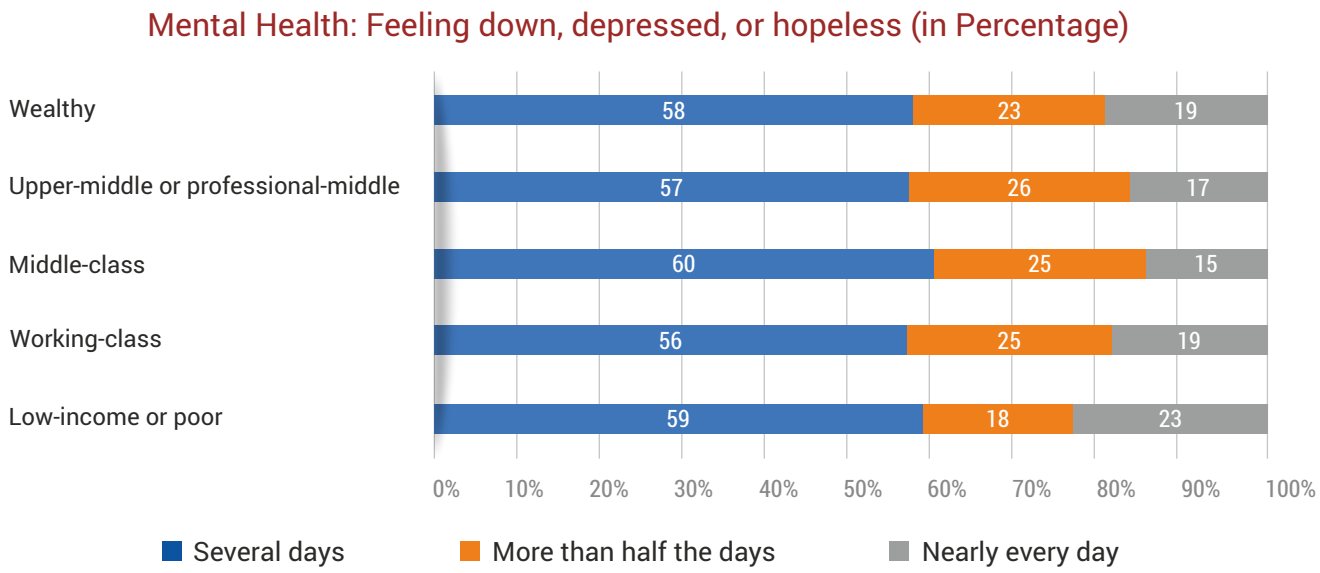


Figure 24 : Mental Health: Feeling Down, Depressed, or Hopeless by Social Class

The response on "feeling nervous, anxious, or on the edge" was similar across social classes (Figure 25). Interestingly, 25% students from upper middle or professional class were feeling likewise on more than half the days which is 5% more than students from low-income or poor class.

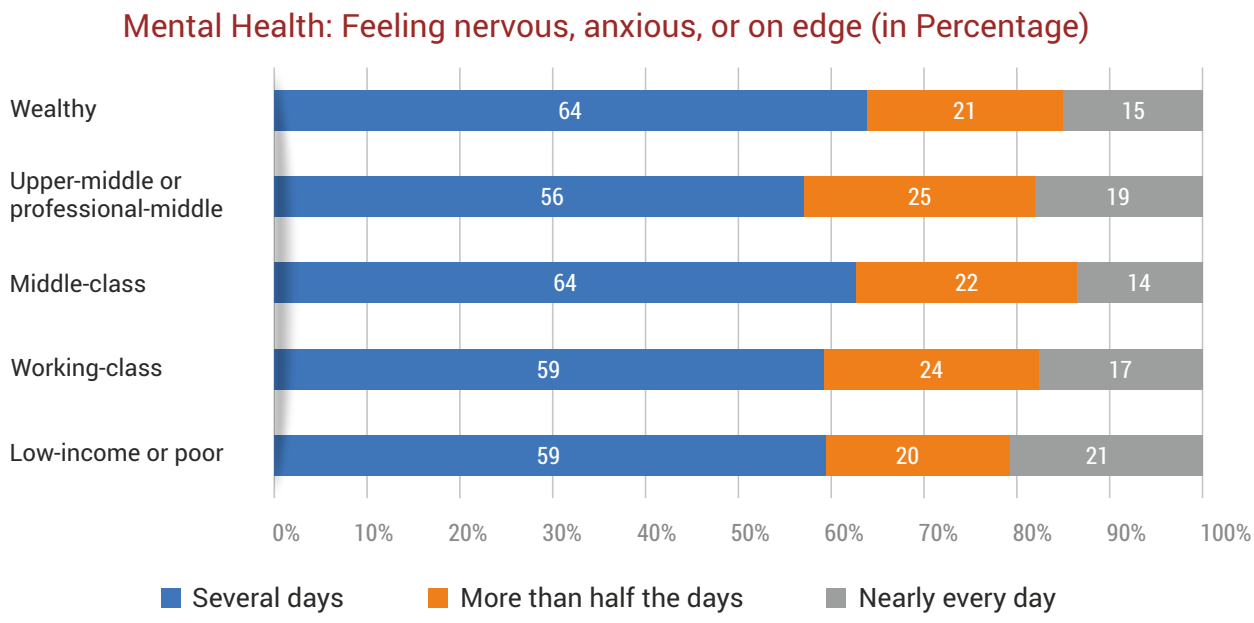


Figure 25 : Mental Health and Well-Being: Feeling Nervous, anxious, or on the edge

The survey result indicate that students felt constantly worried with more than 50% across social classes citing that they were not able to stop worrying for "several days". Interestingly, for all questions concerning mental health and well-being, along with the frequency of feeling on a scale of "several days, "more than half the days", and "nearly every day", the fourth option was "Not at all". It is significant to note that not even one student selected the option of "Not at all". Thus, it is clear that the pandemic has negatively impacted the mental health and well-being of all the students across university types, gender, social class, specialization, and level of education.

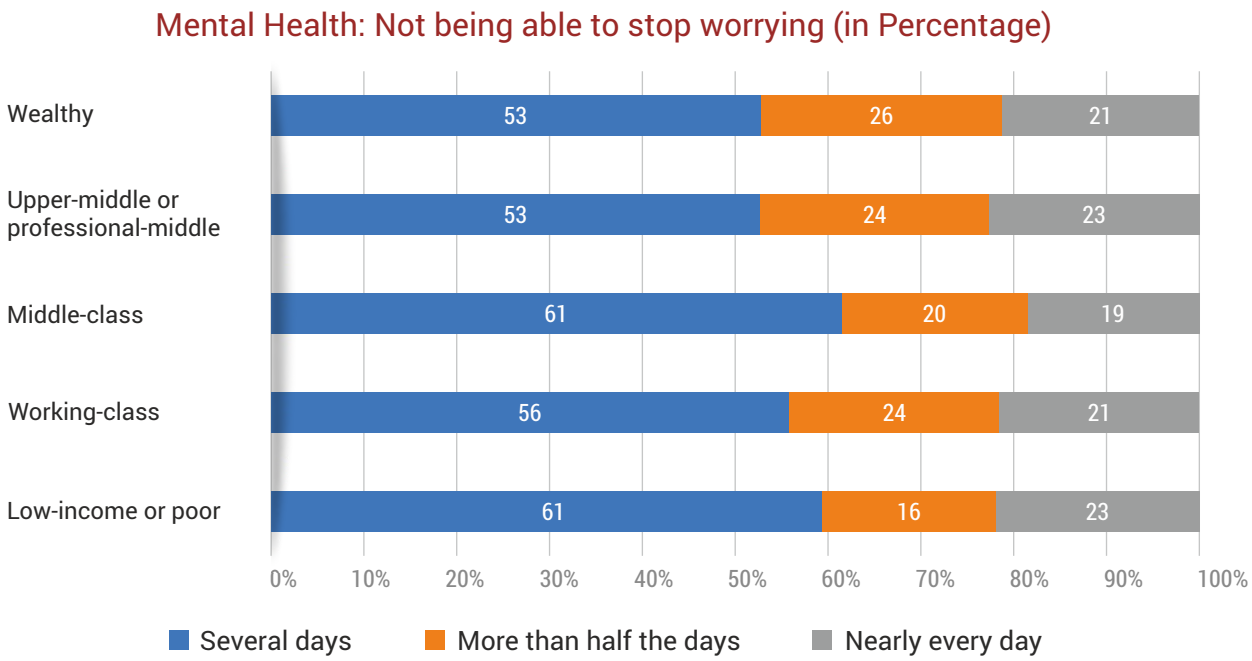


Figure 26 : Mental Health and Well-Being: Not Being Able to Stop Worrying by Social Class

Main Findings: The survey indicates that most students, irrespective of socioeconomic have faced high levels of stress, anxiety and worries during the pandemic.

Analysis By Gender

Gender is another factor that was considered while analysing the effect of the pandemic on mental health and well-being. Gender disparities are frequently discussed in the context of mental health. Various studies have found that more number of women suffer from mental concern than men all around the world (Bhatia & Goyal, 2020).

Women are often ill-equipped to protect themselves and their families from infection during an outbreak due to entrenched inequalities in access to education, job opportunities, and healthcare, and they are also more likely to suffer secondary negative consequences of prolonged crises, such as economic insecurity or difficulty accessing essential health services (Kapoor et al., 2019). Existing gender disparities in India may have been exacerbated or reinforced by the pandemic and are likely to affect women's ability to make informed decisions about adopting behaviours like household chores along with focusing on academic career, especially during global pandemic.

The third-gender face greater challenges when it comes to getting health care and education. These obstacles are mirrored in World Health Organization's estimates, which indicate disproportionate HIV prevalence rates among transgender people ranging from 8% to 68% (WHO, 2011). Aside from poor sexual health, this gender group faces stigma, isolation, discrimination, and victimisation, all of which predispose them to mental health concerns like depression, anxiety, and drug addiction (Shaik et al. 2016).

While the COVID-19 situation has had a detrimental effect on many people's lives, it may have enhanced the secondary negative consequences for transgender and non-binary people. As the pandemic forced many transgender and non-binary people to move in with their family, their life choices and ability to exercise those choices have been curtailed. Many were forced to return to living according to their sex assigned at birth while living with their family. The SERU-INDIA survey attempted to capture and understand the impact of COVID-19 pandemic on all genders (irrespective of people who did not prefer to say) and their mental health and well-being.

According to the survey analysis, the results were similar across all gender identities, with third gender students reporting more frequent challenges (52% on more than half the days as opposed to 24-28% for all other categories). Those who preferred not to reveal their gender identity felt "down, depressed, or hopeless" nearly every day (25% vs 14-21% for other groups).

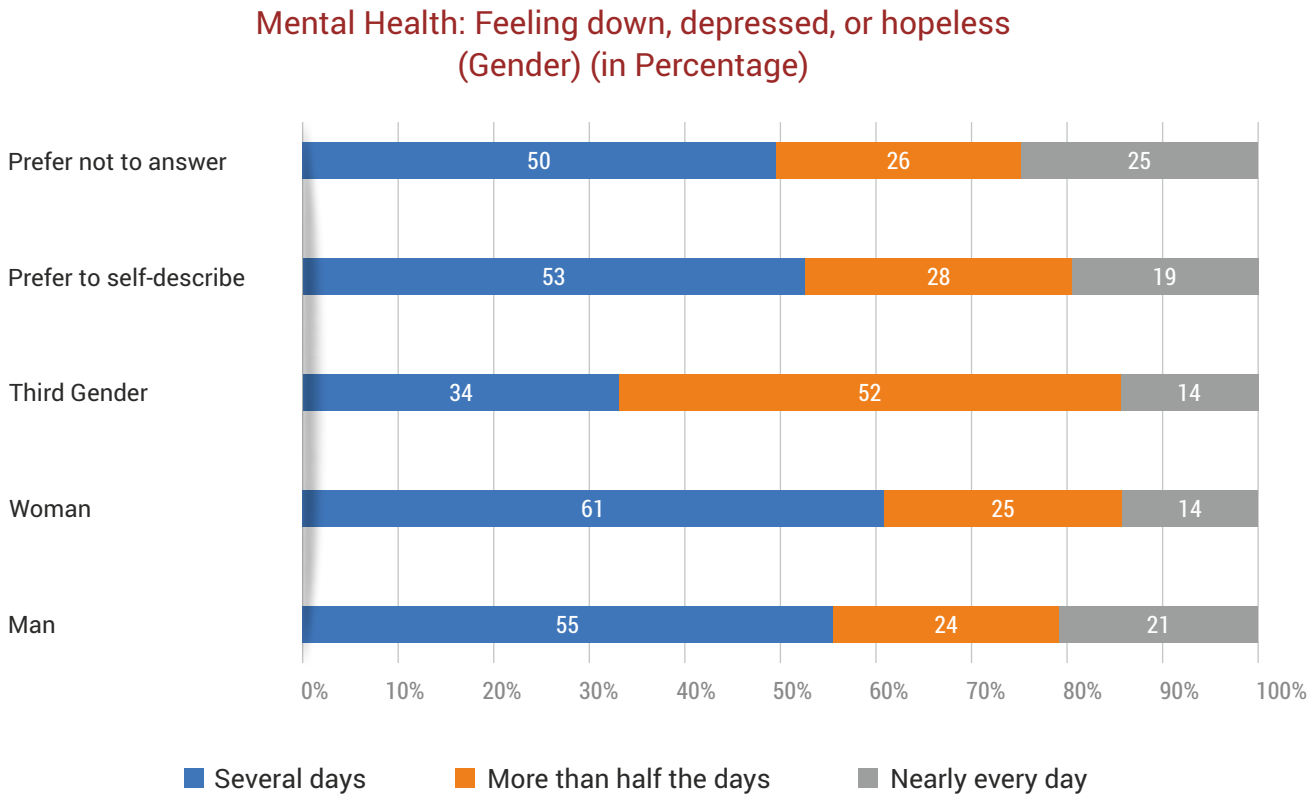


Figure 27 : Mental Health and Well-Being: Feeling Down, Depressed, or Hopeless by Gender

Similar results were visible for the other two questions. Third gender students reported the symptoms more frequently. For "feeling nervous, anxious, or on edge", 81% third gender students said they felt these symptoms on more than half days or almost every day. For male and female students, this percentage was 43% and 36% respectively (see Figure 28).

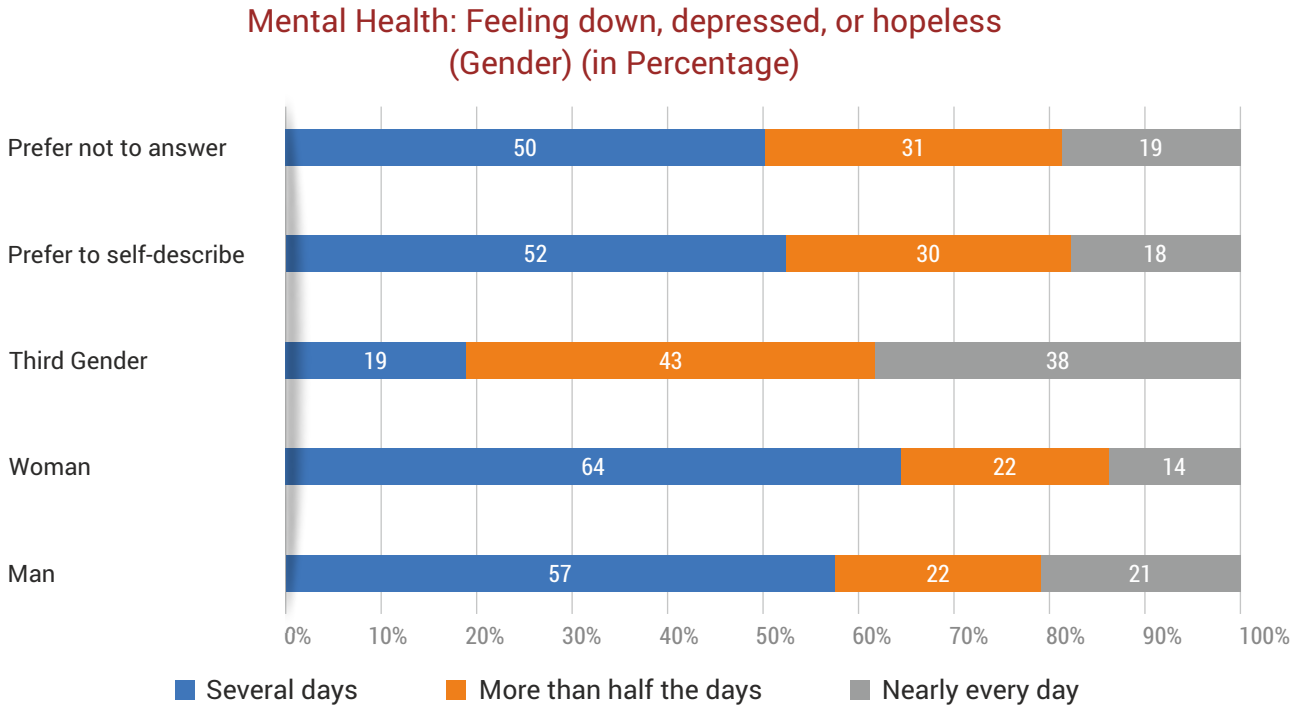


Figure 28 : Mental Health and Well-Being: Feeling Nervous, Anxious or on Edge by Gender

For question concerning "not able to stop worrying", 59% third gender students felt it on more than half days or almost every day compared to 47% male and 38% female students (see Figure 29). Interestingly, for those who "preferred to self-describe" or "preferred not to tell" their gender identities, these percentages were not very different from those who identified as male or female (see Figure 28 & Figure 29).

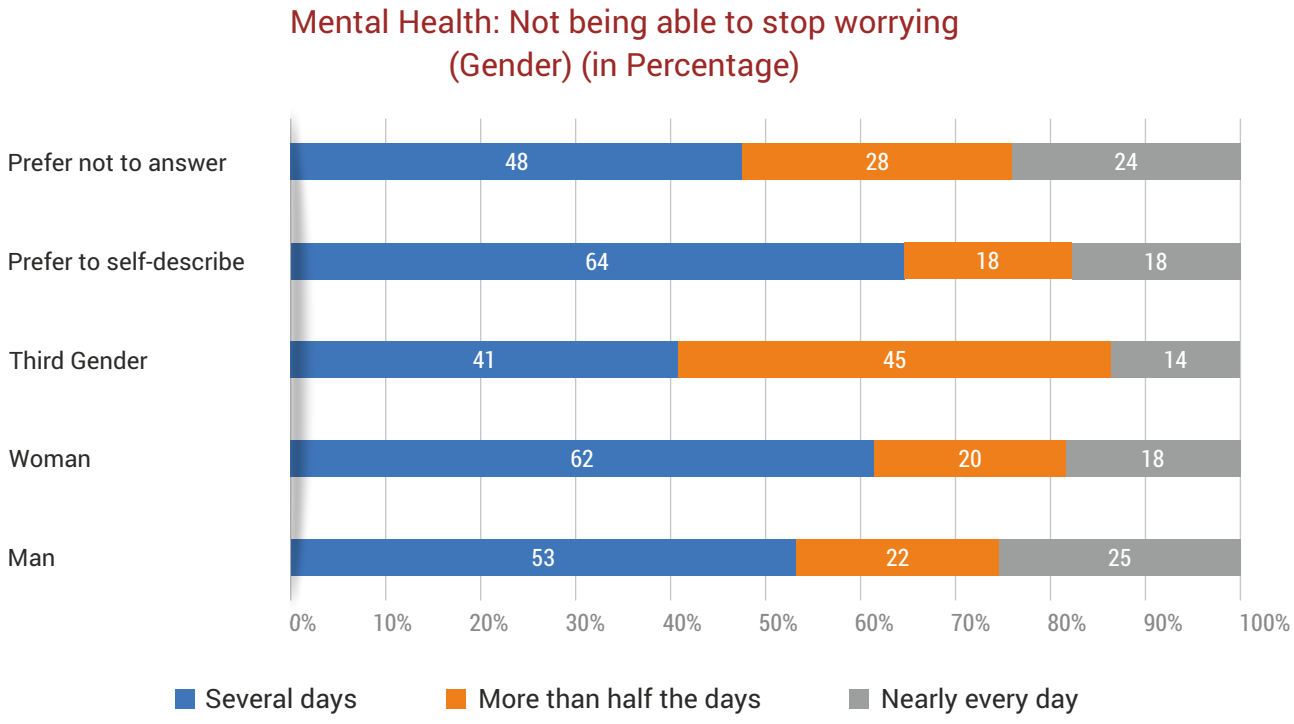


Figure 29 : Mental Health and Well-Being: Not Being Able to Stop Worrying by Gender

Main Findings: Gender-based analysis of the survey data shows that, all the gender groups were somehow feeling nervous, anxious, hopeless, down, depressed, on the edge and worried on most of the days. The mental health and well-being of all gender groups was highly impacted by the COVID-19 pandemic, but third gender students were the worst affected.

d Belonging & Engagement

According to Heifetz (2009), adaptive problems are difficult to detect and deny because they demand changes in ideas, roles, and techniques to tackle problems. They also span organisational borders. Students' lack of motivation, interpersonal connections with peers, learning challenges in online formats, and a lack of proper study place in distracting home surroundings were among the barriers they faced. University studies are a stressful time since they signal the start of independent adulthood. Beginning university studies can be difficult for many students because it necessitates the formation of new relationships, the development of new studying habits connected to the chosen programme, the management of work, learning time management, and, in many cases, the relocation of one's housing.

During the Covid-19 outbreak, the slogan "Stay home, Stay Safe" became increasingly popular. However, remaining at home is no longer a safe option for many women, third gender and children around the world. The Covid-19 pandemic and the economic loss constraints were two of the most talked-about issues at this time. However, there was a third pandemic of domestic violence, unsafe home space and abuse as individuals spent more time at home and had nowhere else to go. Even before COVID-19 existed, domestic violence was already one of the greatest human rights violations. As the COVID-19 pandemic continues, it is likely to grow with significant negative impact on students' wellbeing, their sexual and reproductive health, mental health, and their ability to participate and lead in the recovery of our societies and economy.

Bernard (2004) compared distant education to classroom teaching and discovered that asynchronous learning had a marginally favourable influence on student achievement whereas synchronous learning had a marginally negative effect. Face-to-face training takes up less time in the classroom, but online learning takes up a lot more. Students do not have to pay for transportation to and from university. Parents are exempt from paying for their children's living expenses. Universities save a lot of money because they don't have to maintain and clean their campuses. Access to the internet and technological devices, on the other hand, is out of reach for many students, leaving them unable to learn from home (Killen & Langer-Crame, 2020). Flores and Gaco (2020) emphasise the difficulties that both teacher educators and students face when engaging in online learning. Students in rural and poor socioeconomic areas suffer from a lack of connectedness, which causes them to 'fall behind' (UNESCO, 2020). According to UNESCO (2020), colleges should provide students with the necessary technology gadgets in order to mitigate the obstacles.

Many members of India's LGBTQ (lesbian, gay, bisexual, transgender, queer or questioning) community are concealing their true identities as they are stranded with their families for months due to the coronavirus - with potentially fatal repercussions. Some repercussions such as trapped home spaces, non-access to the support system, gender identity and recognition, mental health and well-being, and others which has affected their belongingness and engagement with university, families or peers at large. The pandemic was having a 'pernicious impact' on the mental health of the LGBTQ community, with younger trans and non-binary persons facing the most persecution and suffering from the highest levels of despair. Despite the lifting of pandemic restrictions, the demand for support continued to climb, according to the LGBT Foundation in the UK (Batty, 2020), whose helpline received 25% more calls regarding suicide thoughts during lockdown. Mental health crisis calls surged by 123 % in July, 2020, while abuse calls increased by 86 %, domestic violence calls increased by 65 %, and substance misuse calls increased by 50 %, according to the charity.

It is impossible to isolate the mind's and intellect's engagement from feelings and emotions in teaching and learning. "When facilitators and teachers solely address minds and personalities, much of our human potential stays undeveloped," according to Koppensteiner (2020). Allowing ourselves to emerge from behind that mask, opening ourselves up by expressing how we feel, who we are, our concerns, expectations, and anxieties, allows us to enhance our learning. We must provide possibilities for vulnerability to emerge in a good environment. During this approach, 'participants are not forcibly unmasked... but free to explore... their own learning.' Existing disparities were exacerbated, leaving many students challenged when learning online. They became even more susceptible as a result of the possibility of self-disclosure of their personal situations or financial limits.

This necessitates comprehensive planning, and the proper preparation may help avoid the pitfalls and obstacles that come with implementing such a drastic change. This problem necessitates the development and refinement of online learning knowledge and the essential competencies.

The study also attempted to gauge the impact of pandemic on student's residential location and mobility. The participants were asked- ***where did they live before the COVID-19 pandemic started?***

The responses were segregated in terms of the disciplinary engagement of the student respondents in three broad categories: General, Medicine and Technical. The responses revealed that, 36.3% (General), 42.0% (Medicine) and 48.7% (Technical) of student respondents resided on campus residence hall or campus-owned apartment/house at the beginning of the Pandemic. While ***close to fifty percent of survey respondents*** at 53.7% (General courses), 50.4% (Medicine) and 46.7% (Technical) ***resided in Off-campus apartment or house***.

On being asked if students had to relocate during the COVID-19 pandemic, the study found that, 39% respondents had to relocate. Out of which, 27% re-located within the same State, 11% had to move to a different State while 2% had to move to a different country. Hence, ***majority of the study respondents did not have to relocate due to campus lockdown***.

Analysis By Social Class

Some students relocated to a different city, state, country, but a majority did not relocate (i.e. they were day scholars in cities where their families lived). In both cases, the university closure curtailed their access to university spaces like classrooms, libraries, reading rooms, hostel rooms etc. Their homes became their classrooms and only space to study. This resulted in home environment directly and deeply affecting their academic performance.

Interestingly, at both ends of the social-class spectrum, wealthy and poor, maximum proportion of students said that they did not have a place to live that was free from physical/emotional violence or abuse. The middle and upper middle -class students were most likely to be in spaces free from such abuse (see Figure 30). Overall, 53% of students had a place to live that was free from physical/emotional violence or abuse during COVID-19 pandemic.

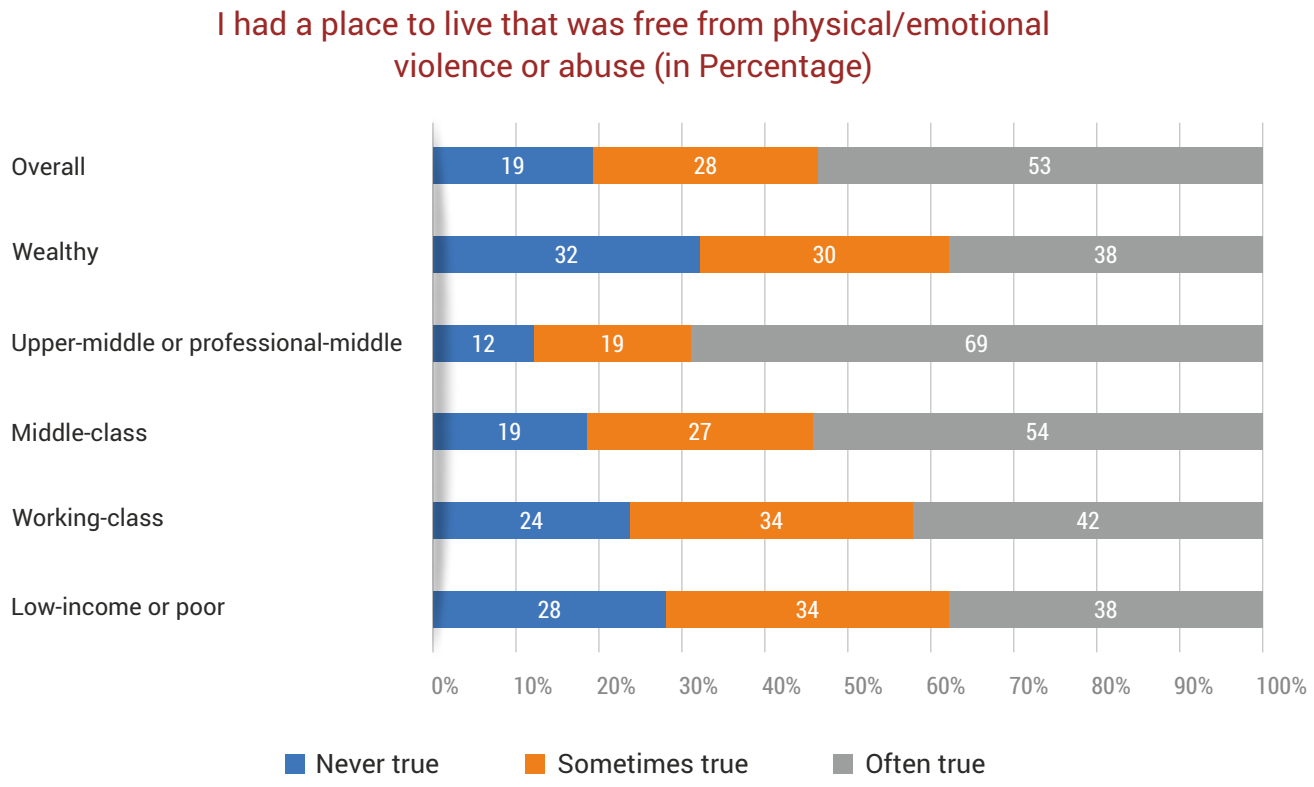


Figure 30 : Belonging: A Place to Live i.e. Free From Physical/Emotional Violence or Abuse by Social Class

65% of the respondents shared, "I had a place to live where I felt safe and protected" (see Figure 31). Interestingly, 44% of the students from wealthy families shared that it was never true for them, i.e. they lived in homes where they did not feel safe and protected. 23% student respondents from poor families shared similar responses. For the other three social classes, this varied from 12% (upper middle class) to 19% (working class). Overall, 18% of students never felt safe and protected where they live during COVID-19 pandemic.

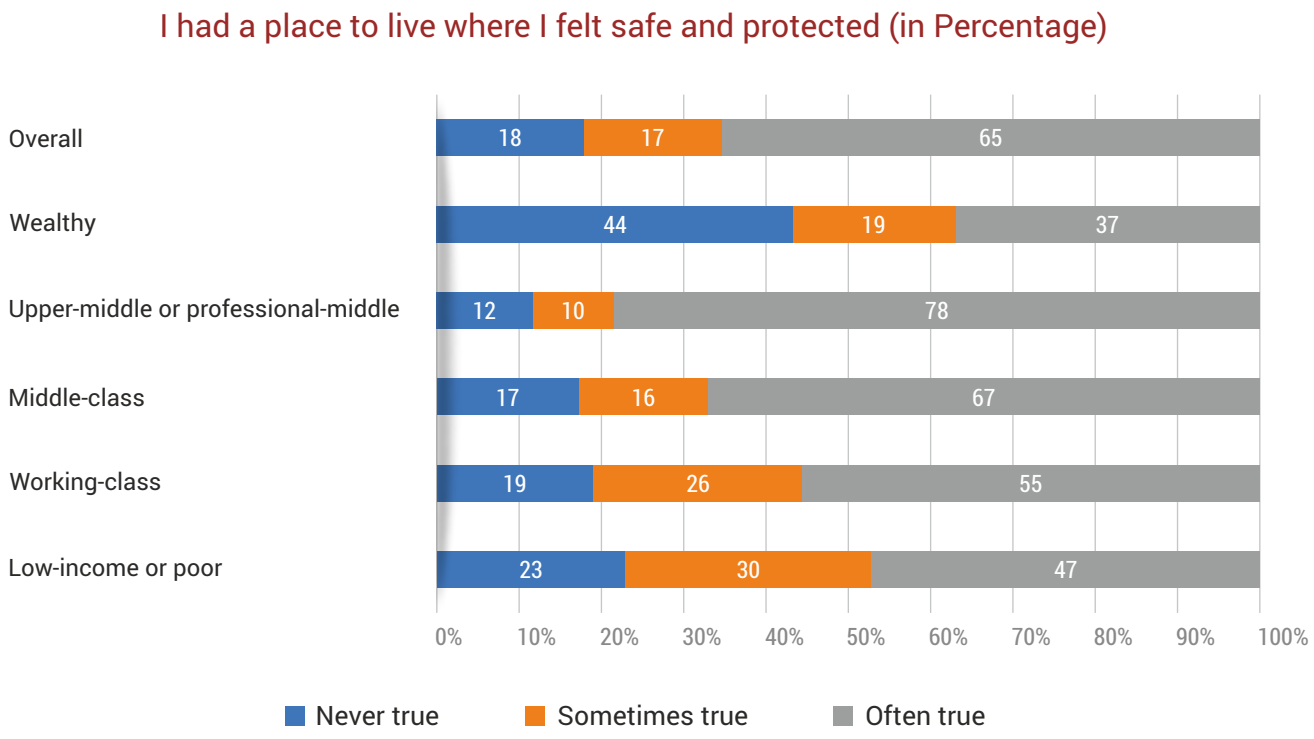


Figure 31 : Belonging: A Place to Live i.e. Safe and Protected by Social Class

When students were asked about access to a place to live which was free from drug and/or alcohol abuse, 65% said that they had access to such spaces. Across social classes, patterns similar to previous questions were visible, i.e. maximum number of students from wealthy (31%) followed by poor class (24%) marked this statement as "never true" (see Figure 32).

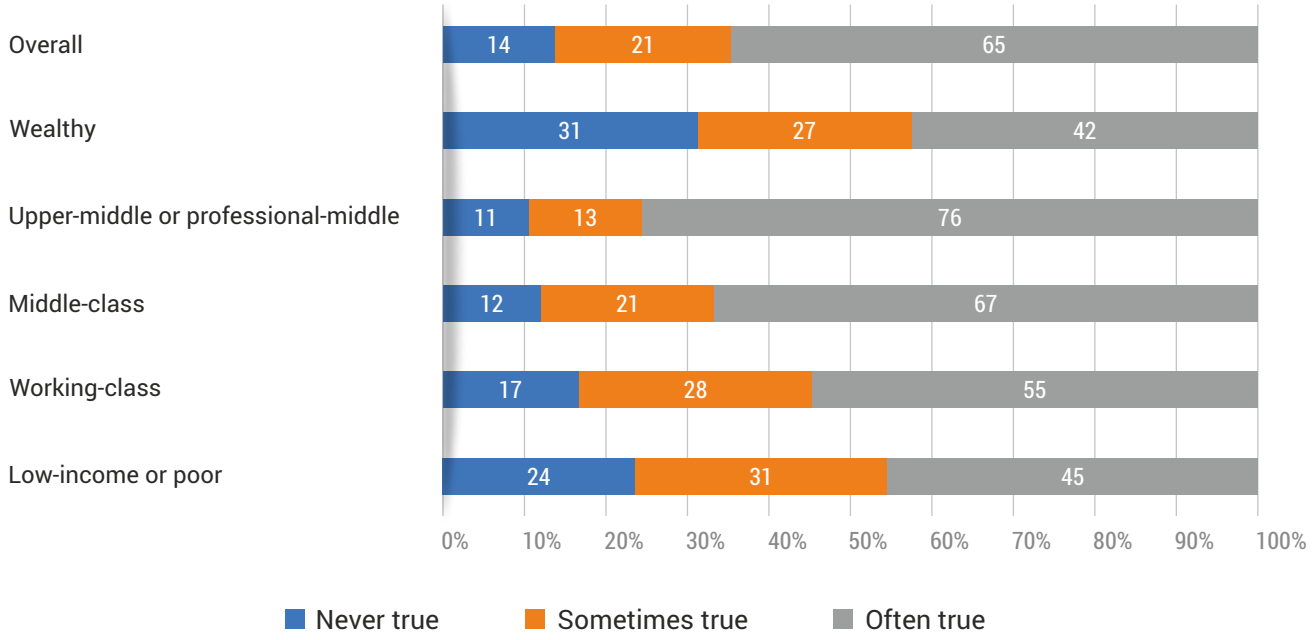


Figure 32 : Belonging: A Place to Live i.e. Free From Drug and/or Alcohol Abuse by Social Class

Similar patterns were observed when students were asked about a place to live where their identity was respected in terms of gender, sexual orientation and race/ethnicity. 71% students said that it was often true, but for wealthy (51%) and poor (48%), this was least likely and for professional/upper-middle class (80%), it was most likely to be true (see Figure 33).

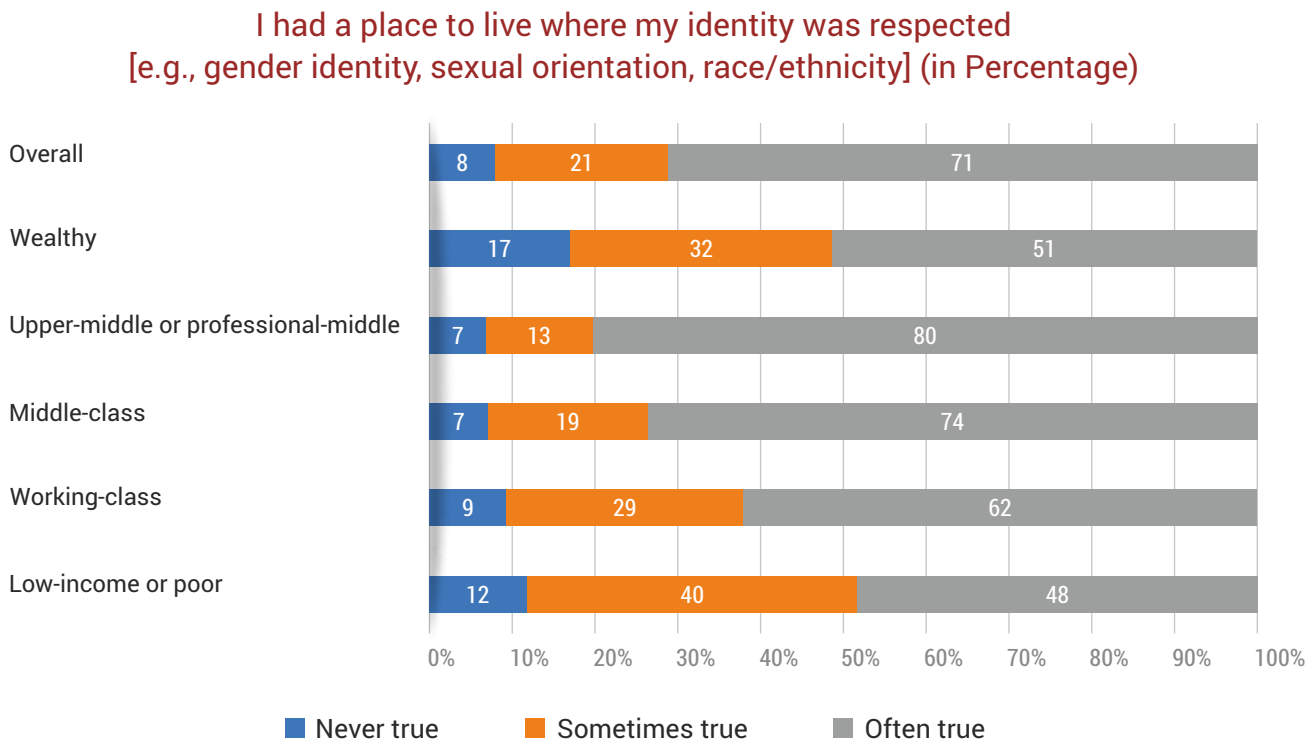


Figure 33 : Belonging: A Place to Live Where the Identity was Respected by Social Class

Main Findings: The survey shows that most of the students from upper-middle or professional middle class had a safer place to live which was free from physical/emotional abuse, safe, protected, free from drug and/or alcohol abuse and their identity was respected during the pandemic. Mostly, students from wealthy class followed by poor families felt most unsafe. This finding is quite interesting and highlights that sense of safety and belonging is lowest among the richest and poorest.

Analysis By Gender

Gender identities play a crucial role in most households, spaces to which the students returned due to university closure. It can be expected that individuals with gender non-conforming identities will face greater challenges at home compared to university spaces. In a patriarchal and religious society like India, home is more restrictive space compared to universities even for those with conforming identities.

For 55% male and 54% female students, it was "often true" that they had "a place to live that was free from physical/emotional violence or abuse" (see Figure 34). In comparison, among students with non-conforming gender identities, only 21% found this to be often true (both, third gender and those who preferred to self-describe). Even for 17% male and 20% female students, this was "never true". Corresponding numbers were 36% for third gender and 26% for those who preferred to self-describe.

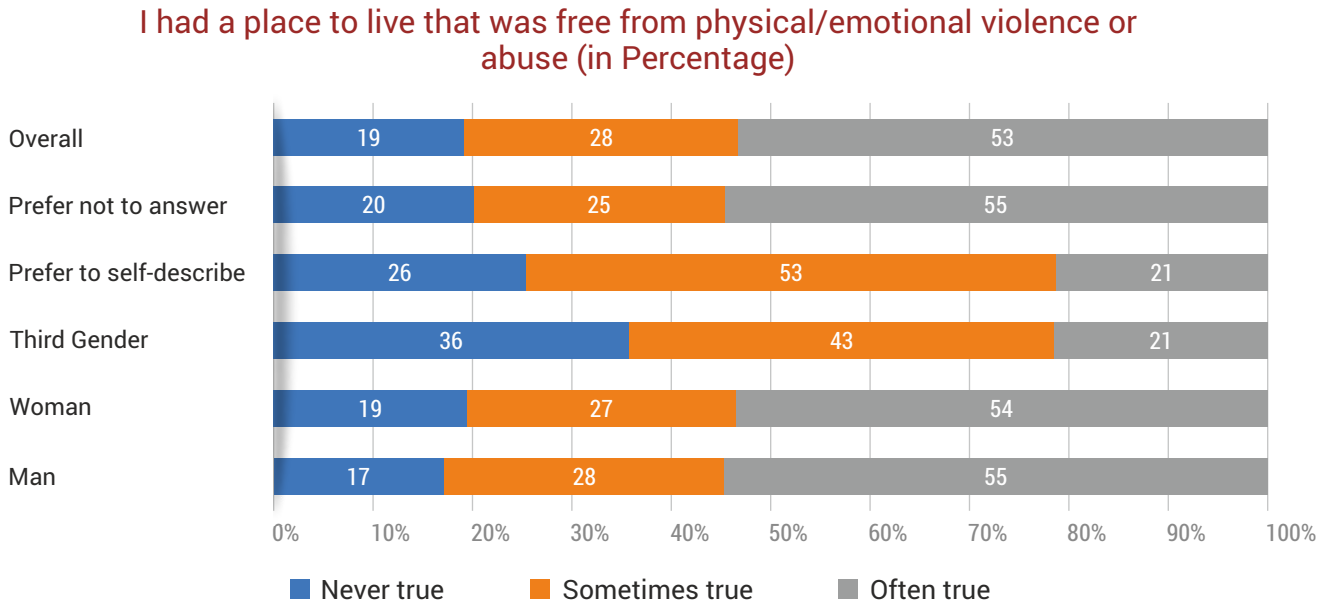


Figure 34 : Belonging: A Place to Live i.e. Free From Physical/Emotional Violence or Abuse by Gender

69% male and 73% female students felt that they "often" had a place to live where they felt safe and protected (see Figure 35). In comparison, only 30% third gender students and 29% who self-described their gender identities felt so. Similarly, only 8% male and female students felt that they never had a place to live during pandemic where they felt safe and protected. Corresponding numbers were 18% and 30% for non-conforming identities.

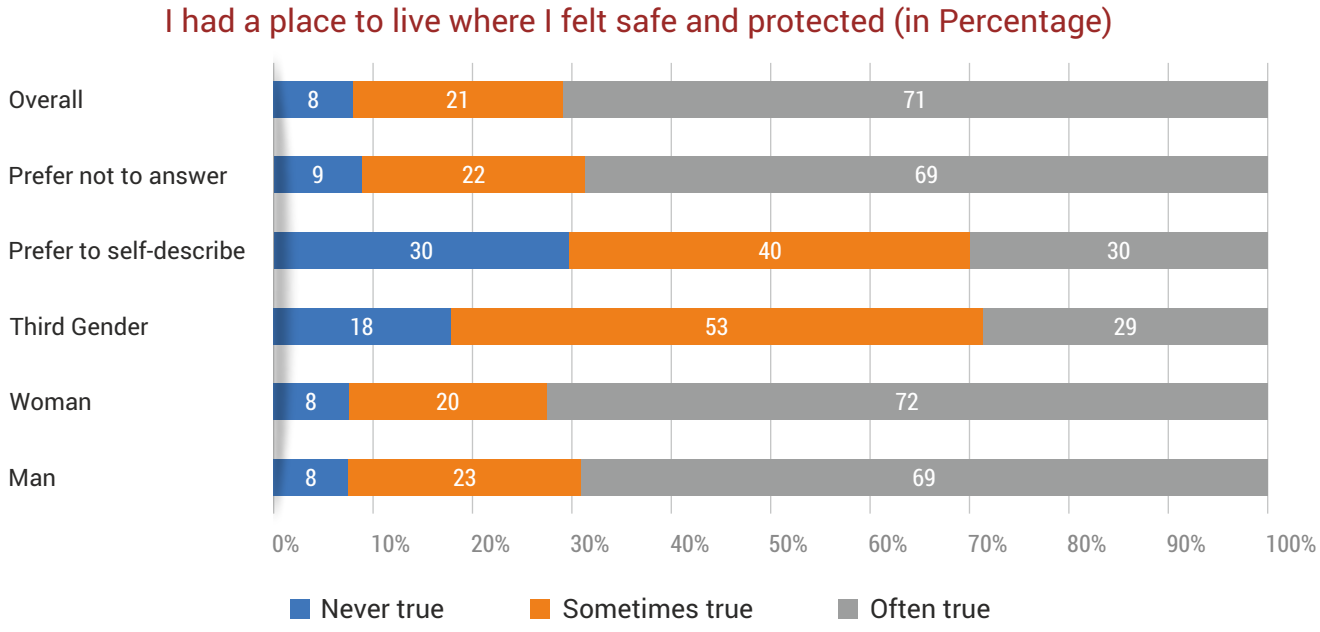


Figure 35 : Belonging: A Place to Live i.e. Safe and Protected by Gender

Very similar patterns were observed across gender identities for the question "I had a place to live that was free from drug and/or alcohol abuse" (see Figure 36).

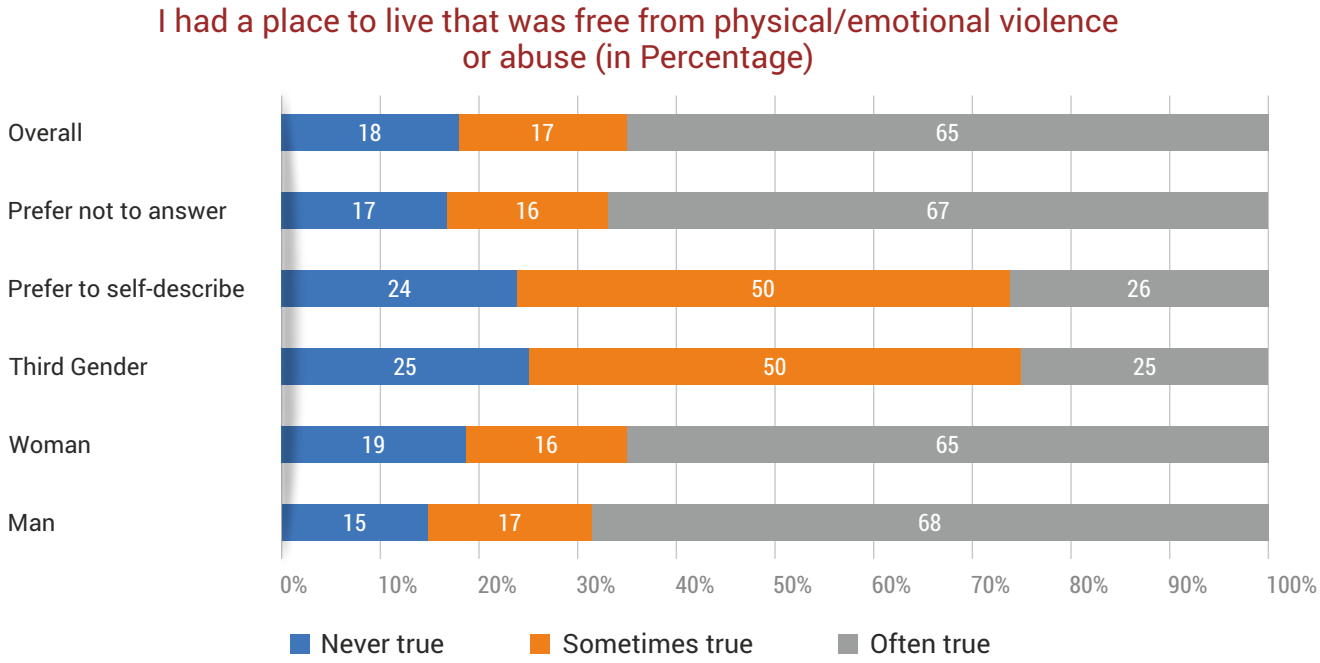


Figure 36 : Belonging: A Place to Live i.e. Free From Drug and/or Alcohol Abuse by Gender

Lastly, the students were specifically asked a question about their identities: "I had a place to live where their identity was respected (e.g. gender identity, sexual orientation, race/ethnicity)". According to analysis (see Figure 37), 68% of male students and 64% female students found this to be often true but only 25% of those with non-conforming gender identities found this to be often true. This was "sometimes true" for 20-21% male and female students but almost 60% for non-conforming students. Interestingly, for 12% male and 14% female students, this was "never true".

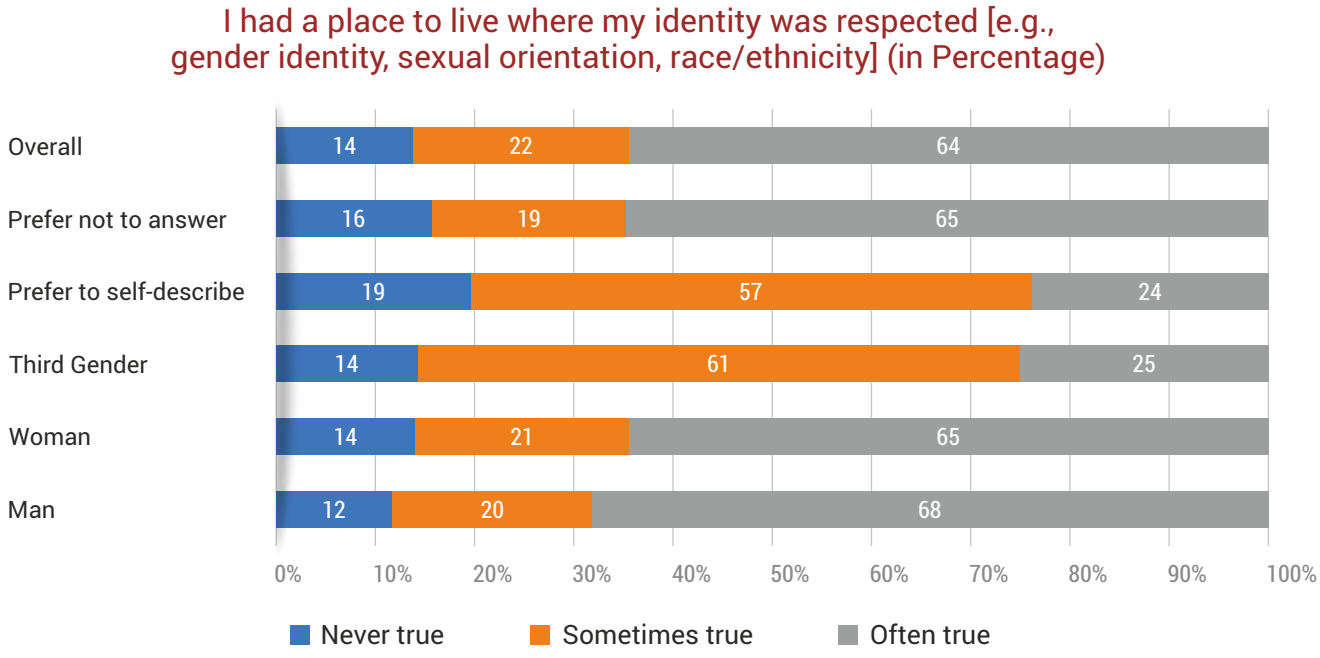


Figure 37 : Belonging: Place to Live Where the Identity was Respected by Gender

Main Findings: Gender-based analysis indicates that, mostly male students felt that their place to live was safe, protected, and free from abuse of drugs, alcohol, physical and emotional violence and where their identity was respected. To some extent, the female students also had a safer and protected place to live during pandemic. But the students, who belong to the third gender, and who self-describe themselves felt that it is only sometimes true or, never true that their place to live is safe, protected or, free from all abuses, and where their identities were respected.

Engagement

The study was focussed on understanding the experience of students of central, state, and private universities in India during the COVID-19 pandemic. Most of undergraduate students focussed on academic learning via online classes. For Masters and PhD students, it is usually different. Several Masters students engage in lab/field work as part of their thesis research work. This is true for almost all PhD students (beyond coursework in the initial months). Hence, it was important to ask - **What did these Masters/PhD students do during the pandemic?**

25% Masters/PhD students from central universities shared that they worked on their thesis/dissertation and 5% defended thesis. This was true for 14% state-public and 11% private university students (see Figure 38). This could be a reflection of the sample composition: a significantly large number of students at central universities were in Masters/PhD programs compared to state-public/private universities. While a good number of students had internships (13% overall), number of students engaged as Teaching or Research Assistants was minuscule. This is not unexpected and is a reflection of the general composition of Indian universities.

The study further bifurcated the demography of respondents in terms of disciplinary engagement under five broad categories of Agriculture, General, Law, Medicine and Technical Education. The discipline specific analysis revealed that, 69.2% pursuing agricultural studies, 23.1% pursuing General courses, 50.0% pursuing Law, 14.3% enrolled in Management Studies, 57.7% studying medicine and 17.8% pursuing technical education were working on their thesis/dissertation.

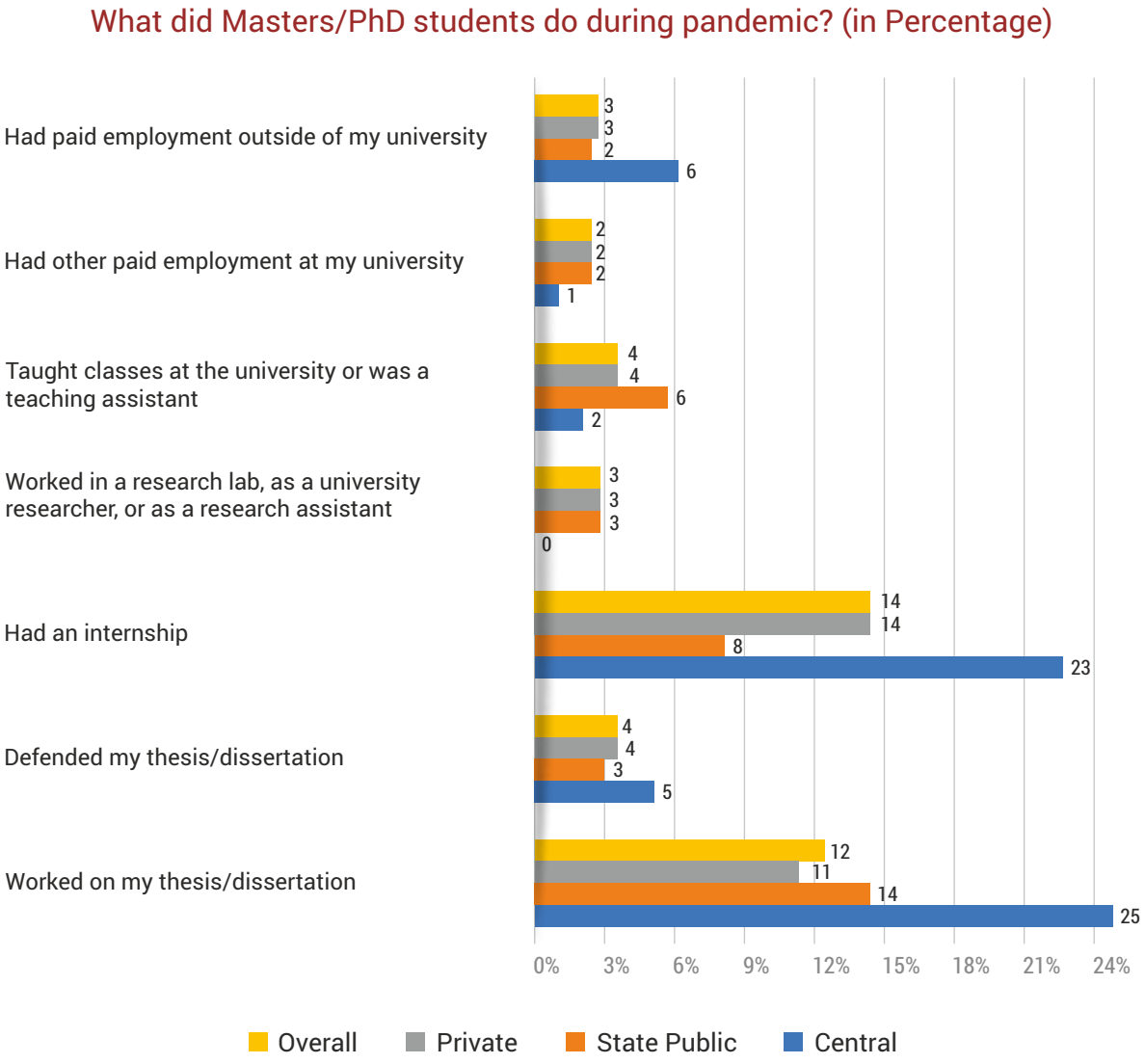


Figure 38 : Student employment/ engagements during the pandemic

e Graduation Experience & Future Plan

COVID-19 has had a significant negative impact on graduating students in the years 2020 and 2021. The final year or semester of study is particularly crucial for graduating students, especially for those who plan to work immediately after graduation. As per the ILO report "Youth & COVID-19: Impacts on Jobs, education, rights and mental health" (2020) even before the pandemic there were 178 million unemployed youth worldwide. The report predicts that the pandemic is expected to increase youth unemployment and would considerably increase the duration of transition from school to work for younger workforce (between 15-24 years in age).

Throughout the academic year of 2020-21, COVID-19 added to the uncertainties in life. These uncertainties have strongly affected the researchers, especially those engaged in field research. Students struggled with collecting data through field work required for their research. As all the academic activities transitioned from physical mode to online mode, including teaching, examinations, workshops, and research, universities found it particularly challenging to carry out and support research operations. Social distancing norms, following COVID-19 safety protocols while working in lab and field with movement restrictions become a challenge leading to significant loss in research studies. (Rashid and Yadav, 2020)

Students from STEM and non-STEM fields faced different problems during the pandemic. STEM students were not able to access laboratories and workshops that are very essential for them to get practical skills. T. Pradeep, Professor at IIT Madras, estimated that the pandemic will likely result in a setback of a minimum 6 months for individuals pursuing Ph.D., irrespective of the stage of research they have reached (Pradeep, 2020).

In the current study, students from central, state-public, and private universities were asked how the COVID-19 pandemic obstructed their progress towards their graduate/professional degree. There were some questions that were also given to determine the obstacles they have faced (see Figure 39).

Inability to conduct research was a major obstacle, especially in central universities, with 67% students highlighting this issue (compared to 38% in state universities and 36% in private universities). In the case of central universities, approximately 30% of the students felt the inability to schedule qualifying academic events such as exams or dissertation defences. Reduced interactions with faculty led to a perception of inadequate access to faculty and thesis advisors. Almost 40% students at central universities, 20% at state universities, and 13% at private universities highlighted this issue. This problem was further exacerbated by the extra care that students had to provide for themselves, and their families during the pandemic.

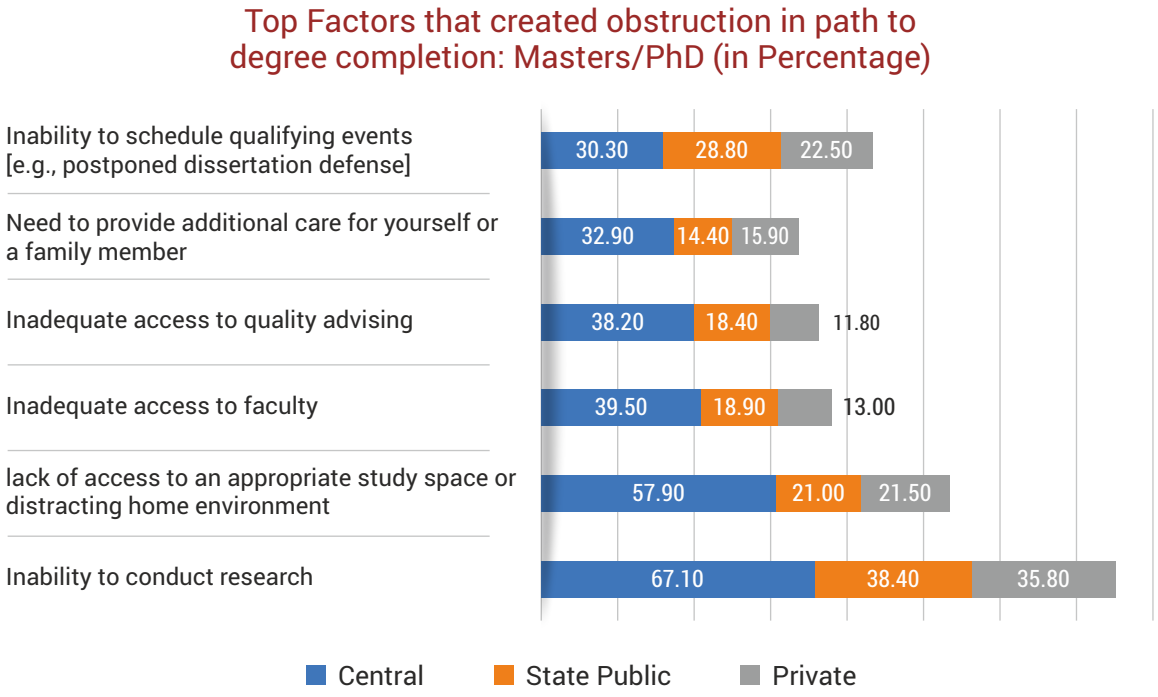


Figure 39 : Top Factors that created obstruction in path to degree completion: Masters/PhD

Mentorship has a demonstrated and crucial role in research work and its successful completion. (J.E. Speer et. al., 2021). Studies have found that negative experiences with mentoring can adversely affect that confidence, mental well-being and career trajectory of research students. (Dolan and Johnson, 2009; Jeannis et al., 2018; Menzel et al., 2019). Therefore, mentoring whether in person or virtual has an important role to play. (J.E. Speer et. al., 2021)

In the current study, students were asked about their experience with their advisor's or faculty mentor's support during the COVID-19 pandemic. In the case of central universities, 46% were very dissatisfied compared to 19% and 13% at state and private universities respectively (see Figure 40). Similar patterns were observed when questioned on faculty advisor's role in helping secure financial resources for research or continued education (Figure 41) or for preparing them for career/job market (Figure 42). Studies indicate that universities and various funding bodies also came under financial strain, and it was feared that projects that are not related to Pandemic studies may even lose importance and may not be attract funding. (Rashid & Yadav, 2020)

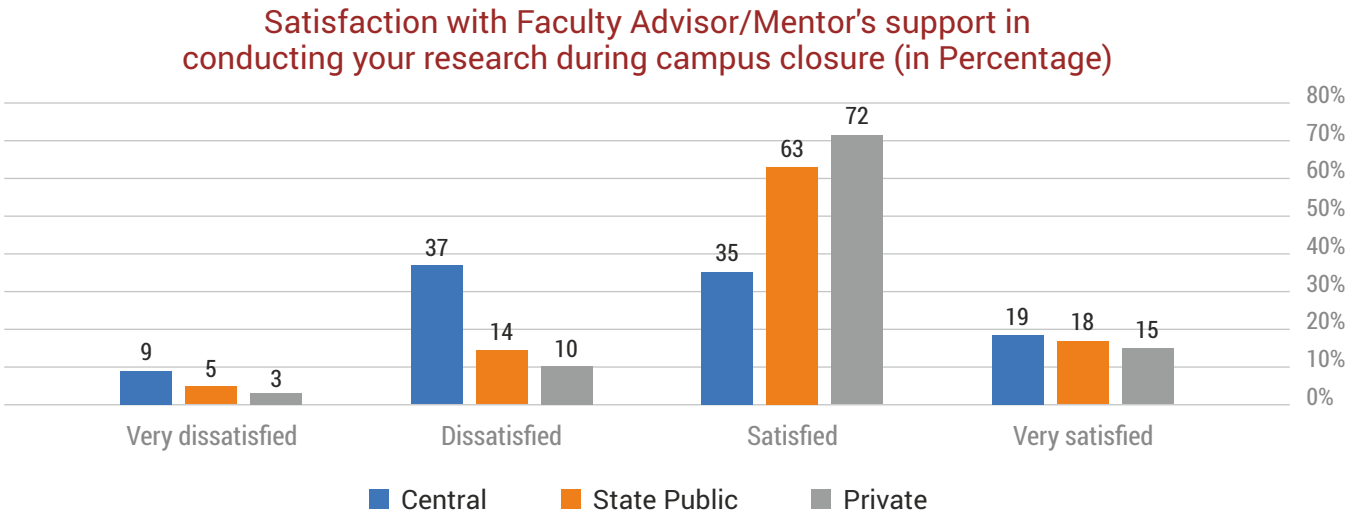


Figure 40 : Satisfaction with faculty advisor & mentor support in conducting research

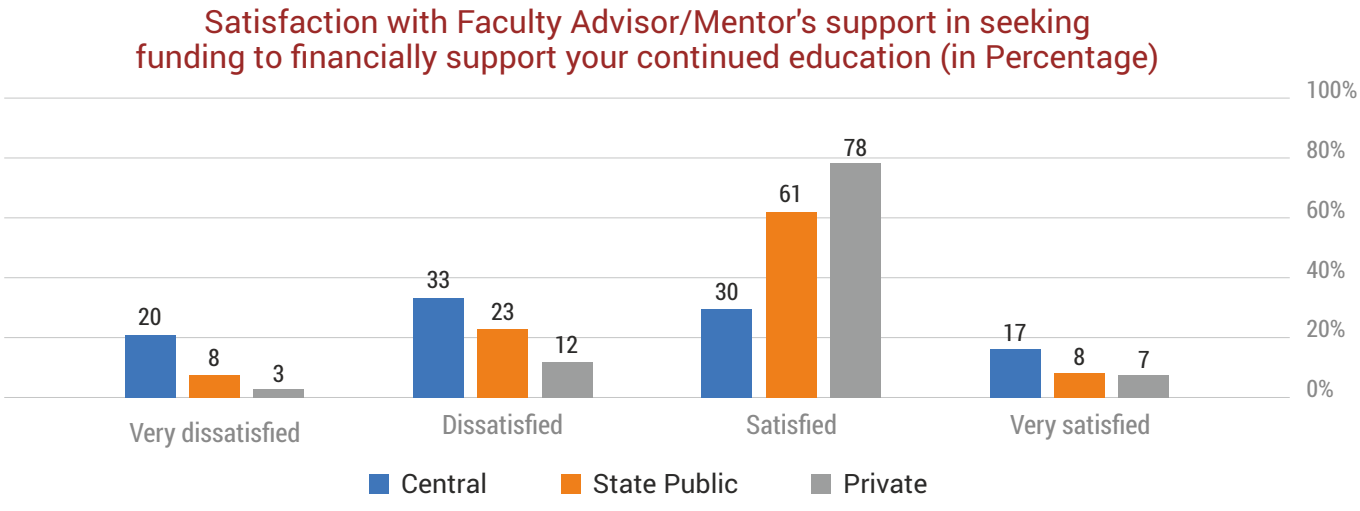


Figure 41 : Satisfaction with Faculty Advisor/Mentor's support in seeking funding

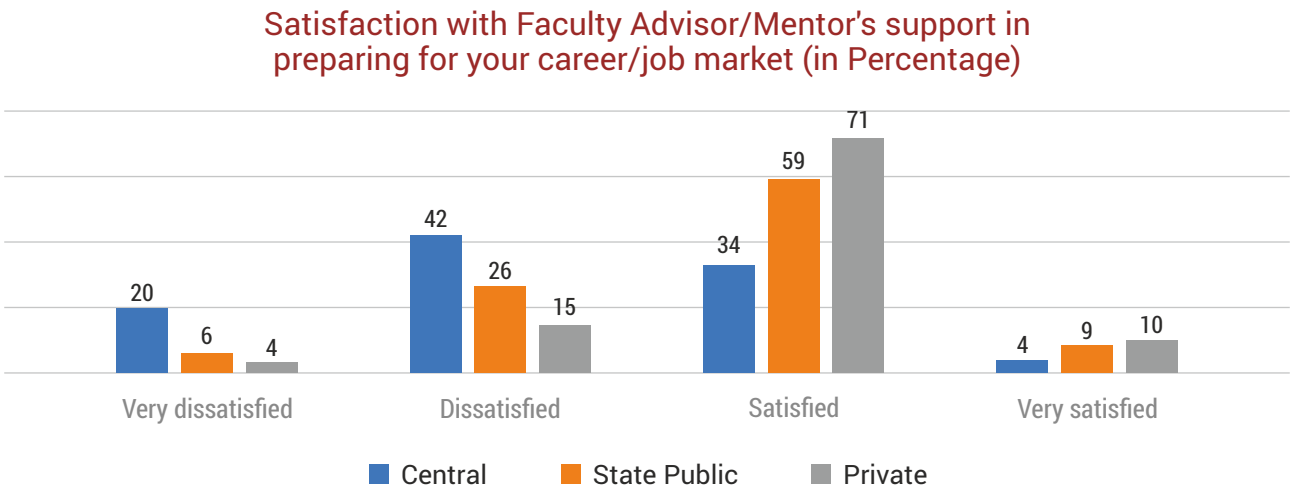


Figure 42 : Satisfaction with Faculty Advisor/Mentor's support in preparing for your career/job market

Mentored research is a collaborative process and requires periodic communication between the supervisor and researcher. The sudden transition led to a loss of in-person interaction which adversely affected the researchers. (J.E. Speer et. al., 2021)

The current study notes a greater dissatisfaction among students from central institutions could be due to sampling biases. The survey did not differentiate between Masters and PhD students, although the nature of their engagement with faculty members is very different. Sample from central universities is likely to have greater proportion of PhD students compared to Masters since state university sample had a lot of students in affiliated colleges which rarely have any PhD programs. Similarly, proportion of PhD students at private universities is lower than central universities.

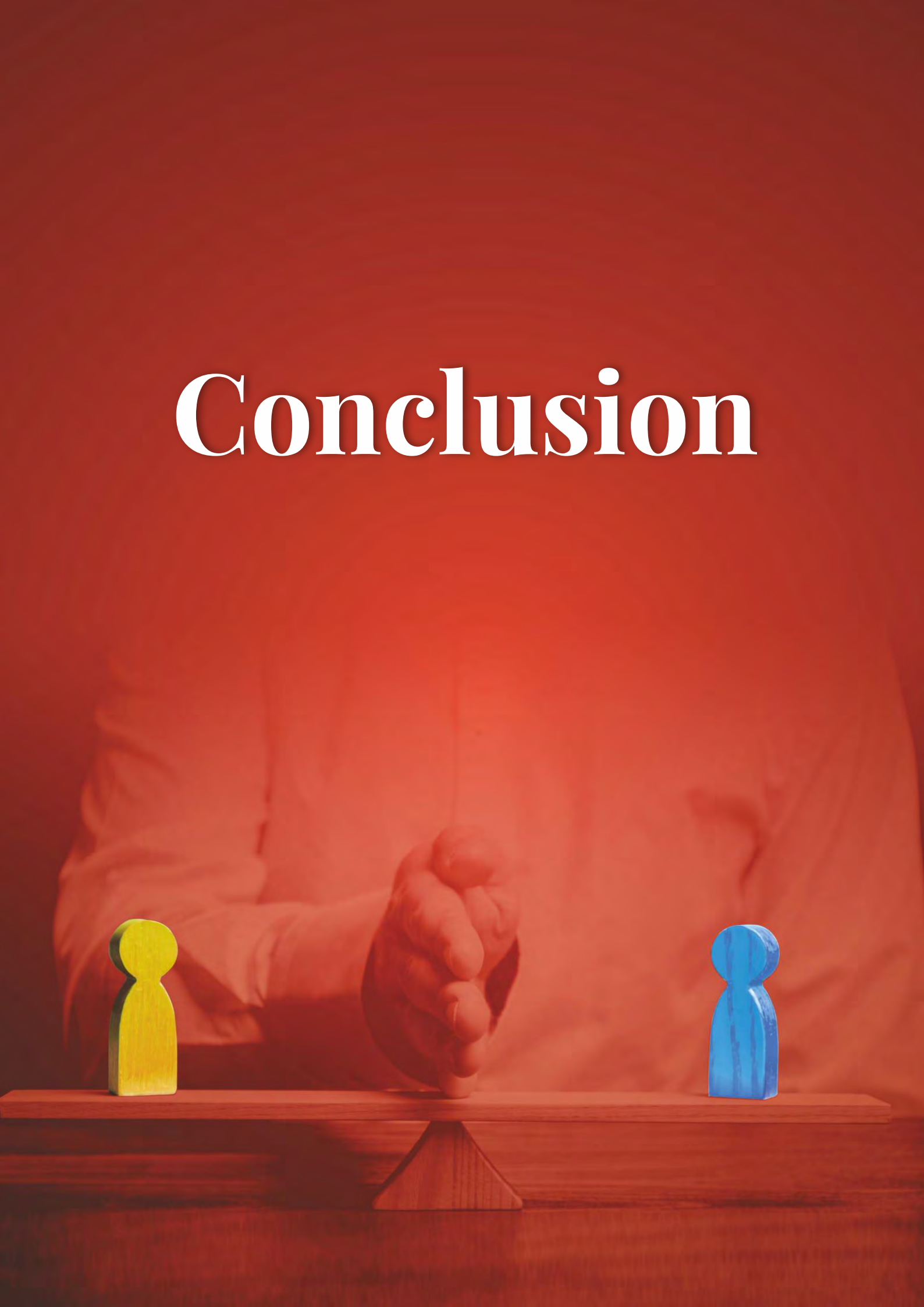
The survey data clearly indicates that the Pandemic has adversely affected future plans of students who were hoping to attain a gainful employment at the end of under-graduate education or are pursuing research studies.

The universities, owing to the abrupt transition to online mode have not been able to accommodate the research requirements; in terms of space, access to labs, funding, virtual labs or software particularly in STEM disciplines. Those students, who are required to conduct laboratory or field work are similarly, disadvantaged. This has adversely impacted the research output of students including their ability to finish their work and future job prospects.

The study also indicates a need for universities to develop a robust virtual mentorship process and policy so as to effectively support research students and reduce the loss of opportunities and prospect faced by students, leading to successful and timely completion of their research work/programme.

Main Findings: Students faced significant obstacles in completing their Masters and Ph.D. degrees owing to inability to access labs and faculty advisors. Private and state-public university students were more satisfied with the support they received from their faculty advisor compared to students from central universities.

Conclusion



7 Conclusion

The SERU-INDIA survey was conducted online to understand student experiences in India during the pandemic. However, ***the survey response has some limitations.*** A major limitation of the study is that: 1) majority of the respondents out of ***6425 responses*** belonged to the middle class and upper-middle or, professional middle-class students. 2) The other major limitation was that only 38 universities participated in the survey. Out of these ***38 universities***, students from only ***4 Central Universities, 20 State Universities and 14 were State Private Universities*** responded to the SERU-INDIA COVID-19 survey. This has the possibility of skewing any kind of analysis based on type of institutions. ***According to AISHE 2018-2019 report***, there were total ***46 Central Universities, 371 State Public Universities and 304 State Private Universities*** in India (MHRD, 2019).

Despite the limitations, analysis of the survey provides some important findings about the student experiences in Indian universities. The analysis of SERU-INDIA survey data indicates that: -

1. Women and third gender students adapted well to the online transition compared to men. This is probably because studying online from home was more accessible for the women and third gender students in the sample.

2. There were no significant differences across socio-economic classes when it came to adaptation to online teaching and learning. This could be because of the sampling bias: majority of the respondents belonged to upper middle or professional middle class and the rest (irrespective of socioeconomic class), who took the online SERU-India survey, already had access to digital technology.

3. Students from multidisciplinary universities found it comparatively easier to adapt to online instruction compared to specialized universities (agriculture, technical, medical, law, and management). This was probably because in the sample, the percentage of respondents from multidisciplinary universities pursuing courses with less need for practical or lab work was higher. Specialized university students could not perform lab/field work and thus faced greater challenges.

4. Lack of interaction and communication with peers in the classroom is the most important obstacle faced by students during online classes. Thereafter, inability to learn effectively in online format appears to be a major obstacle. The findings from the survey also show that compared to female, more male respondents found lack of interaction and communication, as well as the online format as major obstacles for learning. Thus, females adjusted better than men to online learning.

5 Students from private universities appear to be more satisfied with the way their universities responded to the COVID-19 pandemic compared to students from central and state-public universities. These include satisfaction with support received from instructors and the overall quality of courses.

6 A larger percentage of undergraduate, master's and PhD students from private institutions had prior exposure to online learning. With regards to class, more than half of the wealthy students already had taken online courses for academic credits, prior to the pandemic. With regards to gender, women, third gender and those who prefer to self-describe or not to say constitute the largest percentage of students, who had taken online academic courses for credit online, prior to the pandemic. Since distance education always catered to the needs of those who were marginalized within the mainstream and whose needs fell outside of the mainstream system, this finding appears to be obvious.

7 In terms of overall satisfaction with the response of universities, students from all socio-economic classes appear to be equally satisfied with the university's response to the COVID-19 according to this survey.

8 Students from low-income and working-class groups faced more financial hardships compared to students from other socio-economic groups, especially in arranging the digital infrastructure for their studies.

9 The students from central universities faced more financial hardships compared to the students from state-public and private universities. This is probably because the student body is more diverse in central universities. There are more students from poor socio-economic background studying in central universities compared to private universities, where such students face entry barrier due to high fees.

10 The survey shows that irrespective of socioeconomic class, most students faced high levels of stress, anxiety and worries during the pandemic. Gender-based analysis of the survey also shows that, all the gender groups felt nervous, anxious, hopeless, down, depressed, on the edge and worried on most of the days. The mental health and well-being of all gender groups were highly impacted by the COVID-19 pandemic.

11 The survey shows that most of the students from upper-middle or professional middle class had a safer place to live which was free from physical/emotional abuse, drug and/or alcohol abuse and their identity was respected during COVID-19 pandemic. They had a good sense of belonging where they stayed. Mostly, students from wealthy and poor class did not feel that their place to live was safe from aforementioned abuses. This finding is counterintuitive and highlights that sense of belonging and safety is lowest among the richest and poorest. Further research is required to find the reasons for the same.

12 Gender-based analysis shows that, mostly male students felt that their place to live was safe, protected, and free from abuse of drugs, alcohol, physical and emotional violence and respected their identity. To some extent, the female students also had a safer and protected place to live during pandemic. But the students, who belong to the third gender, and who self-describe themselves felt that it is only sometimes true or, never true that their place to live is safe, protected or, free from all abuses. This highlights the need for universities as physical safe spaces for students with non-normative gender identities.

13 The students from central and state public universities faced greater obstacles in completing their Masters and Ph.D. degrees compared to students from private universities during the pandemic.

14 The students from private and state public universities were mostly satisfied with faculty advisor/mentor's support in conducting their research during campus closure compared to students from central universities.

15 Further, students from private and state public universities were more satisfied with faculty advisor/mentor's support in seeking funding to financially support their continued education or, in preparing for their career/job market compared to students from central universities.

Recommendations

8 Recommendations

Based on the analysis and conclusion drawn on various components of the study and aligning with the objectives of the study, the following policy recommendations are suggested:

Macro Level – Central/Federal Government and Apex Bodies:

1. The central government should provide funding to universities to build a corpus of emergency crisis management fund. The government should also make necessary legislations, so that philanthropic and CSR funds could be also brough to central universities to build this corpus of crisis management fund, in line with NEP 2020 recommendation of PPP in financing higher education. The central government should also allocate some funds to the State governments on this account and should also encourage the State governments to raise philanthropic and CSR funds for this purpose.

2. The Ministry of Education could incorporate National survey of student experiences, as part of existing AISHE report, or the Ministry can commission organizations, such as AIU, IIHEd and NIEPA to run yearly surveys and create reports on student experiences. Diverse approaches need to be followed to gather survey data about student experiences, rather than just online survey.

3. In NEP 2020, the government recommended to overhaul teacher education in the country by making teacher's training institutes part of large multidisciplinary research universities and incorporate digital pedagogies to improve teaching and learning experience of students. Based on our survey findings, we recommend that the government should further expedite this process post-pandemic and make teacher's training meet the needs of the fast changing 21st century.

4. The Central government should work closely with the State governments to further expand and expedite the process of implementing the National Digital Communications Policy 2018 to provide more wider access to broadband internet & cloud-based technology across the country, as part of National Broadband Mission.

5. The Ministry of Education could collaborate with the Telecommunications Ministry and Health Ministry to develop a National tele helpline and online portal to provide on-call/on-demand necessary wellness and counselling services to students, faculty and higher education professionals.

Meso level - State Government and Responsible Institutions:

1. The State governments need to cooperate with the Central government to build a corpus of emergency crisis management funds through government, philanthropic and CSR sources at the State-level

2. The Ministry of Education at the State-level should cooperate with the Central Ministry of Education to help run state-level surveys of students' experiences across different HEIs in order to compile National-level data on student experiences annually.

3. The Ministry of Education at the state-level should speed up implementing NEP 2020 recommendation, particularly with regards to teacher education and incorporation of digital pedagogies in the post-pandemic scenario.

4. The State governments should collaborate with the Central government to create their own state-level broadband policies and speed up implementing NDCP 2018 as part of the National Broadband Mission.

5. The Ministry of Education could collaborate with the Central Ministries of Education, Telecommunications and Health to provide wellness and counselling services in the local state languages.

Micro Level - Higher Education Institutions and their Leadership:

1. In the future, diverse approaches need to be followed to gather survey data about student experiences, rather than just online survey, which restricts the sample size and rate of responses. The universities and other HEIs should conduct the survey at their level to analyse the student experiences during the pandemic.

2. Universities need to build a corpus of emergency crisis management fund to support students during similar emergencies in the future. This could be funded from CSR investment, and also philanthropic funding organisations across the private, and public sector.

3. Funding organisations irrespective of government, private or philanthropic should come forward to help the universities by providing support without much bureaucratic or procedural impediments.

4 A special emergency and crisis management cell needs to be established in universities to assist students with administrative processes for graduation and transition to future career/workspace during emergencies.

5 The universities need to focus on redesigning their courses to meet the requirements of online teaching, learning and research. This is because what works in physical classrooms does not necessarily work in online classes.

6 The university and faculty need to create virtual spaces and time to allow peer interaction outside class hours during virtual operations.

7 The faculty and administration need to provide greater support to students, especially when the classes are completely online during emergencies and campus lockdown, following the pandemic.

8 Universities should establish processes to ensure effective virtual mentoring for research students to ensure continuity, collaboration, and completion of research work/programme, degree requirement for graduation.

9 Irrespective of socioeconomic and gender backgrounds of students, universities need to develop a robust service for the mental health and well-being of students. Post-pandemic Universities need to work closely with the public healthcare sector.

10 Universities and HEIs should organised Faculty Development Training Programmes commensurate to the need to deal with such emergency situations and should be equipped with skill for helping students to adapt to the changing environment.

11 The HEIs should establish special counselling centres to help overcome the anxiety, depression and other issues related to their physical, mental health and emotional being.

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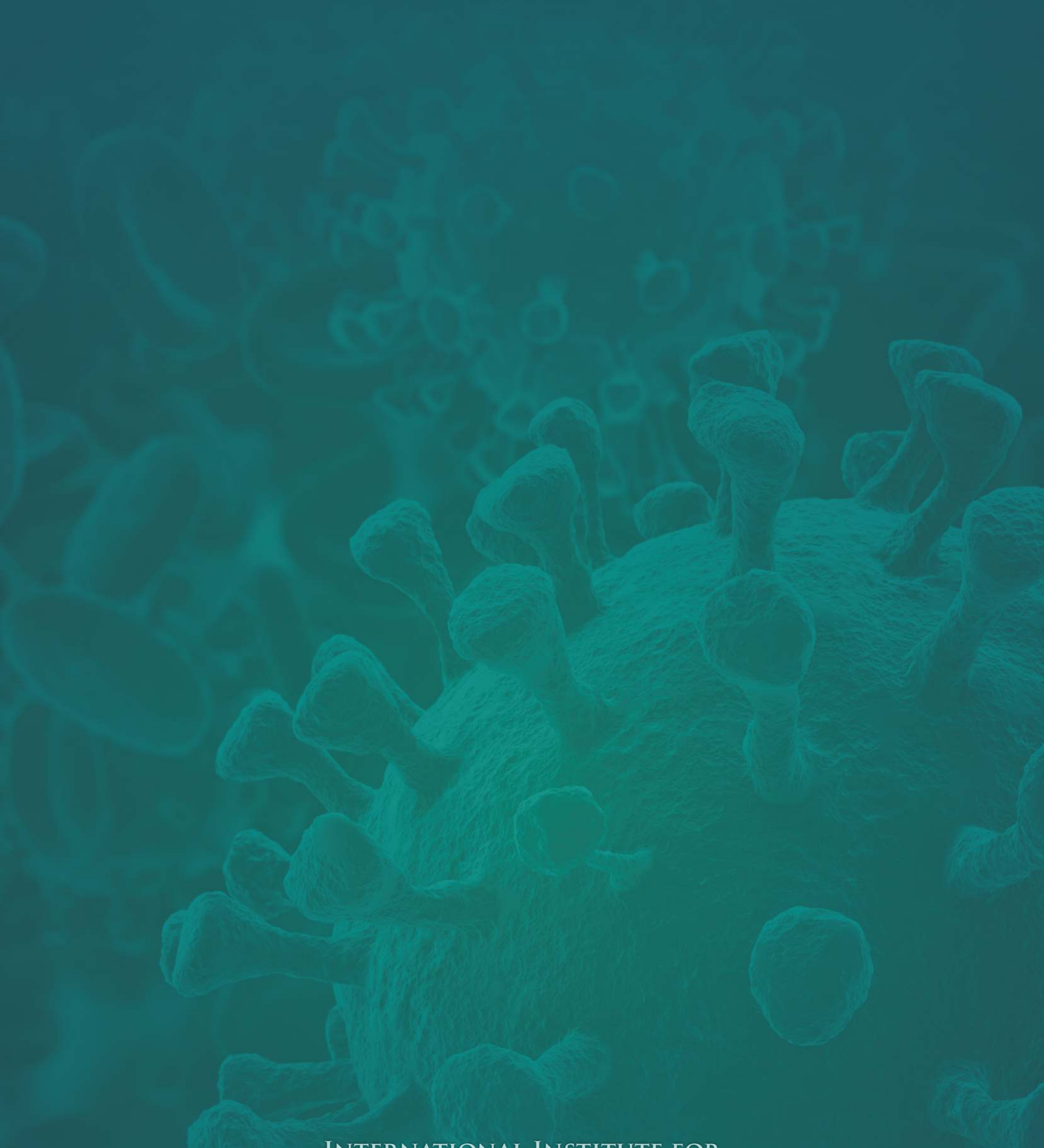

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