

Usage and Attitudes of Instant Messaging Applications among General Surgery Residents in Southern Thailand.

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บทคัดย่อ:

ที่มาและความสำคัญ: ประชาชนไทยได้นิยมใช้โปรแกรมประยุกต์ ในช่วงแรกเป็นไปเพื่อการติดต่อสื่อสารระหว่างบุคคล ต่อมาโปรแกรมดังกล่าวได้เป็นที่นิยมมากขึ้น จึงมีการใช้โปรแกรมเพื่อการติดต่อสื่อสารในกลุ่มคนซึ่งเป็นกลุ่มปิด และได้แพร่ขยายถึงการส่งข้อความเพื่อการปฏิบัติงานในสาขาวิชาชีพต่าง ๆ

วัตถุประสงค์: การศึกษานี้มีเป้าประสงค์เพื่อสำรวจถึงประโยชน์และทัศนคติการใช้โปรแกรมสำเร็จของแพทย์ประจำบ้านสาขาศัลยศาสตร์ทั่วไป

วัสดุและวิธีการ: แบบสอบถามได้ถูกส่งให้แพทย์ประจำบ้านทุกคน ที่กำลังฝึกอบรมในสาขาศัลยศาสตร์ทั่วไป ในคณะแพทยศาสตร์ มหาวิทยาลัยสงขลานครินทร์ แบบสอบถามเป็นแบบสอบถามที่ผู้วิจัยได้พัฒนาขึ้นมาเอง เพื่อได้ ประเมินถึงลักษณะการใช้ ความถี่และทัศนคติต่อการใช้โปรแกรม

ผลการศึกษา: จากแพทย์ประจำบ้านจำนวน 32 คน มีแพทย์ประจำบ้าน 30 คน ตอบและคืนแบบสอบถาม (ร้อยละ 93.75) ร้อยละ 93 ของแพทย์ประจำบ้านใช้สมาร์ทโฟน ส่วนคนที่ไม่ได้ใช้สมาร์ทโฟนจะใช้แท็บเล็ต ร้อยละ 96.7 มีการใช้โปรแกรมประยุกต์ไลน์ ส่วนใหญ่แพทย์ประจำบ้านใช้โปรแกรมประยุกต์ในการส่งข้อความ รูปภาพ และรูปภาพรังสี มีบางส่วนที่ใช้โปรแกรมประยุกต์ในการอภิปรายเชิงวิชาการ แพทย์ประจำบ้านเห็นว่าโปรแกรมประยุกต์ไลน์ทำให้การสื่อสารระหว่างกันสะดวกและรวดเร็ว หากแต่ยังมีความกังวลเรื่องการรั่วไหลของข้อมูลผู้ป่วย

สรุป: โปรแกรมประยุกต์ส่งข้อความสำเร็จมีประโยชน์ในการสื่อสาร และมีศักยภาพในการพัฒนาไปสู่การเป็นเครื่องมือในการเรียนรู้เชิงวิชาการ

คำสำคัญ: การสอนทางคลินิก, โปรแกรมประยุกต์, ระบบส่งข้อความทันที

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Abstract:

Background: Instant messaging applications are used widely in Thailand by many people including medical physicians. Instant messaging applications are a tool for personal communication and recently became a tool for group communication in the professional medical practice. However, there are no data on the frequency of use, utilities or attitude of Thai medical personnel of these applications.

Objective: To assess the utility, frequency of use, and attitude of surgical residents on instant messaging applications on smartphones or tablets.

Material and Method: In 2013, questionnaires were sent to all general surgery residents who were in training at the hospital of Prince of Songkla University to evaluate the utility, frequency of use and attitude of using instant messaging applications on smartphones.

Results: Thirty of 32 residents returned the questionnaire. A smartphone was used by 93% of the residents and the ones who did not use a smartphone used a tablet. LINE was the application most commonly used (96.7%). The residents used LINE mostly for sending and receiving text, clinical photos, and radiology films. Some of the residents used LINE for academic discussion. The residents strongly agreed that the application made communication between team members more convenient and faster. The main concern when using LINE is patient confidentiality.

Conclusion: Instant messaging applications are useful for communication between team members and they have the potential to become a tool for academic learning.

Keywords: instant messaging, clinical teaching, smartphone application,

Introduction

Instant messaging is a method of communication by sending text through the internet from one device to another.¹ It was initially developed for desktop computer users. However, since smartphones and internet access are ubiquitous, instant messaging was developed for smartphone users. Instant messaging carries more information than text messaging and it is faster than email.¹

Studies revealed the utility of instant messaging for communication in higher education levels and for the support of articulation of work in a hospital.^{1,2} However, no study has evaluated the utility and attitude on the use of instant messaging applications in residency training in terms of

medical consultations and education. There are many applications and programs for instant messaging. The three most outstanding applications are WhatsApp, WeChat, and LINE³ (LINE Corporation). LINE is an application that is used widely in Thailand. This application supports sending text, pictures, video calls, and files. In Songklanagarind Hospital, instant messaging is used among medical students, residents, and attending physicians. They were instructed to use this application with caution. All information sent by the application must be untraceable to the patient's identity. This study aims to explore the utility, frequency of use, and attitude of the instant messaging application in the surgery residency training program at Songklanagarind Hospital in southern Thailand

Material and Method

In 2013, questionnaires developed by the authors were sent to 32 general surgery residents in Songklanagarind Hospital which is a university hospital. The questionnaires evaluated the utility, frequency of use, and attitude of using instant messaging applications on smartphones. Attitudes were measured by a 5-point Likert scale. Demographic data that included gender and year in training were also collected.

Results

Of 32 residents, 30 residents returned the questionnaires. Twenty-one residents were male and nine were female. The numbers of residents for each year in training are given in Table 1. Twenty-eight residents used a smartphone and the others used a tablet. The two operating system were iOS (71%) and Android (29%). The most common instant messaging application used by the residents was LINE which was used by 29 residents. Other applications used by the residents were WhatsApp and Facebook messenger. The LINE application was used every day by 80% of the residents. LINE was used most often to send text, clinical photos, and radiology films (Table 2).

Table 1 Number of the residents categorized by year in residency

Year in residency	Number (Percent)
First year residents	10 (33)
Second year residents	7 (23)
Third year residents	10 (33)
Forth year residents	3 (10)

Table 2 Usage characteristics of LINE (n=27)

Usage characteristics	Number (Percent)
Text	27 (100)
Clinical photos	27 (100)
Lab results	22 (81)
Radiology films	26 (96)
Academic discussion	18 (67)

From the attitude evaluation, the residents strongly agreed that the application made communication between residents faster and more convenient. The average scores for speed and convenience were 4.26 and 4.46, respectively. However, an instant messaging application was used only for non-emergency communications (Table 3). The residents were concerned with confidentiality when patient information was sent by an instant messaging application. This concern was reflected in a score of 3.33 on the questionnaire for 'avoid using patient names'.

Discussion

Social media is in a state of change and is now a part of every day life. Some organizations such as the American College of Surgeons already have had movements through Twitter and Facebook with the potential to have a virtual consultation⁴. In our institute, we found that almost every surgery residents owned a smartphone or a tablet which was also found in a study by Payne et al.⁵ who surveyed smartphone and application use among medical students and junior doctors in the United Kingdom. They found that 79% of the medical students and 74.8% of the junior residents owned a smartphone. From our study, the LINE application was one of the common methods used by surgery

Table 3 Attitudes of the LINE applications

Attitudes of the LINE applications	Mean	S.D.
LINE makes communication between each resident in the team more convenient	4.46	0.65
LINE makes communication between each resident in the team faster	4.26	0.76
LINE makes communication with attending physicians more convenient	4.19	0.88
LINE makes communication with attending physicians faster	3.81	0.92
LINE is helpful in sharing clinical photos	4.67	0.62
LINE is helpful in sharing lab results	4.30	0.82
LINE is helpful in sharing radiology films	4.56	0.70
LINE is helpful in discussing academic issues	3.85	0.82
The stickers in LINE are helpful in communication	3.15	1.17
LINE causes a delay in communications	2.74	0.98
LINE is used to communicate in only non-emergency Situations.	3.96	1.13
LINE may leak patient information	3.48	1.01
Always avoid using patient names in the content sent by LINE	3.33	1.14

residents to communicate between themselves and the attending physicians. This can be explained by the popularity of LINE in Thailand which had 18 million users in 2013⁶. This study found that the residents had a positive attitude toward using LINE since it was convenient for communication. This study also demonstrated that an instant messaging application was not only useful for work in the care team but also useful for academic discussion. Jeong⁷ reported the results of a survey on the use of instant messaging communication in a class setting and found this method encouraged communication and expanded the student comfort zone. LINE seems to be a useful tool in both medical consultation and education aspects since it is convenient and offers two-way communication. Besides, all residents already own a smart device.

The problem concerning communication with this method, especially for medical information,

is security.⁸ The residents were also concerned with the patient confidentiality issue and tried to blind the identity of the patients but the score was not as high as other aspects. If the hospital wants an instant messaging application to be a formal communication tool, a self-developed instant application that has a secure system is needed to be developed to maintain the secure medical information and the users. Either the residents or the attending physicians should have rigid rules to protect patient confidentiality.

The limitation of this study is the small sample size since we have a small number of residents in the residency training in the program.

Conclusion

Instant messaging applications are useful for communication between team members and they have the potential to become a tool for academic

learning. However, patient confidentiality should be a concern before sending patient information through the applications.

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