Mobile Instant Messaging (MIM) to support teaching practice: Insights from a nurse tutor program in Nigeria

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Abstract

To determine the feasibility of using the Mobile Instant Messaging (MIM) platform, WhatsApp, to provide supervision and support for student nurse tutors during a teaching practice placement in Nigeria.

Methods

A descriptive qualitative method was used to design and evaluate a six-week WhatsApp group discussion intervention among 19 nurse tutors. Two pre-intervention focus group sessions (n=9 and n=10) and a workshop were conducted to assess the students’ content needs and media usage, and to develop a short online supervisory curriculum. To evaluate the intervention, two focus group sessions (n=9 and n=9) were carried out, transcribed verbatim, and analysed together with the actual WhatsApp conversations using thematic content analysis.

Findings

The participants found the WhatsApp-enabled learning space valuable, in particular for the transfer and application of knowledge in their day-to-day teaching practice and, more generally, for their professional development. There were rich and multifaceted indicators of learning and professional development in evidence which were mostly triggered by specific facilitation techniques. The four themes from the WhatsApp conversations were: (1) sharing practice cases and ideas (teaching practice); (2) spark questions and facilitating knowledge sharing among peers and supervisors; (3) sparking professional discussions and announcing professional development opportunities; and (4) maintaining a continuous and motivating teaching practice.

Conclusion

Despite some technical challenges centred mainly on the accessibility of the MIM space, the study identified indicators of good supervision practice and the results point to the feasibility and value of MIM to enhance supervision during teaching practice.

Introduction

Teaching practice is a placement in which students learn how to teach by being exposed to a real classroom setting1. It is an essential and highly valued component of many teacher education programs1,2. The underlying assumption of teaching practice is that teaching is best learned by observing practitioners and by providing opportunities for students to teach in a real setting3. Accordingly, programmes are typically designed to provide students with teachers who have diverse opportunities to put theories, which relate to the principles of education, into (teaching) practice4.

The development of teaching skills is, however, neither a straightforward nor an automatic development5. To support students in this process, they are guided by more experienced and qualified teachers in the local schools and by supervisors from the originating institutions in a systematic manner6. Supervision is thus connected to be a key component in teaching practice. It manifests in the form of appointed supervisors who pay scheduled visits to the student-teachers and inspect, assess and provide direct feedback on different components of the teaching practice program. These aspects include the development of lesson plans, teaching, class control and evaluation as part of efforts to ensure the professional development of the student1,5,6.

However, a number of shortcomings are associated with the supervision of teaching practice including insufficient time for supervision, supervisors’ difficulty to empathize with students’ concerns, inability to enable students in making the theory-practice connections and conflicts between assessment-oriented and supportive roles of supervisors8.

Against this backdrop, the capacity of Mobile Instant Messaging (MIM) to provide nursing students with support in informal learning settings, such as outside posting9,8 might be leveraged more systematically. More precisely, WhatsApp could be used as an additional supervisory platform to overcome some of the challenges indicated by providing a more continuous supervision process. The educational potential of MIM was confirmed by a systematic review, which pointed to a number of social, technological and pedagogical affordances10. These affordances could make WhatsApp as a platform that provides users with affordable ways to send and receive text messages, videos and other media at the one-to-one, one-to-many, many-to-one and many-to-many levels11.

However, despite its proliferation and its educational qualities, MIM may still be under researched forms of mobile learning. The potential of use of WhatsApp to connect, educate and supervising health workers in low resource setting is reflected by an increasing number of publications from a range of Sub-Saharan African countries12,13,14. For example, WhatsApp was used for educational support provided to student nurses during primary health care postings in South Africa and the platform was found to help learners to put their theoretical knowledge into practice15.

In Malawi, WhatsApp was found to support community health workers and their supervisors to engage in more continuous and focused supervisions, which could make WhatsApp to be a source for learning and professional development16,17.

The Setting

The study was conducted from March to June 2017, with 19 students who attended the two-year post basic training as nurse tutors at the University College Hospital, Ibadan, Nigeria. The students were enrolled for a period of six weeks in Schools of Nursing in different locations in the country, where they are expected to demonstrate and strengthen competencies for formal teaching. Supervisors pay scheduled visits to assess students and support teachers in developing lesson plans, management of class and lecture presentations. Successful completion of the teaching practice is a requirement for the award of a diploma as a nurse tutor recognized by the Nursing & Midwifery Council of Nigeria.

Ethical Considerations

The University of Ibadan/University College Hospital Ethics Review Committee approved the protocol of the study. Students were informed that participation data could be used for research purposes, that the information collected would be kept confidential and that their participation was voluntary. They were also assured that there would be no potential repercussions should they choose not to take part in the study. Written informed consent was obtained from the students before their enrolment in the study and each of the participants kept a copy of their signed informed consent.

Methods

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Study population, sample size and inclusion criteria

The study population were students undergoing teaching practice as part of their post basic training program as nurse tutors. The two inclusion criteria set for enrollment into the study were that the student owned a smartphone and was willing to participate in it. The total number of students enrolled for the program in 2017 was 19 and they all consented to participate in the study and were therefore enrolled. The participants were recruited shortly before the commencement of the teaching practices. The study was implemented in three phases: preparatory, intervention and evaluation. Details of the activities implemented in each of these phases are provided below.

Preparatory phase: Assessment of needs and media usage

The main purpose of the preparatory phase was to gain insights on how to design an intervention that leverages digital media as a means to supervise and support students during their teaching practice placements. To do so, two focus group discussions were carried out (n=9 and n=10 students, respectively). Both lasted about an hour and, upon the participants’ consent, they were recorded on a digital audio recorder and transcribed verbatim. The focus group discussions consisted of questions about the availability and ownership of smartphones, usage patterns of social media and training needs with regard to the teaching practice. Both aspects were expected to highlight any existing gaps and to identify the supervisory intervention to better support students during the placement. The findings indicate that nearly every student (n = 18/19) owned a smartphone. The only student who did not own a smartphone agreed to enrol in the study with the understanding that he would read posts on the group chat by reading these from the telephone of a colleague. The social media applications which were most well-known

were Facebook, WhatsApp, and Google Hangouts.

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The study drew on two main data sources: the information gathered in the focus groups (to understand the participants’ perceptions on the use of WhatsApp) and the written conversations in the WhatsApp group (to understand the very nature and the dynamics of the learning and supervisory interactions). The group discussions were transcribed verbatim. To understand the nature of the conversations, the WhatsApp discussions were downloaded. Both the WhatsApp group conversations and the FGD transcripts were entered into the ATLAS Ti software (version 7.5) and analysed using thematic method. The coding was based on an inductive content analysis approach, i.e., individual (similar) text segments were summarised to broader themes which emerged through the iterative analysis of the text. The content of the WhatsApp group conversations was also subjected to quantitative data analysis using frequency counts to determine the number of posts from each of the participant and the moderator.

Findings

Nature and form of the WhatsApp interactions during teaching practice

A total of 1530 posts were made in the WhatsApp group. A summary of the posts per week is shown in Table 1. The moderator’s engagement was high with her contributions accounting for 42% of the total posts. The highest number of posts per week was 264, which occurred during the first week of the teaching practice. This initial peak was followed by a number of weekly postings that ranged from 167 to 264. There was considerable variation regarding the number of posts contributed by the students. The students did not make any contribution when the contributions from the active participants ranged from n = 5 to 238. Thirty-four posts (2% of the total) contained photos, videos and other images and about a quarter of these images were posted by the moderator.

| Week | Total |
|------|-------|
| Week 1 | 264 |
| Week 2 | 253 |
| Week 3 | 267 |
| Week 4 | 250 |
| Week 5 | 250 |

The quickest contributor was one member of the research team who provided technical assistance to the group ‘Vibrant’ in expectation of a lively discussion. A moderator, who often worked well, and on issues that caused them worries. In addition, they often came up with potential strategies about how to overcome some of these problems. Apart from topics which related directly to concrete experiences of the teaching placement, the moderator also stimulated wider professional discussions at the intersection between nursing and teaching. For example, the question ‘How do you state your instructional objectives?’ was followed by discussions around the profession of nursing by highlighting the learners’ individual contributions. The encouraging nature of this immediate reaction is revealed in the following analysis:

The moderator asked students about concrete experiences of the teaching placement, the moderator also stimulated wider professional discussions at the intersection between nursing and teaching. For example, the question ‘How do you state your instructional objectives?’ was followed by discussions around the profession of nursing by highlighting the learners’ individual contributions. The encouraging nature of this immediate reaction is revealed in the following analysis:

The moderator oriented the students during the teaching practice by giving an overview of the placement process and by offering organisational information. In addition, the moderator also set the ground rules for and key principles of participation in the WhatsApp group. For example, she emphasised the importance of the digital space and invited everyone to participate and ask questions. In very rare occasions, she reminded students who did not adhere to some of the guidelines. Apart from reacting to prompts from the moderator, students also initiated the discussions and benefited from the moderator’s responses to questions pertaining to organisational issues of their teaching practice. In addition to providing orientation and information on placement practicalities, the moderator requested students to share their updated curriculum experiences and posts. Reflective practice or, more concretely, reflection on action is a central process of students’ learning and professional development. This was fulfilled in the third question about the students’ immersion in their new professional context and their self-perceived level of preparedness “How are you settling down in your new environment? […] How prepared are you for the teaching practice?” The moderator also asked students about concrete experiences in their teaching practice, such as: “Let us share our class room experiences so far in the course”. In so doing, she triggered and enhanced the students’ learning, especially because they often related to their theories, they had worked well, and on issues that caused them worries. In addition, they often came up with potential strategies about how to overcome some of these problems.

Professional discussions and announcing professional competence

Apart from topics which related directly to concrete experiences of the teaching placement, the moderator also stimulated wider professional discussions at the intersection between nursing and teaching. For example, the question ‘Can we identify nursing with teaching and vice versa?’ was followed by discussions around the profession of nursing by highlighting the learners’ individual contributions. The encouraging nature of this immediate reaction is revealed in the following analysis:

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... to questions they had not yet addressed:

Moderator: ‘I have not gotten yr contributions on Lesson plan’.

Student 1, student 2, student 3 etc.

Expecting yr contributions, nurses connect

The teaching presence was complemented by the development and maintenance of a social presence which was construed as joint product of the moderator’s and the students’ contributions. The sociality went beyond the moderators’ initial ice-breaking activities such as “To be sure we have u with us show a smiling face icon” and also included communicative sequences that initiated or concluded daily or weekly discussion episodes, such as wishing others “good morning” or “a Happy weekend.” This form of social presence was actively maintained by both moderator and students. Although it is clearly lacking strong intellectual and/or educational qualities, its social nature is conceived to be relevant as it can pave the way for a more “productive” use of MIM®.

The ongoing teaching and social presence was deemed to expand the students’ educational terrain across the geographical and temporal boundaries of their respective schools, as the following excerpt aptly illustrates:

Student 1 (FGD): ‘...before the class was opened, we have left the school, it was as if we were still very much in school’.

The continuous moderation presence was welcomed and well received by the students, as the following quote from the focus group discussion exemplifies: “...and if we were still very much in school’.

Another way, which helped students to apply knowledge were the mini scenarios because they showed them concrete ways to react to a realistic situation in the classroom. The following statement, which was made by a student in the FGD, also exemplifies how students were able to put the digital lessons from the scenario directly into their teaching practice:

Student (FGD): ‘An important issue was raised on the platform regarding how to react to students using their phone and it helped me in my class work...one day...a student was actually busy on his phone, so I now called the student I said he should bring the phone in so we can use the phone, I kept him asking questions, I now asked him question what I said immediately but the student was not able to answer so I now asked him to go back to his seat but he should not sit there. However, the FGD participants also identified challenges, which included insufficient airtime, power outage which made it difficult to recharge the phones, and poor network connectivity that affected the quality of reception. In the midst of the discussion, one student identified the restricted opportunities to participate in the WhatsApp group by stating “No light here, no network”.

Other challenges related to the tensions that resulted from the intrusion of the digital communication into daily practices, which were evidenced in the way students responded to the digital communication. The digital communication was associated with high expectations and demands on the part of the students who did not contribute at all. Their inactivity could be a result of poor typing abilities, or of funds to remain online for extended periods of time, or, simply a lack of interest. The phenomenon of stark differences regarding the intrusion of digital communication in the students’ professional advancement and development, i.e., how they experienced involvement in the group chat was positive. Students responded to my greetings (...)

The findings of this study and their generalisation need to be supported via MIM during placements, professional and time-intensive moderation and support is required. To lessen the burden on one moderator, future research may investigate the extent to which some of the participants can work collectively and explore the ways in which peer dynamics could be further encouraged to provide students with more opportunities to learn from one another, which they valued already in the present study.

Overall, most students participated actively in discussion and contributed written messages. This can be viewed as particularly important because recent research found that educational and socio-professional benefits materially engaged actively in MIM spaces, i.e., who contributed with own messages to the group. However, the moderator’s efforts were met with considerable variability in the number of students’ written contributions, with two students who contributed at all. Their inactivity could also be a result of poor typing abilities, or of funds to remain online for extended periods of time, or, simply a lack of interest. The phenomenon of stark differences regarding the intrusion of digital communication in the students’ professional advancement and development, i.e., how they experienced involvement in the group chat was positive. Students responded to my greetings (...

The contributing factors to the success of the present intervention were the fact that students were already familiar with the use of the digital platform, and in the use of content that is directly related to the needs of the students. This is also expressed by the observation that the moderator’s contributions accounted for nearly half of the conversations. What follows is most of the discussions occurred between students who have been already engaged actively in MIM spaces, as the following quote from a partner student illustrates: ‘...I am also been also found in other WhatsApp and MIM studies in similar settings’. The relevance of the continuous presence maintained by the moderator also signifies that, if students are to be supported via MIM during placements, professional and time-intensive moderation and support is required. To lessen the burden on one moderator, future research may investigate the extent to which some of the participants can work collectively and explore the ways in which peer dynamics could be further encouraged to provide students with more opportunities to learn from one another, which they valued already in the present study.

Mobile Instant Messaging platforms to enhance education in general and the supervision and professional development of health workers in African countries in particular...[10,11].

Conclusions

Findings from this study indicate that it is feasible to use WhatsApp and MIM platforms to provide supervision and develop professional skills in situations in which there are limited opportunities for face-to-face interactions between teachers and students in outsider placements, such as teaching practice. Despite some technical challenges faced, maintenance of the MIM space was adequately handled. The study identified evidence of good supervision practice and rich and, in the same way, multifaceted indicators for learning and professional development.

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