

Role of WhatsApp in Linking the Orthopedic and Allied Department for Updates, Engagement and Education

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ABSTRACT

Introduction: WhatsApp has emerged as a widely used communication platform in various domains, including healthcare and academic settings. In the field of orthopedic surgery and allied health sciences of orthotics and prosthesis, the use of WhatsApp has gained significant attention for engaging professionals and sharing updates and academic material.

Objective: To find out WhatsApp's use in technology for engagement, sharing the updates and academic material in orthopaedic and allied health sciences of orthotics and prosthesis.

Methods: We conducted this cross-sectional survey using a convenient sampling technique at the Orthopedic Surgery Department from June 1st to July 18th, 2018. The sample size was 63 participants working and studying in the department as house surgeon, senior and junior postgraduate trainees, senior registrar, assistant professor, professor, students of Orthotics and prosthetics under-graduate students.

Results: Out of 63 participants, 54 (85.7%) were male, and 09 (14.3%) were females. When they were inquired about WhatsApp was an easy job than using email, and Facebook majority 41 (65.1%) were agreed, 12 (19.05%) were strongly agreed, 06 (9.5%) were neither agreed nor disagreed, 04 (6.34%) disagreed. For engagement, when asked, did you find it helpful for obtaining information quick/right time? The majority 51 (80.1%) were agreed, 05 (7.9%) were strongly agreed, 05 (7.9%) neither agreed nor disagreed, 02 (3.2%) disagreed and none of them strongly disagreed. Did you find it more helpful than the notice board for obtaining Roster and Notifications majority 42 (66.7%) were agreed, 06 (9.5%) were strongly agreed, 12 (19%) were neither agreed nor disagreed, 03 (4.8%) disagreed and none of them strongly disagreed.

Conclusion: Whatsapp was a good and easy tool that can be used for sharing, update, and engagement for the roster, ward notification and academic material as compared to email, Facebook and notice board.

Keywords: WhatsApp, Technology, Academic, Orthopedic surgery

Doi: <https://doi.org/10.53708/hpej.v6i1.34>

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INTRODUCTION

Smartphone and tablet apps are used worldwide. They are an excellent addition to health and health care. They provide better collaboration and learning opportunities for health care professionals and peer to peer support (Boulos et al., 2011; Kamel Boulos et al., 2014). According to the centre for disease control (CDC), more than half of the American population aged between 25 to 29 year lives in a house without traditional landline phones (Blumenfeld et al., 2001). It is also impacting our way of communication, culture, identity, and relationship. It is on the verge of a cultural shift of seeking information and making a new connection (Wilber, 2007).

Early in 2006 and 2007, two articles were published on the use of apps in health and health care (Boulos et al., 2006; Kamel Boulos and Wheeler, 2007). It enhances online learning and shares knowledge readily with peers. The question is how we use this technology and for what purpose. There may also be a barrier to using technology for older professionals as compared to young professionals. The mobile application used by the medical professionals has shown their increased participation, share teaching material and giving feedback (Cochrane and Antonczak, 2013; Makoe, 2010; Nicholson, 2002; Rambe and Bere, 2013).

It also affects the privacy of a person. It can result in a conflict of interprofessional and family life with sharing of irrelevant and undue use of WhatsApp at the workplace and home. Borderline personalities may be effective with the harmful aspect of using WhatsApp with symptoms of low self-esteem, affective disorder (Carbonell et al., 2012).

There are three teams in Orthopedic surgery including senior and junior residents. They perform their role and responsibilities in indoor, outdoor and emergency. The ward orders, sharing teaching, and learning material including journal club article, sharing recent updates, case discussion, clinical class and consultant opinion on patients' management plan for various fractures in an emergency is need of the hour. Trainees are also involved in allied health sciences teaching related to orthopaedic.

We determined Whatsapp use as an effective tool for sharing updates, academic material and its effect on personal life in place of email. How Whatsapp was useful in engaging the department is busy and different work routines in Orthopedic surgery and Orthotics and prosthesis undergraduate students.

METHODS

We conducted the cross-sectional survey using a convenient sampling technique at the Department of Orthopedic Surgery, King Edward Medical University/ Mayo Hospital, Lahore from June 1st to July 18th, 2018. A total of 63 participants working and studying in the department as a house officer, post-graduate trainees, senior registrar, assistant professor, professor and student of Orthotics and Prosthesis who were using Whatsapp for five years and above were included. House officer, post-graduate

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Received: August 15, 2022 Revised: January 11, 2023

Accepted: February 18, 2023 Available online: June 15, 2023

trainees, senior registrar and teaching faculty from general surgery, urology and plastic surgery, incomplete questionnaire, questionnaires kept by the participants and submitted afterwards were excluded.

After taking ethical approval from the university institutional review board, informed written consent was taken from all the participants. All participants who gave written permission were included in the study. All participants were approached at their work station, and a self-administered pretested questionnaire was developed after going through different books, literate and article was used. Five scale Likert criteria was used in all questions graded as strongly agree to strongly disagree with each item in the questionnaire. A pretested self-administered questionnaire was pilot with five senior and junior residents, a senior registrar and an assistant professor. Vague questions were revised relating to the objective, clarity of meaning and phrase understanding.

Data was entered and later analyzed with the help of SPSS 21.0. Quantitative variables like age were presented as mean±SD and qualitative variables like gender, WhatsApp use, and the academic year were presented as frequencies and percentages. Chi-square was applied for generating the academic discussion and access to the academic material with the gender of the participants was done, and p-value < 0.05 was taken as significant.

RESULTS

Amongst the total 63 participants, male were 54 (85.7%) and females were 09 (14.3%). The minimum age and maximum age was 22year and 57year with a mean age of 33.5±9.8year. {articipants were using Whatsapps for five years. House officer was 04 (6.3%), Orthotics & prosthesis students were 09 (14.3%), postgraduate trainees were 37 (58.7%), senior registrar 07 (11.1%), assistant professor 04 (6.4%), and two (3.2%) professors.

When they were asked about the install or operate the WhatsApp was an easy job, most 21 (33.3%) were agreed, 17 (27%) were strongly agreed, 10 (15.9%) were neither agree nor disagreed, 10 (15.9%) disagreed and 05 (7.9%) strongly disagreed. When it was asked that do you still believe that it can be used to enhance the learning most 28 (44.4%) were agreed, 19 (30.2%) were strongly agreed, 08 (12.7%) were neither agree nor disagreed, 06 (9.5%) were disagree, and 02 (3.2%) strongly disagreed. The participants were asked about the use of the technology is an essential component for the information learning majority 33 (52.4%) were agreed, 11 (17.5%) were strongly agreed, 13 (20.6%) neither agreed nor disagreed, 07 (11.12%) disagreed and none of them strongly disagreed. The use of new technology for academic discussion and sharing learning material was answered by the majority 35 (55.5%) were agreed, 15 (23.8%) were strongly agreed, 07 (11.2%) were neither agreed nor disagreed, 06 (9.5%) disagreed. When they were inquired about WhatsApp was an easy job than using email, and Facebook majority 41 (65.1%) were agreed, 12 (19.05%) were strongly agreed, 06 (9.5%) were neither agreed nor disagreed, 04 (6.34%) disagreed. The personal life and academic aspect of WhatsApp have been given in Table 1 and 2.

Table 1. Personal Life of the Participants

| Variables | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|--|-------------------|-------------|----------------------------|-------------|----------------|
| Do you feel comfortable while sharing information in this group other than teaching material? | 02 (3.17%) | 08 (12.6%) | 26 (41.3%) | 23 (36.5%) | 04 (6.3%) |
| Do you feel secure while sharing any personal information in this group? | 00 (00%) | 04 (6.3%) | 16 (25.4%) | 30 (47.6%) | 08 (12.7%) |
| Do you feel better when you share learning/teaching material in this group? | 00 (00%) | 06 (9.5%) | 12 (19.04%) | 36 (57.14%) | 09 (14.28%) |
| Do you believe that another person in this group responds timely to your questions or query? | 06 (9.5%) | 21 (33.33%) | 10 (15.87%) | 18 (28.57%) | 08 (12.69%) |
| Do you think that It has made your life easier for obtaining information regarding administrative ward work? | 01 (1.6%) | 07 (11.1%) | 18 (28.6%) | 28 (44.4%) | 09 (14.3%) |
| Do you think that WhatsApp was not safe, and it can steal your personal information's? | 01 (1.6%) | 10 (15.87%) | 21 (33.33%) | 25 (39.68%) | 06 (9.5%) |
| Do you feel dependent or addicted to this group for your ward work/matters? | 00 (00%) | 02 (3.17%) | 05 (7.9%) | 53 (84.1%) | 03 (4.85) |

Table 2. Academic Aspect of the WhatsApp

| Variable | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|---|-------------------|-----------|----------------------------|------------|----------------|
| Was it a useful tool for learning? | 00 | 01 (1.6%) | 12 (19%) | 43 (68.3%) | 07 (11.1%) |
| Do you prefer to use WhatsApp for sharing and download the educational material of your ward when compared with the email for this purpose? | 01 (1.6%) | 04 (6.3%) | 10 (15.9%) | 34 (53.9%) | 14 (22.2%) |
| Do you think that It has made your life easier for obtaining learning material / academic documents? | 00 (00%) | 04 (6.3%) | 12 (19%) | 32 (50.8%) | 15 (23.8%) |
| Do you think that generating academic discussion in this group affect your performance? | 01 (1.6%) | 05 (7.9%) | 18 (28.6%) | 35 (55.6%) | 04 (6.3%) |

| Variables | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|---|-------------------|-------------|----------------------------|------------|----------------|
| Did you generate the academic discussions on this group? | 01 (1.6%) | 07 (11.11%) | 19 (30.2%) | 30 (47.6%) | 06 9.5% |
| Was this academic discussion helpful and developed your educational understanding better? | 01 (1.6%) | 09 (14.3%) | 28 (44.4%) | 21 (33.3%) | 04 (6.3%) |
| Did you find it helpful in getting quick access to notes, x-rays or articles? | 00 (00%) | 03 (4.8%) | 08 (12.7%) | 39 (61.9%) | 13 (20.6%) |

For engagement, when asked, did you find it helpful for obtaining information quick/right time? The majority 51 (80.1%) were agreed, 05 (7.9%) were strongly agreed, 05 (7.9%) neither agreed nor disagreed, 02 (3.2%) disagreed and none of them strongly disagreed. When they were asked about its useful aspect that was it a useful tool for obtaining information from Dept. at the single time majority 42 (66.7%) were agreed, 02 (3.2%) were strongly agreed, 12 (19%) were neither agreed nor disagreed, 07 (11.12%) disagreed and none of them strongly disagreed. Do you believe that it has a more harmful effect compare to its useful effect majority 17 (27%) were agreed, 03 (4.7%) were strongly agreed, 22 (34.9%) were neither agreed nor disagreed, 09 (14.3%) disagreed and 12 (19%) strongly disagreed. Did you find it more helpful than the notice board for obtaining Roaster and Notifications majority 42 (66.7%) were agreed, 06 (9.5%) were strongly agreed, 12 (19%) were neither agreed nor disagreed, 03 (4.8%) disagreed and none of them strongly disagreed. Do you believe that it is a source of disturbance for personal life with this group majority 32 (50.8%) were agreed, 09 (14.3%) were strongly agreed, 14 (22.2%) were neither agreed nor disagreed, 07 (11.12%) disagreed and 01 (1.6%) strongly disagreed.

DISCUSSION

Technology has brought ease and revolution to people life and the role of the smartphone has rapidly increased in the past decade. New applications are used across the globe for communication and information. It has a good effect as well as a bad effect on the population. Health care professionals also use these apps.

In the study done in the use of WhatsApp for the health worker, they reported that it was a useful tool for communication between health care professionals specializing in emergency care when the consultant is outside the department (Gulacti et al., 2016). In this study majority, 51 (80%) viewed that it was a useful tool for academic communication. WhatsApp use has enriched the clinical knowledge of the doctors not only for clinical case discussion, information but also for sharing the resources and discussion (Khanna et al., 2015). In our study, the academic discussion helpful and developed your educational understanding better was agreed by 21 (33.3%) and strongly agreed by 04 (6.3%) participants.

In our data, when they were asked about its useful aspect that was it a useful tool for obtaining information from Dept. at the single time majority 42 (66.7%) were agreed, 02 (3.2%) were strongly agreed, 12 (19%) neither agreed nor disagreed, 07 (11.12%) disagreed and none of them strongly disagreed. The chat dynamics of the WhatsApp group helps contact junior residents with the senior resident and faculty member (Gould, Nilforooshan, and Peter', 2016). Do you prefer to use WhatsApp for sharing and download the educational material of your ward when compared with the email for this purpose majority 34 (53.9%) agreed that it was an easy tool to use? Literature also reported the easy upload and download of the data on this app (Kaliyadan et al., 2016).

In this study, WhatsApp was used by all the participants showed that it is the most used technology app for communication and personal use in their life. The majority agreed that it could be used for academic purpose. Still, they were not satisfied to use this technology for academic purpose as only 30 (47.6%) participant-generated the academic discussion on WhatsApp. In comparison, 23 (33.3%) viewed that generating academic discussion was helpful and developed their educational understanding better. Our results are comparable with Boulos et al., who reported that smartphone and WhatsApp usability is a critical issue due to software functionality and smartphone maintenance (Kamel Boulos et al., 2014). It was viewed differently amongst all the participants. Regarding engagement/deliberation of the ward responsibilities, sharing and receding journal club ward notification, x-rays while working at different stations were strongly agreed by the majority of the participants. Regarding personal life, the majority said that they believe that WhatsApp can steal their data and sharing personal information was not safe for them in the workplace WhatsApp group.

CONCLUSION

It was seen that for personal, academic and engagement purpose, WhatsApp was an easy app to install and use. Although it was considered a good tool for sharing academic materials yet Participants didn't feel safe sharing personal information. It also has an addiction that affects its ability in the workplace.

DECLARATION OF INTEREST

The author declare no conflict of interest.

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AUTHOR'S CONTRIBUTION

1. S.F. Manuscript writing and data collection and finalization