

## Perception of first year medical students on the use of whatsapp as a supplementary learning tool

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### Abstract

**Introduction:** There is a growing use of Whatsapp as a communication platform between students and also between students and faculties. The present study was conducted to find out the perceptions of first year medical students on the effectiveness of Whatsapp as a teaching learning tool as a supplement to the traditional teaching methods.

**Material and Methods:** The study was conducted in a Private Medical College in Chennai, Tamilnadu. The participants of the study were the first year medical students of 2017 - 18 batch. Of the 100 students who had expressed their willingness to participate in the study trial, 91 students (n=91) submitted their feedback. A separate Whatsapp group named "Anatomy Department Official Group" was created. The group was utilized for sharing teaching learning materials such as power points of lectures on Gross Anatomy and Histology, notes on various topics, Histology slides photomicrograph, Spotters containing images of Gross specimens with questions and also for discussion on various topics. The student's perception of Whatsapp as a supplementary teaching learning tool was obtained using a validated questionnaire.

**Results:** In our study 98% of students have agreed or strongly agreed that learning material shared through Whatsapp was easily available and downloadable. It also has helped them learn anytime anywhere and 82% of students felt that their confidence level in learning Anatomy has increased.

**Conclusion:** Owing to the advantages offered by using Whatsapp as a teaching and learning tool for First year Medical students, as perceived by students the author concludes that Whatsapp groups can be used as a supplementary teaching tool in addition to Traditional teaching methods

**Keywords:** Whatsapp, Learning tool, Anatomy.

### Introduction

Whatsapp messenger a smart phone application can be accessed through mobile phones such as I phones & android phones and has been used by medical students to share text messages, videos & audios.<sup>1</sup> There is a growing use of Whatsapp as a communication platform between students and also between students and faculties. This is due to the ease of communication, easy accessibility and any time available teaching learning material to students. The faculties also prefer it as a supplementary tool for teaching in addition to the traditional teaching learning methods. Teaching in medical sciences involves lots of facts and concepts. Hence, there is a time constraint for the use of interactive teaching methods. Due to the advent of internet and advanced technology, information is available immediately for access. Nowadays, there is an increase use of Whatsapp as an instant mode of communication among students.<sup>2</sup>

With the advantages of Whatsapp as a teaching learning tool, the present study was conducted to find out the perceptions of first year medical students on the effectiveness of Whatsapp as a teaching learning tool as a supplement to the traditional teaching learning methods.

### Material and Methods

The study was conducted in a Private Medical College in Chennai, Tamilnadu. The participants of the study were the first year medical students of 2017 - 18 batch. Of the 100 students who had expressed their willingness to participate in the study trial, 91 students (n=91) submitted their feedback. Anatomy is taught for one year according to the guidelines laid by the Medical Council of India & the affiliating the TN Dr.MGR Medical University. A separate Whatsapp group named "Anatomy Department Official Group" was created & all faculty members were added to the group and made as admin. Three students from the batch were added and made as admin and they added all other students to the group. This group was formed at the beginning of Gross Anatomy teaching of upper & lower limb and teaching of general Histology & general embryology. In a meeting with the students the concept of using Whatsapp as a supplement to traditional teaching was explained and students were informed about the study and consent was obtained. Rules were laid for the group activities with emphasis on strict adherence to only curricular discussion in the group. The group was utilized for sharing teaching learning materials such as power points of lectures on Gross Anatomy, Histology & Embryology, notes on various topics, Histology slides as photomicrograph, Images of Gross specimens with questions. The group was also utilized for

discussion on various topics. The study was designed to assess the effect of the supplementary teaching given to the students using whatsapp. The student's perception relating to Whatsapp teaching as a supplementary method in addition to the traditional teaching was assessed and documented using a questionnaire. At the end of Gross Anatomy teaching of upper & lower limb and teaching of General Histology and General Embryology, a validated feedback questionnaire consisting of seven closed ended questions to be answered in a Likert type scale and three open ended questions were sent through Whatsapp utilizing Survey

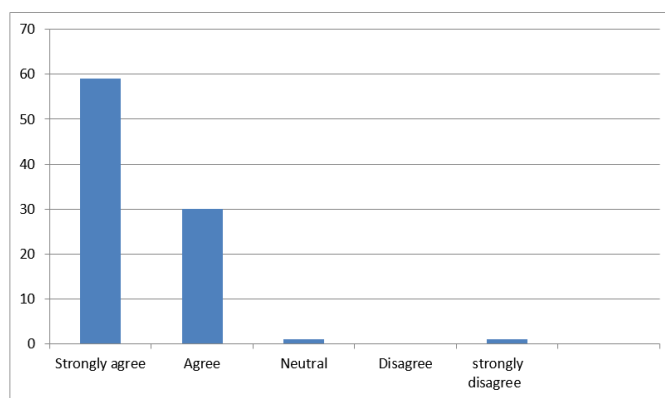
Monkey. Each closed ended question was to be rated in the scale of 1-5 (1-strongly disagree, 2- disagree, 3 - Neutral, 4- agree, 5 –strongly agree). A total of 91 students responded to the feedback questionnaire. The open ended questions were qualitatively analysed. The results were tabulated and analysed.

## Results

The results of the study are given below:

Following are the responses of students for the close ended questions.

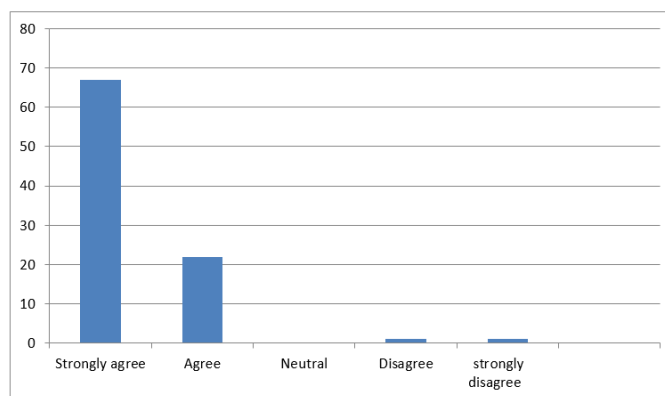
### Question 1: Learning Anatomy via Whatsapp is a positive idea



**Fig. 1: Learning Anatomy via Whatsapp is a positive idea (n=91)**

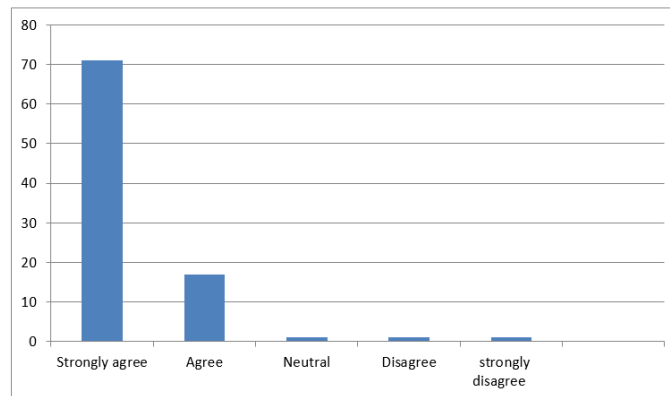
From Fig. 1, it is clear that a total of 89 (98%) students have strongly agreed or agreed that learning Anatomy via whatsapp is a positive idea.

### Question 2: Learning material shared was easily available & downloadable

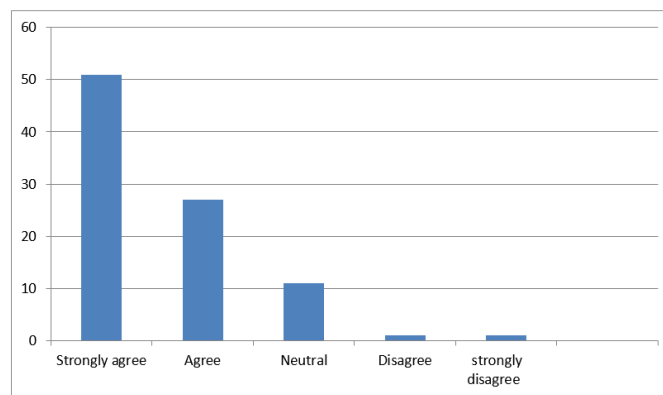


**Fig. 2: Learning material shared was easily available and downloadable (n=91)**

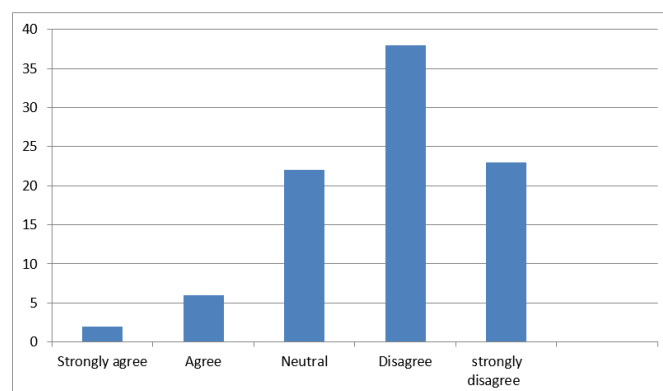
From Fig. 2, it is clear that a total of 89 (98%) students have strongly agreed or agreed that learning material shared through Whatsapp was easily available and downloadable.

**Question 3:** Helped me learn anytime & anywhere**Fig. 3:** Helped me learn anytime and anywhere (n=91)

From Fig. 3, it is clear that a total of 89 (98%) students have strongly agreed or agreed that Whatsapp group helped them learn anytime anywhere.

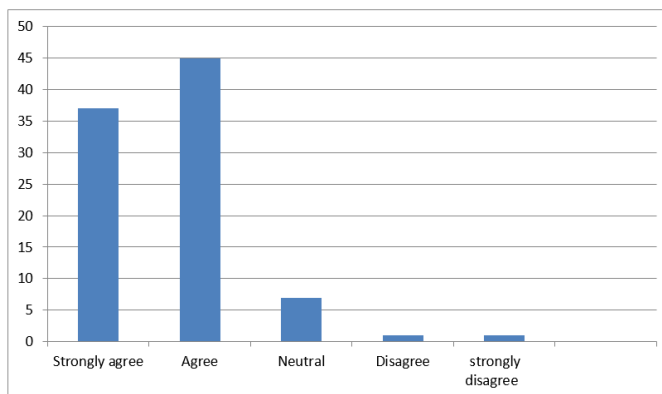
**Question 4:** Has served as a supplement to the class room teaching**Fig. 4:** Has served as a supplement to class room teaching (n=91)

From Fig. 4, it is clear that a total of 78 (86%) students have strongly agreed or agreed that Whatsapp group served as a supplement to classroom teaching.

**Question 5:** Large amount of learning material shared makes it confusing & Time Consuming**Fig.5:** Huge amount of learning material shared makes it confusing and time consuming (n=91)

From Fig. 5, it is clear that a total of 61 (67%) students have strongly disagreed or disagreed that the large amount of learning material shared through the group makes it confusing & Time Consuming. However, 8 students (9%) have strongly agreed or agreed to the same.

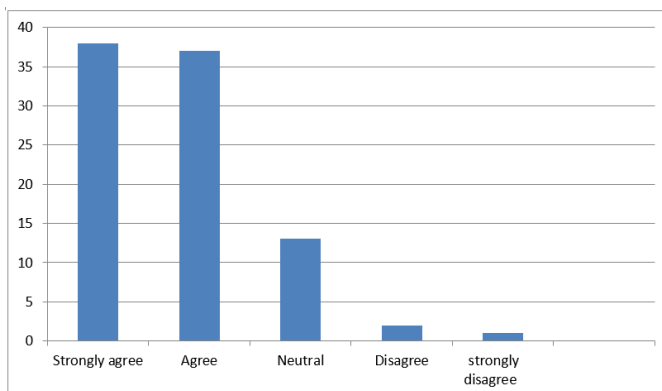
**Question 6:** Has effectively improved my Anatomy learning



**Fig.6:** Has effectively improved my Anatomy learning (n=91)

From Fig. 6, it is clear that a total of 82 (90%) students have strongly agreed or agreed that the learning through Whatsapp group has effectively improved their Anatomy learning

**Question 7:** Has increased my confidence level in learning the subject



**Fig. 7:** Has increased my confidence level in learning the subject (n=91)

From Fig. 7, it is clear that a total of 75 (82%) students have strongly agreed or agreed that Whatsapp group has increased their confidence level in learning the subject.

Qualitative analysis of the Comments by students on the open ended questions showed that usage of Whatsapp Group to learn Anatomy was highly beneficial to the students. Following are the responses that emerged that are grouped under three main themes.

1. Factors that facilitated student's learning through Whatsapp group.
2. Factors that inhibited student's learning through Whatsapp group.
3. Future usage of Whatsapp for their learning.

Following are the comments of the students on what facilitated their learning through Whatsapp:

"Discussions in the group helped us by reducing the time in referring other books"

"Discussions in the group helped me learn well, helped in easy communication"

"PowerPoint of lectures shared made us easily remember the key points and learn, was easy to understand and to the point"

"Time saving"

"Easy explanation present in power point, it shows all topics with important points and not as paragraphs, so it's easy to learn"

"PowerPoint of lectures helps to revise the portion; it helps to recollect what we learnt in class, helps to refer the extra points and diagrams taught in class easily"

"The presentation and illustrated pictures explained during class shared through Whatsapp, makes it easy to learn again and revise"

“The learning was made easy and was able to read it anytime and at any place”

“Easy and convenient usage”

“Easily carried, can study anything”

“Time was not a barrier”

“During travelling and for last minute revision it was very useful”.

“Diagrams and simplified version of difficult topics shared was very useful”

“Easy downloading of the pdf of lectures”

“Extra points from other books, which seems to be simple and understandable, which makes it more interesting to learn”

Following are the comments of the students on what inhibited their learning through Whatsapp:

Majority of the students responded that there is no inhibiting factor. Few factors which inhibited their learning are listed below.

“Sometimes it causes eye strain, irritation”

“whatsapp messages from other groups, messages from other social media distracted us”

“Constant seeing and reading from a small screen causes eye pain, headache”

“There is not much memory in my phone to download huge PowerPoint”

“Network problem”

“Too much mobile space is used up”

“Low level battery charge”

Following are the comments of the students on whether they will continue to use Whatsapp.

100% (91) students responded that they will continue to use Whatsapp for their learning. The reasons given by them are listed below:

“It's really useful! The power point is well illustrated and good to revise “

“It is very useful supplement for learning anatomy”

“Learning through WhatsApp is quite easy”

“It helped me a lot and makes learning anatomy easier”

“Because it's stored in my mobile, can be read anywhere even without textbooks”

“It's easy to recall what was taught in class”

“Clinical anatomy can be studied well”

“Discussions were easily understandable and doubts were cleared”

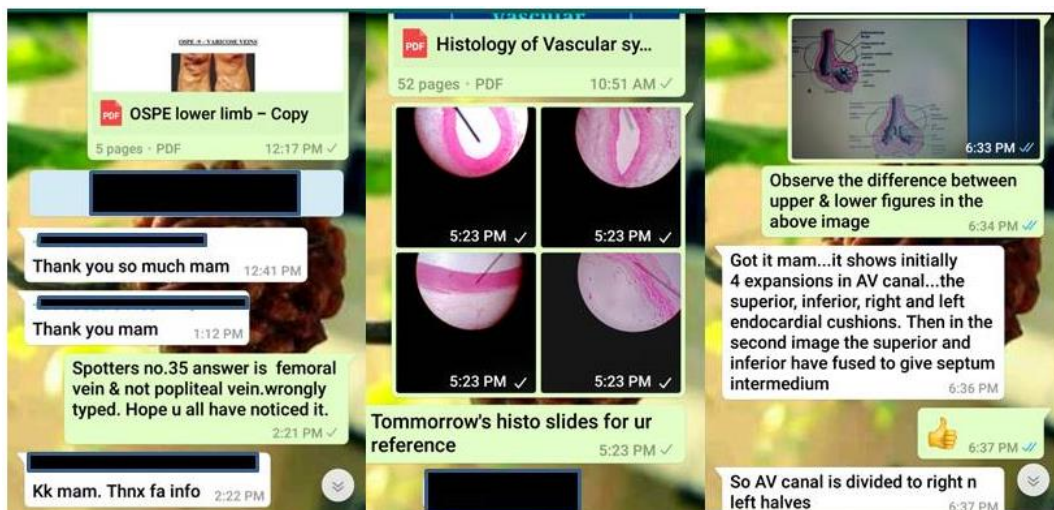


Fig. 8: Screenshot of group activity

## Discussion

WhatsApp a smartphone application is for instant messaging. It helps in faster and easier communication among students and promotes sharing ideas. WhatsApp group serves as a platform which can have teachers and students. All students in a class can have discussion on various topics and it leads to immediate response within the group members and hence effective communication results.<sup>3</sup>

As quoted by Mohanakrishnan et al., a survey on whatsapp showed that it increased the active course of sharing ideas and information. In their study, the authors concluded that Whatsapp gives an interactive environment during lecture and they advocate that it

can be used to enhance student's learning.<sup>4</sup> An experimental study has shown that the learning outcomes were better with Whatsapp as a teaching learning tool in a blended approach than the traditional teaching learning methods.<sup>2</sup> In our study 98% of students have agreed or strongly agreed that learning Anatomy using Whatsapp was a positive idea and 89% of students felt that it served as a supplement to classroom teaching. Our department uses Whatsapp as a supplement to traditional teaching and it is evident from our results that it has enhanced student's learning.

In a study done by Ranjan et al., the learning materials shared as PowerPoint files, Pdf files and Jpg images were highly appreciated as a valuable resource

material by 84% of students<sup>5</sup>. In our study 98% of students have agreed or strongly agreed that learning material shared through Whatsapp was easily available and downloadable. It also has helped them learn anytime anywhere and 82% of students felt that their confidence level in learning Anatomy has increased due to the learning materials shared through Whatsapp. All the responses of students on what facilitated their learning through Whatsapp and also due to the discussions on various topics clearly indicate that this group has enhanced student's learning of the subject.

In a study done by Mohesh et al., to understand the perception of student's on Mobile learning (M-Learning) where in Whatsapp was used to disseminate the subject of physiology. The authors found that there is an immediate acceptance of M-Learning by the students. Hence, the authors conclude that M-Learning was found to be innovative and an easy mode of learning by the students and also there is a positive perception of it by the students who wants this to be incorporated in the Curriculum<sup>6</sup>. This is in line with our study in which students perceived the use of Whatsapp group as a supplementary teaching learning tool which is highly beneficial and they responded that they will continue to use the same for their future learning. This is evident from the response given by them on the factors that facilitated their learning using Whatsapp and whether they will continue to use the same for their future learning also.

As quoted by Anwar Dar et al., there are some challenges with M-learning like students getting distracted, superficial learning, privacy of information shared and the cost involved. In our study also the students expressed that there were some inhibiting factors like the eye strain caused due to continuous usage of mobile phones, distractions due to messages from other groups, smaller screen size in mobile phones, network problem, storage capacity getting exhausted in mobile phones, difficulty in upgrading their phones etc.<sup>7</sup> As expressed as a draw back by a Faculty tutor that there is no face to face interaction between the faculty and the student during discussion of learning objectives and also during explanation of difficult concepts, in a study done by Raiman et al., which is similar to our study.<sup>8</sup> But in our study, the fact is that we are using Whatsapp only as a supplementary tool to our traditional class room teaching and the students are having sufficient time and liberty to

approach their Faculties during class hours, if there is any difficult concepts learned through Whatsapp needs further explanations.

## Conclusion

Owing to the advantages offered by using Whatsapp as a teaching and learning tool for First year Medical students, as perceived by students the author concludes that Whatsapp groups can be used as a supplementary teaching learning tool in addition to Traditional teaching methods and also that it can be replicated by other Departments and can be incorporated in to the Medical Curriculum in the future.

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