Journal: Studies in Graduate and Postdoctoral Education

DOI: 10.1108/SGPE-04-2024-0043

Accepted date: 14 January 2025

Chandler, K. (2025) WhatsApp with doctoral researchers, *Studies in Graduate and Postdoctoral Education*, Available at: 10.1108/SGPE-04-2024-0043.

WhatsApp with doctoral researchers: A reflexive autoethnography

Abstract

Purpose – The study examines how being part of a WhatsApp community of doctoral researchers over a five-year period influences the author's wellbeing, learning and professional development.

Design/methodology/approach – The study adopts a digital autoethnographic approach, using the author's own contributions to a WhatsApp group of doctoral researchers as data.

Findings – For me, WhatsApp plays a significant and positive role in fostering community. The group engenders a sense of connection in a 'backstage' community where feelings can be shared honestly and reassurance received, thus supporting wellbeing. In this community, it is easy to seek advice about research. It also provides a low stakes environment in which to learn how to offer advice to others, the experience of doing so contributing to professional development as a doctoral supervisor.

Originality - This paper provides a rare glimpse into a peer-led WhatsApp community of doctoral researchers. It adds to the literature that employs rhizome theory as a theoretical lens, showing how rhizomatic principles and ideas around assemblages can be helpful in analysing multiple aspects of WhatsApp groups and other similar online communities.

Practical implications - The insights gained will be useful for doctoral researchers considering the potential value of peer support and also for those supporting and supervising them.

Keywords: WhatsApp; wellbeing; peer support; doctoral research; doctoral supervision; rhizome theory; autoethnography

Introduction

On starting my professional doctorate in education, I was an experienced healthcare educator in my forties. Based in the Northwest of England in the UK and studying part-time and at a distance within a UK university, I was invited to join a WhatsApp group by a peer in my university cohort. Several group members were already known to me but most were not. I was unsure about the invitation, but I accepted it and started to access the group via my mobile phone. It soon became an invaluable source of support, which has seen many of us

complete our doctorates and move on to new challenges. During this time, new members have joined, whilst others have left. I continue to be part of the group today.

I am curious about the role that online communities play in supporting wellbeing, particularly in the context of distance learning. I use the term ‘wellbeing’ deliberately, despite its ambiguity (Schmidt and Hansson, 2018), intending that it should encompass a broad range of factors that contribute to what it means to be ‘well’ that includes physical, social, psychological and emotional factors. The wellbeing of doctoral researchers, and particularly their mental wellbeing, is an area of concern. In the UK, they are at increased risk of anxiety, depression, insomnia and suicide compared with the general population (Hazell et al., 2021; Milicev et al., 2023). Postgraduate researchers themselves have come to view poor health as a ‘normal’ part of completing a doctorate (Hazell et al., 2021) and the process as a ‘mental labyrinth’ (White et al., 2024). Some factors associated with poor wellbeing among doctoral researchers, such as being isolated from peers (White et al., 2024), are likely to be particularly relevant to those participating in online doctoral programmes. One underexplored factor is the mode of study itself, with much of the research into postgraduate researcher wellbeing undertaken at UK universities to date (e.g. Juniper et al., 2012; McCray and Joseph-Richard, 2021; Byrom et al., 2022) not differentiating between campus-based doctoral researchers and those studying predominantly online.

I considered how I might investigate our group’s experiences. Members had shared personal information with no expectation of it being used for research. I concluded that the most ethical approach would be an autoethnographic study of my own contributions to the WhatsApp conversation, using my peers’ contributions only to provide context with their permission. Autoethnography requires a level of openness that is risky and makes researchers vulnerable but this openness can transform institutional culture, making academics visible in a more trusting and inclusive way (Lapadat, 2017).

This study presents my own experience of being part of the WhatsApp group over a five-year period, examining its significant contribution to supporting my own wellbeing, learning and professional development. My account draws attention to the emotional and embodied nature of doctoral study and how peer support can make a tangible difference in times of difficulty. It also highlights how a WhatsApp group can provide a low stakes environment for learning how to support others on their doctoral journeys.

Literature review: Use of WhatsApp in education

Use of WhatsApp, a free instant messaging app launched in 2009, is predominately associated with leisure and fun (Fernández Robin, McCoy and Yáñez, 2017). It engenders a ‘felt-life of being together’ as participants share observations, thoughts and images (O’Hara *et al.*, 2014). It is also widely used in educational contexts because of its ease of use, affordability and convenience (Ahad and Lim, 2014). Whilst some argue that online spaces can never match the sense of presence experienced when face-to-face, others highlight that for some, an online space feels like a safer space (Ucok-Sayrak and Brazelton, 2022).

Whilst not all WhatsApp groups become communities, student-directed community building in informal spaces, such as WhatsApp, has been identified as a key component of student learning ecologies that bridges formal and informal learning (Peters and Romero, 2019). In these spaces, students learn from peers, discuss challenges, share work and provide support. According to Koomson (2019), effective use of WhatsApp for distance learning in higher education requires both intentional design and overt instruction of staff and students. Moderation of messages to establish behavioural norms enhances the development of a sense of community (Carey and Meyer, 2016).

Use of WhatsApp can have negative consequences for students in terms of impact on daily life and work productivity, especially when associated with fear of missing out, which leads to community members becoming overly preoccupied with platform activity (Ahad and Lim, 2014; Rozgonjuk *et al.*, 2020). There are also concerns around the accuracy of information that students share (Ahad and Lim, 2014; Lister *et al.*, 2023). In relation to social media use more generally, there are concerns that social media use can encourage unhelpful comparisons with peers (Braghieri, Levy and Makarin, 2022; McLaughlin and Sillence, 2023).

Whilst research suggests that WhatsApp can facilitate collaboration on postgraduate project work (Cronjé and Van Zyl, 2022), little research examines peer support or collaboration in the context of doctoral study. Relatedness with others and connection with peers have, however, been identified as innate needs within part-time doctoral researchers with implications for student satisfaction (Turner, 2023). Peer learning between doctoral researchers via Microsoft Teams can enable a sense of community, generate honest conversations, increase motivation and provide opportunities to learn from others' experiences (Wilson *et al.*, 2023). In these examples of peer collaboration, mentors or facilitators were present.

Few studies examine groups of doctoral research peers that are non-hierarchical. A study of a closed Facebook community initiated by 16 members of a cohort of online doctoral researchers in the USA found that the discussion focused on sharing knowledge, support and problem-solving (Kenney, Kumar and Hart, 2013). Their group developed beyond the parameters of a social network to practice the construction of new knowledge around the domain of completing a doctorate. A group of 15 doctoral students completing a thematic analysis of their own messages on the platform GroupMe during the first three months of their studies identified that the group supported individuals to engage with course content and develop supportive relationships (Galliart *et al.*, 2023). I can only find one published account of a doctoral research community using WhatsApp (Jolley *et al.*, 2015). In this example, WhatsApp was just one of three platforms used by the five doctoral researchers who formed a group during the writing up phase of their campus-based doctorate and the affordances and limitations of these platforms are not examined.

The use of the WhatsApp platform to create and sustain non-hierarchical communities by those undertaking online doctoral study is an underexplored area. It is an area worth exploring because the creation of supportive communities is one way that the risks to mental wellbeing can be reduced (Milicev *et al.*, 2023). Co-located campus-based doctoral researchers claim to benefit from peer learning and support (Elliot *et al.*, 2020), but online doctoral communities differ significantly (Berry, 2017) and such opportunities can be more challenging for distance learners to access.

Theoretical framework: Rhizomes and assemblages

Cronjé (2021) claims that WhatsApp has altered society's norms of communication to the extent that rhizome theory (Deleuze and Guattari, 1987) is appropriate to its analysis. It has been used for this purpose (Makoza and Bagui, 2022) but the work of Deleuze and Guattari is described as 'difficult to read' and 'foreign' (Strom, 2018, p. 108). Strom advises engaging with it selectively and purposefully, translating and using their ideas in a way that makes sense to the researcher, so this is the path I have taken.

Within the rhizome, a structure that grows horizontally putting out shoots from nodes, knowledge is no longer seen as linear, but each idea gives rise to many more ideas. Instead, of being defined by experts, knowledge is comprised of any information that is deemed useful by community members (Cormier, 2008).

Deleuze and Guattari, (1987, pp. 5–15) propose six principles of learning communities associated with the characteristics of a rhizome: connection and heterogeneity, which are closely related; multiplicity; asignifying rupture; cartography and decalcomia, which again are closely related. These characteristics, together with an example of how they might apply in the context of the WhatsApp group studied, are explained in Table 1.

Table 1: The principles of rhizome theory and how they apply to the WhatsApp group

Principles	Explanation	How the principle corresponds to the WhatsApp group studied
Connection and heterogeneity	All the parts within a rhizome are connected to each other. The components, human and non-human, are diverse.	The human group members are not alone but connected via WhatsApp, the machine component. The human components have some diverse characteristics but also some similarities.
Multiplicity	The rhizome is multiple in itself, a collective without subjects and objects or positions within it. It cannot change its dimensions without altering its nature.	There are multiple group members who are part of a single whole. If the membership of the group alters, the nature of the group changes, albeit not always noticeably.
Asignifying rupture	If a rhizome breaks, it will regrow via an old line or by forming a new one – a 'line of flight'.	Conversations start, stop, re-start and take off in new directions. Members sometimes leave or reduce their activity.
Cartography and decalcomania	A rhizome is a map in itself, an 'experimentation in contact with the real' (Deleuze and Guattari, 1987, p.12), rather than a tracing or copy of something already made, which is just one possible representation of reality. The map has many entry and exit points.	The group forges its own unique path based on its members' thinking, needs and activities at the time. People can enter or leave the conversation at any point.

Like the rhizome, a WhatsApp conversation is always 'between things'. The fabric of becoming is captured in the conjunction 'and…and…and…' (Deleuze and Guattari, 1987, p. 26), each contribution adding to what has gone before. Similarly, the group's participants can be thought of as 'becoming': becoming researchers who are constantly comparing our current position with what we can be in the future. There is a 'becoming' repository of information, which continually grows. Rhizomatic learning is characterised by 'lines of flight' or deviations from the usual, more dominant paths, which push the boundaries and take learning in new directions (Sidebottom, 2021).

A WhatsApp group can also be thought of as an assemblage, which Strom and Martin (2017, p. 7) define as ‘an aggregate of elements, both human and non-, that function collectively in a contextually unique manner to produce something’. It has human elements - people - and non-human elements – hardware, software and the Internet – that work collectively to produce information and a space in which to be and become. Each individual within the group can themselves be considered as an assemblage of human and non-human elements that allow them to connect. Within a rhizomatic network, it is the members themselves who connect the community to other, wider networks through their own involvement with them (Cormier, 2008).

Methods

This study uses digital autoethnography, an approach that operates in a space outside of the body, a ‘convergence’ of technologies, platforms, applications and people that allows us to be physically absent and yet still digitally present (Atay, 2020). Like Brown (2019), who uses computational analysis of their own Facebook posts as data, I use my social media presence itself as autoethnography but differ in that I make the analysis a human task. The fragments shared on the digital platform and co-constructed with others are analysed and patched together to form stories about the cultures in which I am situated.

I use my own WhatsApp contributions as data, starting from the time I joined the group until 18 months after the completion of my own doctorate. I have not used any posts made after becoming conscious of their potential as data. My reasons for doing so are both ethical and methodological. By drawing this line, I minimise the study’s impact on ongoing conversations in the WhatsApp group. In addition, whilst acknowledging how autoethnography disrupts the binary between the researcher and the researched, in drawing this line I avoid becoming what has been termed ‘the divided self’ when the roles of researcher and participant are continually in heightened tension because of the researcher’s awareness of their dual position (Schaap, 2002, p. 16).

After much helpful discussion with the relevant university research ethics committee about how to protect personal data, including my own, permission for the study was received. The participation of 14 peers was based on freely given, explicit consent, which required participants to opt in, following BERA guidelines (BERA, 2024). The majority, but not all of those participating in the group at the time, consented to take part, allowing their posts to be used only to provide context for the analysis of my own posts. Only where permission was given were WhatsApp messages downloaded, anonymized and stored on a secure server for the duration of the analysis. Participants consented on the basis that any study outputs would be shared and agreed with them before publication. To protect the identity of other group members, details such as names, places, dates and the exact size of the group are deliberately omitted.

In digital autoethnography, data from social media can be compared with additional narratives of the researcher’s experience that are recorded elsewhere. I made comparison with data from three other sources. They were chosen because they record the same experiences but for different audiences, thus offering unique insights for the purposes of triangulation:

1. A series of researching professional development plans (RPDP), designed to help those completing doctorates to become researching professionals (Lindsay and Floyd, 2019). I completed 15 such plans during the doctoral programme and shared them with supervisors and programme staff.
2. My research diary: handwritten notebooks in which I recorded my experiences, questions, ideas and progress as a doctoral researcher.
3. A student blog, the posts visible to anyone within my institution.

My analysis used a reflexive thematic approach, a flexible method that is compatible with different methodologies and theoretical frameworks (Braun and Clarke, 2019). I followed the six steps of familiarisation, coding, generating, reviewing and defining themes, and writing the report (Braun and Clarke, 2006). In this study, a theme was considered to be any pattern that regularly occurred throughout the data and captured my experiences of doctoral research in terms of my wellbeing, learning or professional development. In addition, I reflected on the language that I used, including emoticons, and, where permission was given to do so, the ways in which the WhatsApp conversations were co-constructed with others.

Autoethnographers feel driven to defend their use of self for research (Holt, 2003; Allen-Collinson and Hockey, 2008), saying that critics who suggest that autoethnography provides an easy source of data fail to acknowledge the emotional labour involved. Such critics also miss the point of autoethnography. Autoethnographic studies seek verisimilitude (Ellis, Adams and Bochner, 2011), evoking a feeling among readers that what is told is coherent and true to life. Readers are invited to view the world from the researcher's position and perhaps to find themselves in the story. Such stories lend themselves to being re-told to kindle compassion, prompt discussion, and encourage engagement with the issues that they raise (Ellis and Bochner, 2000).

Results

I now present the ways in which being part of a peer-led WhatsApp group has influenced firstly, my wellbeing and secondly, my learning and professional development.

Wellbeing

The data analysed evidences how my wellbeing was challenged in multiple ways during the five-year period. In addition to experiencing chronic health problems, I struggled to balance the demands of part-time distance study and doctoral research with working more than full-time hours, and the demands of family life during a pandemic. I negotiated multiple changes to my identity, as I entered and completed my doctoral studies, changed my field of work and became a doctoral supervisor myself.

I identified two main ways in which the WhatsApp group influenced my wellbeing and continues to do so: it gives me a sense of connection to a community and it provides an outlet for sharing emotions that cannot be shared elsewhere. The analysis also provides additional insights related to the way in which I chose to share some health-related information. I will explore each of these in turn.

Connection to a community

It is possible to track my developing sense of connection to the WhatsApp group. In my first researching professional development plan (RPDP), completed two days after joining, I record my intention to use the programme forums to connect with peers, but am unsure about the WhatsApp group. I write that I might possibly use it. When I complete the next RPDP three months later, I write that the group is 'very active and good for support'.

I post in the WhatsApp group more often than some peers but far less frequently than others, sharing a total of 1190 posts during the five years examined. Initially, my posts are study focused. I rarely join in with social chat or initiate discussions. There are periods of up to two weeks when I do not post at all, whilst others post daily. After six months, I share more personal information, commenting on where I am and what I am doing. I encourage others, congratulate them on their achievements or commiserate when they share bad news. The group becomes a space in which I care about and care with others and I, in turn, feel

cared for. My posts include media attachments that could be described as social or personal, including graduation pictures and a video clip of the sea that I share when COVID-19 restrictions limit travel. Importantly, the group's choice of WhatsApp, rather than a programme forum, as a medium for communication enables my sense of connection and belonging to the group to continue and grow beyond the completion of my doctorate when the opportunities afforded by the university end.

Throughout my studies, I comment on how much I value the social aspect of group. I do this in my RPDP, where I frequently mention how much I value the peer support, once within a blog post and within the WhatsApp group itself, where I highlight its added value compared to the more public programme forums (Figure 1). This is not to say that my sense of connection to the group does not continue to change over time. On one occasion, I ask the group a question and get no response. I record in my research diary that I feel discouraged and reluctant to post again. This lasts only three days before I re-join the conversation. My research diary records another time where I feel isolated as a distance learner. Towards the end of my doctoral journey when waiting for a viva date I 'feel alone' and write that 'it's hard to feel well supported at a distance'. I also note that 'I will probably feel better when my viva date is sorted,' acknowledging that uncertainty around university processes is a key factor.

Fig.1: WhatsApp message

There is evidence to suggest that I would welcome further opportunities to connect. In analysing my messages, I am struck by how I use this platform to seek opportunities to engage synchronously with one or more others in the group, either suggesting meeting in a mutually convenient physical space, or, more often, online (Figure 2).

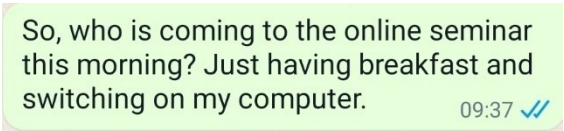

Fig.2: WhatsApp message

Furthermore, I am not equally connected to everyone in the group. Further analysis of my messages that name any of the 14 peers who consented to participate in the study reveals surprising variation. The two members I address by name most frequently are mentioned 65 times each, whilst the two least mentioned members are individually addressed just five and seven times respectively. Whilst some of this variation might be explained by some peers posting messages more frequently or by a prior connection or by some peers being more likely to address me individually within their messages, in other cases, it cannot be easily explained.

Sharing my feelings

A further theme in the data that connects to my wellbeing is sharing my feelings with the WhatsApp group. Often these are feelings related to my doctoral studies. Early in the programme and again subsequently, I admit to feeling 'overwhelmed.' Despite having excellent, supportive supervisors, I share that receiving their written feedback can feel fraught with difficulty (Figure 3).

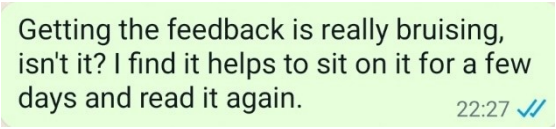

Fig.3: WhatsApp message

This challenge is also apparent in my research diary. It is not, however, mentioned within the RPDP later that month, where I write about growing confidence. The self I present to the group differs from the one I present to the supervision team and programme staff and is far less confident in my own ability to complete the doctoral programme. A phrase that appears in my WhatsApp posts is, ‘Glad it’s not just me.’ The group conversation helps to normalise my struggles and worries.

A critical incident occurs at the end of my first year. I am required to resubmit a summative piece of work. The advice of the independent markers seems at odds with that of my supervisory team. My RPDP records how my confidence plummets. I cease posting in my blog and in programme discussion forums. My contributions to the WhatsApp conversation, however, increase. I immediately share the unwelcome news with my peers and post eight messages that day, thanking them for their support. In the following weeks, it becomes rare for me to go more than a few days without posting. In my subsequent RPDP, I record how the support from peers has been invaluable in enabling me to continue with the programme.

Some of the information I share with the group is not related to my research study but to my feelings around everyday life, which I share knowing that peers will understand and sympathise. These include the challenges of living through the COVID-19 pandemic (Figure 4) and my feelings of frustration around the way that my excessive workload impacts on my health. As an adjunct worker without a permanent contract, it is hard to refuse additional work (Figure 5).

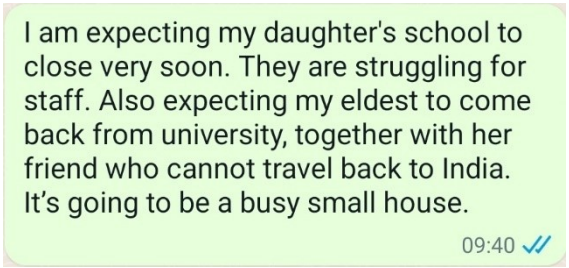

Fig.4: WhatsApp message

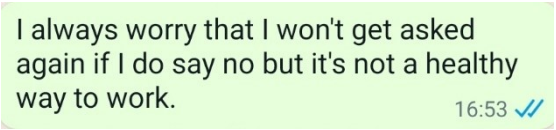

Fig.5: WhatsApp message

Sharing health-related information

The analysis also provides additional insights related to the way in which I chose to share some health-related information. Occasionally, I share specific health problems and thank peers for their sympathetic responses. I briefly mention a shoulder injury in a WhatsApp message when preparing for my viva. I do not mention it again until 11 months later, when I encourage others to take regular breaks when preparing for their viva exams. Judging such information to be useful to one or more others in the group seems to give me ‘permission’ to share these issues. To give another example, I share the results of a bone density scan and encourage others to request one if they think they might be at risk of osteoporosis. It is interesting to reflect on what I do not share. My warnings about osteoporosis and taking

regular breaks to avoid a ‘frozen’ shoulder - a condition typically found in women in their fifties - are the only hints that my doctoral journey might coincide with perimenopause, a time with profound impacts on health, both physically and emotionally.

Learning and professional development

My analysis suggests that being part of the WhatsApp groups has contributed to my learning and professional development in two ways: it has provided a community in which I can easily seek research-related advice and it has provided a space in which I can offer advice to others. I will explore each of these in turn.

Asking for advice

The WhatsApp chat plays a key role in my quest for information. I frequently ask my peers for their advice and thank them for the advice given. We answer so many of each other’s queries that I comment, ‘we should be writing a handbook as we go along’. My requests are varied but usually research related. I ask about formulating research questions, how many theoretical frameworks to consider, research methods, choosing transcription software and deciding whether to use software for data analysis. An example is shown in Figure 6. I ask for feedback about my research website. I also ask about dilemmas, such as the extent to which data can be shared openly and whether parts of my thesis can safely be shared with interested parties before publication.

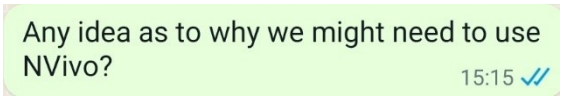

Fig.6: WhatsApp message

Many of these questions are like those I ask of my supervisors, but they are more spontaneous and less well framed. The WhatsApp group enables me to compare the wisdom of multiple peers who may have had similar discussions with their own supervisors. My most frequent requests for help involve understanding university systems or processes that are not covered by the programme guidance or regulations. I become familiar with my peers’ research outputs and can use them as examples in my work as an educator. I share when I have done so and an example is shown in Figure 7.

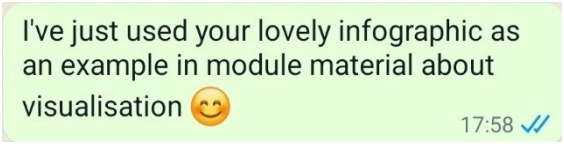

Fig.7: WhatsApp message

Giving advice

Many of my messages to the WhatsApp group respond to my peers’ requests for advice on a range of topics including, but not limited to, university systems, useful open-source software, how to interact with supervisors and programme staff, research paradigms, ethical considerations, theoretical frameworks, approaching research participants, referencing, searching the library catalogue, and structuring a thesis. Screenshots of university systems and policy documents form over half of the media attachments that I share with the group.

Initially, I repeat advice from programme documents or suggestions from my supervisors. As time goes on, I more often advise others based on my own experience and those of my wider personal and professional networks. Some peers express an interest in narrative approaches, and I share my learning from attending a conference, books and articles and some text that eventually becomes part of my thesis (Figure 8).

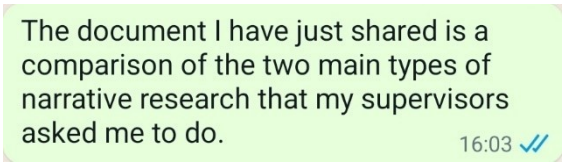

Fig.8: WhatsApp message

I offer advice connected to my own research topic – synchronous online interaction – when requested, helping peers participate in online synchronous sessions via platforms that they have not encountered before. During the COVID-19 lockdowns, I also help them navigate synchronous platforms as educators or to connect with family and friends (Figure 9).

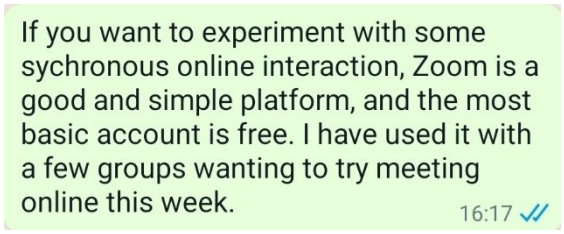

Fig.9: WhatsApp message

The process of setting out my responses when offering advice makes me check the details of what I am about to share and question everything. This consolidates my own learning. On three occasions I advise others incorrectly and then apologise. Sometimes I share my learning without being asked. I justify the new topic by explaining that it might be useful for someone else (Figure 10).

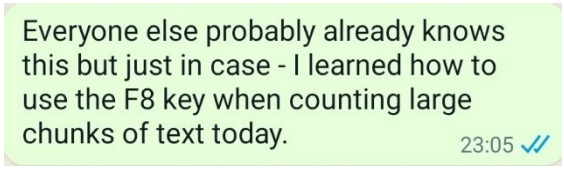

Fig.10: WhatsApp message

The WhatsApp conversation gradually becomes a repository of advice. I frequently use the search function to find information that was shared earlier, including my own posts. This continues as I move on from my own doctoral researcher journey, becoming a doctoral supervisor myself. Although unaware of it at the time, the group provides me with many opportunities for professional development around doctoral supervision. I become familiar with peers' doctoral journeys, as well as the questions they ask and the challenges they experience. I practise supporting doctoral researchers in a relaxed, low-stakes environment and observe how others do so long before I become a supervisor and receive formal training and mentoring.

Discussion

My analysis suggests that WhatsApp platform can enable doctoral researchers to not only experience but to participate in the creation of an 'assemblance of belonging' (Gravett, Ajjawi and O Shea, 2023) where 'moments of disruption and connection' give rise to fresh ideas (Fullager, Pavlidis and Stadler, 2017, p. 25). The community is not rooted in a physical space but is mobile, doctoral researchers taking the group along into multiple physical, mental, and emotional spaces. These are spaces that can then be shared with others in the group, sometimes with images but more often with words. The community made possible through WhatsApp holds the potential to support doctoral researchers through multiple significant changes in identity, the experience characterised by 'lines of becoming' (Deleuze

and Guattari, 1987, pp. 341–342) as the individuals who are part of the group become doctoral researchers, then doctors and then perhaps supervisors.

Absent within a peer-led WhatsApp group like the one studied here are the intentional design and moderation considered intrinsic to the development of most online communities (Carey and Meyer, 2016; Koomson, 2019). Instead, such a group provides a less formal, 'backstage' space, hidden from programme leaders and supervisors and where members of the community can 'let off steam'. It is essential to find ways of managing strong emotions during a doctorate, particularly in relation to receiving feedback, and yet the significance of emotion in this context is rarely recognised (Aitchison and Mowbray, 2013). As many as 40% of doctoral researchers in the UK experience high levels of psychological distress (Hazell *et al.*, 2021; Milicev *et al.*, 2023). They frequently struggle, however, to discuss their mental wellbeing with their supervisors (White *et al.*, 2024) and less than half of doctoral supervisors feel able to care for the mental wellbeing of those that they supervise (Gower, 2021). In contrast, for some, a peer-led WhatsApp group may become a space in which feelings can be shared easily, even in times of difficulty. This is not to say that the more formal, moderated online community spaces provided within doctoral programmes do not also have an important role to play, particularly for those who study mainly or wholly online, but to acknowledge that a peer-led community holds different possibilities. In such a community, it is not necessary to present what another doctoral researcher describes as the 'artificial you' (Nazia, cited in Czerniawski, 2023, p. 1377). The group can play a key role in normalising struggles and worries, making doctoral researchers think that achieving their goals is possible. This may not work similarly for all group members, however, especially if their social media use leads to unfavourable comparisons with peers (Braghieri, Levy and Makarin, 2022; McLaughlin and Sillence, 2023).

Engaging with a community from behind a screen requires vulnerability as people share personal information and relinquish control of their words (Ucok-Sayrak and Brazelton, 2022). A peer-led WhatsApp group has what appears to be a non-hierarchical structure, reminiscent of the rhizome, which offers the possibility of each member connecting on an equal basis to every other group member. Individual experiences of group structure may well differ, however, with some group members being or feeling more closely connected to the rest of the community than others and some group members taking more of a pivotal role than their peers. Some peers, whilst present in the space, may not share a sense of connection. Another study of online distance postgraduate students found that some attach more importance to peer interaction than others and some encounter peers 'with whom there is no synergy or worse, cause distress' (Stapleford, 2021). Whilst the experiences of being part of the group shared through this study are positive, this may not be the case for all group members or, if they are, the group may be exceptional. Another factor that affects perception of community is frequency of use (Carey and Meyer, 2016) with those who post more frequently having a stronger sense of connection to the group. As such, therefore, it is important for a doctoral researcher considering joining a WhatsApp group to reflect on their own previous experiences of online connection and whether the community is likely to provide a helpful space for them.

Everyone experiences connection and belonging differently (Gravett, Ajjawi and O Shea, 2023) and the factors thought to shape belonging include social class, gender, ethnicity, personal and psychological characteristics, and situational factors (Naughton, Garden and Watchman Smith, 2024). Factors that may have enhanced feelings of connection and belonging within the group under study might have included a perceived similarity to other members, a perception enhanced by occasional opportunities to meet other group members on campus and elsewhere. Within a WhatsApp community, such opportunities to meet at an event and strengthen ties can impact positively on members' sense of group identity (Da Silva Braga, 2016). Lack of perceived similarity to others may result in less positive experiences for those with more diverse characteristics who may remain on the margins or

the group or silently disappear from the community. Such reflections cast doubt on whether the rhizomatic principle of heterogenicity fully applies in this context. It may, however, be possible to identify multiple aspects of heterogeneity of group members beneath the superficial homogeneity. For example, group members might come from dispersed locations with diverse experiences and conduct research into very different areas.

This account draws attention to the way in which doctoral study is not simply cognitive but emotional, and embodied, even whilst knowledge has come to be conceptualised as separate from the bodies that carry it (Hayles, 1999). There is a tendency to prioritise the cognitive aspects of postgraduate education, health and feelings only being discussed when they become significant barriers to academic progress. In reality, it is impossible to separate the academic aspects from the personal in everyday life (McAlpine and Amundsen, 2011). The WhatsApp group provides a community in which it feels possible to manage these more personal aspects and for conversation to follow 'lines of flight' (Delueze and Guttari p. 26) into these emotional and embodied realms.

This study also indicates a potential unmet wellbeing need among mature, part-time doctoral researchers: the need for support around the menopause. Despite growing awareness of the needs of HE employees around the menopause (Brewis, 2020) little thought has yet been given to students. In the UK in 2021/2022, 54% of part-time doctoral researchers were female and 83% were over 30 years old (HESA, 2023) but there is no data to quantify how much over. Mature women are often invisible in data and research about doctoral researchers. When they are identified, they tend to be 'othered' and subjected to negative assumptions, including stereotypes about lack of familiarity with technology and yet, like the author, they do develop strategies for success, including finding mutual support via social media (Hannaford, 2022). Whilst some doctoral researchers may access support to help them reduce the impact of the menopause in work-based contexts, others will not. They might struggle to know how to raise the issue with supervisors or programme staff.

The WhatsApp group studied provides extensive opportunities for social learning that could not be accessed otherwise, WhatsApp acting as a central mediator for the 'hidden curriculum'. This is the learning that doctoral researchers access through personal and professional networks, and which are navigated alongside the more formal curriculum (Elliot *et al.*, 2020; Elliot, 2022). Social learning involves exploring existing accepted knowledge but also debating its boundaries (Cormier, 2008). It is particularly helpful within doctoral research, which is always seeking to extend the boundaries of knowledge. Many of the ideas that influence doctoral research are generated through connections to other communities, including supervisors, programme staff, colleagues, family and friends, and this study's findings suggest that these ideas can easily be shared within a WhatsApp group. The pivotal moments of thought tend to happen outside of the group but sharing with the group helps to test these ideas. The rhizomatic principles of cartography and decalcomania are applicable here, each individual experience of doctoral study and the group's experience as a whole being unique and an 'experimentation in contact with the real' (Deleuze and Guattari, 1987, p. 12).

In addition, the WhatsApp community studied provides further learning opportunities to support the transition to becoming a doctoral supervisor. Doctoral supervisors need disciplinary knowledge and knowledge of the regulations in our own context but also an appreciation of the diversity of researchers' needs and strategies for communicating (Halse, 2011). It is perhaps in these regards that a WhatsApp group is a most useful training ground, providing opportunities for community members to acquire what Greenhow and Lewin (2016, p. 11) term 'expertise via participation'. Similarly, Halse (2011) concludes that it is through the *practice* of supervision that supervisors' most meaningful knowledge is produced. This study demonstrates the potential for WhatsApp communities to provide valuable learning

opportunities for professional development in supervision provided by the WhatsApp group even before individuals know that they might need them.

Strengths and limitations

The in-depth focus on the experiences of just one group member who is also the researcher is both a strength and limitation of this study. It is necessary to protect the privacy and identity of other group members, but my own experiences, including my experience of the WhatsApp group, will have shaped my assumptions and limited the potential for reflexivity. A further limitation is the contextualised nature of this study. Others' experiences of WhatsApp groups during doctoral study are likely to be unique and different to mine, as are my peers experiences of the same WhatsApp group. A further strength of the study, however, is the five-year time period that it covers, providing rare, in-depth insight into the author's experiences of this online community.

Conclusion

Previously, I viewed student WhatsApp groups with caution. Conscious of their potential to be liminal spaces in which the academy could do little to protect students from misinformation or bullying, I advised learners to use them for support but to use formal, moderated communities for learning. I think differently now, at least in the context of post-graduate study. I have found rhizomatic principles and ideas around assemblages helpful in analysing multiple aspects of my participation. Instead of conceptualising WhatsApp only as a space or a tool, I now consider it to be a valued non-human actor with agency that allows me to connect and learn with my peers in a way that would be impossible otherwise.

For me, the WhatsApp group holds inestimable value. My connection to the community enhances my wellbeing and learning and provides a low stakes environment for learning how to support others. I would encourage those beginning a doctorate to give such a group a try and those who already have such a group to cherish it and nurture its development through their own contributions. There are implications for the practice of those supporting doctoral researchers or new doctoral supervisors who can provide similar encouragement and, whenever possible, provide opportunities for synchronous gatherings than might initiate or strengthen peer ties. Further research using other methodologies and involving a diverse range of doctoral researchers could build on this work.

This study has also uncovered a potential unmet need among mature, female doctoral researchers: support around the menopause. This is an issue which needs further research and consideration and which universities might address through policy, clearly signposted service provision and professional development of doctoral programme staff.

References

Ahad, A.D. and Lim, S.M.A. (2014) 'Convenience or nuisance?: The "Whatsapp" dilemma', *Procedia - Social and Behavioral Sciences*, 155, pp. 189–196. Available at: https://doi.org/10.1016/j.sbspro.2014.10.278.

Aitchison, C. and Mowbray, S. (2013) 'Doctoral women: managing emotions, managing doctoral studies', *Teaching in Higher Education*, 18(8), pp. 859–870. Available at: https://doi.org/10.1080/13562517.2013.827642.

Allen-Collinson, J. and Hockey, J. (2008) 'Autoethnography as "valid" methodology? A study of disrupted identity narratives', *The International Journal of Interdisciplinary Social*

Sciences: Annual Review, 3(6), pp. 209–218. Available at: https://doi.org/10.18848/1833-1882/CGP/v03i06/52631.

Atay, A. (2020) 'What is cyber or digital autoethnography?', *International Review of Qualitative Research*, 13(3), pp. 267–279. Available at: https://doi.org/10.1177/1940844720934373.

BERA (2024) *Ethical Guidelines for Educational Research*. Fifth. London: BERA. Available at: https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-fifth-edition-2024.

Berry, S. (2017) 'Student support networks in online doctoral programs: Exploring nested communities', *International Journal of Doctoral Studies*, 12, pp. 033–048. Available at: https://doi.org/10.28945/3676.

Braghieri, L., Levy, R. and Makarin, A. (2022) 'Social Media and Mental Health', *American Economic Review*, 112(11), pp. 3660–3693. Available at: https://doi.org/10.1257/aer.20211218.

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3(2), pp. 77–101. Available at: https://doi.org/10.1191/1478088706qp063oa.

Braun, V. and Clarke, V. (2019) 'Reflecting on reflexive thematic analysis', *Qualitative Research in Sport, Exercise and Health*, 11(4), pp. 589–597. Available at: https://doi.org/10.1080/2159676X.2019.1628806.

Brewis, J. (2020) *Menopause awareness and higher education*. York: Advance HE. Available at: https://www.advance-he.ac.uk/knowledge-hub/menopause-awareness-and-higher-education-guidance.

Brown, N.M. (2019) 'Methodological cyborg as black feminist technology: Constructing the social self using computational digital autoethnography and social media', *Cultural Studies ↔ Critical Methodologies*, 19(1), pp. 55–67. Available at: https://doi.org/10.1177/1532708617750178.

Byrom, N.C. *et al.* (2022) 'Predicting stress and mental wellbeing among doctoral researchers', *Journal of Mental Health*, 31(6), pp. 783–791. Available at: https://doi.org/10.1080/09638237.2020.1818196.

Carey, M.C. and Meyer, H.K. (2016) 'The influences of participation and moderation on the development of a sense of virtual community', *International Journal of Web Based Communities*, 12(4), pp. 326–341.

Cormier, D. (2008) 'Rhizomatic education: Community as curriculum', *Innovate: Journal of Online Education*, 4(5). Available at: https://nsuworks.nova.edu/innovate/vol4/iss5/2.

Cronje, J. and Van Zyl, I. (2022) 'WhatsApp as a tool for building a learning community', *Electronic Journal of e-Learning*, 20(3), pp. pp296-312. Available at: https://doi.org/10.34190/ejel.20.3.2286.

Cronjé, J.C. (2021) 'Social distancing close together: the rhizomatic role of WhatsApp in communities - a proposed research framework', *International Journal of Web Based Communities*, 17(1), p. 65. Available at: https://doi.org/10.1504/IJWBC.2021.112854.

Czerniawski, G. (2023) ‘Power, positionality and practitioner research: Schoolteachers’ experiences of professional doctorates in education’, *British Educational Research Journal*, 49(6), pp. 1372–1386. Available at: https://doi.org/10.1002/berj.3902.

Da Silva Braga, R. (2016) ‘Technologies as a means, meetings as an end: Urban interactions of a migrant community in Rio de Janeiro, Brazil, mobilized through WhatsAapp’, in J. Abdelnour-Nocera et al. (eds) *Culture, technology, communication. common world, different futures*. Cham: Springer International Publishing (IFIP Advances in Information and Communication Technology), pp. 68–81. Available at: https://doi.org/10.1007/978-3-319-50109-3_5.

Deleuze, G. and Guattari, F. (1987) *A thousand plateaus*. Minneapolis: University of Minnesota Press.

Elliot, D.L. *et al.* (2020) *The hidden curriculum in doctoral education*. Cham: Springer International Publishing. Available at: https://doi.org/10.1007/978-3-030-41497-9.

Elliot, D.L. (2022) ‘A “doctoral compass”: strategic reflection, self-assessment and recalibration for navigating the “twin” doctoral journey’, *Studies in Higher Education*, 47(8), pp. 1652–1665. Available at: https://doi.org/10.1080/03075079.2021.1946033.

Ellis, C., Adams, T. and Bochner, A. (2011) ‘Autoethnography: An overview’, *Forum: Qualitative social research*, 12(1).

Ellis, C. and Bochner, A. (2000) ‘Autoethnography, personal narrative, reflectivity: Researcher as subject’, in N.K. Denzin and Y. Lincoln (eds) *Handbook of qualitative research*. Second. London: SAGE Publications, Inc., pp. 733–768.

Fernández Robin, C., McCoy, S. and Yáñez, D. (2017) ‘“WhatsApp”’, in *Social Computing and Social Media. Applications and Analytics*, Cham: Springer International Publishing, pp. 82–90. Available at: https://doi.org/10.1007/978-3-319-58562-8_7.

Fullager, S.P., Pavlidis, A. and Stadler, R. (2017) ‘Critical moments of (un)doing doctoral supervision: Collaborative writing as rhizomatic practice’, *Knowledge Cultures*, 5(4), pp. 23–41. Available at: https://doi.org/10.22381/KC5420173.

Galliart, J.M. *et al.* (2023) ‘Using group messaging to facilitate peer support among early doctoral students: A thematic analysis of one cohort’s text messages’, *Adult Learning*, 34(2), pp. 101–110. Available at: https://doi.org/10.1177/10451595211050072.

Gower, O. (2021) *UK Research Supervision Survey 2021 Report*. Lichfield, Staffordshire: UK Council for Graduate Education.

Gravett, K., Ajjawi, R. and O Shea, S. (2023) ‘Topologies of belonging in the digital university’, *Pedagogy, Culture & Society*, pp. 1–15. Available at: https://doi.org/10.1080/14681366.2023.2256342.

Greenhow, C. and Lewin, C. (2016) ‘Social media and education: Reconceptualizing the boundaries of formal and informal learning’, *Learning, Media and Technology*, 41(1), pp. 6–30. Available at: https://doi.org/10.1080/17439884.2015.1064954.

Halse, C. (2011) ‘“Becoming a supervisor”: the impact of doctoral supervision on supervisors’ learning’, *Studies in Higher Education*, 36(5), pp. 557–570. Available at: https://doi.org/10.1080/03075079.2011.594593.

Hannaford, J. (2022) ‘Long-range impact through slow reverberation: Narratives about mature-aged scholars and making a contribution’, in D.L. Mulligan, N. Ryan, and P.A. Danaher (eds) *Deconstructing Doctoral Discourses: Stories and Strategies for Success*. Cham: Springer International Publishing (Palgrave Studies in Education Research Methods). Available at: https://doi.org/10.1007/978-3-031-11016-0.

Hayles, N.K. (1999) *How we became posthuman*. Chicago: University of Chicago Press.

Hazell, C.M. *et al.* (2021) ‘Nationwide assessment of the mental health of UK Doctoral Researchers’, *Humanities and Social Sciences Communications*, 8(1), p. 305. Available at: https://doi.org/10.1057/s41599-021-00983-8.

HESA (2023) ‘Who’s studying in HE?’ Available at: https://www.hesa.ac.uk/data-and-analysis/students/whos-in-he#characteristics (Accessed: 19 November 2023).

Holt, N.L. (2003) ‘Representation, legitimation, and autoethnography: An autoethnographic writing story’, *International Journal of Qualitative Methods*, 2(1), pp. 18–28. Available at: https://doi.org/10.1177/160940690300200102.

Jolley, D. *et al.* (2015) ‘The importance of peer support during the final stages of a PhD’, in E. Norris (ed.) *A guide for psychology postgraduates: surviving postgraduate study*. Leicester: British Psychological Society, pp. 36–40. Available at: https://explore.bps.org.uk/lookup/doi/10.53841/bpspag.2015.1.97-5.36 (Accessed: 26 October 2024).

Juniper, B. *et al.* (2012) ‘A new approach to evaluating the well-being of PhD research students’, *Assessment & Evaluation in Higher Education*, 37(5), pp. 563–576. Available at: https://doi.org/10.1080/02602938.2011.555816.

Kenney, J., Kumar, S. and Hart, M. (2013) ‘More than a social network: Facebook as a catalyst for an online educational community of practice’, *International Journal of Social Media and Interactive Learning Environments*, 1(4), p. 355. Available at: https://doi.org/10.1504/IJSMILE.2013.057467.

Koomson, W.K. (2019) ‘Ontology of ubiquitous learning: WhatsApp messenger competes successfully with learning management systems (LMS) in Ghana’, in *Proceedings of the 6th International Conference on Educational Technologies 2019*. *6th International Conference on Educational Technologies 2019*, IADIS Press, pp. 75–82. Available at: https://doi.org/10.33965/icedutech2019_201902L009.

Lapadat, J.C. (2017) ‘Ethics in autoethnography and collaborative autoethnography’, *Qualitative Inquiry*, 23(8), pp. 589–603. Available at: https://doi.org/10.1177/1077800417704462.

Lindsay, H. and Floyd, A. (2019) ‘Experiences of using the researching professional development framework’, *Studies in Graduate and Postdoctoral Education*, 10(1), pp. 54–68. Available at: https://doi.org/10.1108/SGPE-02-2019-049.

Lister, K. *et al.* (2023) ‘Positive digital practices: Supporting positive learner identities and student mental wellbeing in technology-enhanced higher education’, *Journal of Interactive Media in Education*, 2023(2). Available at: https://doi.org/10.5334/jime.831.

Makoza, F. and Bagui, L. (2022) ‘Rhizomatic learning and use of mobile instant messaging platforms: Case of University of Technology in South Africa’, *International Journal of Virtual*

and Personal Learning Environments, 12(1), pp. 1–17. Available at: https://doi.org/10.4018/IJVPLE.295304.

McAlpine, L. and Amundsen, C. (2011) 'To be or not to be? The challenges of learning academic work.', in L. McAlpine and C. Amundsen (eds) *Doctoral education: Research-based strategies for doctoral students, supervisors and administrators*. Dordrecht, The Netherlands: Springer Netherlands.

McCray, J. and Joseph-Richard, P. (2021) 'Doctoral students' well-being in United Kingdom business schools: A survey of personal experience and support mechanisms', *The International Journal of Management Education*, 19(2), p. 100490. Available at: https://doi.org/10.1016/j.ijme.2021.100490.

McLaughlin, C.J. and Sillence, E. (2023) 'Buffering against academic loneliness: The benefits of social media-based peer support during postgraduate study', *Active Learning in Higher Education*, 24(1), pp. 63–76. Available at: https://doi.org/10.1177/1469787418799185.

Milicev, J. *et al.* (2023) 'Evaluating mental health and wellbeing of postgraduate researchers: Prevalence and contributing factors', *Current Psychology*, 42(14), pp. 12267–12280. Available at: https://doi.org/10.1007/s12144-021-02309-y.

Naughton, C., Garden, C. and Watchman Smith, N. (2024) 'Student Belonging Good Practice Guide'. Available at: https://www.raise-network.com/_files/ugd/12e0cd_539f72c96f54437882abc7401fcd6794.pdf (Accessed: 13 February 2024).

O'Hara, K.P. *et al.* (2014) 'Everyday dwelling with WhatsApp', in *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. *CSCW'14: Computer Supported Cooperative Work*, Baltimore Maryland USA: ACM, pp. 1131–1143. Available at: https://doi.org/10.1145/2531602.2531679.

Peters, M. and Romero, M. (2019) 'Lifelong learning ecologies in online higher education: Students' engagement in the continuum between formal and informal learning', *British Journal of Educational Technology*, 50(4), pp. 1729–1743. Available at: https://doi.org/10.1111/bjet.12803.

Rozgonjuk, D. *et al.* (2020) 'Fear of Missing Out (FoMO) and social media's impact on daily-life and productivity at work: Do WhatsApp, Facebook, Instagram, and Snapchat Use Disorders mediate that association?', *Addictive Behaviors*, 110, p. 106487. Available at: https://doi.org/10.1016/j.addbeh.2020.106487.

Schaap, F. (2002) *The worlds that took us there: Ethnography in a virtual reality*. Amsterdam: Aksant Academic Publishers.

Schmidt, M. and Hansson, E. (2018) 'Doctoral students' well-being: a literature review', *International Journal of Qualitative Studies on Health and Well-being*, 13(1), p. 1508171. Available at: https://doi.org/10.1080/17482631.2018.1508171.

Sidebottom, K. (2021) *Rhizomes, assemblages and nomad war machines – re-imagining curriculum development for posthuman times*. Lancaster University. Available at: https://eprints.lancs.ac.uk/id/eprint/160080/1/2021sidebottomphd.pdf.

Stapleford, K.E. (2021) *Re-examining interaction and transactional distance through the lived experiences of postgraduate online distance learners*. PhD. Lancaster University. Available at: https://doi.org/10.17635/lancaster/thesis/1322 (Accessed: 20 November 2023).

Strom, K.J. (2018) '"That's not very Deleuzian": Thoughts on interrupting the exclusionary nature of "High Theory"', *Educational Philosophy and Theory*, 50(1), pp. 104–113. Available at: https://doi.org/10.1080/00131857.2017.1339340.

Strom, K.J. and Martin, A.D. (2017) *Becoming-teacher: A rhizomatic look at first-year teaching*. Rotterdam, Netherlands: Sense Publishers.

Turner, H. (2023) 'Exploring motivation and satisfaction in part-time PhD students', *Studies in Graduate and Postdoctoral Education*, 14(2), pp. 171–185. Available at: https://doi.org/10.1108/SGPE-12-2021-0088.

Ucok-Sayrak, O. and Brazelton, N. (2022) 'Regarding the question of presence in online education: A performative pedagogical perspective', *Educational Philosophy and Theory*, 54(2), pp. 131–144. Available at: https://doi.org/10.1080/00131857.2021.1880389.

White, N. *et al.* (2024) 'The mental labyrinth of postgraduate research: A qualitative study of postgraduate mental health and wellbeing and the impact of the supervisory relationship', *Higher Education*, 87(5), pp. 1211–1226. Available at: https://doi.org/10.1007/s10734-023-01061-5.

Wilson, C. *et al.* (2023) '"PGR Connections": Using an online peer- learning pedagogy to support doctoral researchers', *Innovations in Education and Teaching International*, 60(3), pp. 390–400. Available at: https://doi.org/10.1080/14703297.2022.2141292.