Original Article

Ayurveda students' perception toward online learning during the COVID-19 pandemic

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Abstract:

INTRODUCTION: The recent pandemic of COVID-19 is very challenging for each and every sector like health, economic, technology, agriculture, industries, and education. In the field of education, a teaching institute or a university is suffering in regard to syllabus completion, clinical postings, and examinations which eventually ends up in huge academic loss. Thus, to minimize the academic loss and facilitate the students in distance education, online learning was the solution; in spite of various challenges, Datta Meghe Institute of Medical Sciences (Deemed to be University) have implemented the online learning program for the undergraduate students within a week of lockdown.

METHODOLOGY: The survey was conducted at MGACH&RC, total of 189 students have participated in the survey. Data collected by survey with help of feedback on a 5-point Likert scale questionnaire with close- and open-ended questions and focus group discussion (FGD) with students.

DISCUSSION: Although the program was implemented to verify the utility, accomplishment, and lacunas of e-learning, the survey was planned to assess the perception of students toward online learning during the COVID-19 pandemic. The e-learning model has been successfully introduced; there are more requirements from the students regarding the resource material and minimal lacunas regarding the skill of faculty members and technical issues. Students appreciate the online learning module for the pandemic situation and necessitated for the combination of both learning modalities in future. Seamlessly, the running program recommended online assessment and evaluation of the students in future.

Keywords:

COVID-19, e-learning, online learning

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Introduction

The COVID-19 pandemic has warranted an unpredicted situation in all the sectors including aspiring students of medical education who are the future COVID warriors. Many countries have decided to close schools, colleges, and universities as a result of this medical crisis. The crisis has consequently opened up a dilemma for policymakers to minimize the huge loss in academics during the lockdown period.[1] The Datta Meghe Institute of Medical Sciences (Deemed to be University) (DMIMS [DU]) has implemented a rapid action plan to compensate for the

academic loss of students and scheduled the online teaching plan for aforesaid lockdown period.[2] Hence, e-learning is the suggested current solution for the pandemic situation because at the time of Ebola virus epidemic, the University of Liberia adopted e-learning with a view to strengthening the medical education which provides relevant learning opportunities for students, develops faculty competencies, and helps them to cope up with this situation.[3] Although online education has become a standard method for delivering undergraduate coursework in the medical profession, there is not sufficient evidenc[e][4] to consider it as a best practice and ideal method of education during the

lockdown period Modern education world is badly in need of various innovative plans to cope up with the pandemic situation, but easiness of students is of foremost important to implement innovative ideas in the education system.[5] Therefore, a survey was planned for the perception of Ayurveda undergraduate students toward online learning for lacunas, advantages, suggestions, and additional requirement for continuing the e-learning.

Methods

The survey was conducted at Mahatma Gandhi Ayurved College, Hospital and Research Centre, Wardha, Maharashtra, India. A total of 189 students have participated in the survey comprising all Bachelor of Ayurvedic Medicine and Surgery (BAMS) professional years. Prior to conducting the survey, consent was obtained from all the students participating in the survey. Data collection method for the survey included feedback on a 5-point Likert scale questionnaire with close- and open-ended questions and focus group discussion (FGD) with students.

Inclusion and exclusion criteria

Students who had regularly attended the online classes and given consent for the survey were enrolled in the study, and students who did not agree for the survey were excluded from the survey.

Assessment criteria
Data collection tools and detail process
Feedback
Structured questionnaires comprising ten close-ended questions and five open-ended questions [Tables 1 and 2], using Google Forms through 5-point Likert scale, were used to evaluate the perception of students toward online learning implementation in Ayurved undergraduate education The questionnaire was validated through expert panel at the School of Health

Professionals and Educational Research, DMIMS, and reliability was assessed using the test–retest procedure.[6]

Online focus group discussion of students
Ten students were selected for an FGD regardless of all BAMS professional years, where the participated students were more articulate and representative of both genders with varying level of performance in class. Semi-structured questions were used to stimulate the discussion. The students' comments in the online FGD were analyzed using deductive method at the end of the study.

Results

Online focus group discussion
Four themes were identified to facilitate the discussion as benefits, lacunas, expectations, and comparison between face-to-face and online teachings; the discussion lasted for 40 min on the ZOOM Meetings application. The key points observed in the online FGD are as follows:

Online learning was beneficial and effective in the present pandemic situation, which helps to learn from home and minimize the educational loss.[7] Free state of mind was useful for grasping and acquiring the knowledge. However, there was lacuna regarding the interaction perspective. Poor network connectivity has affected the audio clarity of the teacher and thus both the teachers and the learners have faced difficulties in joining the interactive session. Students are expecting more online lectures for the revision of important topics, accessibility of e-books, learning resource material, online clinical material, and recorded online lectures. In comparison with face-to-face teaching, students are very much appreciative of online teaching in the current pandemic situation; however, conventional teaching is the best modality for better understanding. However, some students have favored a combined mix of both online and conventional classroom teaching.[8]

Table 1: Students' response to the questionnaire (frequency distribution (%) and response frequency)

Close-ended questions	SD (%)	D (%)	N (%)	A (%)	SA (%)	Rating average	Response count
E-class link works properly and learners able to navigate easily	8 (4.2)	15 (7.9)	58 (30.7)	72 (38.1)	36 (19)	3.60	189
Online teaching fulfills your learning objectives	6 (3.2)	21 (11.1)	54 (28.6)	78 (41.3)	30 (15.9)	3.56	189
The material presented clearly and understandable	2 (1.1)	16 (8.5)	44 (23.3)	78 (41.3)	49 (25.9)	3.86	189
Faculty speech was clear and audible	5 (2.6)	29 (15.3)	62 (32.8)	62 (32.8)	31 (16.4)	3.45	189
The resource materials provided for online learning were sufficient and adequate	4 (2.1)	10 (5.3)	42 (22.2)	83 (43.9)	50 (26.5)	3.87	189
The teaching methods and medias for online teaching were appropriate with optimum utilization	4 (2.1)	10 (5.3)	64 (33.9)	71 (37.6)	40 (21.2)	3.70	189
Time allocated for the online teaching was adequate	3 (1.6)	11 (5.8)	44 (23.3)	75 (39.7)	56 (29.6)	3.90	189
Online learning more develop interest and motivation in learning	15 (7.9)	11 (5.8)	61 (32.3)	59 (31.2)	43 (22.8)	3.55	189
Learners found online learning technology easy to use	5 (2.6)	14 (7.4)	54 (28.6)	67 (35.4)	49 (25.9)	3.75	189
Online learning was very effective method for learning in comparison with face-to-face learning	27 (14.3)	31 (16.4)	60 (31.7)	41 (21.7)	30 (15.9)	3.08	189

SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly agree

Table 2: Open-ended questions and students' key response

Open-ended question	Students' key responses
What are the benefits of online learning?	Helps for learning from home, utilization of time during lockdown, connect with study, complete the syllabus, helps in distance learning and social distancing, develop interest in learning at comfortable atmosphere, no hesitation for doubt clearing, gaining knowledge in free state of mind, online lecture can be taken in emergency situations
What are the lacunae of the online learning?	Poor connection breaks the continuity and disrupt concentration, time limit of session, less interaction, continue watching mobile screen leads to headache and eye strain, time-consuming process
What would like to look forward from online teaching?	66% of students require new techniques for learning like simulated cases
	45% of students require doubt session after completion of the theme
	80% of students require more study material such as notes, e-books, and PPTs
	55% of students require revision classes for difficult topics
	90% of students have cybersecurity issue with some learning application
	55% of students require recording of online lectures to be provided after classes
Key takeaway from online learning?	Stay home stay safe in COVID-19, how to be connected in a crisis situation, learning from home is possible for holidays and vacation, how to combat in the crisis situation
What is the level of interaction, the online teaching platform provides compared to regular classroom teaching?	Regular classroom teaching is the best method; but in the lockdown situation, online teaching is a good option for learning

PPTs=PowerPoint presentations

Discussion

The assessment and usability of online tools are extremely important for the implementation of an online learning program; students should be well equipped with all the necessary skills for the assessment and benefits of the online lectures.[9,10] In the present study, majority of students (63.1% students; 38.1% agree and 19% strongly agree) have accessed e-class link properly, navigated easily, and found online learning technology to be effective and easy to use Most of the students (41.3% agree and 25.9% strongly agree) have perceived that the learning material presented by the faculty members during online teaching was clear and understandable whereas a few students have agreed (32.8% agree and 16.4% strongly agree) about the clarity and audibility of faculty during the online teaching. This statement was supported by the researcher that innovative strategies should be implemented effectively for the identification of goals and objectives for online learning[11] by providing adequate skills and knowledge in assisting other needful features to the students.[12] As in the present study, students (43.9% agree and 26.5% strongly agree) have opined about the authenticity and quality of the learning material provided. Majority of the students (58.9%) have supported the optimum utilization of online teaching in regard to the teaching methods and media whereas 33.9% students were neutral about the statement due to the cognitive obstacles, misconceptions, language barriers, and difficult terminologies.[13] For time allocation of teaching, nearly 69% of the students have agreed with the strategy and 23.3% were neutral for the same as the lacuna of time limitation in the ZOOM Meeting application.[14] As reported by 54% of students, online learning enhances user engagement, motivation, and their interest toward the learning[15,16] With regard to the effectiveness of the online method in comparison with face-to-face learning, only 37.6% of the students have supported this online method, however the remaining students were in favor of conventional teaching as well as the combination of both the same results had been previously reported as in a quantitative survey in comparison with online learning; a significant agreement was found for face-to-face learning,[17] and mixed method was suggested by nearly 50% of students in the perception of dental education.[18]

In open-ended questions and online FGD, students have appreciated the benefits of online learning as it helps them to learn from home and connect them with study, complete the syllabus for the forthcoming examinations, effectively utilize their time during the current lockdown, and ultimately gain confidence in clearing the doubts with the teachers in a free state of mind.[19]

Frustrations were reflected in the mindset of the faculties due to the underestimation requirements of time, navigational issues, and technical difficulties;[20] organizations should provide necessary technical support to the faculty[21] that helps them to facilitate the students in actual sessions. However, poor Internet connectivity has hampered the concentration[3] or link in between the online session. Significant health issues such as visual fatigue and discomfort induced by the continuous watching of smartphones were reported during the online learning classes.[22] Similar findings have been reported in the present study regarding lacunas because poor Internet connection had disrupted the continuity and thereby the concentration of the students; time limit of the ZOOM session, less

interaction between the teacher and students, and continuous watching in the mobile screen were some of the factors that had been reported to have eventually led to headache and eye strain for the students.

In view of the online teaching, students require more innovative and novel techniques that are easy to learn, doubt-clearing sessions, more study materials such as e-book, PowerPoint presentations, learning resource materials, revision classes, cybersecurity, and recording of online lectures.[23] The same results were concluded by Rigamonti *et al.*, as students desired for more learning source material,[24] and more strategies were recommended to improve against the IT security and privacy risks.[25] In a recent survey, with regard to the face-to-face and e-learning methods, students opined that in the present pandemic scenario, e-learning is the good option to cover up for the academic loss, but conventional teaching is the best; however, some of the students have requested a combination of both face-to-face and e-learning methods in future; comparable findings were also observed by Bloomfield and Jones, as students have preferred both teaching methods in combination.[20]

As concluded from the study during the Ebola virus epidemic and civil war in Liberia, the key point and conclusion drawn from online learning was that in order to implement a e-learning program, adequate infrastructure, strong bandwidth, skilled IT staff, punctuality in classes, and positive attitude for overcoming the crisis were the factors needed for the successful completion of the e-learning program.[3]

Conclusion

The e-learning model has been successfully introduced; there are more requirements from the students regarding the resource material and minimal lacunas regarding the skill of faculty members and technical issues. Students have appreciated online learning module during this pandemic situation and necessitated for the combination of e-learning and face-to-face learning in future. Effective implementation of the program possibly helps to expand it seamlessly for future planning regarding the assessment and evaluation of the students.

Conflicts of interest
There are no conflicts of interest.

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