



“I felt a sense of belonging somewhere”. Supporting graduates' job transitions with WhatsApp groups

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ABSTRACT

Background: Nurse graduates' transition into the world of work is a very challenging phase of professional development. This research examined the affordances of using moderated WhatsApp groups to support nurse graduates in this phase.

Approach and methods: Study participants, newly graduated nurses ($n = 72$) from South Africa, were assigned to two WhatsApp groups. The groups were facilitated by moderators during the 12-week intervention. The intervention was based on a curriculum that incorporated topics related to professional immersion that emerged from a priori needs assessment. Twelve individual interviews were carried out and analysed together with the written conversations from the WhatsApp chats using content analysis as part of an interpretive paradigm.

Results: Three central affordances emerged in the analysis: (1) Instructional: joint learning and cooperative problem solving in-situ; (2) Social: co-constructing proximity and providing motivational and socio-emotional support; (3) Professional: scaffolding job immersion in becoming and being a nurse. Through re-connecting reliable social ties (former students) and tapping into a medium that afforded intimacy, immediacy and high levels of ownership, the intervention offered spatially, socio-culturally and often emotionally 'dislocated' graduates a provisional space to belong to.

Conclusions: The feasibility and dynamics of supporting graduates in marginalised and remote areas with a facilitated, peer-mediated and WhatsApp-based transition support group are shown; practical recommendations and challenges are discussed.

1. Introduction and literature review

The study-to-work transition that new nurse graduates experience, particularly the beginning of a new job after graduation, is a central phase marked by personal growth and development (Wangensteen et al., 2008). Positive experiences in this transition contribute to job satisfaction and overall commitment to the profession (Clark and Springer, 2012). At the same time, research consistently emphasises the challenges, frustration and the high levels of stress when graduates are fully immersed in the world of work (Clark and Springer, 2012; Thomas et al., 2012). These struggles can lead to job dissatisfaction and low retention (Christmas, 2008; Scott et al., 2008).

One of the difficulties typically experienced in this phase can be subsumed as “not knowing” (Clark and Springer, 2012). That is, many graduates feel that they lack adequate knowledge and skills. They deem themselves incompetent in managing patient assignments and they are

uncertain regarding their ability to learn new skills (Casey et al., 2004). These gaps are confirmed by a systematic review of nurses' perceptions of new graduates' competencies which identified clinical and technical skills, critical thinking, communication, and overall practice readiness as central areas of concern (Missen et al., 2016).

A further challenge is the social disconnect that graduates experience when they move away from home and leave the familiar world of education to enter new professional terrain (Fink et al., 2008). Studies characterise nurses' experience as feeling alone (Fink et al., 2008) and distant from their work teams (Evans et al., 2008), whilst being exposed to high workload levels (Casey et al., 2004; Fink et al., 2008). Similar to social detachment, graduates also report a restricted sense of professional integration and identification, which manifests, for example, in role conflicts and in the desire for a sense of a higher level of professional belonging (Fink et al., 2008).

To alleviate the stress caused by the perceived cognitive, social and

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professional dissonance, transition programmes have been put in place which provide graduates with orientation and support during this challenging trajectory. These programmes can take various shapes and forms including for example residencies, internships, mentorships, formal education, and peer support opportunities (Rush et al., 2013; Scott et al., 2008). Transition programmes were found to improve retention and job satisfaction (Rush et al., 2013; Reem et al., 2014; Scott et al., 2008) reduce attrition (Cochran, 2017) and turnover, and promote professional growth (Reem et al., 2014). A current review also concludes that these programmes are a cost effective measure, particularly if they last for about 12 months and included mentor/preceptor support with structured didactic content (Cochran, 2017).

Yet the variability in research designs still restricts the robustness of the conclusions to be drawn (Rush et al., 2013); particularly, the lack of empirical studies on the use of digital support mechanisms. Although electronic information is a key information source for new nurse graduates (Wahoush and Banfield, 2014), there is little knowledge regarding how digital media itself can be used to support graduates' transitioning. Research tends to emphasise the role of technology within but not across educational life stages, acknowledging, for example, social media as a glue that binds together the nomadic lifestyles of university students (Barkhuus and Tashiro, 2010). The gap identified also applies to the use of mobile instant messaging platforms, such as WhatsApp, which was used and explored in the present research. One study showed that newly graduated junior doctors informally adopted WhatsApp for the coordination of clinical work and the realisation of teaching sessions and other learning opportunities (Shenouda et al., 2018). The systematic deployment of moderated WhatsApp groups in nurses' study-to-work transition was linked to increased knowledge and lower levels of professional isolation according to an experimental study (Pimmer et al., 2019). However, the underlying qualitative dynamics of this phenomenon, i.e., how these WhatsApp-based interactions and outcomes are perceived and achieved, remain unclear. A possible explanation taken from contexts outside of the domain of this study is that instant messaging affords the creation and maintenance of togetherness among users (O'Hara et al., 2014; Pimmer and Rambe, 2018), and these platforms might thus be of particular value in light of the challenges that nurses typically face in the study-to-work transition. In addition, other literature, also outside of the study-to-work transition domain, suggests that if instant messaging spaces are facilitated and moderated they might also serve as a relevant resource for knowledge sharing and application (Willemse, 2015).

Against this background, the following research question was formulated:

What are the affordances of moderated WhatsApp groups to support nurse graduates' transitioning into practice - as experienced by these graduates?

The concept of affordances describes the ways in which users perceive the range of possibilities regarding how they use the technology in a specific context, drawing on interactionist agent-situation accounts (Greeno, 1994; Majchrzak and Markus, 2012; Norman, 2002). Affordances are best described using action verbs or gerunds, such as "knowledge sharing". They describe interactions between people and technology in a particular cultural context and their advantage is that they can also capture forms of technology usage that were not intended by its designers (Majchrzak and Markus, 2012).

2. Approach and methods

2.1. Design and sample

The research question was addressed following an interpretive research paradigm, which views a phenomenon (the use of an instant messaging space) through the meanings that people (users) attribute to it in a specific sociocultural context (study-to-work-transition).

Interpretive approaches have been adapted and frequently used in the domain of health services and nursing studies (Thorne et al., 1997) and are also popular in the field of information systems (Klein and Myers, 1999; Walsham, 2006).

The study involved 72 participants from the compulsory community service programme implemented in South Africa. In South Africa, newly qualified nurses must work 12 months in this programme before they can be registered as professional nurses with the South African Nursing Council. The goal of the programme is to increase equity in the delivery of health services through the provision of human resources in rural and underserved areas (South African Government, 2006). The majority of the recruited study participants were female (88%) and they were on average 25.6 years old. A total of 62% of them worked in urban areas and the others in peri-urban settings or townships.

2.2. Intervention

The intervention, i.e. the preparation and implementation of moderated WhatsApp groups, was embedded in the existing community service programme, starting three months after the beginning of the service. The intervention incorporated moderation and mentoring and made use of structured didactic content as suggested in the literature (Cochran, 2017). At the beginning of the intervention, the 72 participants were allocated to two WhatsApp groups which were moderated by four facilitators (two academics, a representative from the Department of Health (DoH) and a PhD student who acted as the main moderator). The intervention lasted 10 weeks, from the 1st of May to the 15th of July 2017. The facilitators followed a predefined curriculum which drew on the review of published literature on the needs of newly qualified nurses in this programme, stakeholder consultations, and, additionally, on an initial needs assessment carried out with the study participants in the WhatsApp groups at the beginning of the intervention. In this process, the participants were prompted to make suggestions in the WhatsApp group on topics that would help them in their current situation. Participants' suggestions were integrated with findings from the literature and, on this basis, the team developed a short curriculum with the following topics: the scope of practice, inter-professional relationships, professional and ethical standards, ethical decision making, professional accountability, conflict management, stress management/self-care, and career management.

The discussion of each topic adhered to the same weekly pattern. First, the main moderator introduced the topic, which was followed by one to two days of discussions (according to the intensity of the debate) in which participants were prompted to report their own experiences pertaining to the topic. Then the moderator provided a concrete scenario (e.g. an ethical dilemma) and asked the participants about how they would act in this situation. At the end of the week, the moderator summarised the debate and provided further reading materials. In addition to the pursuit of the pre-defined topics, the moderators encouraged students to bring in and reflect on their own experience from the community service. The pedagogical approach followed can be described as one of conversational learning (Laurillard, 2009) with integrated elements of reflective practice (Schön, 1983).

2.3. Data collection

This study reports on the qualitative dynamics of the intervention as part of a larger study. The quantitative study, which used a pre- and post-intervention survey found that the use of the moderated WhatsApp groups resulted in significant increases in the following measures: professional integration, learning and knowledge sharing in a community of practice, and maintenance of social capital.

In this paper, the qualitative analysis of the intervention is reported. The qualitative data collection consisted of an interview study with new nurse graduates to capture the personal, "lived" experience of and the value that the intervention had for this target group. This data set was

triangulated with the analysis of the written conversations on WhatsApp, to understand how this experience was actually co-constructed through the interaction of the group members. Interview data was gathered through 12 post-intervention interviews using purposeful sampling techniques (Patton, 1990). Four participants responded to an open call for interviews, the other eight persons consented upon being approached individually. In this process, the following sampling criteria were considered: Firstly, the sample included six nurses from each of the two WhatsApp groups. Secondly, to address predictable variations in the participants' perceptions (Thorne et al., 1997) six study participants with high levels of active engagement and six participants with low levels of active participation were involved. That is, users were considered active if they posted about 25 to 50 weekly contributions; and passive if they shared zero to five messages.

The interview was semi-structured, with questions that were centred on the participants' experience with the WhatsApp group in the context of the community service. They included questions focusing on when, in which situations, how and for what purposes they used the group, and what challenges they encountered. The interview guide was followed flexibly to account for new aspects and ideas that were brought up by the participants in the conversations. In addition to the interviews, which were recorded and transcribed verbatim, the WhatsApp conversations were retrieved and analysed together with the interview transcripts.

2.4. Analysis

Data analysis was based on inductive content analysis through which coding categories were developed directly from the data (Hsieh and Shannon, 2005). This inductive analytical approach was used to account for the novelty of the phenomenon (Hsieh and Shannon, 2005; Mayring, 2000) following interpretive approaches (Thorne et al., 1997): The data were read and re-read to achieve immersion. Subsequently, codes were derived that centred on the affordances concept, i.e. on how and why study participants used (or described the use of) the WhatsApp groups in the specific context and what they accomplished with their use (Greeno, 1994; Majchrzak and Markus, 2012; Norman, 2002). Similar or related codes were subsumed in meaningful categories, which, as a process of further abstraction, were grouped into the main themes (Hsieh and Shannon, 2005). These analytic processes involved synthesizing, theorizing, and re-contextualising, in the sense of interpretive research, rather than mere counting and coding (Thorne et al., 1997). This process involved three researchers who were deeply immersed in the project, as they were professional nurses and acted as moderators in the intervention, and one researcher with a general social science background who was unfamiliar with the specific setting. Data analysis evolved as a negotiation process between these parties with the advantage that the “insiders” were able to explain and interpret the phenomenon from the specific socio-cultural and political context whereas the “outsider” could point to and question aspects that might otherwise have gone unnoticed.

2.5. Ethical approval

Ethical approval was granted from the university research ethics committee (HS16/6/41), and additional permissions to conduct the study were obtained from the School of Nursing and the Department of Health with the ethics approval number WC_2016RP43_578. All participants who engaged in the WhatsApp groups provided written informed consent prior to the commencement of the study. To protect the confidentiality of clients, participants were instructed not to share any identifiable patient information. This measure was part of the rules that were set at the beginning of the intervention and it was monitored by the moderators throughout the research.

3. Results

The analysis yielded three main affordances: (1) Instructional: joint learning and cooperative problem solving in-situ; (2) Social: co-constructing proximity and providing socio-emotional support; (3) Professional: scaffolding professional immersion in becoming and being a nurse.

3.1. Instructional affordances: Joint learning and cooperative problem solving in-situ

A dominant theme that emerged in the interview analysis was information and knowledge sharing, which participants associated with learning and the development of professional knowledge. Although there was a predefined curriculum, the topical discussions were often driven by participants who projected their experience, and particularly their immediate daily challenges, onto the group. There were two main routes of knowledge acquisition that emerged from the content analysis of the WhatsApp groups, and, at the same time, were acknowledged in the interviews: firstly, learning from the experience of peers and, secondly, incorporating advice and content shared by the moderators. Regarding the first aspect, participants found it valuable to refresh knowledge which was garnered in the degree programme prior to graduation. Topics from the WhatsApp curriculum for which nurses reported an increase in skills and knowledge were holistic care and advocacy, the use of evidenced-based information and learning how to make informed decisions. Moreover, information that moderators shared in the group, such as articles, was appreciated, used and even shared further by the participants. Once downloaded, these documents became permanent resources that nurses indicated using for reference and self-study, as the following quote exemplifies:

... like when you guys send notes on management and leadership I read it for myself and it is on my phone even now.

A cross-cutting and very central aspect which was brought up by many interviewees and which was also evident in the WhatsApp conversations was learning how to handle more difficult professional encounters “...the leading benefits ... was how to handle stressful situation[s] at work” by receiving support “instantly” in the situation of need. This manifested in statements in which nurses reflected how they learned to manage a critical situation or a specific work crisis. This form of learning was not only triggered through the content shared by the moderators, but in many instances participants reported challenging situations on WhatsApp and subsequently obtained advice from peers and moderators, which they acknowledged in the interviews as a central aspect of learning. Realising that their own challenges resonated with what other nurses experienced was deemed very helpful because it alleviated their feelings of being (left) alone with their problems. Typical situations included struggles with power distance, especially in situations with doctors and older staff, as exemplified in this quote:

I had the same problem when my doctor was very high [up in the hierarchy] and I was down there to solve the problem. ... talk[ing] about it in the group, it really helped co [because] you know that you are not alone and there are people that actually had the same problem ... But in this case that you have to hear other people and they were ... you are supposed to do like this and like this, then you are learning, next time I come across similar problems then I know how to take the problem and I will approach the problem without causing problems and arguments.

As illustrated by the statement, the WhatsApp group turned out to be a digital reservoir for joint learning and problem solving through which participants were supported in managing stressful situations and dealing with micro-politically difficult situations, which can be seen as an indicator of the development of resilience. This often happened when participants reconciled topics from the curriculum with own experiences and experiences shared by their peers. For example, when the

topics advocacy and assertiveness were discussed and relevant materials and readings were circulated, participants began to highlight their own challenges and conflicts in the cooperation with older staff members. In one instance, a participant reported her attempt to delegate duties to one of the enrolled nurses which had been repelled with the argument “I was working here before you were in your mother's womb”. Following this discussion, participants started to come up with examples and to report incidents in which they had been able to assert their professional autonomy. Reflecting this observation, some participants mentioned an enhanced capacity for self-organisation, self-management and professional empowerment:

I also got strength to be able to stand up to one of the things that was happening at work. And it also helped me.

3.2. Social affordances: Co-constructing proximity and providing socio-emotional support

Feelings of isolation were a serious issue that many participants reported struggling with. Against this backdrop, participants indicated that the group dynamics did not only help them to maintain existing relationships but also to develop and strengthen former peripheral social ties with university classmates with whom they had little contact before. The interviewees linked feelings of togetherness to the friendly and welcoming atmosphere in the WhatsApp groups and, secondly, to the specific socio-emotional support which was provided to individual participants who experienced more difficult emotional situations at work. As with the realisation of instructional affordances, social proximity and emotional backing were co-constructed by both peers and moderators and these accounts were often linked to concrete work situations.

As indicated, the friendly and welcoming atmosphere was a product of the day-to-day micro-interactions in the group. This kind of social co-presence and togetherness was explicitly facilitated by the moderators, who, for example, conveyed greetings and birthday wishes, or pointed to other social events. The following quotes exemplify how micro-conversations, such as daily greetings and the sharing of personal experience, were viewed as a means to alleviate feelings of isolation:

Having to have someone who is gonna say to you...hi everyone, I hope you had a wonderful week, ...enjoy the rest of the day, ...you understand, like you get a call from your mother, have a good day..., all those things brightens the day, to me I am like oh yea, someone out there cares about us...

I felt very alone. It felt like I was the only one in the whole nursing history. Yes, it felt like that. And then when I became part of the group I heard other people's stories... there's other people also...

In addition to these micro interactions, nurses received specific socio-emotional support from both peers and moderators in more difficult situations. An example is being a nurse who increased oxygen supply for a baby with severe asphyxia, in agreement with the doctor. When conditions worsened, she was held responsible although it was later found that the problem had been caused by the inappropriate insertion of the tube by the doctor, who wanted to shift the blame onto the nurse. In this situation, she received a great deal of support and backing from the group. In several instances, the provision of socio-emotional support was interwoven with immediate practical advice. This is shown in the following example in which one of the participants reported that blood had spilled all over her while managing a patient who was infected with HIV.

5/27/17, 5:15 PM -: Did you manage to get help????

5/27/17, 5:23 PM - please work based on prescription and call the Dr's attention to it.

5/27/17, 6:19 PM - Yes thanks the Dr said I should repeat the meds n put up a drip

5/27/17, 6:21 PM -: I did n the patient's bp came down n when I was taking the drip out her blood got inside my eyes [...]]??

5/27/17, 6:28 PM - Eish sorry

5/27/17, 6:34 PM - ?????? so sorry to hear. Strongs ♥

In the interviews, study participants highly valued the opportunity to obtain instant socio-emotional support in challenging situations and emphasised the feeling of being cared for:

...Sometimes, I think last week, people posted that they had a really bad day and difficult time and we could see how everyone comes [came] together to support and encourage her. It was like you are not alone, not isolated and people are out there willing to help you.

...Want[ing] to remain in [the] nursing profession - there has to be a good support, ... which is what this group has given...the support I received when the a doctor was really disrespectful and how they handled that helped me.

3.3. Professional affordances: Scaffolding professional immersion in becoming and being a nurse

One direct approach to supporting the professional immersion were moderators who provided newly-graduated nurses with career information and fostered discussions that focused on the ways in which graduates could further advance in their profession, particularly with regard to possible specialisations. Another example is a case in which a participant who wanted to pursue a postgraduate study was pointed to several funding sources and the group also guided her on relevant next steps, such as identifying a supervisor and developing the proposal. The analysis of the WhatsApp conversations further showed that broader professional debates emerged in the groups, for example around policies regarding the handling of mobile phones and uniforms. For instance, one of the participants had an issue with the type of uniform that was required at her placement. The group members indicated that there were different uniforms for different placements. This led the Department of Health representative, who was also part of the moderation team, to share the uniform policy on the WhatsApp group as an evidence guide for uniforms that community service practitioners were supposed to wear. These were topics that emanated from some of the areas in which the graduates worked, and, consequently, they were brought into the discussions of the WhatsApp group. Opportunities in which nurses discussed and learned about wider professional topics were acknowledged as another set of benefits that arose from participating in the WhatsApp groups, as study participants expressed in the interviews.

In addition to these rather explicit forms of discussing professional matters, including career options, a number of more subtle indicators emerged in the analysis that showed how participation in the WhatsApp group helped nurses in their professional immersion. These reflected the participants' progress in becoming and being professionals, and, in the same way, of growing into, expanding and reflecting on their roles. As the analysis of the WhatsApp chats and the interviews showed, many participants found themselves in a context in which they struggled to develop feelings of belonging and they experienced a rather limited sense of professional identification. As the following quote exemplifies, the WhatsApp group scaffolded and guided the process of immersion by providing an additional socio-professional community to which graduates could relate and belong to:

Yes, it [the participation in the group] has sort of helped me because I felt a sense of belonging somewhere. When you're in a profession and you're very new and you feel that people already have their places in this profession. So the group helped me to have that place of belonging.

Another value that graduates associated with their participation in the intervention was that they conceived the group space as a resource through which they obtained reassurance and confirmation in

situations in which they felt insecure about professional actions they had carried out or planned. For example, when a participant's request for leave was ignored she decided to call in sick instead. Group members advised her to report the case to the human resource department instead, where the issue was finally resolved. The professional progression discussed and supported in the WhatsApp group manifested in higher levels of assertiveness in graduates' relationships with more experienced colleagues and patients. In the same way, nurses grew more confident regarding the professional role that they obtained upon graduation.

It did really help me. It ... guided me to become the professional I can be ... It also gave me the good attributes of becoming a professional at work and how one can be at work. ... It also ... motivated me to be more assertive based on the patient and also to what I know. And it lifted me ...

In the interviews, nurses acknowledged that not only did the group help them grow into the professional role but, at the same time, their conception of the role expanded from being the provider of basic services to becoming more intellectual contributors (“researchers”) to their profession:

One thing that really encouraged me the most was that, I got the feeling that as a professional nurse you should feel more than the image that was portrayed that you are just good for the bed time, you are just good for carrying me, ..., making me feel diminished ... now I'm also a researcher.

4. Discussion

The use of WhatsApp-based transition support groups needs to be conceived with attention to the challenging nature of this journey. As reported elsewhere (Clark and Springer, 2012; Fink et al., 2008; Thomas et al., 2012), and in this research project, many graduates struggle in the transition, with some participants even wanting to leave the profession.

Against this background, the main affordances were joint learning and cooperative problem solving in a phase typically characterised as “not knowing” (Clark and Springer, 2012; Missen et al., 2016); co-constructing togetherness and offering socio-emotional backing in situations in which new nurse graduates typically experience social detachment (Casey et al., 2004; Evans et al., 2008; Fink et al., 2008); and scaffolding professional immersion when many nurses still have a restricted sense of identification with their roles, their job and their profession. These findings affirm and, more importantly, explain the results from quantitative studies which found the use of moderated instant messaging groups to trigger knowledge gains, enhance professional connectedness and reduce professional isolation (Pimmer et al., 2019). The present research shows how, in the challenging settings of transitions, participants who were no longer part of the education sphere and not yet integrated in the professional community (Fink et al., 2008), were offered a provisional space to which they could relate and to which they belonged.

In addition to the use of an evidence-based curriculum and the moderators' guidance (Cochran, 2017), the dynamics through which instructional, social and professional affordances were realised can be further discussed from two perspectives, drawing on cross-cutting insights from the empirical analysis and connecting them with accounts from the literature. The first aspect is the examination of the social constellation of the space, i.e., the fact that relatable social ties, former classmates who undergo the same transition, were reconnected. The second point is the discussion of the nature of instant messaging itself, which shapes the ways in which interaction, learning and development are constituted. In this regard, instant messaging is a space that particularly affords intimacy, immediacy, and high levels of ownership. These two aspects are discussed more in detail in the next sections.

4.1. Reconnecting relatable social ties

Regarding relatable social ties, the results show that the enactment of peer relationships constitutes an essential part in each of the three themes. The relevance of peer dynamics is also reflected in the observation that the participants of one group continued informally with the use of WhatsApp for another six months after the end of the moderation. In transitions during which social capital, i.e. connections with members of a previously inhabited community such as classmates (Ellison et al., 2007), tend to get lost or at least weakened through geographical separation, the joint digital space constitutes a resource through which graduates maintained and, in some cases, even strengthened their pre-existing social ties. Importantly, linkages with former classmates do not just represent any social connections. As peers from their former university live through the same challenging journey, they constitute a unique (and perhaps the only) social group to which new graduates, who often feel uprooted, can relate well. Although the role of relatability in social media dynamics has been outlined before, e.g. in the field of marketing (Abidin, 2015; Sashittal et al., 2016), it has not been discussed in the research context of transitioning. Graduates used the space to project their own professional experiences onto a geographically distant but socio-culturally similar peer group (and were actively encouraged by the moderators in doing so), and they jointly discussed, reflected on, and learned from these situations. The co-development and maintenance of mutually shared experiences and common, at least provisionally stable “ground” in times marked by volatility was key: “you are not alone and there are people [who] actually had the same problem”. This aspect also relates to findings from a quantitative study which observed an association between the use of digital media (Facebook) and graduates' connectedness and maintained social capital, i.e., the participants' relationships with prior classmates (Ellison et al., 2007). More specifically, the notion of relatability can help understand the outcomes of a similar (but quantitative) study in which Nigerian nurse graduates who were connected via a moderated WhatsApp group showed reduced feelings of socio-professional isolation (Pimmer et al., 2019). In addition to reconnecting and better maintaining established social capital, the new graduates engaged also with “representatives” of the new environment in the WhatsApp groups, i.e., with a professional, more experienced nurse who acted as the moderator. By intermingling old and new social worlds in the digital space, the process of transition can be conceived to be more fluent and integrative.

4.2. A medium that fosters intimacy, immediacy and ownership

In addition to relatable peers, another central and crosscutting aspect in this study can be linked to the nature of instant messaging itself, which fostered intimate and immediate conversations and promoted a sense of ownership. This is a finding which affirms prior work (Karapanos et al., 2016; O'Hara et al., 2014; Timmis, 2012). As observed in the present investigation, intimacy and togetherness were construed through specific socio-emotional support and, more subtly, through day-to-day micro-interactions, such as greetings. The latter are seen as a constitutional element of instant messaging, which is conceived as a blend of instant, (near-to) synchronous and asynchronous, lengthy and interrupted communication sequences, which have, in reference to their intimate nature, been referred to as ‘telecocooning’ (Timmis, 2012). This observation is also in line with results from another WhatsApp study which documented the same form of communication among health workers, arguing that daily micro-conversations represent the mutual reassurance of the co-presence of a geographically separated group (Pimmer et al., 2017). In the present study, both immediacy and continuity are relevant, as instant support and situated help is key in the case of a “professional emergency”, whereas ongoing conversations form the basis for the development of a shared history and of relationships over time (Timmis, 2012).

Reflecting the spatial dimension and the sense of ownership afforded by instant messaging, O'Hara et al. (2014) aptly refer to WhatsApp as a space for dwelling where “togetherness and intimacy are enacted through small, continuous traces of narrative, of tellings and tidbits, noticings and thoughts, shared images and lingering pauses” (O'Hara et al., 2014). In the interviews, the graduates appreciated this sense of ownership and belonging, which was deliberately facilitated in that moderators tended to take a backseat and fostered peer conversations. In addition, the main moderator was a young professional who also went through her community service year recently and to whom the participants could easily relate. More senior professionals only contributed to the moderation if specific support and help was needed.

4.3. Practical implications

By shedding light on the dynamics and perceived effects of using an instant messaging space in study-to-work transitions, this research also shows the feasibility and the practical value of this kind of support. Yet in putting the intervention into practice, some challenges were encountered that need to be discussed. These included financial and technical issues, such as a lack of connectivity in particular in rural areas, which was also acknowledged in Tang and Hew's (2017) instant messaging review; and a few participants highlighted the lack of financial means to acquire new data bundles, which sometimes prevented participants from using WhatsApp. Other challenges were identified from a participatory perspective. The interviewees with limited levels of contributions explained their behaviour mainly due to busy work schedules and the fear of making mistakes and exposing themselves vis-à-vis the group. No general differences in the perceived value of the WhatsApp group could be found between active and passive contributors because also less frequent contributors indicated benefitting from reading the messages. Yet, active participants critiqued the lack of engagement by others. This aspect is a phenomenon reported in the literature on e-discussions in general, and regarding the use of WhatsApp by health professionals in particular (Jayarajan et al., 2017). In this regard, each group needs to negotiate and reconcile diverging demands and expectations of their users, which is typical of instant messaging (Pimmer and Rambe, 2018). In addition, as it was the case in this intervention, moderators repeatedly tried to encourage the active participation of lurkers via one-to-one WhatsApp chats. This is important because experimental research from a similar setting in Nigeria suggests that active participation in WhatsApp groups can be linked to improved outcomes in terms of enhanced knowledge acquisition, professional connectedness and professional identification (Pimmer et al., 2019).

When asked about suggestions for practical improvement, interviewees highlighted the demand for the group to start earlier, i.e. immediately with the commencement of the community service, and to extend the period of the intervention. Against this background, however, the effort of moderation needs to be acknowledged. This is an aspect which also resonates with prior findings (Bouhnik and Deshen, 2014). Typical instant messaging conversations are not restricted to office or teaching schedules but reach into users' private time zones (e.g. in the evening), which presents an effort that should not be underestimated. One suggestion to unburden moderators might be to gradually hand over the facilitation activities to graduates, which might also help to further increase ownership.

4.4. Methodological limitations and outlook

The findings of this study need to be interpreted in view of its methodological limitations, which also point to avenues for future research. Although the research triangulated users' experiences and the analysis of the written conversations in the WhatsApp group and tried to avoid participant bias by purposefully involving different user

perspectives (from more and less active participants), several methodological restrictions need to be acknowledged. Due to rapid technological developments alone, the findings present only a snapshot in time. Moreover, the study focused on one specific cultural and professional setting (the community service programme in South Africa in the region of the Western Cape). Accordingly, the generalisability of the results needs to be treated with caution. Another restriction is that, although rich accounts of participants were obtained, the number of interviewees was limited and further studies are required to corroborate and extend the present findings. In this light, we suggest that future research may involve more graduates in interviews and carry out additional focus groups to allow reflection and sense making post hoc and in an interactionist way that mirrors the dynamics in which communication in the digital space plays out. A further approach might be to print selected WhatsApp chats (around specific conversations) and discuss these texts in interviews to obtain more in-depth accounts and to evaluate how participants might possibly interpret specific situations differently.

5. Conclusions

The main contribution of this study is its analysis of how the use of a moderated WhatsApp group was manifested in the realisation of instructional, social and professional affordances which benefited health professionals in the challenging journey from education into the world of work. The digital group offered graduates a platform onto which they could project professional experiences, and, in a highly transformational trajectory, it represented a provisional space to belong to. Feelings of belonging can be linked to tapping into relatable social ties, i.e., re-connecting former classmates who undergo the same challenging transformation, and using a medium that affords intimacy, immediacy, and ownership. In view of these beneficial accounts, technical, financial and social issues need to be addressed to fully and fairly leverage the potential of instant messaging in graduates' transitions.

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References

- Abidin, C., 2015. Communicative intimacies: influencers and perceived interconnectedness. *Ada: A Journal of Gender, New Media, and Technology* 8. <https://doi.org/10.7264/N3MW2FFG>.
- Barkhuus, L., Tashiro, J., 2010. Student socialization in the age of Facebook. In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, pp. 133–142.
- Bouhnik, D., Deshen, M., 2014. WhatsApp goes to school: mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research* 217–231.
- Casey, K., Fink, R.R., Propst, F.J., 2004. The graduate nurse experience. *J. Nurs. Adm.* 34, 303–311.
- Christmas, N., 2008. How work environment impacts retention. *Nurs. Econ.* 26, 316.
- Clark, C.M., Springer, P.J., 2012. Nurse residents' first-hand accounts on transition to practice. *Nurs. Outlook* 60, e2–e8.
- Cochran, C., 2017. Effectiveness and best practice of nurse residency programs: a literature review. *Medsurg Nurs.* 26, 53–63.
- Ellison, N.B., Steinfield, C., Lampe, C., 2007. The benefits of Facebook “friends:” social capital and college students' use of online social network sites. *Journal of Computer Mediated Communication* 12, 1143–1168.
- Evans, J., Boxer, E., Sanber, S., 2008. The strengths and weaknesses of transitional support programs for newly registered nurses. *Aust. J. Adv. Nurs.* 25, 16 The.
- Fink, R., Krugman, M., Casey, K., Goode, C., 2008. The graduate nurse experience: qualitative residency program outcomes. *J. Nurs. Adm.* 38, 341–348.
- Greeno, J.G., 1994. Gibson's affordances. *Psychol. Rev.* 101, 336–342.
- Hsieh, H.-F., Shannon, S.E., 2005. Three approaches to qualitative content analysis. *Qual. Health Res.* 15, 1277–1288.
- Jayarajan, N., Lee, A., Mwaikambo, L., 2017. WhatsApp as a Platform for Continued Professional Development. Johns Hopkins Center for Communication Programs, Baltimore, MD.

- Karapanos, E., Teixeira, P., Gouveia, R., 2016. Need fulfillment and experiences on social media: a case on Facebook and WhatsApp. *Comput. Hum. Behav.* 55, 888–897.
- Klein, H.K., Myers, M.D., 1999. A set of principles for conducting and evaluating interpretive field studies in information systems. *MIS Q.* 67–93.
- Laurillard, D., 2009. The pedagogical challenges to collaborative technologies. *Int. J. Comput.-Support. Collab. Learn.* 4, 5–20.
- Majchrzak, A., Markus, M.L., 2012. In: Kessler, E. (Ed.), *Technology affordances and constraints in management information systems (MIS)*. Sage Publications, Available at SSRN (Forthcoming). <https://ssrn.com/abstract=2192196>.
- Mayring, P., 2000. Qualitative content analysis. In: *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*. Citeseer, (pp. 2-00).
- Missen, K., McKenna, L., Beauchamp, A., 2016. Registered nurses' perceptions of new nursing graduates' clinical competence: a systematic integrative review. *Nursing & health sciences* 18, 143–153.
- Norman, D.A., 2002. The psychopathology of everyday things. In: Norman, D.A. (Ed.), *The Design of Everyday Things*. Basic Books, New York, pp. 1–34.
- O'Hara, K., Massimi, M., Harper, R., Rubens, S., Morris, J., 2014. Everyday dwelling with WhatsApp. In: *17th ACM Conference on Computer Supported Cooperative Work & Social Computing*. ACM, Baltimore, MD, USA, pp. 1131–1143.
- Patton, M.Q., 1990. *Qualitative Research and Evaluation Methods*. Sage Publications, Inc, Thousand Oaks.
- Pimmer, C., Rambe, P., 2018. The inherent tensions of 'instant education'. A critical review of mobile instant messaging. *Int. Rev. Res. Open Dist. Learn.* 19, 219–237.
- Pimmer, C., Mhango, S., Mzumara, A., Mbvundula, F., 2017. Mobile Instant Messaging for rural community health workers. A case from Malawi. *Glob. Health Action* 10.
- Pimmer, C., Brühlmann, F., Odetola, T.D., Dipeolu, O., Oluwasola, D.O., Ajuwon, A.J., 2019. Facilitating professional mobile learning communities with instant messaging. *Comput. Educ.* 128, 102–112.
- Reem, A.-D., Kitsantas, P., Maddox, P., 2014. The impact of residency programs on new nurse graduates' clinical decision-making and leadership skills: a systematic review. *Nurse Educ. Today* 34, 1024–1028.
- Rush, K.L., Adamack, M., Gordon, J., Lilly, M., Janke, R., 2013. Best practices of formal new graduate nurse transition programs: an integrative review. *Int. J. Nurs. Stud.* 50, 345–356.
- Sashittal, H.C., DeMar, M., Jassawalla, A.R., 2016. Building acquaintance brands via Snapchat for the college student market. *Business Horizons* 59, 193–204.
- Schön, D.A., 1983. *The Reflective Practitioner - How Professionals Think in Action*. Basic Books, New York.
- Scott, E.S., Keehner Engelke, M., Swanson, M., 2008. New graduate nurse transitioning: necessary or nice? *Appl. Nurs. Res.* 21, 75–83.
- Shenouda, J.E., Davies, B.S., Haq, I., 2018. The role of the smartphone in the transition from medical student to foundation trainee: a qualitative interview and focus group study. *BMC Medical Education* 18, 175.
- South African Government, 2006. Health on community service by health professionals.**
- Tang, Y., Hew, K.F., 2017. Is mobile instant messaging (MIM) useful in education? Examining its technological, pedagogical, and social affordances. *Educational Research Review* 21, 85–104.
- Thomas, C.M., Bertram, E., Allen, R.L., 2012. The transition from student to new registered nurse in professional practice. *J. Nurses Prof. Dev.* 28, 243–249.
- Thorne, S., Kirkham, S.R., MacDonald-Emes, J., 1997. Interpretive description: a non-categorical qualitative alternative for developing nursing knowledge. *Research in nursing & health* 20, 169–177.
- Timmis, S., 2012. Constant companions: instant messaging conversations as sustainable supportive study structures amongst undergraduate peers. *Comput. Educ.* 59, 3–18.
- Wahoush, O., Banfield, L., 2014. Information literacy during entry to practice: information-seeking behaviors in student nurses and recent nurse graduates. *Nurse Educ. Today* 34, 208–213.
- Walsham, G., 2006. Doing interpretive research. *Eur. J. Inf. Syst.* 15, 320–330.
- Wangenstein, S., Johansson, I.S., Nordström, G., 2008. The first year as a graduate nurse—an experience of growth and development. *J. Clin. Nurs.* 17, 1877–1885.
- Willemsse, J., 2015. Undergraduate nurses reflections on Whatsapp use in improving primary health care education. *Curatiosis* 38, 1–7.