Online learning experiences of social work students in India

S. Rama Gokula Krishnan, MSW, PhD

ORCID- 0000-0002-6914-530X

Faculty, School of Social Work, St. Joseph's University, Bengaluru, India

Jeffine J. Joseph, MSW

ORCID- 0000-0001-6499-3206

Assistant Professor, Department of Social Work, Krupanidhi Degree College, Bengaluru

Summary: Ever since the pandemic first broke out in 2020, there has been a swift shift from offline to online mode of education. The present study is aimed at examining the online learning experience among a sample of social work students in India (n = 202) in order to understand the crucial factors that can help improve their learning experience and so that they become effective social workers in the future. **Findings:** The results have highlighted several independent factors such as the mode of connecting to the internet, number of hours of online classes per day, type of field work, rural/urban location of the students, and hours of sleep, among other variables, that are significantly associated with important indicators of the online learning experience of students. **Application:** The results point to the urgent need to reduce the number of hours of online classes, educate students on the importance of sleep, improve internet accessibility along affordability of

learning tools such as laptops, especially for those residing in rural areas, and promote classroom

discussion during online classes, so as to improve the online learning experience of social work

Keywords: Social work; online learning; education; students

students in India and to produce effective social work practitioners.

This is an Accepted Version of the Manuscript

Krishnan, S. R. G., & Joseph, J. J. (2023). Online learning experiences of social work students in India. *Journal of Social Work*, The Author(s). DOI: https://doi.org/10.1177/14680173231207962

Online learning experiences of social work students in India

S. Rama Gokula Krishnan, MSW, PhD

ORCID- 0000-0002-6914-530X

Faculty, School of Social Work, St. Joseph's University, Bengaluru, India

Jeffine J. Joseph, MSW

ORCID- 0000-0001-6499-3206

Assistant Professor, Department of Social Work, Krupanidhi Degree College, Bengaluru

Introduction

The emergence of online distance learning has been rightly termed as a revolution (Kurzman, 2013). The pandemic that struck the world in 2020 has indirectly fueled this revolution to a significant extent. However, the free flow of human and financial capital along with the flow of goods and information, has also been affected as a result of the spread of this deadly virus (O'Leary & Tsui, 2020). Several higher educational institutions around the world have shifted from classroom learning to online distance learning due to the outbreak of covid-19. In this context, the prime objective of this study is to document the online learning experience of a sample of social work students in India, and to record their feedback, so as to provide valuable suggestions for improvement. Online education or online learning can be defined as access to learning experiences through the use of some technology (Benson, 2002, as cited in Moore et al., 2011). In particular, courses in which a minimum of 80 per cent of the content is delivered through the internet is called an online course (Allen & Seaman, 2006, as cited in Bejerano, 2008). Online education often includes the use of video conferencing, chat rooms, and online discussion boards, to name a few (Palvia et al., 2018). The history of online education is closely connected with the history of computer networking with special reference to the invention of e-mail, which is seen as a predecessor of online education (Harasim, 2000). In fact, emails have been used in the past to offer online education to students (Aguilera-Hermida et al., 2021). According to Harasim (2000), online education is marked by three modes of delivery. 1) Adjunct mode, which is the use of technology to improve distance or traditional learning such as the use of the internet for distributing notes and assignments. 2) Mixed mode, which involves a complete integration of networking into the curriculum and in which the course might be divided into two halves, one involving offline or face to face learning, while the other half would involve the use of online lectures or seminars. 3) Totally online mode, as a part of which the entire course is conducted online (Harasim, 2000). One of the recognised best practices concerning online education is student satisfaction related to the

technology, level of access, curriculum/course design, learning outcomes, and interaction and support (Moore, 2005, as cited in Finch & Jacobs, 2012). The crux of this paper is connected to this essential matter.

Review of Literature

The history of online and technologically-assisted social work education goes back to the 1960s in America when the University of California-Berkeley began using the television for developing educational material related to group work and case work (Shorkey & Uebel, 2014, as cited in Lee et al., 2019). The use of video tapes by the University of Chicago to educate social workers in the 1970s and the use of live satellite broadcast in the 1980s by the University of Wisconsin-Maddison, to teach students off campus are also some of the earliest efforts to take social work education to the online realm (Shorkey & Uebel, 2014, as cited in Lee et al., 2019). The 1980s and 1990s also witnessed the use of hyper-text cum computer based teaching and learning of clinical skills to be used in counselling settings (Raymond & Pike, 1999, as cited in Coe Regan & Youn, 2008). In fact, by the year 1989, there were reports of video and audiotapes, apart from fax machines and emails, being used as instruments to teach social work (Cnaan, 1989, ac cited in Siegel et al., 1998). Now, the spread of the internet and increased accessibility of computers has led to an increased interest in online social work education, at least in the west (Moore et al., 2015).

With the improvement in computing technology, today, it is possible to conduct online classes through virtual classrooms and video-call platforms such as Google Classroom, Zoom, Slack, Cisco, and WebEx (Pokhrel & Chhetri, 2021). It is interesting to note that it is not just academic courses that have adopted online teaching and learning as a result of the pandemic, but also professional courses such as social work (Dinh & Nguyen, 2020) and medicine (Muflih et al., 2021), that involve practical components as well. Although there is evidence to suggest that certain improvements in voice and pitch management could enhance the students' online learning

experience (Mahmood, 2021), there are doubts whether it is a viable replacement for face to face or in person learning (Kronenfeld et al., 2021).

It is important to note that social work education in India has also come a long way since its origin in the year 1936, when the Tata Institute of Social Sciences was set up (Dash, 2017). Its evolution and growth since the 1990s is similar to that which has been observed in Taiwan (Chang et al., 2010) and with the adoption of the government's model curriculum in 2001 (Nadkarni & Sinha, 2016), social work gained the recognition it deserved as more and more universities and colleges around the country began offering the course.

Social Work Education in India

As far as the technical requirements for applying for a social work programme in India are concerned, for the Bachelor of Social Work programme, students who have cleared their 12th grade exams from any stream, and students who have a three year undergraduate degree from any stream, for the Master of Social Work programme, are technically qualified to apply for admissions. However, the rate of intake and other requirements such as clearing an entrance test followed by an interview generally varies from one institution to the other. Although most universities do have a library, not all are developed enough to provide access to online library resources to students, The effectiveness of teaching also varies from institution to institution. Most urban centred and well paying institutions attract the most qualified and experienced staff and also possess the necessary infrastructure facilities, thereby contributing to a higher quality learning experience for the students. While undergraduate students are expected to study five papers per semester or ten papers per year, post graduate students are expected to study six papers per semester or twelve papers per year. Students from both programmes are also placed in field work agencies during every semester.

Online Social Work Education in India

The origin of online social work education in India dates back to the year 2004 when the Bachelor of Social Work programme was offered as an online distance programme by the Indira Gandhi

National Open University (Dash, 2018). The same university in 2008, began offering the first online or distance education based Master of Social Work programme, and as of the year 2018, 25 universities across 14 states in India were offering social work eduction through the online distance learning mode (Dash, 2018). This number is now sure to have grown with the advent of the pandemic, and due to the increased improvement in available technology for online teaching and learning. Currently, there is a paucity of specialised curriculum for online social work education in the country and as a result, universities offering social work programmes employ their own pedagogy in this regard. For example, the Indira Gandhi National Open University (2018) offers students the option to opt for the medium of instruction (either Hindi or English) and has listed out self-instructional print material as the primary tool for teaching and learning along with audio and video material as a supplementary tool for the same. It may be noted that while universities such as IGNOU that have been offering online social work education even before the pandemic are more accustomed to it and have a system in place, due to the dramatic shift from offline learning to online learning caused by the pandemic (Daniel, 2020), apart from these 25 universities, most other universities were unprepared for this, and as a result, online lecture appears to be the primary pedagogy employed by most teaching staff in India. It is important to note that lack of Internet connectivity and lack of access to the internet in particular, have been previously identified as barriers to online learning (Muilenburg & Berge, 2005). While classroom interaction or discussion has been reported to improve learning among students (Murphy et al., 2009), there is a need to investigate the quality of online discussion in online classrooms in India. As far as assessment is concerned, the model curriculum developed by the University Grants Commission (2001) is used as a reference even in the online scenario. According to the model, the mode of assessment varies from paper to paper, although examinations and assignments constitute the two dominant methods (University Grants Commission, 2001). The only major difference since the outbreak of the

pandemic, is the use of the online learning system for lectures. The lack of innovation, especially in the pedagogy required for this shift is unfortunately apparent.

There are some studies that have described innovative pedagogies that could perhaps be replicated in other parts of the world. For example, Kourgiantakis and Lee (2020) have reported on their own innovative work in the North American context, including the use of online role-play wherein the students play the role of a social worker with themes surrounding the covid-19 pandemic and antiracism. The authors have also discussed the practice of creating an online discussion board to promote cross cultural social work practice. Gad (2022), reports on research regarding e-learning for social work students in the Middle East. The focus was on students' experiences with e-learning and the findings include a proposed conceptual model of e-learning in Social Work Education. The author has proposed a conceptual model of e-learning for social work students that broadly covers opportunities, partnership, competence, and employability. There are several such innovative pedagogies that can be tested and applied to improve online social work education. One must also remember that the type of pedagogy employed also depends on the country in question and the existing infrastructure facilities. In the context of international interest in online education for social work students, the present study contributes to ongoing research by focusing on the experiences of social work students in India.

Theoretical Framework

The researchers have adopted a theory of online learning (Hrastinski, 2009) as the theoretical base for the present study. This theory by Hrastinski (2009) lays emphasis on enhancing learners' participation in order to enhance online learning. The theory also highlights the importance of having access to physical tools such as a computer, for improving the online learning experience of students. According to Hrastinski (2008), online learner participation can be classified into six levels-accessing e-learning environments, writing, quality writing, writing and reading, actual and perceived writing, and taking part in a dialogue. Hrastinski (2019) also notes that whether the form

of higher education is online or otherwise, a community of inquiry framework is an ideal framework for higher education, wherein there are open, purposeful, and disciplined discourses, as well as reflection. The researchers are curious to know whether elements of this framework are in use in the Indian context and in the present study.

In developing countries such as India, device ownerships (computers) and issues with internet connectivity have also been observed to hinder online learning (Mathrani et al., 2021). The researchers have also developed their tool for data collection based on this theory and believe that this theory could help in interpreting the findings as well. It is also hoped that the findings from this study will contribute to this theory and the literature on online learning among social work students in particular, and students in general.

Materials and Methods

The study is primarily quantitative in nature and the researchers have opted for an exploratory research design, which has been adopted since the main objective of the present study is to secure initial and undiscovered information on the online learning experience of social work students in the country. Since, the present study is exploratory in nature (Singh, 2021), an online survey was used to ensure objectivity and to enhance the generalisability of the research.

Study Participants

The researchers purposively selected 14 colleges/universities/institutes offering a social work programme (either an undergraduate or postgraduate programme, or both), from different parts of the country to ensure diversity in the sample, which is very important, and to further improve the generalisability of the findings. The questionnaire was then sent to only those online groups from the selected colleges/universities/institutes, whose student members met the inclusion criteria. Initially, a total of 208 responses were received, of which six responses had to be discarded as they were error ridden. Thus, the final sample included 202 responses (n = 202). Only those who were at-least 18 years of age, were currently pursuing an undergraduate or postgraduate degree in social

work from a government recognised college/university/institute in India, and were attending online classes, were included in the study.

Important Variables

Since the main objective of the present study is to understand the online learning experience of the students of social work, apart from the variables related to the basic details of the respondents and variables associated with the factors related to their course (as seen in table 1), other variables related to the online classes such as the ability to understand the content being taught in the class, the quality of online discussions in the classroom, the quality of internet connectivity, the extent to which the respondents felt comfortable with online classes, and the ability to focus during online classes, were also included in the study (as seen in table 2). This also included the variable-hours of sleep, because previous studies suggest that sleep along with other factors (Wolfson & Carskadon, 2003), could hamper students' online learning experience (Rahman, 2021). These variables were included and treated as important variables after reviewing previous studies and after conducting informal discussions with students of social work who were attending online classes when the data was collected. It may be noted that the respondents' place of dwelling has been classified into three categories- rural, semi-urban, and urban, to better understand the impact of living in a village (rural), living in a slightly more developed but still partly rural area (semi-urban), and living in a town/city (urban area) on their online learning experience. The researchers have explored the relationship between many of these variables, especially factors such as to the ability to understand and its association with the number of hours of online classes per day, the ability of the students to focus and its association with having a noise free environment and so on.

Tools of Data Collection

An online questionnaire was developed to collect data from the respondents. The questionnaire had two parts. The first part of the questionnaire contained questions relating to the basic details of the

respondents (seen in table 1). Those questions were included after reviewing previous studies.

These have all been treated as the independent variables in the present study.

The second half of the questionnaire contained five statements (seen in table 2), the responses of which were measured on a five point likert scale, with the responses ranging from strongly agree (4) to strongly disagree (0). These five statements have been treated as the dependent variables in the study, with a higher score being indicative of a better online learning experience in each of those domains/factors. The rationale behind introducing these statements was that there have been a few studies that indicate that the quality of online learning experience of students could be connected to factors such as good internet connectivity along with the ability to focus during online classes (Hussein et al., 2020), quality of the teaching/instructor (Hussein et al., 2020), and classroom discussions during online classes (Wilson et al., 2007), to name a few. Each respondent took about 15-20 minutes to complete the survey. Before finalising the questionnaire, a pre-test was conducted with five social work students. No major changes were made to the questionnaire. The data was collected in February, 2022.

Data Storage and Analysis

The collected data in excel form was stored online in a secure google account following which it was exported to PSPP, a data analysis software (Yagnik, 2014). Apart from the descriptive statistics (Table 1), a series of Kruskal Wallis tests were also carried out (Table 2).

Results and Discussion

Descriptive Statistics

The descriptive statistics covering the basic characteristics of the respondents along with other independent variables can be observed in table 1. It may be noted that due to the ongoing pandemic, field work initiatives for social work students around the world, have been impacted with some countries having to modify the standards of field education as a result of the outbreak (Morley & Clarke, 2020). In India, while some institutions have opted for a purely online field work for their

students, others have opted for a purely offline field work, and in some cases, institutions have adopted a mix of offline and online field work, based on the number of daily cases being reported and the status of vaccination of the students.

Results of the Kruskal Wallis Test

The Kruskal Wallis test is a non-parametric analysis of variance. The researchers opted for Kruskal-Wallis test as some of the variables in the study were found to be non-normally distributed and because the Kruskal-Wallis test has been widely reported to be more powerful than the one way analysis of variance test, in the case of asymmetric variables (Hecke, 2012). Furthermore, the dependent variables are ordinal in nature. It may be noted that although all the independent variables were included in the analysis, only the statistically significant ones have been reported in table 2, in order to avoid overcrowding of the table.

Ability to Understand

Since clarity in teaching has been found to be associated with student satisfaction and achievement (Hines et al., 1985), it is widely viewed as a key factor with regard to the online learning experience of students. From table 2, that shows the results of the Kruskal Wallis test, it can be inferred that an increase in the number of online classes per day, beyond a certain limit (five or more than five hours), is detrimental to the ability of respondents to comprehend what the teachers are teaching in class (p<0.05), which is indicative of online learning fatigue that warrants further investigation in the future. Apart from this, the number of hours of sleep was also found to be associated with the factor-understandability, with those respondents who slept for seven or more than seven hours, being able to have a greater understanding of topics being covered in class (p<0.05) when compared to those respondents who slept for fewer hours. This is in line with a previous study where a positive relationship between normal sleep and academic performance was identified (Abdulghani et al., 2012).

Classroom Discussion

Little is known on how satisfied or unsatisfied students are with the amount of online classroom discussion and more importantly, significant factors that might be associated with it. One of the critical components of social work education is field work. The results of the Kruskal-Wallis test (Table 2) suggest that students who've only had online field work and those who have had no field work experience, are more unsatisfied with the level of online classroom discussion (p<0.05). This is understandable as they have had no face to face field work interactions, and as a result, require classroom discussion to stimulate their interest and satisfaction with online learning. Similarly, those who typically sleep for fewer hours are also unsatisfied with the amount of classroom discussion (p<0.01). It is pertinent to note that existing literature has shown that the measures of sleep and social interaction experience are related (Totterdell et al., 1994), and with the hectic online life of many students since the beginning of online classes, sleep patterns have been impacted due to increased screen time, among other factors (Bruni et al., 2021).

Internet Connectivity

In India, there are still several parts of the country that are yet to be connected with high speed internet. This is particularly true in the case of rural areas whose residents constitute less than one-third of the fourth generation mobile network technology market in the country (Jha & Saha, 2021). Moreover, broadband connections in rural homes are also a rare sight. Therefore, it is not entirely surprising to note that those who are living in rural areas are less satisfied with the quality of internet connectivity for attending online classes (p<0.05) as seen in the results of the Kruskal Wallis test (Table 2). Specifically, those who are using mobile network/hotspot to connect to the internet as opposed to a broadband/WiFi connection, are less satisfied with their internet connection (p<0.001), and so are those who use a mobile phone rather than a laptop/desktop (p<0.05). Since many households in rural India are yet to experience broadband/WiFi or high speed fourth generation mobile internet connection, and as many cannot afford a laptop/desktop connected to a

broadband/WiFi internet connection, many are reliant on the third generation mobile network, which is inferior in terms of speed when compared to WiFi (Gass & Diot, 2010). These factors are undoubtedly major barriers that prevent students from enjoying a good online learning experience. The other hurdle is a form of internet hogging wherein several people in the same household might be simultaneously using a common internet connection such as a mobile hotspot or even a slow broadband/WiFi connection, for attending online classes, work related online meetings, or streaming bandwidth intensive content. This is a possible explanation for why those who reported lower satisfaction with their internet connection, also felt that they were not in a relatively noise free environment for attending online classes (p<0.01), with those attending online classes in their friend's/relative's house, reporting a similar concern with regard to internet connectivity (p<0.014). Simply put, when there are too many people using the same internet source, that too while using bandwidth hungry applications, the internet speed/quality can be affected (Zheleva et al., 2015). The other interesting finding is that those who are pursuing an undergraduate degree in social work (BSW) are more satisfied with their internet connectivity as opposed to those who are pursuing a post graduate degree in social work (MSW) (p<0.01). This is explained by a cross tab analysis that indicates that majority (59.7 per cent) of the respondents pursuing an undergraduate degree in social work (BSW) use broadband/WiFi to connect to the internet instead of the less effective mobile data/ hotspot. On the other hand, less than one-third (32.6 per cent) of the respondents pursuing a post graduate degree in social work (MSW) use broadband/WiFi for attending online classes.

Level of Comfort

As highlighted previously, access to the internet is a very important component of online education. Apart from this, there are also other factors such as irregular power supply, affecting the regular powering of electronic devices in rural India, that act as barriers. Such factors explain why respondents living in rural areas are less comfortable while attending online classes when compared to those living in semi-urban and urban areas (p<0.05). The constant threat of power outages

combined with poor internet connectivity are bound to cause discomfort to rural students as borne out by the results of the Kruskal Wallis test in table 2.

Ability to Focus

A noise-free environment is essential for the students to be able to focus, and in particular, to improve their academic performance (Shield & Dockrell, 2003). This is why those who have stated that they are able to attend online classes in a noise-free environment also feel that they are able to focus during online classes (p<0.05). Apart from this, those who are attending five or more than five hours of online classes on a typical day, are finding it more difficult to focus during online classes as seen through the results of the Kruskal Wallis test (p<0.01). This is further evidence of online learning fatigue, affecting the online learning experience of the students.

Implications for Practice

The pandemic has forced more and more offline activities to be shifted online. The education sector was one of the first to adopt this shift following which there have been studies conducted examining it (Lei & So, 2021). However, social work is a unique field of education cum practice, and the paucity of studies examining this shift, especially almost two years after this shift began in developing countries such as India, motivated the researchers to undertake the present study. The findings of the study have reflected the need for intervention at different levels. The present study provides statistical evidence for online learning fatigue among students who are having to attend five or more than five hours of online class on a typical day. In fact, majority of the respondents in the present study fall under this category. In India, many institutes of higher education also function on Saturdays. The effects of this have been reflected on the variable-'Ability to Understand' and its association with hours of sleep as indicated by the results of the Kruskal Wallis test (p<0.05). Moreover, majority of the students in the present study have five or more than five hours of online classes per day (table 1) which could also be preventing students from engaging in meaningful discussions as part of the community inquiry framework explained by

Hrastinski (2019). In the light of this finding, it is suggested that the government and institutes of higher education could consider reviewing the number of required online teaching hours per semester and there could be a cap/limit placed on the maximum number of online classes a teacher can take in a given week. There is also an urgent need to re-examine the amount of workload in the form of online assignments given to students. In one recent nationwide study conducted in America, it was found that field work placements had been greatly disrupted due to the pandemic and that students were expected to transition from offline to online field work without any specific training (Davis & Mirick, 2021). Kelly et al. (2020), however note that simulations of field work and case studies of an interdisciplinary nature can be useful. In the past, there have been instances where the use of tools such as digital video disc (DVD) based simulations for teaching clinical field work skills have been rated well by the students (Williams et al., 2010). In the India, there is a need to find ways to safely resume offline field work or to use simulations to help improve the online field work experiences of students.

When it comes to online classes, there is one facet that is perhaps more important than anything else and that is good internet connectivity, based on which the online learning experience of students is heavily dependent. The results from the present study point to a serious problem in this context. Those living in the rural areas with poor internet connectivity and without sufficient means to afford a decent laptop/desktop are unfortunately being left behind. They are unable to exercise their right to education despite paying the required college fees. Hence, the government could consider engaging in greater efforts to improve access to the internet, especially for those residing in rural areas. Colleges could consider collaborating with companies and supply laptops at subsidised rates for students hailing from rural areas. Another suggestion is that colleges could work on improving their infrastructure in terms of hostel and internet facilities and make it more affordable, so that more students from rural areas have the option to stay in the hostels and attend online classes without having to experience disruptions in terms of internet connectivity or struggle to focus

during online classes owing to a noisy environment, in case of another outbreak in the near or not so near future.

Overall, the results of the present study have also shown that colleges, universities, and institutes offering social work education in the online mode need to restructure their online teaching pedagogy and their course objectives to ensure that it enhances the students' ability to understand what is being taught, improves classroom discussion and their level of comfort in attending online classes, apart from removing barriers that hinder their ability to focus in class.

Limitations of this study

While this research is specific to India, it contributes to a world-wide picture that is being created by researchers in many different parts of the globe. In addition, several of the issues highlighted in the present study are not specific to India and have global relevance. However, despite these positives, the present study lacks qualitative data which could have further enriched the results. Qualitative tools such as interviews or focus groups are necessary to develop a more in-depth understanding of student experiences.

Conclusion

The findings of the present study highlight the need to reduce the number of hours of online classes, find ways to safely resume offline field work, or use simulations to improve online field work, educate students on the importance of sleep, improve internet accessibility along affordability of learning tools such as laptops, particularly for those residing in rural areas, adopt pedagogies appropriate for online teaching and learning, and promote classroom discussion during online classes, among other factors, to help improve the online learning experience of social work students. It has to be added that the theory of online learning by Hrastinski (2009) was found to be accurate in this case in several aspects. The findings also point to the fact that among the six different levels of online learner participation (Hrastinski, 2008), the lack of an 'adequate e-learning environment', 'reading', and 'taking part in a dialogue', are the three levels in particular that are in

need of serious improvement to enhance the online learning experience of students. At the end of the day, field work lies at the heart of social work education. This is precisely why online social work education in India has several barriers to cross. Since a major part of the learning in social work occurs in the field, there is a need to find ways to help students understand the content being taught in the online scenario despite the absence of face to face field experiences.

Ethical Considerations

A written consent was obtained from all the respondents. Furthermore, the researchers have adhered to the principles laid out in the Belmont Report (Zucker, 2007), and ensured that none of the questions or items in the questionnaire were hurtful, inappropriate, or unethical in any manner. An ethical approval for the present study was also secured by the researchers from St. Joseph's University, Bengaluru, India. The reference number of the letter is 2022-SJRI-2. The researchers have also ensured that the study conforms to the principles embodied in the Singapore Statement on Research Integrity.

Acknowledgement

The researchers would like to express their heartfelt gratitude to all the respondents who took time from their busy schedule to take part in the study. Thank you one and all.

Declaration of Interest

The authors report that there are no competing interests to declare.

Table 1- Descriptive Statistics (n =202)

Variables	N	%	x (min) (max)
Age group (yrs)			
18-21	99	49	
22 or 22+	103	51	21.81 (18) (34)
Gender			
Male	64	31.7	
Female	138	61.3	
Programme			
Bachelor of Social Work (BSW)	67	33.2	
Master of Social Work (MSW)	135	66.8	
Location			
Rural	56	27.7	
Semi-urban	69	34.2	
Urban	77	38.1	
Place from where o	online cla	sses are attended	
Home	194	96	
Friend's/Relative's Home	6	3	
College	2	1	
Hours of online cla	ss per da	y	
1- 4	70	34.7	4.78 (1) (8)
5 or 5+	132	64.3	7.70 (1) (0)

ending or	nline class					
154	76.2					
48	23.8					
g to the i	nternet					
118	58.4					
84	41.6					
ment dur	ing online classes					
156	77.2					
46	22.8					
in the pa	st one year					
24	11.9					
72	35.6					
89	44.1					
17	8.4					
Hours of sleep on a typical night						
90	44.6	6 66 (1) (9)				
112	55.4	6.66 (4) (8)				
	154 48 2 to the in 118 84 ment dur 156 46 in the par 24 72 89 17	to the internet				

Table 2-Results of the Kruskal Wallis Test (n = 202)

Ability to Understand							
Hours of online class per day							
1- 4	N	x̄ rank	χ^2	df	p value		
1- 4	70	114.27	5.79	1	0.016*		
5 or 5+	132	94.73					
Hours of sleep	Hours of sleep on a typical night						
4-6	90	90.92	6.02	1	0.014*		
7 or 7+	112	110					
Classroom Di	scussion						
Type of field v	vork in th	ne past or	ne year				
Online field work	24	73.92	11.11	3	0.011*		
Offline field work	72	115.90					
Mix of online and offline field work	89	98.75					
No field work	17	93.85					
Hours of sleep	Hours of sleep on a typical night						
4-6	90	88.69	8.49	1	0.004**		
7 or 7+	112	111.79					
Internet Connectivity							
Programme							
Bachelor of Social Work (BSW)	67	119.07	9.73	1	0.002**		

Master of Social Work (MSW)	135	92.78				
Device used for attending online class						
Mobile Phone	154	96.22	5.68	1	0.017*	
Laptop/ Desktop	48	118.45				
Mode of conne	ecting to	the interr	net			
Mobile data/ Hotspot	118	88.85	14.28	1	0.000***	
Broadband/ WiFi	84	119.27				
Place from wh	ere onlin	e classes	are atte	nded		
Home	194	103.82	8.57	2	0.014*	
Friend's/ Relative's Home	6	39.42				
College	2	62.25				
Location						
Rural	56	85.96	7.01	2	0.030*	
Semi-urban	69	102.22				
Urban	77	112.16				
Noise-free env	rironment	t during o	online cl	asses		
Yes	156	108.24	9.77	1	0.002**	
No	46	78.65				
Level of Comfort						
Location						
Rural	56	92.58	6.53	2	0.038*	
Semi-urban	69	94.22				
Urban	77	114.51				
Ability to Focus						
Noise-free environment during online classes						

Yes	156	106.60	5.62	1	0.018*	
No	46	84.22				
Hours of online class per day						
1-4	70	115.81	6.93	1	0.008**	
5 or 5+	132	93.91				

^{***} Statistically significant at a very high level (p<0.001)

^{**} Statistically significant at a high level (p<0.01)

^{*} Statistically significant at a moderate level (p<0.05)

References

Abdulghani, H. M., Alrowais, N. A., Bin-Saad, N. S., Al-Subaie, N. M., Haji, A. M. A., & Alhaqwi, A. I. (2012). Sleep disorder among medical students: Relationship to their academic performance. *Medical Teacher*, *34*(sup1), S37–S41. https://doi.org/10.3109/0142159X.2012.656749

Aguilera-Hermida, A. P., Quiroga-Garza, A., Gómez-Mendoza, S., Del Río Villanueva, C. A., Avolio Alecchi, B., & Avci, D. (2021). Comparison of students' use and acceptance of emergency online learning due to COVID-19 in the USA, Mexico, Peru, and Turkey. *Education and Information Technologies*, 26(6), 6823–6845. https://doi.org/10.1007/s10639-021-10473-8

Bejerano, A. R. (2008). The Genesis and Evolution of Online Degree Programs: Who Are They For and What Have We Lost Along The Way? *Communication Education*, *57*(3), 408–414. https://doi.org/10.1080/03634520801993697

Bruni, O., Malorgio, E., Doria, M., Finotti, E., Spruyt, K., Melegari, M. G., Villa, M. P., & Ferri, R. (2021). Changes in sleep patterns and disturbances in children and adolescents in Italy during the Covid-19 outbreak. *Sleep Medicine*. https://doi.org/10.1016/j.sleep.2021.02.003

Coe Regan, J. A. R., & Youn, E. J. (2008). Past, Present, and Future Trends in Teaching Clinical Skills Through Web-Based Learning Environments. *Journal of Social Work Education*, 44(2), 95–116. https://doi.org/10.5175/JSWE.2008.200600592

Chang, Y.-F., Ku, Y.-W., & Hsu, C.-Y. (2010). Social Policy Study in Taiwan. *Asia Pacific Journal of Social Work and Development*, 20(1), 95–110. https://doi.org/10.1080/21650993.2010.9756078

Daniel, S. J. (2020). Education and the COVID-19 pandemic. *PROSPECTS*, 49(1), 91–96. https://doi.org/10.1007/s11125-020-09464-3

Dash, B. M. (2017). Revisiting Eight Decades of Social Work Education in India. *Asian Social Work and Policy Review*, 11(1), 66–75. https://doi.org/10.1111/aswp.12114

Dash, B. M. (2018). Social work education through open and distance learning in India: Opportunities and challenges. *Social Work Education*, *37*(6), 813–820. https://doi.org/10.1080/02615479.2018.1481204

Davis, A., & Mirick, R. G. (2021). COVID-19 and Social Work Field Education: A Descriptive Study of Students' Experiences. *Journal of Social Work Education*, *57*(sup1), 120–136. https://doi.org/10.1080/10437797.2021.1929621

Dinh, L. P., & Nguyen, T. T. (2020). Pandemic, social distancing, and social work education: Students' satisfaction with online education in Vietnam. *Social Work Education*, *39*(8), 1074–1083. https://doi.org/10.1080/02615479.2020.1823365

Finch, D., & Jacobs, K. (2012). Online Education: Best Practices to Promote Learning. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 56(1), 546–550. https://doi.org/10.1177/1071181312561114

- Gad, S. (2022). E-Learning and Social Work Education during COVID-19. *Public Organization Review*. https://doi.org/10.1007/s11115-022-00613-0
- Gass, R., & Diot, C. (2010). An Experimental Performance Comparison of 3G and Wi-Fi. In A. Krishnamurthy & B. Plattner (Eds.), *Passive and Active Measurement* (pp. 71–80). Springer. https://doi.org/10.1007/978-3-642-12334-4_8
- Harasim, L. (2000). Shift happens: Online education as a new paradigm in learning. *The Internet and Higher Education*, *3*(1), 41–61. https://doi.org/10.1016/S1096-7516(00)00032-4
- Hecke, T. V. (2012). Power study of anova versus Kruskal-Wallis test. *Journal of Statistics and Management Systems*, 15(2–3), 241–247. https://doi.org/10.1080/09720510.2012.10701623
- Hines, C. V., Cruickshank, D. R., & Kennedy, J. J. (1985). Teacher Clarity and Its Relationship to Student Achievement and Satisfaction. *American Educational Research Journal*, 22(1), 87–99. https://doi.org/10.3102/00028312022001087
- Hrastinski, S. (2008). What is online learner participation? A literature review. *Computers & Education*, *51*(4), 1755–1765. https://doi.org/10.1016/j.compedu.2008.05.005
- Hrastinski, S. (2009). A theory of online learning as online participation. *Computers & Education*, 52(1), 78–82. https://doi.org/10.1016/j.compedu.2008.06.009
- Hrastinski, S. (2019). What Do We Mean by Blended Learning? *TechTrends*, *63*(5), 564–569. https://doi.org/10.1007/s11528-019-00375-5
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and Youth Services Review*, 119, 105699. https://doi.org/10.1016/j.childyouth.2020.105699
- Indira Gandhi National Open University. (2018). *IGNOU School of Social Work (SOSW)—Programmes—Distance—Bachelor of Social Work (BSW)*. http://www.ignou.ac.in/ignou/aboutignou/school/sosw/programmes/detail/202/2
- Jha, A., & Saha, D. (2021). Mobile Broadband for Inclusive Connectivity: What Deters the High-Capacity Deployment of 4G-LTE Innovation in India? *Information Systems Frontiers*. https://doi.org/10.1007/s10796-021-10128-6
- Kelly, P. L., Heyman, J. C., Tice-Brown, D., & White-Ryan, L. (2020). Interprofessional practice: Social work students' perspectives on collaboration. *Social Work in Health Care*, *59*(2), 108–121. https://doi.org/10.1080/00981389.2020.1719565
- Kourgiantakis, T., & Lee, E. (2020). Social work practice education and training during the pandemic: Disruptions and discoveries. *International Social Work*, *63*(6), 761–765. https://doi.org/10.1177/0020872820959706
- Kronenfeld, J. P., Ryon, E. L., Kronenfeld, D. S., Hui, V. W., Rodgers, S. E., Thorson, C. M., & Sands, L. R. (2021). Medical Student Education During COVID-19: Electronic Education Does Not

- Decrease Examination Scores. *The American Surgeon*, 87(12), 1946–1952. https://doi.org/10.1177/0003134820983194
- Kurzman, P. A. (2013). The Evolution of Distance Learning and Online Education. *Journal of Teaching in Social Work*, 33(4–5), 331–338. https://doi.org/10.1080/08841233.2013.843346
- Lee, J., Hernandez, P. M., & Marshall, I. (2019). Review of Online Education in Social Work Programs. *Journal of Evidence-Based Social Work*, *16*(6), 669–686. https://doi.org/10.1080/26408066.2019.1676859
- Lee, G. L., & Tan, C. Y. (2020). Social Work in Palliative and Hospice Care. In G. L. Lee & S. N. Goh, *Medical Social Work in Singapore* (pp. 169–188). WORLD SCIENTIFIC. https://doi.org/10.1142/9789811227493_0009
- Lei, S. I., & So, A. S. I. (2021). Online Teaching and Learning Experiences During the COVID-19 Pandemic A Comparison of Teacher and Student Perceptions. *Journal of Hospitality & Tourism Education*, 33(3), 148–162. https://doi.org/10.1080/10963758.2021.1907196
- Mahmood, S. (2021). Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Human Behavior and Emerging Technologies*, *3*(1), 199–203. https://doi.org/10.1002/hbe2.218
- Mathrani, A., Sarvesh, T., & Umer, R. (2021). Digital divide framework: Online learning in developing countries during the COVID-19 lockdown. *Globalisation*, *Societies and Education*, 0(0), 1–16. https://doi.org/10.1080/14767724.2021.1981253
- Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). e-Learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education*, *14*(2), 129–135. https://doi.org/10.1016/j.iheduc.2010.10.001
- Moore, S. E., Golder, S., Sterrett, E., Faul, A. C., Yankeelov, P., Weathers Mathis, L., & Barbee, A. P. (2015). Social Work Online Education: A Model for Getting Started and Staying Connected. *Journal of Social Work Education*, 51(3), 505–518. https://doi.org/10.1080/10437797.2015.1043200
- Morley, C., & Clarke, J. (2020). From crisis to opportunity? Innovations in Australian social work field education during the COVID-19 global pandemic. *Social Work Education*, *39*(8), 1048–1057. https://doi.org/10.1080/02615479.2020.1836145
- Muflih, S., Abuhammad, S., Al-Azzam, S., Alzoubi, K. H., Muflih, M., & Karasneh, R. (2021). Online learning for undergraduate health professional education during COVID-19: Jordanian medical students' attitudes and perceptions. *Heliyon*, 7(9), e08031. https://doi.org/10.1016/j.heliyon.2021.e08031
- Muilenburg, L. Y., & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1), 29–48. https://doi.org/10.1080/01587910500081269
- Murphy, P. K., Wilkinson, I. A. G., Soter, A. O., Hennessey, M. N., & Alexander, J. F. (2009). Examining the effects of classroom discussion on students' comprehension of text: A meta-analysis. *Journal of Educational Psychology*, *101*(3), 740–764. https://doi.org/10.1037/a0015576

Nadkarni, V. V., & Sinha, R. (2016). Transforming Social Work Education in India: Integrating Human Rights. *Journal of Human Rights and Social Work*, *I*(1), 9–18. https://doi.org/10.1007/s41134-016-0002-3

O'Leary, P., & Tsui, M.-S. (2020). Ten gentle reminders to social workers in the pandemic. *International Social Work*, 63(3), 273–274. https://doi.org/10.1177/0020872820918979

Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. (2018). Online Education: Worldwide Status, Challenges, Trends, and Implications. *Journal of Global Information Technology Management*, 21(4), 233–241. https://doi.org/10.1080/1097198X.2018.1542262

Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133–141. https://doi.org/10.1177/2347631120983481

Rahman, A. (2021). Using Students' Experience to Derive Effectiveness of COVID-19-Lockdown-Induced Emergency Online Learning at Undergraduate Level: Evidence from Assam, India. *Higher Education for the Future*, 8(1), 71–89. https://doi.org/10.1177/2347631120980549

Shield, B. M., & Dockrell, J. E. (2003). The Effects of Noise on Children at School: A Review. *Building Acoustics*, 10(2), 97–116. https://doi.org/10.1260/135101003768965960

Siegel, E., Jennings, J. G., Conklin, J., & Napoletano Flynn, S. A. (1998). Distance Learning in Social Work Education. *Journal of Social Work Education*, *34*(1), 71–80. https://doi.org/10.1080/10437797.1998.10778906

Singh, A. (2021). *An Introduction to Experimental and Exploratory Research* (SSRN Scholarly Paper No. 3789360). https://doi.org/10.2139/ssrn.3789360

Totterdell, P., Reynolds, S., Parkinson, B., & Briner, R. B. (1994). Associations of Sleep With Everyday Mood, Minor Symptoms and Social Interaction Experience. *Sleep*, *17*(5), 466–475. https://doi.org/10.1093/sleep/17.5.466

University Grants Commission. (2001). *University Grants commission ::Model Curriculum*. https://www.ugc.ac.in/page/model-curriculum.aspx

Williams, B., Brown, T., Scholes, R., French, J., & Archer, F. (2010). Can Interdisciplinary Clinical DVD Simulations Transform Clinical Fieldwork Education for Paramedic, Occupational Therapy, Physiotherapy, and Nursing Students? *Journal of Allied Health*, 39(1), 3–10.

Wilson, B. M., Pollock, P. H., & Hamann, K. (2007). Does Active Learning Enhance Learner Outcomes? Evidence from Discussion Participation in Online Classes. *Journal of Political Science Education*, *3*(2), 131–142. https://doi.org/10.1080/15512160701338304

Wolfson, A. R., & Carskadon, M. A. (2003). Understanding adolescent's sleep patterns and school performance: A critical appraisal. *Sleep Medicine Reviews*, 7(6), 491–506. https://doi.org/10.1016/S1087-0792(03)90003-7

Yagnik, J. (2014). *PSPP a Free and Open Source Tool For Data Analysis* (Working Paper No. 2014-03–21). Voice of Research. https://econpapers.repec.org/paper/vorissues/2014-03-21.htm

Zheleva, M., Schmitt, P., Vigil, M., & Belding, E. (2015). Internet Bandwidth Upgrade: Implications on Performance and Usage in Rural Zambia. *Information Technologies & International Development*, 11(2), 1–18.

Zucker, D. (2007). The Belmont Report. In *Wiley Encyclopedia of Clinical Trials*. John Wiley & Sons, Ltd. https://doi.org/10.1002/9780471462422.eoct093