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Abstract

Social media is not only an emerging and cultural trend, but a method of communication that is changing the way individuals and organizations throughout the world transmit and receive information. Nurses play a significant role in identification, interpretation, and transmission of knowledge and information within the health care system. Social mobile media spaces provide a platform that can assist both qualified and student nurses keep in touch with each other and share best practices and prevent isolation for those placed in far flung areas of the country. Data were obtained from WhatsApp discussions involving one group of HIV nurse practitioners followed for a period of six weeks. Data analysis was conducted by the lead investigators and took the form of thematic analysis. The data were constantly compared with the codes in order that the shift in the meaning is minimized and accuracy and confirmability is maintained. Ethical approval was obtained from the University of Zambia, School of Medicine’s Research Ethics Committee. Anonymity was maintained through the use of pseudonyms. The results revealed that social media as tool of communication in Zambia has been used by HIV nurse practitioners in both urban and rural areas for sharing best practices and prevention of professional isolation. The tool is also used for emotional and social support as well as a source of motivation for its users. Mobile Instant Messaging (MIM) is a resource that can benefit the nursing profession in keeping abreast with the new trends in the care of patients and prevention of professional isolation. However, it is important to ensure that the interaction is structured to prevent digression from the core purpose which might lead to loss of direction.
1. Introduction

The expanding advances in technology connectivity and communication have seen the number of nurses participating in social mobile media spaces increase significantly. Nurses play a significant role in identification, interpretation, and transmission of knowledge and information within the health care system. Social mobile media spaces provide a platform that can assist both qualified and student nurses keep in touch with each other and share best practices and prevent isolation for those placed in far flung areas of the country. Although there are barriers to integration of social media within nursing education, there are quality resources available to assist faculty to integrate social media as a viable pedagogical method (Schmitt et al., 2012).

According to Boyd & Ellison (2007), social media is not only an emerging and cultural trend, but a method of communication that is changing the way individuals and organizations throughout the world transmit and receive information. The main aim of social media is to engage people through electronic means, most often supported through internet sites or software. These involve people who “follow” or are “friends” with each other, meaning that people are connected to a person in a way that they can see his or her information and updates. Within these sites people also share their lists of followers and interact to exchange information, knowledge, opinions, and other forms of communication. Technological advances continue to fuel the development of social media as a mechanism for knowledge and information exchange within local, national, and global communities. WhatsApp is the most commonly used Mobile Instant Messaging tool and is said to attract more than 1.2 billion active users in a month (Statista, 2017). And as such, it is one of the most popular MIM platforms. Therefore, this paper has been derived from the WhatsApp interactions among alumni of the HIV Nurse Practitioners (HNP) in Zambia. In this paper, “students” and “alumni” are being used interchangeably and denote nurse graduates of the HNP programme.

2. Methods

The overall design of the study from which this manuscript has been developed was a descriptive cross-sectional qualitative study design which was used to monitor the interactions among participants (Polit & Hungler, 1997; Polit & Beck, 2012). The study followed a group of HIV Nurse Practitioners’ WhatsApp interactions, with their consent.

The participants for this study were drawn from the University of Zambia, School of Nursing Sciences. They were drawn from different groups of alumni.
who graduated from the HIV/AIDS Nurse Practitioner programme and are serving in various health institutions across the country. They are already qualified nurses at different levels (certificate, diploma, Bachelors degree) and registered with the General Nursing council of Zambia, the local regulatory body responsible for regulating Nursing and Midwifery in the country. They were drawn from all geographical settings of Zambia which include rural, peri-urban, and urban areas.

The data was gathered from the WhatsApp exchanges among one group of alumni who graduated from the HIV Nurse Practitioner programme. The group had created a WhatsApp group which they used to communicate with each other. With their permission investigators were included on the WhatsApp group. Investigators’ inclusion on the alumni WhatsApp group facilitated monitoring and closely following the group discussions for a period of six weeks. A total of 32 participants who were purposively selected participated in the WhatsApp interactions. Purposive sampling technique is a non probabilistic sampling technique which involves investigators using their own judgment to achieve a specific purpose. The sampling technique was used in order to satisfy the study’s need for graduates from the HNP programme. All participants were above the age of 18.

The analysis of the content was conducted by the lead investigators and took the form of thematic analysis informed by Braun and Clarke (2006). The data were constantly compared with the codes in order that the shift in the meaning is minimized and accuracy and confirmability is maintained. Responses were colour coded and pasted onto the flip charts as a way of familiarisation with the data. Theme identification was then conducted by searching across the entire data set (Braun & Clarke, 2006). Finally, interpretation was conducted.

Prior to the study, ethical approval was obtained from the University of Zambia Biomedical Ethics Committee and the National Health Research Authority.

In addition, written informed consent was obtained from all participants and measures were put in place to protect the privacy and confidentiality of all participants.

3. Results

Results contained in this paper emerged from analysis of data obtained from WhatsApp discussions involving one group of HIV nurse practitioner students. A total of 32 participants took part in the discussions. This set of discussions did not involve any moderation at all from trained moderators. Participants were one group of alumni from the University of Zambia, School of Nursing Sciences after completion of the HIV Nurse Practitioner programme. Students posted whatever they felt was worth sharing and whenever they felt like sharing. Therefore, this paper has attempted to reveal the purposes social mobile media platforms serve in nurses’ everyday life. As such, the data has been categorised in themes. From the generated themes, the data has revealed that the alumni used
the social mobile media spaces for three main purposes sign posted below:

- WhatsApp groups as a source of professional information
- WhatsApp groups as a platform for interchange of social information, support and entertainment
- WhatsApp groups as an agent for motivation

3.1. WhatsApp Groups as a Source of Professional Information

This theme represents the use of the WhatsApp groups as a source of educational information. Students shared information on how to manage certain conditions and cases when they were not sure. They used the platform as a meeting place with peers to seek good practices pertaining to their professional functions. The information shared mostly involved topics related to the management of HIV, especially in situations when they came across a case that appeared challenging. In some cases, they shared documents such as guidelines on effective management of HIV/AIDS.

Another related thread to sharing of good practices by HNP alumni and seeking guidance from each other is evident from the appendix 1 attached. The alumni also provided each other with reminders of their ethical obligations as professionals when one of them posted a picture of a patient as they sought guidance from the group regarding the possible interventions of the condition the patient in the picture presented with. Upon realizing that one of them posted a picture of the patient, group members advised against posting pictures of patients without their consent and proposed to conceal the patient’s identity by covering their eyes, as health ethics demand. This is evident in their statements in Appendix 1 attached.

3.2. WhatsApp Groups as a Platform for Interchange of Social Information and Entertainment

WhatsApp groups were found to be used to exchange social information, some of which was in form of jokes for entertainment. This actually generated more information compared to other themes especially that this group was not facilitated by any trained moderator. Appendix 1 (attached) highlights this.

The statements shown in Appendix 1 attached demonstrate the use of SMMS by nursing alumni as a place to interact and share social information and jokes. This sharing of social information may serve to minimize feelings of isolation especially to those nurses operating from rural settings (Pimmer et al., 2017).

3.3. WhatsApp Groups as a Source of Motivational Information

Final theme identified related to the use of SMMS as a source of professional motivation. Students appeared to be deriving the strength carry on as nurses seeing from the discussions contained under this theme, as highlighted in Appendix 1 attached. Their discussions included highlights about the fact that the nursing profession is a noble but challenging profession, especially that they had
to work awkward hours and a lot of times coming face to face with patients with communicable diseases.

4. Discussion

The use of WhatsApp groups as a tool for communication has seen an unprecedented increase in its use by people, including professionals in Zambia. It has changed the communication landscape and made it easier and faster to share information between individuals and among groups (Pimmer & Tulenko, 2016). This is also revealed by Pimmer et al. (2017) writing from Malawi who highlighted that Mobile Instant Messaging instruments such as WhatsApp have changed communication worldwide. The present study monitored a group of alumni HIV Nurse Practitioners sharing information on their WhatsApp group. At the commencement of the study, the group had already established itself as a group, which embraced the use of the instant messaging tool (WhatsApp) as a way to maintain communication with one another.

Highlighted in the discussion below are the three themes that emerged from the analysis of the information posted by the group, which represent the common purposes of their use of the WhatsApp instant messaging tool.

Communication among the group members revealed sharing of professional information related to their training in HIV/AIDS management. This was mostly the case when they were faced with a complicated case which they were not sure how to handle and which required consulting other group members for possible interventions that may facilitate positive patient outcomes. The use of Mobile Instant Messaging is believed to contribute to positive patient outcomes. According to Khanna et al. (2015) the utilisation of WhatsApp by orthopaedic surgeons was found to significantly raise responsiveness to patients needs as well as patient-related quicker handovers.

WhatsApp as a Mobile Instant Messaging tool is available in rural, and hard to reach settings in Zambia and accessible to health workers who own smart phones. Although the network connectivity in rural and hard to reach areas have sometimes been limited, the use of WhatsApp for sharing best practices by the HNP graduates contributed to positive patient outcomes considering that it provided an opportunity for graduates to consult peers where they were not sure about the intervention (Chib & Chen, 2011). On the other hand, Willemse’s (2015) revealed that WhatsApp as a messaging tool supported nurses to integrate theory and practical experience when it was used educationally by undergraduate nursing students and educators in a primary healthcare module in South Africa. The features on WhatsApp allow for share audio, image, as well as video exchange among users (Pimmer et al., 2017), which facilitates access to learning materials and guidelines during clinical practice as well as classroom learning class activities or clinical conferences (Havelka 2011; Phillippi & Wyatt 2011). Further, Pimmer et al.’s (2014) investigation revealed that midwives used their mobile phones to enhance their problem solving skills in relation to critical
patient cases to facilitate reflective practice.

On the other hand, the use of mobile phone for Mobile Instant Messaging in nursing education and practice comes with its own challenges, some which include, but not limited to high cost, compromise to infection control efforts, interference with medical equipment (Phillippi & Wyatt, 2011), as well as ethical issues involving data security (Pimmer et al., 2017). However, studies have shown that despite the upscaling of the use of mobile devices in low- and middle-income countries, most research has concentrated on learning at lower and higher institutions of learning (Hwang & Tsai, 2011; Wu et al., 2012).

There is still little solid knowledge available about how to use mobile media to effectively support health workers in disadvantaged areas in low- and middle-income countries (Braun et al., 2013; Deglise, Suggs, & Odermatt, 2012; Mechael et al., 2010; Tomlinson et al., 2013). In these settings, Traxler and Kukulksa-Hulme (2005) consider the potential of mobile learning to provide education without dependence on extensive traditional communications infrastructure.

As a result of the prevailing qualitative findings it can be concluded that future research must concentrate more attention on analysing such applications. Further research is required to address the extent to which the engagement with such technologies impacts learning and communicating health information. Further, in some of studies, mobile phones have been reported to be used for social support in the sense that they permit users to access social network sites (Young et al., 2010). Statistics show that users of Smart Phones and Mobile Instant Messaging spend considerably more time on social media and social network sites than users of personal computers (Favell, 2010). According to Pimmer et al.’s (2014) study findings, midwives used their mobile phones to establish social presence in the form of emotional support and inclusion. Heyn (2015) asserts that WhatsApp can be provided to nurses in an effort to foster motivation and create a sense of connection among professionals who work in rural and hard to reach areas.

From the analysis of the WhatsApp groups, it is clear that one of the core purposes was communicative episodes in which groups reconnected socially and emotionally through exchanging of greetings among themselves during their interactions, asking about each other’s work or conveying birthday wishes. Episodes of empathising with each other and providing emotional and spiritual support were also common. According to Pimmer et al. (2017) underlying goal of many of these communications was not information exchange but rather mutual reassurance of the (virtual) co-presence of the group distributed in geographical space.

Future research should focus more on obtaining and analysing participants’ opinions on the use of WhatsApp as a tool for sharing best practices and keeping abreast with the new trends care provision. In addition, consideration of having a control group to provide a comparison for validation of the findings might
yield different insights.

5. Conclusion

Mobile Instant Messaging provides a platform that can be helpful for both qualified and student nurses to keep in touch with each other as a way to share best practices and prevent isolation for those placed in the rural areas of the country. Although there are barriers to integration of social media within nursing education and practice, it is a resource that can benefit the nursing profession in terms of keeping abreast with the new trends in the care of patients. However, it is important to ensure that the interaction is structured to prevent digression from the core purpose which might lead to loss of direction.

Disclosure Statement

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Paper Context

Despite the popularity of mHealth and the increasing use of WhatsApp, very little is known about the use and usefulness of these platforms in rural health settings. This study reveals that HIV Nurse Practitioners in Zambia used WhatsApp groups for sharing best practices and preventing isolation. The benefits were centred on the enhanced ease and quality of communication and on heightened professional connectedness. Challenges included minor technical issues and balancing instrumental and social use.

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References


http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001382


Appendix 1. WhatsApp Extracts in Verbatim

1. WhatsApp Groups as a Source of Professional Information

**Student 4:** Yes group. thrz a case, A female client aged 31 years. she was taking, ABC, 3TC and EFV. she started receivng ARVs from new start, 2012. when she came for CD4, it wz in october wn discoverd dt she wz taking expired ARVs 2015.we did Viral Load on 15/9/16. (110924cp/ml). CD4:xxxx, Creatinine:73.36, ALT:16.2. After these results, on 05/10/16. She wz started on TDF/3TC/EFV, and CTX. Now hz de patient bn put on a correct medication?. whats yo co m-

**Student 5:** Afternoon team.... expired the all year...!

**Student 6:** The patient was supposed to be switched to second line, looking at the viral load, that’s treatment failure and cd4 was xxx, my opinion the patient was supposed to be switched to 2nd line

**Student 5:** Put the patient on 2nd line... check the pharmacy never to give exp-ired again...

**Student 7:** Also assess the adherence because this patient might also fail the second line if adherence issue are not addressed.

**Student 8:** I thought this client failed because of the expired drugs she was talking.

**Student 5:** Me I think this client was taking the drugs but our attitude has really put the patient on second line.... giving expired so it’s a lesson whenever we prescribe these drugs we emphasize on the potency of the drugs especially to the pharmacy personal

**Student 9:** Yes Jane you are right what line should the pt be put on b4 we tok of adherence issues. It’s only stated that she took expired drugs not adherence issues

**Student 9:** Oliver b4 we tok about pharmacy what exactly shud we do as prac-titioners?

**Student 1:** Kikikiki... nice question dear....I know you want to debate con-cerning adherence....am really disputing the issues of adherence...

**Student 10:** Patient assessment is key to good decision making

**Student 10:** It would be unfortunate if there should be a pharmacy supplying expired ARVs

**Student 10:** I feel the patient has been taking expired ART because she was lost to follow up. Or taking ART from unknown source e.g. his own old stock or somebody’s/deceased old stocks. We may not rule out issues of adherence on this patient

**Student 10:** It is good to think about failure and starting 2nd line looking at how the patient transitioned from none expired to expired drugs

**Student 10:** I suggest let the patient continue with the current regimen. Rea-sess viral load at six months of treatment with good adherence.

**Student 11:** Greyson i feel 6 months is too much it cn b done after 3 mths of
good adherence vload

Student 9: Yes Angela, I feel pt shud continue on 1st line for and do VL at 3/12 of course with good watch over the pt. Thanks

Student 11: yes sister josephine bt lets hear frm the doctors so that the pt is managed well esnart r u there

Student 9: Kindly waiting for doctors’ advice

Student 12: The patient was taking expired drugs some az not taking i feel also that pt con continue On first line nd do counselling...do viral load at six months...add CTX...In short i feel we can treat this patient az a new client

Student 5: Guys when do speak of resistance to this patient...Doc please come in

Student 5: Genotype test...if possible it can only be done at certain levels lets discuss...

Another related thread to sharing of good practices by HNP students and seeking guidance from each other is evident from the discussion below:

Student 13: Started that female client aged 52 yrs on ABC + 3TC + EFV on 16/12/16, with Labs dated 7/12/16; CD4 439, Serum Creatinine 136umol/l(CrCl 33.7), ALT 22.2, HB 10.8, HT 175 cm, WT 50 kg (BMI 16.3 kg/m2), WCS 3 wt loss based. Today’s latest Vital Sign: Temp 35.4˚C, pulse 79b/m, Resp 22b/m, BP 135/85 mmHg. Client has been on seprin prophylaxis since 30/11/16. That RASHY-Urticaria type has developed 2 days ago. What could it be & mgt?

Mwitwa-Yet, Stable Client!

Student 2: What was the reason of putting her on septrin prophylaxis since from 30/11/2016 to date?

Student 13: We don’t know the reason. Maybe it could be that, the one who prescribed Seprin wanted to rule out any rashes that may occur amongst seprin, ABC, NVP (or EFV) use. And mind you, there is NO allergic history in her life to drugs. I discontinued septrin the time I was Initiating this Client on cART (16/12/16).

Student 13: Also basing on her baseline CD4

Statements on Privacy and Confidentiality

Student 1: Evening comrades. Lets not post faces without confidentiality of our patients. We need to maximise the privacy of all patients that we deal with regardless of their social or economical statuses. One day one posted my sister i was so...... i felt so...... Lets conceal their eyes so that no one’s privacy is revealed.

Student 14: Thanks James for emphasising the point I earlier alluded to. As a Health promoter myself that is unethical. We should thank God we are in a third world where people don’t know their rights but one day someone will be shocked. Also imagine that is your relative posted like that without consent. We have all vowed to care for our patients, keep confidentiality and privacy and not to publish anything about the patient without their consent and consent from the institution they are been nursed from.
2. WhatsApp Groups as a Platform for Interchange of Social Information and Entertainment

Student 1: *wen u date a girl who is not educated
*Guy*: good night baby and sweet dreams.
*Girl*: thanks my love and may your soul rest in peace.
The guy didn’t sleep the whole night

Student 2: How ar u James. Stop killing chickens they are protesting oooo

Student 1: Kkkkkk (laughing) I was wondering coz business for chickens has gone high today

Student 3: A young lady sat in a bus. At the next stop a loud and grumpy old lady came and sat by her. She squeezed into the seat and bumped her with her numerous bags.

The person sitting on the other side of the young lady got upset, asked her why she did not speak up and say something.

The young lady responded with a smile: “It is not necessary to be rude or argue over something so insignificant, the journey together is so short. I get off at the next stop.”

This response deserves to be written in golden letters: “It is not necessary to argue over something so insignificant, our journey together is so short”

If each one of us realized that our time here is so short; that to darken it with quarrels, futile arguments, not forgiving others, discontentment and a fault finding attitude would be a waste of time and energy.

Did someone break your heart?
Be calm, the journey is so short.

Did someone betray, bully, cheat or humiliate you?
Be calm, forgive, the journey is so short.

Whatever troubles anyone brings us, let us remember that our journey together is so short.

No one knows the duration of this journey. No one knows when their stop will come. Our journey together is so short. Let us cherish friends and family. Let us be respectful, kind and forgiving to each other.

Let us be filled with gratitude and gladness. If I have ever hurt you, I ask for your forgiveness. If you have ever hurt me, you already have my forgiveness. After all, our journey together is so short!

3. WhatsApp Groups as a Source of Motivational Information

Student 17: Mosotho Makhoba (his comment on daily sun online:

It’s very hard to be a nurse nowadays. If nurses did not do their work many children would have died from communicable diseases, if nurses did not care, there would be no hospitals. Consider how we are perceived: If a patient goes missing, the nurse is blamed, the pharmacy does not dispense medicines, the nurse is blamed, the kitchen fails to supply meals on time, the nurse is blamed, if the laundry fails to deliver linen, the nurse is blamed, if the hospital is dirty, the
nurse is blamed. 1 nurse cares for 10 pts but is expected to deliver quality nursing care. Everybody has rights except nurses. It is acceptable for every person to have mood swings but not a nurse. INDEED! not all nurses are angels, NEITHER are they ALL devils, They work under horrible and unbearable conditions & they are stressed out because of resource shortages (both human and material). Nursing is said to be a calling, but they also have families to feed, clothe, educate give shelter to etc. Nurses are being accused of being driven by money but do u know who works as hard and under such unbeatable and abnormal hours for charity? Nurses leave their children unattended at night to go on duty to serve the community that hates them. They work over weekends, during public holidays because the very people that hates them want to enjoy the holidays, so they dump their frail relatives at hospitals under the care of ‘THESE CRUEL’ nurses, I’m proud to be a nurse? Are you???? PLS SEND this to ALL the nurses you know, I’ve just done my bit.

Student 3: I am blessed to be a nurse coz I remain a nurse to my fellow nurses, to my other health workers, to my family and to the whole community. Let’s pray to God to grant us that REWARD in Jesus name. We are blessed people

Student 18: Am proud to be a nurse who cares about the patient with patience, love and humbleness.

Student 1: HNP’S as the name allude to, let’s continue with work for better health. A lot on the ground. An absolute robust health in house as we trek to 2017.