



## “WHATSAPP”- A SUPPLEMENTARY TEACHING METHOD IN ANATOMY FOR FIRST YEAR MEDICAL STUDENTS AND STUDENTS' REFLECTION ON IT

### Anatomy

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### ABSTRACT

**Rationality:** WhatsApp has been accepted as one of the commonly used social media for communication, texting, instant messaging by us. Now, when the Medical Council of India is stressing upon the Self-Directed Learning, e-learning; and the UG medical curriculum is shifting towards the Competency based medical education; at this juncture this study has been conducted to observe the acceptability of the WhatsApp based learning of the students.

**Aim:** To analyse the feedback of the students for the WhatsApp based group discussion introduced in parallel to the

**Method:** In the tenure of one and half months the Abdomen- viscera demonstration classes a WhatsApp group has been formed with the students. Students were provided with different provoking questions and they were asked to search out the replies by searching internet, books, journals and to post in the group. After the Part-completion, a feedback has been obtained from the students regarding their perception for acceptability of the WhatsApp based discussion in parallel to the classical class-room teaching.

**Result:** majority of the students have replied that (1) It helped them to clear doubts, (2) There was constant schrychonus or aschrychonus communication with peers as well as the facilitators, (3) It helped them to study at their own place, at own time, (4) It helped them to participate in the group discussion, even when they stayed apart, (5) It provoked them to find the internet to solve the answers of the questions, i.e. it otherwards, it helped them for self-directed learning unknowingly.

**Conclusion:** Self directed learning, peer assisted group discussion when perceived as one of the positive attribute for the WhatsApp based group discussion, on the other hand the teaching-learning hours also expands outside the class-room hours. So, the core-competencies may be taught in the on-site classroom, whereas the other non-core areas as well as problem-based questions may be discussed in the social media platform with the students.

### KEYWORDS

WhatsApp, medical education, Teaching-learning method, Self-Directed learning

### INTRODUCTION

Modern generation of students belongs to the 'generation Z'. They are much more tech savvy as well as they are accustomed with the m-based learning as well as the cloud based learning. Simultaneously the teaching learning trends has been changed to a paradigm shift from the teacher centric learning to the learner centric learning. Self directed learning comes in front step by step to improvise the learning of the MBBS graduates. In coming days the competency based medical curriculum is coming to be implemented through-out the country.

But in fact, the truth is that, even in today, in majority of the medical schools, amongst the majority of faculties, the didactic version of teaching is more liked than the interactive teaching. Moreover the teaching-learning of the subject like Anatomy in the first professional MBBS course is much liked to be getting taught in the traditional ways as going on for the decades.

So far the teaching-methods have been described in different literature, it has been divided in (1) large group teaching methods- as the lecture, panel discussion, symposium etc.; as well as the (2) small group teaching methods- like group discussion, tutorial, seminar, team based learning, team assisted learning etc., but seldom it is stated to use the “web-based learning” or using the “social media” as the teaching method to the students.

“WhatsApp” is a common social media interaction, almost the most accepted social media for interaction. We, even our students also spend a significant time at WhatsApp. So far searched, no literature speaks for the utility and students' feedback on using this WhatsApp group discussion as the teaching-learning method for the subject of Anatomy in first professional MBBS students, in West Bengal.

So in this study it was aimed to implement the WhatsApp based group discussion in parallel to the traditional classroom teaching for a particular period of time and thereafter feedback from the students were obtained regarding their perception.

### Objective

To analyse the feedback of the students for the WhatsApp based group discussion introduced in parallel to the traditional classroom teaching, in the subject of Anatomy, for first professional MBBS students; in a medical school of Kolkata

### Methods

- **Study design-** Exploratory study design
- **Type of study-** Interventional uncontrolled trial
- **Place of study-** Department of Anatomy, Institute of Postgraduate Medical Education & Research, Kolkata
- **Population-** First professional MBBS students
- **Sampling frame-** Students of a demonstration batch with 37 students during the month of December-January in the abdomen-viscera demonstration classes;
- **Sampling-** All participating students were approached with the google-form for their feedback
- **Exclusion criteria-** Who have not given informed consent
- **Tool-** Structured, predesigned, prevalidated google-form questionnaire

### Steps of study-

At present 150 students get admitted yearly in this institute. In the 1<sup>st</sup> Professional MBBS, course, Anatomy is being taught. In Anatomy, daily 150 students attends the Practical classes in the second half (post lunch hours). Traditionally students get divided in four batches and one faculty is assigned for each batch. So in total, in one batch 37-38 students attends the group. The entire course of Anatomy is being taught in different parts as Superior Extremity, Inferior Extremity, Abdomen in the first semester syllabus and the Thorax, Head-Neck, Neuroanatomy in the second semester syllabus.

The author was allotted for one batch of 38 students in the Abdomen viscera demonstration batch in the month of December'18- January'19 of almost one month duration. After obtaining the permission from the Head of the Department as well as the Director of the Institute with the approval of the Institutional Ethics committee, here a WhatsApp group has been formed with the students of one demonstration batch in part course of “Abdomen” for the tenure of almost one month.

In the classroom, the must know, nice to know, better to know areas were pointed out before each day session. On-site the must-to-know areas were addressed more to the students to ensure that all students be competent in the must-to-know areas. A WhatsApp group was started with the batch and the teacher. It was handled cautiously so that only academic discussions get carried on there.

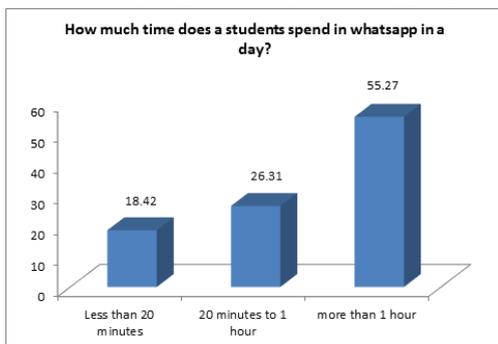
The related applied questions as well as the nice to know and better to know areas were posted in the WhatsApp group as different “haunts/problems”. Those “haunts” (means the provoking questions/problems) were posted maintaining four days gap to allow the students to participate. One “haunt” (problem/provoking question) is posted in the group by the tutor/faculty and the participant students are allowed to discuss the matter among themselves allowing them to search in the all resources what they are having like the books, internet. The duty of the faculty was only to monitor that the discussion is going in the proper direction. In the evening of the fourth day, it was asked to a student (who were noted to be relatively silent) to summarize the entire 4-days discussion. Even sometimes the animation videos, simulation videos, pictures, images were also posted in the group-forum by the faculty to guide the thinking process of the students. Thirdly, it was also observed that in this forum, often students used to float their any confusion during their studies. In those cases, the other students were asked to address the matter to incorporate the virtual peer assistance. At the end of the month/part, when the part completion examination gets over, the students were approached with a semi-structured questionnaire to reflect on their perception regarding this in-parallel running whatsapp group discussion.

- The responses were collected and analysed in the standard excel format for the frequency distribution.

**RESULT**

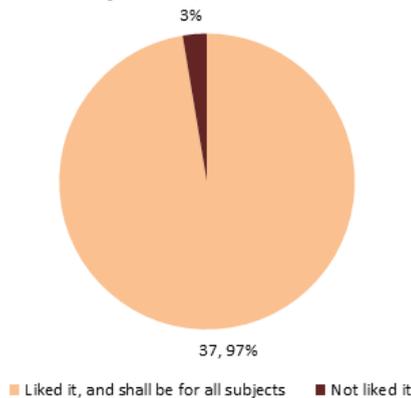
- Amongst the 38 students of the participating group, 21 students replied that they spends for 'more than one hour' time in a day in WhatsApp, whereas 10 and seven (7) students replied that they spend time '20 minutes to one hour in a day' and 'less than 20 minutes' in a day in WhatsApp; respectively. [Fig 1]

**Fig 1: Distribution of the students according to their response on “How much time do you spend in a day in WhatsApp?” [n= 38]**

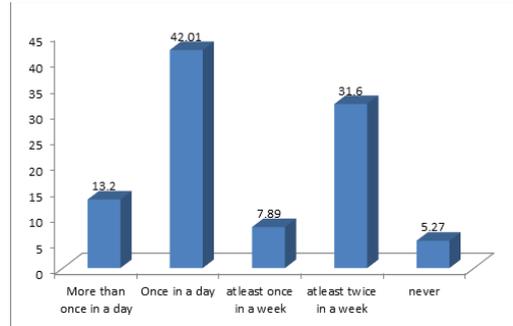


- Out of the 38 students besides one person, all of them have liked the method and wished to get incorporated for all the subjects.

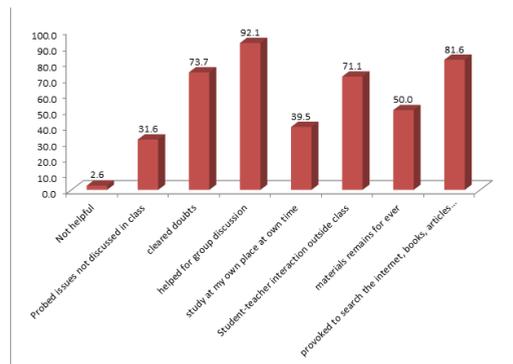
**Fig 2: Distribution of the students according to their response to “In wholesome, have you liked the Whatsapp discussion in parallel to class-room teaching?” [n=38]**



- Again as per their responses, two students were having less participation as less than once in a week. Two (2) students seldom participated in the WhatsApp discussion. Three (3) have participated atleast once in a week. 12 students participated atleast twice in a week. 16 students participated once in a day; and Five (5) students have participation more than once in a day.



- They opined in majority that this method seemed to be helpful to them in light of doubt clearance (92.1%), provoking to search the resources in mode of self-directed learning to solve a query (81.6%), group discussion in virtual mode, even when they are apart from each other, to study in own place, own pace, own settings, moreover 50% responses that materials remains for ever, so can be revised whenever required,



**DISCUSSION**

The study reveals that students liked the whatsapp discussion in light of-

1. It helped them to clear doubts
2. There was constant schrynchonus or aschrynchonus communication with peers as well as the facilitators
3. It helped them to study at their own place, at own time
4. It helped them to participate in the group discussion, even when they stayed apart
5. It provoked them to find the internet to solve the answers of the questions, i.e. it otherwards, it helped them for self-directed learning unknowingly.

When on one hand, the classical disadvantage of whatsapp discussion is that each participant should to have the smart-phone with access of internet; but on the other hand the motivation for the “self directed learning” is the felt to be strongest advantage of the whatsapp discussion, which is felt needed by the Medical Council of India and going to be implemented in the coming academic year undergraduate curriculum. “There must be enough experiences to be provided for self learning. The methods and techniques that would ensure this must become a part of teaching learning process”<sup>1</sup> It is mentioned in the CISP Draft published by MCI that “dedicated time shall to be allotted for the self directed learning in each phase of MBBS curriculum...”<sup>2</sup>

Traditionally, learning theories tend to be clustered in three large categories: behaviourist, cognitivist and constructivist. In short, behaviourist theories are those that propose that knowing is the result of objective experience; cognitivist theories are those that propose that knowing is the outcome of mental processing; and constructivist theories are those that propose that knowing is subjectively constructed. In constructivist theories, the focus is on the learner and the process of learning versus the transmission of information from the instructor. It is presumed that learners bring pre-existing knowledge and experience to a learning situation. The learners are encouraged to take responsibility for their learning and to assume a reflective stance to it. The teacher's responsibility is to facilitate the learning process. This occurs through the purposeful design and structure of the curriculum and learning activities.<sup>3,7</sup>

In 2014, study conducted in Taibah University. Case Control study

amongst 30 students. 15 students in experimental group with 15 students in control group. The attitudes of students suggests that WhatsApp instant messaging makes learning easy, favors problem solving and resolves learning difficulties related to the learning process or to learning content distributed through WhatsApp, knowledge sharing<sup>8</sup>

Mohanakrishnan K *et al.* in 2017<sup>9</sup> have conducted a case control study in 100 MBBS students of second phase of MBBS, where 50 students were instructed through WhatsApp based platform and 50 students were exposed to traditional lecture classes. Post test MCQ was performed. Significant difference was observed in the experimental group (whatsapp group) and the lecture group (control group). Moreover the students reflected that the messages conveyed through whatsapp based discussion platform was clear, easy to understand, thought provoking, and able to gain confidence before the examination. Simialr study by Dar QA *et al.*<sup>10</sup> in 190 students, 4<sup>th</sup> year MBBS students explored that the Whatapp based learning is more favoured by female participants, as an easy way to interact with teacher, peers in compared to the face to face classroom teaching. Students also replied that learning at any time, at any place in relaxed time. However the authors discussed that there would be potential challenge for the m-based learning as to become a superficial learner. Study of Raiman L *et al*<sup>11</sup> amongst final year MBBS students also revealed that Problem based learning is better studied in the WhatsApp based forum. Further study amongst second phase MBBS students of ESIC Joka, Kolkata also revealed positive reflection from students who have been incorporated in WhatsApp based discussion forum.<sup>12</sup>

Study of Indu M *et al* in 2018 at Kerala amongst Dental under graduate students showed that better academic result in the students who have been included in the WhatsApp based discussion platform.<sup>13</sup>

In 2019, study in Oman Medical College, Iraq, has been conducted in final year medical students, where tasks were allotted in Whasapp forum as – short answer questions, MCQ, Picures of case scenario, data to analyse; within the final year MBBS students. Students reflected in positive form as a method of getting engaged in group discussion, critical thinking in interactive way with peers. Moreover the presence of the facilitator-guide helped them in decision making in different stages. As a whole it was their “positive learning experience”.<sup>14</sup>

Study of Nanda M in 2019<sup>15</sup> has depicted that The biggest challenge for any teacher to improve the slow-learners. 3<sup>rd</sup> Professional MBBS students. Students of the third professional MBBS who use smartphones and have WhatsApp facility and willing to study through WhatsApp along with their regular teaching schedule was identified as slow learners and fast learners depending on their performance in the first semester examinations. All these students were put into a single WhatsApp group and were given assignments that they had to write and submit in JPG format and also upload one latest research article on that topic. After 5 months, the students were analyzed for performance in the second semester examinations and feedback was taken regarding their experience with this study method. Results: Most of the students showed that interest in this method among both slow learners (88%) and fast learners (87%) and felt their knowledge has improved (80% in slow and 77% in fast learners). The overall performance also improved in the second semester examinations.

## CONCLUSION

Our study may be considered as pilot project and it lights upon the well accepted students' learning behavior utilizing the benefits of WhatsApp mobile learning. In future multi centered trials may be conducted to prove the beneficiary role of WhatsApp learning in medical education. WhatsApp has been perceived as is an effective social media tool to motivate, augment and perhaps improve the learning of undergraduates in addition to traditional teaching. Further studies are needed for its adoption and responsible integration into medical education.

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