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Social Media Application as an Effective Learning-Teaching Module for Creating Awareness among Medical Practitioners Regarding the Legal Duties.

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Abstract: Aim of this study is to investigate the effectiveness of social media app for creating awareness among medical practitioners regarding their legal responsibilities related to the medical profession.WhatsApp app was chosen for this study. A WhatsAppGroup of 30 volunteered medical practitioners was formed, and discussion was limited to various articles related to the legal duties of doctors in medical practice.Before the formation of a study,a pre-assessment test was taken of all participants with a peer-reviewed questionnaire, and after that, various study material circulated on the WhatsApp group along with an active discussion on the circulated study material for a period of one month. The post-assessment test was taken after one month, and the result was analyzed.It has been observed that social media apps like WhatsApp could be effective in teaching-learning methods for creating awareness on certain topics.

Keywords: Social Media app, WhatsApp, Teaching Learning method, legal duties of Medical Practitioner.

Introduction:

Now a day,WhatsApp has become very popular in the Indian community. WhatsApp is a popular mobile application for providing an instant messaging service in smartphones.

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WhatsApp is one of the significant changes in mobile apps communication in the recent past. Its users are growing very fast on mobile phones and also on the computers. Recently, the mobile messaging app announced more than 1 billion monthly active users, up from over 700 million in January 2015.(1)Research has suggested that health professionals seek better ways to conduct their online activities and lifelong learning with the help of social media like WhatsApp.(1)

In the current pandemic situation of COVID-19, social gatherings are prohibited by the government to stop the spread of disease. In such a situation, online teaching is widely proposed and adopted. Hence, the aim of the present study to assess the effectiveness of the WhatsApp social media app as a teaching-learning moduleto create awareness among medical practitioners regarding their legal duties in medical practice.

Material and method:

It was a prospective analytical study conducted at AIIMS Nagpur. A WhatsApp group consisting of 30 volunteered medical practitioner and 2 forensic expert which were group adminwas made. Informed consent of all participants was taken before the start of the study. Practitioners werefrom various specialty subjects including dermatology, psychiatry, pediatrics, orthopedics, anesthesia, general physicians, etc. 2 Group Admins of the groups were the Investigators ofthis study who were forensic medicine experts. A pretest and posttest questionnaire on the topic, along with the feedback form, was prepared and validated. Assessment of knowledge was done by giving pre and posttest questionnaires, in the beginning, and at the end of the TL activity, respectively. The perception of e-learning through WhatsApp was done by feedback form.

Before the initiation of the learning module, all participants were given peer-reviewed and validated questionnaire as a part of the pre-activity test that checked the awareness of the participating medical practitioner about their legal duties in amedico-legal case. After the pretest, each question of the questionnaire was put on the WhatsApp group for discussion. Participants were allowed to discuss the topic on the group.Relevant literature related to each topic of the questionnaire was provided to the participants. That included paragraphs from standard medical books, research papers published in various journals, court judgments in differentmedico-legal cases,cutting of newspapers, etc. were provided to participants. It was followed by group discussion, which was limited to concerned medico-legal issues only. Various responses from faculty were noted, and valuable inputs were given to them with available references. The activity was continued for a period of three months. This was followed by a post-activity test with a similar questionnaire and response from the participants assessed for awareness among Medical Practitioners regarding the legal duties. Both the pretest and posttest were conducted using Google forms.

Response to each question was recorded in a 3-point score system. Practitioners who hadadequateknowledge indealing with the medico-legal issue involved in a particular question and implementing the same in their routine medical practice were given 3 points. Thepractitioner who has mere knowledge but not implementing particular Medico-legal practice related to

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question was assigneda score of 2 points. The practitioner who was completely unaware of theMedico-legal issueinvolved in a particular question was given one point. So,the maximum score for all 15 questions together was 45.

The score was calculated for each participant after the pre-activity test and post-activity test. Basic statistical tools were applied for the analysis of scores to determine the effectiveness of WhatsApp social media as a tool for the teaching-learning method.

Table 1: Questions includedinthe study

Sr. No.	Questions
1	Do you think that doctor must inform the police immediately if he happens to come across the patient who is suffering from homicidal poisoning?
2	Do you think that doctor should record dying declaration when police official or magistrate is not available?
3	Do you think that investigating police officer has the power to summon the doctor for seeking all the information regarding the Medico-legal case, which the doctor has seen?
4	Are you aware that concealing the information from police to protect the accused is liable to prosecuted under S.202 I.P.C ?
5	Do you think that doctors should preserve gastric lavage from patients in a suspected case of poisoning in each & every case?
6	Is it true that doctors should preserve the clothes having evidence of Medico-legal importance like (blood stains, stains of vomit, cuts, etc.) for further handing over to the police?
7	Are you aware that non-compliance with police regarding the collection of evidence to protect accused is punishable under S.201 IPC ?
8	Are you maintaining a Medico-legal case register at your clinic? Is it mandatory?
9	Are you aware of the procedure for informing all the Medico-legal cases to the police? Have you set any protocol regarding this at your clinic?
10	Are you aware of giving a compos mentis certificate when asked by the police?

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11	Do you think whether a medical practitioner should seek information from a specialist doctor to finalize the injury report regarding the patient observed by him?
12	Is it true that 'Conducting Medico-legal autopsy is the discretion of police and not of a doctor'?
13	What do you think, is there any time limit to preserve Medico-legal reports defined by law?
14	Do you think that refusal to answer the question in court by the summoned doctor is punishable with imprisonment?
15	'Doctor should sign on the oral statement recorded by the police.' In your opinion, is this statement true or false?

Observation and result:

At the inception of this study, all the participants (n = 30) joined the WhatsApp group. Over the 3 months of implementation of this teaching method, none of the participants left the group. Most of the participants actively participated in the discussion carried out on this group. Preactivity test and postactivity test was conducted online. Response to each of the question was variable. The test results are depicted in diagram 1.Pr-test score ranged from 18 to 30, while post-test score ranged from 26 to 35. When complete response and score of all participants calculated then average score per participant noted were 23 out of maximum 45 score. Same score when calculated after end of the activity average score per participant was raised at 35.This denotes the effectiveness of social media app whatssapp as an effective teaching –learning modules in creating awareness among the participants. Feedback was obtained using Likert-scale. Most of the participants reported that this method helped them to clear subject doubts. The pretest and posttest scores were compared forand results obtained were analysed using paired T test to check the statistical significance of the teaching learning module. The difference in pretest and posttest was found to statistically significant by Paired t-test ($P < 0.0001$).By conventional criteria, this difference is considered to be extremely statistically significant

Diagram 1a & 1b: Scatter diagram of Pretest & Posttest score of participants

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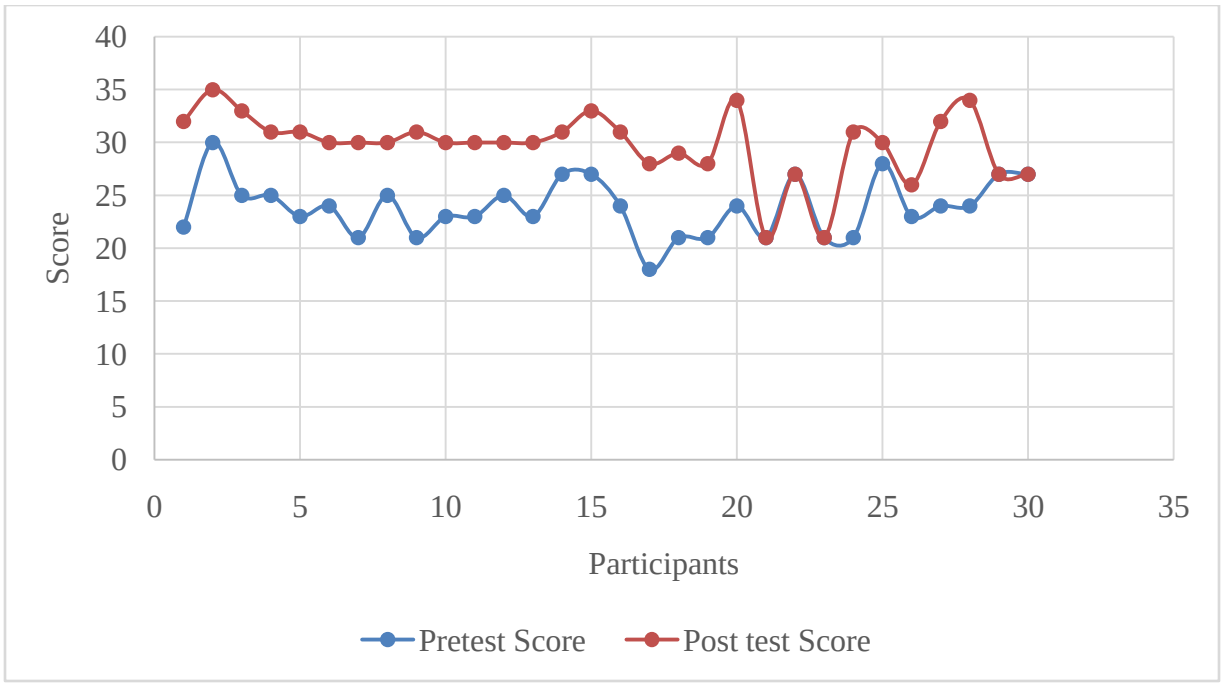

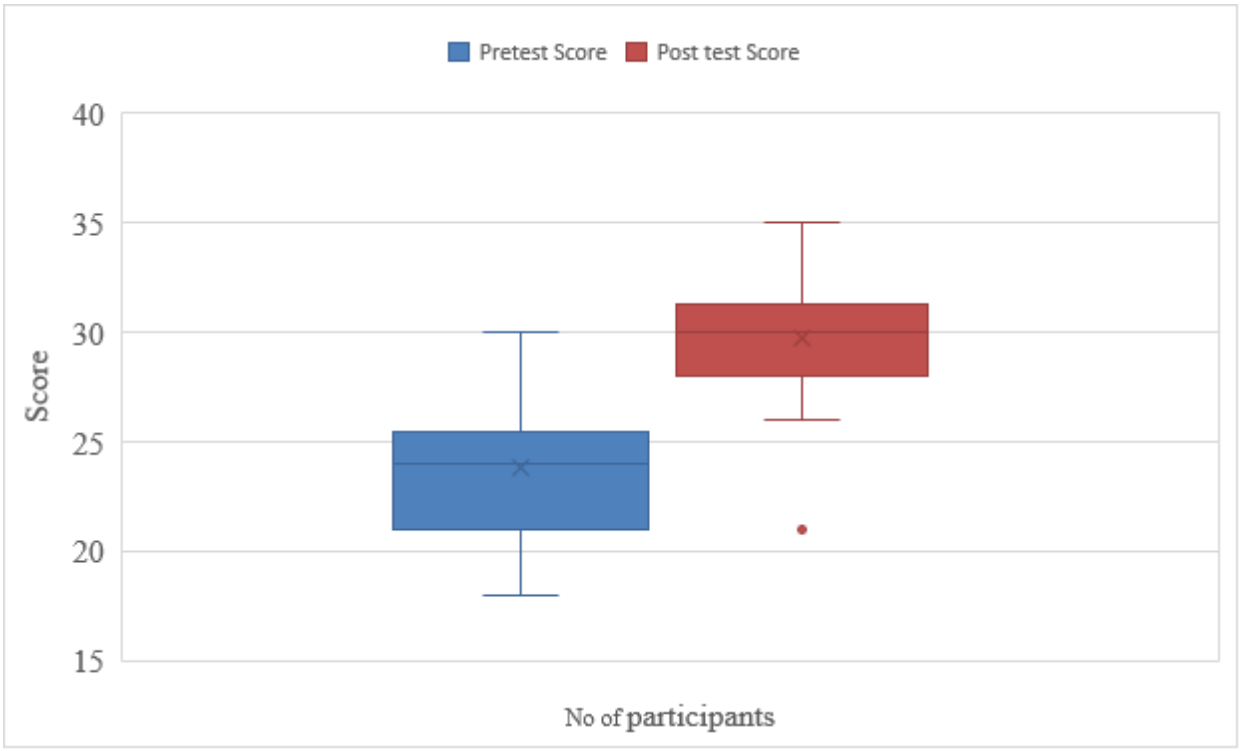

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Discussion:

Doctors are commonly encountered with medico-legal cases inthe casualty section. Apart from the treatment of such patients,the doctor has some legal responsibility as defined by the law.(2) Failure to perform these duties can lead the doctor into trouble & he or she may face legal notice or punishment from the court. Considering the above things department of Forensic Medicine planned educational activity to make medical practitioners aware of their duties in case of medico-legal cases.

The emergence of social media (SM) and social networking services to communicate in real-time and On-the-goby patients and health professionals were recognized as an important public health development more than a decade ago.(3)In 2007, Kamel Boulos described social networking services (SNSs) as collaborative, mediated environments, where personal computers and mobile devices can be used to foster stronger connections, and new forms of information can be shared.(4) Some examples of SM types are wikis (e.g., Wikipedia), social networking sites (e.g., Facebook, LinkedIn, WhatsApp), media-sharing sites (e.g., YouTube,SlideShare), blogs and micro-blogs (e.g., Blogger, Twitter), etc. Health professionals have increased their social networking via Twitter, Facebook, blogs, vlogs (video blogs, e.g., on YouTube), infotainment, games, and infographics.(5)

Various studies have been conducted on this issue, like a study by Guler C, who has shown the effectiveness of WhatsApp in assessing the student in higher education.(6)Similarly, in a study by Maske SS, Kamble PH, it has been mentioned that WhatsApp as an effective and feasible teaching-learning method for histology teaching.(7)A study by Gon S and Rawekar A has also stated that WhatsApp as an effective e-learning module(8) also, as per a study by Cetinkaya L(9) it has stated that WhatsApp has a positive impact on the majority of students in the education process. Our findings are consistent with the resultof these studies.

Conclusion:

Effectiveness is the evaluation of decided, decisive, or desired effect after an intervention. In the present study, to assess the efficacy, we used pretest‑posttest design. The results of the pretest and posttest examination showed that there was a significant improvement in the test scores after the intervention. Hence, we conclude that the teaching-learning module usingWhatsApp social medic App is a feasible, effective, and acceptable teaching method for creating awareness among Medical Practitioners regarding the legal duties.In the present pandemic situation,when teaching in the classroom is not possible due to fear of spreading disease, online teaching is widely followed, and WhatsApp social media app can be good possible alternatives to the classroom.

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