

Perception and opinion of Indian medical graduates on online and classroom teaching: A cross sectional study

¹Dr. Nagesh HN, ²Radha A, ³Ayyali Ambresh

¹Associate Professor, Department of Pharmacology, SABVMCRI, Bengaluru, Karnataka, India

²Assistant Professor, Department of Pharmacology, St Peter's Medical College, Hospital and Research Institute, Bengaluru, Karnataka, India

³Assistant Professor, Department of General Medicine, SABVMCRI, Bengaluru, Karnataka, India

Corresponding Author:

Dr. Nagesh HN (nagu728@gmail.com)

Abstract

Objectives: To Study the experience and opinion of medical graduates about online and classroom teaching and students' perceptions of the online as compared with classroom classes.

Methodology: A cross-sectional study was conducted among 1st (2020-21 batch) and 2nd (2019-20 batch) year MBBS students at Shri Atal Bihari Vajpayee Medical College and Research Institute, Bengaluru. A semi structured closed ended questionnaire on various components of learning of online & classroom teaching was developed. Data collection was done through Google forms online survey platform. Responses obtained in Google forms were exported and analysed in Microsoft Excel. Responses to the questions were expressed as percentages and tabulated. Data collected was assessed by using descriptive statistics.

Results: Positive perception of all aspects of learning process was found to be higher (65%) for conventional classroom teaching. In comparison only 25% medical students preferred online teaching. 77.7% participants felt practical class learning experience was poor/fair in online classes. 58% of students have reported mental stress during online learning as against only 11% during classroom learning. Majority (86%) of medical graduates preferred classroom teaching method compared to only 14% for online teaching method.

Conclusion: The Indian Medical Graduate preferred classroom teaching over online teaching method in Medical education, as hands-on training and communication skills are most important in learning process. They also felt that mental stress is more in online teaching, hence better teaching techniques have to be implemented in medical education for online class.

Keywords: Online teaching, classroom teaching, Indian medical graduate, learning process

Introduction

Covid-19 pandemic has brought about a substantial change in the approach towards teaching, including for medical graduates. E-learning or online teaching method has come to the forefront as compared to conventional classroom learning and this has become a new normal for the majority of students around the world. Both online and classroom teaching methods have their own set of advantages and disadvantages. This study aims to understand the students' experiences and perspectives regarding online and class room teaching.

Objectives

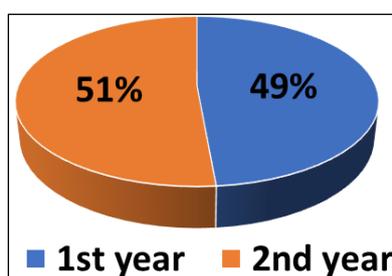
1. To Study the experience and opinion of medical graduates to an online and classroom teaching.
2. Students' perceptions of the online lessons as compared with classroom lessons.

Methodology

A cross-sectional study was conducted among 1st (2020-21 batch) and 2nd (2019–20 batch) year MBBS students at Shri Atal Bihari Vajpayee Medical College and Research Institute, Bengaluru. A semi-structured closed ended questionnaire on various elements of learning of online & classroom teaching was developed. Majority of the questions were framed on a 5-point agree-disagree Likert's scale. Data collection was done through Google forms online survey platform. Responses obtained in Google forms were exported and analysed in Microsoft Excel. Responses to the questions were expressed as percentages and tabulated. Data collected was assessed by using descriptive statistics.

Results

Out of 300 we got 213 responses.



Graph 1: Distribution of 1st and 2nd year medical graduate participants

Table 1: Experience of medical graduate in Online teaching method for the mentioned characters (N=213)

	Poor	Fair	Average	Good	Excellent
Accessibility to class	41 (19.2%)	45 (21.1%)	60 (28.2%)	44 (20.7%)	23 (10.8%)
Presentation of topic by teacher	20 (9.4%)	44 (20.7%)	65 (30.5%)	73 (34.3%)	11 (5.2%)
Portion covered	15 (7%)	45 (21.1%)	56 (26.3%)	73 (34.3%)	24 (11.3%)
Time management	40 (18.8%)	40 (18.8%)	70 (32.9%)	44 (20.7%)	19 (8.9%)
Ability to understand the topic	65 (30.5%)	53 (24.9%)	68 (31.9%)	21 (9.9%)	6 (2.8%)
Student-Teacher interaction	83 (39%)	46 (21.6%)	60 (28.2%)	18 (8.5%)	6 (2.8%)
Getting your queries resolved	56 (26.3%)	47 (22.1%)	60 (28.2%)	41 (19.2%)	9 (4.2%)
Discussion environment	77 (36.2%)	44 (20.7%)	63 (29.6%)	20 (9.4%)	9 (4.2%)
Practical class learning experience	128 (60.1%)	37 (17.4%)	34 (16%)	10 (4.7%)	4 (1.9%)
Interest in the learning process	79 (37.1%)	47 (22.1%)	56 (26.3%)	22 (10.3%)	9 (4.2%)

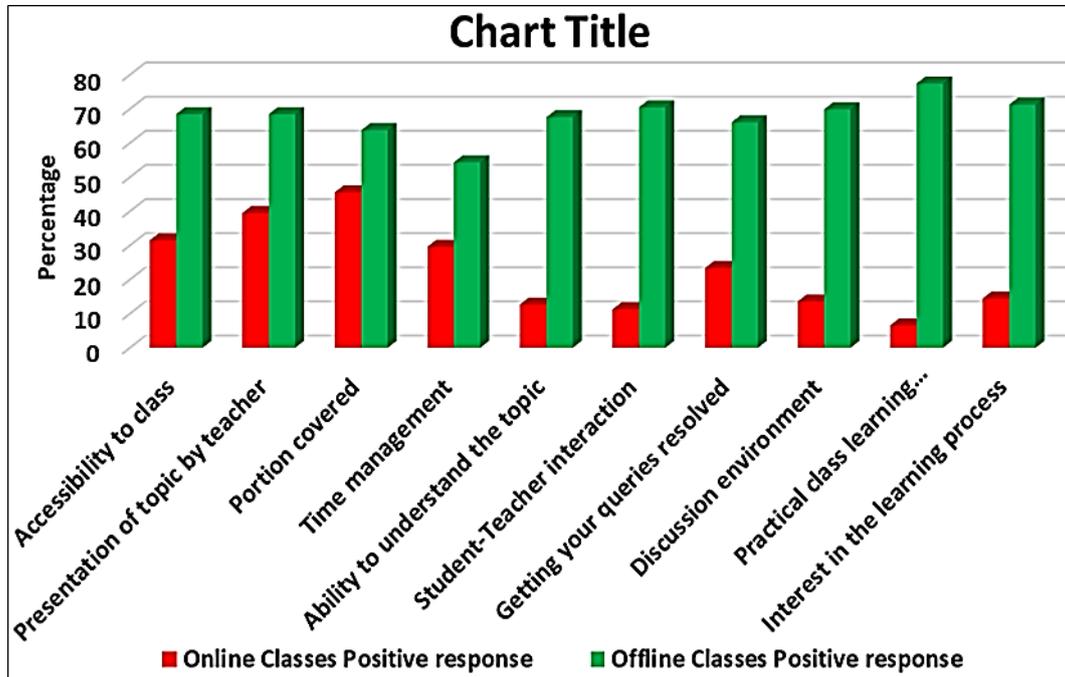
Positive perception of medical graduate in all the aspects of learning process on online teaching was around 25%. 77.7% were felt practical class learning experience was poor and fair.

Table 2: Experience of medical graduate in Classroom teaching method for the mentioned characters (N=213)

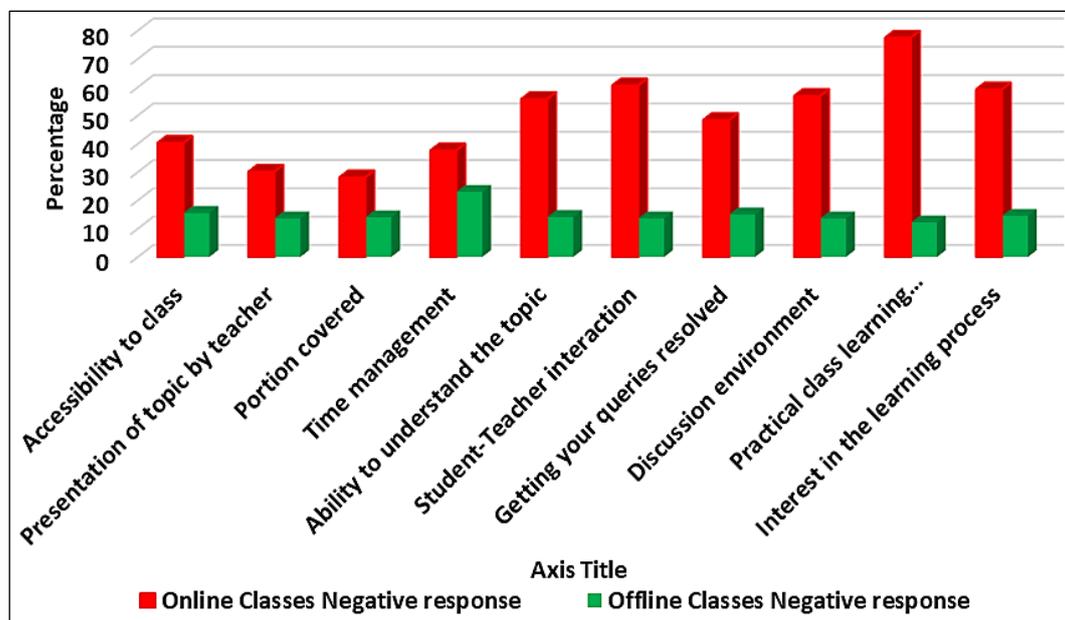
	Poor	Fair	Average	Good	Excellent
Accessibility to class	3 (1.4%)	30 (14.1%)	34 (16%)	114 (53.5%)	32 (15%)
Presentation of topic by teacher	3 (1.4%)	26 (12.2%)	38 (17.8%)	98 (46%)	48 (22.5%)
Portion covered	2 (0.9%)	28 (13.1%)	47 (22.1%)	107 (50.2%)	29 (13.6%)
Time management	10 (4.7%)	39 (18.3%)	48 (22.5%)	94 (44.1%)	22 (10.3%)
Ability to understand the topic	3 (1.4%)	27 (12.7%)	39 (18.3%)	105 (49.3%)	39 (18.3%)
Student-Teacher interaction	4 (1.9%)	25 (11.7%)	34 (16%)	113 (53.1%)	37 (17.4%)
Getting your queries resolved	6 (2.8%)	26 (12.2%)	40 (18.8%)	109 (51.2%)	32 (15%)
Discussion environment	3 (1.4%)	26 (12.2%)	35 (16.4%)	110 (51.6%)	39 (18.3%)

Practical class learning experience	0	26 (12.2%)	22 (10.3%)	90 (42.3%)	75 (35.2%)
Interest in the learning process	3 (1.4%)	28 (13.1%)	30 (14.1%)	107 (50.2%)	45 (21.1%)

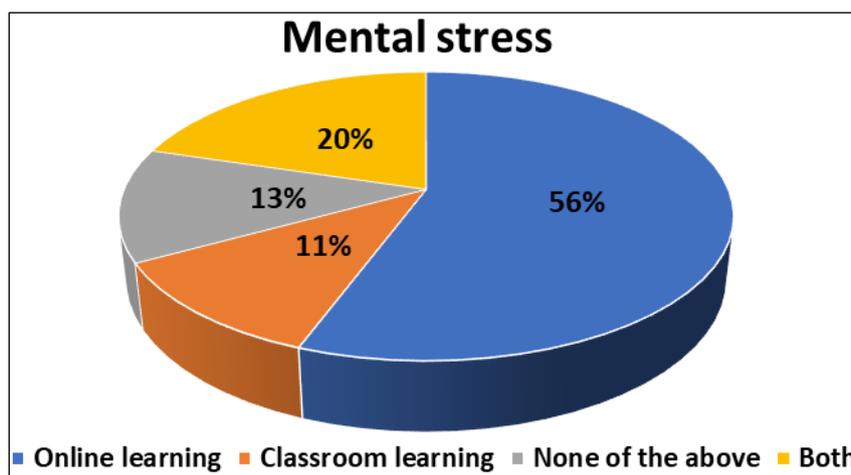
Positive perception of medical graduate in all the aspects of learning process on classroom teaching was around 65%.



Graph 2: Positive response by the medical graduates for online versus classroom teaching

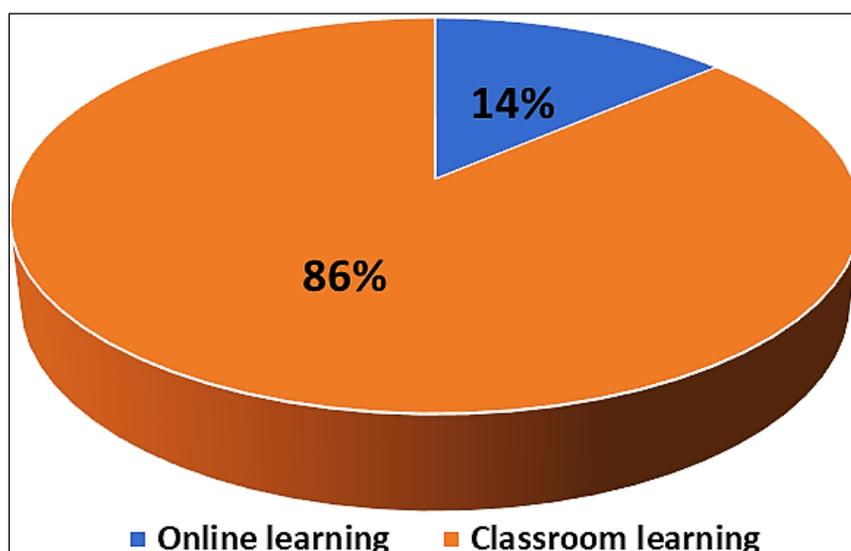


Graph 3: Negative response by the medical graduates for online versus classroom teaching



Graph 4: Opinion of participants on mode of learning causes Mental Stress

58% of students have opined mental stress during online learning and 11% have opined during classroom learning.



Graph 5: Opinion of participants on preferred teaching method

86% of medical graduates were preferred classroom teaching method and 14% were preferred online teaching method.

Discussion

The spread of COVID-19 was quick to generate the headlines with its ground-breaking speed of transmission in the last two years. The education system was shaken and the students suffered terribly. However, with time a dynamic shift was observed and the rise of online classes became a new normal. Online learning is an old concept yet it gained popularity during the pandemic. The concept was only possible because of the advancement in technology and connectivity. There has been a constant debate between online vs offline/classroom classes ^[1].

Evaluating the effectiveness of online and offline teaching remains difficult. Evaluations have failed to reach consistent conclusions ^[2, 3], resulting in complex decisions when selecting a teaching method for medical education.

In concurrence with Garrett (2009) ^[4], it is suggested that to simply upload links as lesson components is not enough; well-rounded lessons with suitable activities and proof of participation should be devised.

To avoid the potential limitations of online learning in undergraduate medical education, it might be worthwhile to combine the advantages of online and offline teaching methods, called blended learning^[5].

Online teaching method has flexibility, students can be accessed from anywhere with a device and internet connection and class recordings are available for later references.

But, in online teaching method, long-duration screen time affects health of the students, especially the vision; poor network can cause various technical issues and disruptions of classes and no interaction with their peers and teachers due to which they feel isolation and lack of good communication skills, which is more important in medical field.

In classroom teaching students are fully attentive towards class, less distraction, teachers can provide individual attention to the students, address their issues, students will have hands-on practice and direct interaction will improve their communication skills but, students become highly dependent on teachers, hence they lack the development of self-discipline skills, no recording or any other form of data is not always available for students who missed the class or later references. With all these advantages and disadvantages of both online and class room teaching methods, this study shows perception and opinion of Indian medical graduate on the same.

In our study, positive perception of medical graduate in all the aspects of learning process on online teaching was around 25% and 77.7% were felt practical class learning experience was poor. Positive perception of medical graduate in all the aspects of learning process on classroom teaching was around 65%. 58% of students have opined mental stress during online learning and 11% have opined during classroom learning. Overall, 86% of medical graduates were preferred classroom teaching method and 14% were preferred online teaching method.

So, in our study, the medical graduates were felt that classroom teaching method would be better as good Presentation, more interest in learning, better understanding, and good interaction with the teacher and have best Practical class learning experience. They also felt that online teaching develops more mental stress.

Conclusion

Indian Medical Graduates preferred classroom teaching over online teaching in all perspectives, such as creating more interest to learn, good presentation, better understanding of subject, less mental stress and ease of interaction with the teacher, hands-on training and development of communication skills. In conclusion, better and innovative teaching techniques have to be implemented in medical education for online classes.

Acknowledgement: I would like to express my special thanks to Dr. Swathi and Ist and IInd year Medical graduates of our Institution.

Funding Source: Self-funded.

Conflict of interest: Nil.

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