Indian J Physiol Pharmacol 2016; 60(4) : 403–406

Medical Education / Original Article

Social Networking Sites As Informal Learning Tool

Smita R. Sorte[1]* and Sachin B. Rathod[2]

[1]Department of Physiology,
Rural Medical College,
Loni, Maharashtra, India

[2]Department of Physiology,
Shri Vasantarao Naik Government Medical College,
Yavatmal, Maharashtra, India

Abstract

Social networking sites (SNS) are gaining popularity now a days. Large number of professional students and teachers are using these sites regularly to communicate with each other. This study was aimed at finding the effectiveness of popular social networking sites as an informal learning tool. A Facebook group, named "Physio fever was created to fulfil this aim. Students were invited to join this group. Various physiology topics previously taught in classroom were posted. Student's queries related to physiology were answered. At end of study an exam was conducted and student's feedback was obtained. Exam results showed improvement in student knowledge which was statistically significant. 81.25% of students ranked SNS as an effective learning tool.

Introduction

Conventional long-established, face-to-face teaching and training offers abundant advantage for learning but is confined by time and space. Now-a-days, social networking sites are gaining popularity. They help keep one updated with friends and family. Social media applications are easy to use and therefore gaining interest for teaching and learning among teachers. Facebook - the most popular social networking site, designed by Mark Zukerburg is widely used by health professional educationalists. This study was planned at finding the effectiveness of Social networking sites (Facebook) as an informal educational learning tool for medical Students. We took advantage of newer human behaviour i.e. increasing tendency to check the site every day and read all the updates posted on homepage. We thought to use this student's behaviour in learning physiology. We created physiology group and posted the topics previously taught in the classroom. We tried to reinforce the topics in forms of diagrams, animations, multiple choice questions and puzzles. At the end of study, improvement in student's knowledge and students learning experience were evaluated.

***Corresponding author :**
Dr. Smita R. Sorte, E-mail ID: drsmyta@gmail.com,
Ph. : 09423409931

(Received on April 12, 2016)

Methods

Ours study was a case-control study which was conducted on 125 first year MBBS students. Institutional Ethical Clearance was obtained. First year MBBS students of 2013-2014 batch were informed about this study and those who were willing to participate were included in study. Written consent

was obtained from all students.

Multiple theory classes were conducted on unit I from physiology syllabus. A class test of 50 marks was conducted which included Multiple Choice questions, short answer questions and long answer question from unit I. Answer papers were evaluated by senior professors of physiology department. The aim for conducting the first exam was to take baseline snapshot of student's knowledge, and they were divided into three groups according to the marks obtained i.e. high, mid, and low achievers. Students who scored more than 70% were classified as high achievers, students who scores between 50%-70% were classified as mid achievers and students who scored less than 50% were classified as low achievers.

Then Facebook group "Physio Fever" was created and students were invited to join the group. Request to join "Physio Fever" from interested students was accepted. Various physiology topics from unit I, was posted on this group in form of diagrams, animations, videos and multiple choice questions. The aim was to reinforce the physiology topics in an informal way. Whenever students logged into their Facebook account, their home page had updates from the group. The tendency of reading every update by the users probably helped to reinforce the knowledge informally. Visualisation of diagrams also helps in reinforcement. Students like/ comment/ share or asked queries on this group page as per their convenience round the clock. Queries were answered as soon as possible, till they were satisfactorily resolved. This Facebook group was moderated by three assistant professors of physiology department. This exercise was done for three months.

Students were divided into two groups. "Group I" included students, who had join the Facebook group "Physio Fever" and willing to participate in study. In this study group students were getting study material by visiting Facebook at any time as per their convenience and interest. "Group II" included student who had not joined the group but willing to participate in study. Group II students had not joined the group because some students did not have a Facebook account due to lack of internet / computer knowledge while others had an account but no access to internet. Group II was expected to do self study i.e. to learn from classroom and various textbook from library, which is the traditional learning method among MBBS students. If they had query, then they were encouraged to ask queries to staff personally and discuss them. These students could find extra study material in different books, but had to take their own efforts for finding and studying. This is studying trend of MBBS students. In this study, study material is same from books, but group I is accessing it via Facebookas per their convenience, interest and not confined by time and space, whereas other group II is learning same thing from classroom and textbook, so there was no inherent difference between two groups.

Students of both group I and II were divided into High Achievers, Mid Achievers and Low Achievers on basis of previous class test.

At end of 3 months, a class test of 50 marks was conducted which include multiple choice questions, short answer questions and short answer questions. Syllabus for this exam was same as that of previous exam. Answer papers were evaluated by senior professors of physiology department. The aim of this exam was to see improvement in student's knowledge due to use of social networking platform. At the end of study feedback was obtained from students.

Results

TABLE I: Shows the number of students in each group.

	(Group I) Students registered on FB (n=80)	*(Group II) Students not registered on FB (n=45)*
High achievers	n=10	n=12
Mid achievers	n=39	n=23
Low achievers	n=31	n=10

TABLE II : Shows the student's scores in % for the exam conducted at start of study for Group I and II student (Unpaired t test was used to compare the result.)

	Group I	*Group II*	*P value*
High Achievers	75%±4%	73%±2%	< 0.005
Mid Achievers	59%±3%	56%±3%	< 0.005
Low Achievers	45%±3%	46%±4%	< 0.005

TABLE III : Shows the student's scores in % for the exam conducted at end of 3 months for Group I and II student. (Unpaired t test was used to compare the result.)

	Group I	*Group II*	*P value*
High Achievers	85%±5%	77%±4%	< 0.005
Mid Achievers	65%±4%	58%±3%	< 0.005
Low Achievers	54%±3%	50%±2%	> 0.005

TABLE IV : Shows feedback from Group I Students.

	Strongly agree	*Agree*	*Neutral*	*Disagree*	*Strongly disagree*
You think Facebook group has help to improved your knowledge	71 (88.75%)	8 (10%)	1 (1.25%)	0	0
Social networking site is an effective learning tool	65 (81.25%)	12 (15%)	2 (2.5%)	1 (1.25%)	0
Facebook group increased your interest in studying online	59 (73.75%)	16 (20%)	4 (5%)	1 (1.25%)	0
You had started active searched for online study material	22 (27.5%)	28 (35%)	29 (36.25%)	1 (1.25%)	0

Discussion

This study is a pilot study conducted using available student sample size from our college. The study was aimed at finding the effectiveness of social networking sites like Facebook to reinforce student's knowledge. We conducted a case control study, in which cases or group I was using FB (exposed to FB) / newer teaching method and controls or group II who are not using FB (non-exposed to FB) / traditional method.

Table II shows, achievers of the two groups had comparable scores at the time of dividing them into the three groups as indicated by $P<0.05$. Table III shows, increase in exam result of high and mid achievers from group I as compared to high and mid achievers from group II students as indicated by $P<0.05$.

Our study shows that social networking sites had proved itself as an effective informal learning tool for medical students in an Indian medical university. It was extensively appreciated by students; they had described the experience as "learning with Fun". They reported increased in their knowledge, easy way to reinforce knowledge, developed attitude toward self learning and has increased online studies.

Previous studies have uncovered importance of social networking sites as informal learning tool and for easy learner interaction (1-7). Numerous studies are conducted for foreign universities and different courses. Teaching patterns and curriculum are different in foreign university and they found social media as useful learning tool. Till date no study has been conducted for MBBS students in India. Our study was first in India, and found social networking sites as useful informal learning tool verses Indian traditional teaching pattern for MBBS curriculum.

Social networking sites helps to engage users for online discussion, which imparts easy posting and sharing of topic and serves real-time, dynamic platform to allow course-related discussion that facilitates active learning. As compared to learning in classroom which is passive, social networking sites enhanced active learning out of interest. Active learning helps students to retain more knowledge and outperform than students who learns passively in classrooms. It promotes self-directed learning.

Informal learning occurs outside the framework of formal educational environment and put forward the technique of holding students in scholarly content without time limitations of formal curriculum. Social media promise additional advantages of an informal, portable, flexible and not time bounded- as topic

discussions can be held outside regular class. Social networking sites assured active learning among students and helped in easy interactions between teachers and students. We found that students feel free to ask queries on social networking sites than to ask queries personally. 90% students from group I participated in online discussions and asked queries whereas only 22% students from group II asked queries personally.

Social media shows promise as innovative informal learning tool. Daily addition of newer data and updates cannot be taught in classroom, which can be easily posted on social sites and keeps students updated. Thus social networks prove to be a useful platform for student learning.

References

1. Margarita VD, Jennifer LK. Using Facebook to Facilitate Course-Related Discussion Between Students and Faculty Members. *Am J Pharm Educ* 2012 Mar 12; 76(2): 32.
2. Cain J and Policastri A. Using Facebook as an Informal Learning Environment. *Am J Pharm Educ* 2011 Dec 15; 75(10): 207.
3. Estus EL. Using Facebook within a geriatric pharmacotherapy course. *Am J Pharm Educ* 2010 Oct 11; 74(8): 145.
4. Fox BI, Varadarajan R. Use of Twitter to Encourage Interaction in a Multi-campus Pharmacy Management Course. *Am J Pharm Educ* Jun 10, 2011; 75(5): 88.
5. Cartledge P1, Miller M, Phillips B. The use of social-networking sites in medical education. *Med Teach* 2013 Oct; 35(10): 847–857.
6. Sorte S and Rathod S. Facebook in Medical Sciences - A Boon or Bane. International Journal of Current Research. 2012; 5(02): 107–109.
7. Abrahamson S. (1978) Diseases of the curriculum. *J Med Educ* 1978 Dec; 53(12): 951–957.