

Twelve tips for supervisors to move towards person-centered research supervision in health care sciences

Tanya Heyns^a, Philippa Bresser^{b,*}, Tania Buys^c, Isabel Coetzee^a, Elzette Korkie^d, Zelda White^e and Brendan Mc Cormack^{f,a}

^aDepartment of Nursing Sciences, School of Health Care Sciences, University of Pretoria, Gauteng, South Africa;

^bDepartment of Radiography, School of Health Care Sciences, University of Pretoria, Gauteng, South Africa;

^cDepartment of Occupational Therapy, School of Health Care Sciences, University of Pretoria, Gauteng, South Africa;

^dDepartment of Physiotherapy, School of Health Care Sciences, University of Pretoria, Gauteng, South Africa;

^eDepartment of Human Nutrition, School of Health Care Sciences, University of Pretoria, Gauteng, South Africa;

^fDivision of Nursing, Queen Margaret University, Edinburgh, Scotland

*CONTACT Philippa Bresser, School of Health Care Sciences, Department of Radiography, University of Pretoria, Bophelo Road, Gezina 0002, Gauteng, South Africa. Email: pippa.bresser@up.ac.za

Abstract

The research supervisory role is becoming increasingly complex due to issues such as diversity of students; mismatched expectations between the student, supervisor and higher education institution and shorter and specific time-bound research outcomes. The current postgraduate research supervision culture and supervision practices should change. Moving towards person-centered research supervision practices may enhance the research environment, as healthful relationships between supervisors and postgraduate students may lead to increased postgraduate research outcomes. Using a World Café, we critically reflected on our existing research supervision practices. All healthcare educators involved in postgraduate research supervision were purposively selected to participate. During the café, we explored and shared ideas in a safe space. Twelve tips emerged, which can be implemented to move existing supervision practices towards person-centered research supervision practices. We present these twelve tips from the perspective of the four constructs of person-centeredness as outlined by McCormack and McCance - pre-requisites, environment, process, and outcomes. The use of these tips may enable both supervisors and students to flourish. Avoiding routine, ritual supervision practices and embracing person-centredness, will enable supervisors to form healthful relationships and put the postgraduate student at the heart of our supervision practices.

Introduction

The success and quality of postgraduate research is largely dependent on the effective and efficient supervision of students (Alam et al. 2013) along their research journey (van Schalkwyk et al. 2016). The health care educator as supervisor to masters and doctoral students, plays a crucial role in the overall experience, satisfaction, retention and completion of postgraduate students. However, the research supervisory role is becoming increasingly complex due to issues such as diversity of students; mismatched expectations between the

student, supervisor and higher education institution; shorter and specific time bound research outcomes; pressures to publish, the complexity of the student-supervisor relationship and limited or poor supervision skills (Alam, et al. 2013, James and Baldwin 1999). There are limited academic or institutional guidelines to assist educators in transitioning from a postgraduate student to a postgraduate research supervisor (Naidoo and Mthembu 2015). Postgraduate supervisors often develop their research supervision skills in an ad hoc way from their supervisors (Askew et al. 2016), thus repeating the supervisory practices of their supervisors (Naidoo and Mthembu 2015), which may or not have been adequate. Others rely on peers for guidance on supervision practices (Amundsen and McAlpine 2009) while some supervisors rely on a priori understanding of what research supervision is about (Lee 2008). Quality research supervision is associated with the expertise of the supervisor in the research area, their willingness to take time in guiding the student to solve problems in the planning and execution of the research and the personal interest that they have in the student (Evans and Stevenson 2011). According to Lee (2008) quality research supervision entails the involvement of a research topic and research expert (supervisor) and the guidance of a novice (postgraduate student) to reach an appropriate level of subject and research expertise. In addition, the authors regard quality supervision practices to include the relationship that is established and nurtured throughout the research process.

Currently, the postgraduate supervision culture in our institution could be described as haphazard, impersonal, pressurised and mechanistic with similar pressures reported elsewhere (McCallin and Nayar 2012, van Schalkwyk, et al. 2016). The focus seems to be on the quantity of time-bound outcomes and to increase research outputs with less emphasis on the student-supervisor relationship and experience to meet the desired outcomes (van Rensburg et al. 2016). The existing supervision practices in the Faculty where the authors are employed needed to be revisited because in a health care environment, the supervision practices did not appear synchronous with the teaching pedagogy of nurturing and caring health professionals. Zucconi (2016) says that ‘The Person-Centred Approach is a scientifically proven effective way to create solutions on a win-win basis’. The person-centred approach is a systemic, holistic approach applied successfully in interpersonal relationships including conflict resolution’ (p. 6). The approach therefore appeared to be a plausible and viable solution within this research supervision environment. A person-centred approach is an individualised, tailored approach and not a routine or standardised approach to supervision (Leplege et al. 2007).

Applying the definition of person-centredness by McCormack and McCance (2017:3) to postgraduate research supervision implies that person-centred supervision is an approach to research supervision that should focus on the formation of healthful relationships¹ between supervisors and postgraduate students. There is a growing need to understand the supervisor-student relationship (van Schalkwyk, et al. 2016). The relationship should be underpinned by values of respect for persons (personhood), individual right to self-determination, mutual respect and understanding. Furthermore, the relationship should be enabled by cultures of

¹ A healthful relationship is one in which there is mutual respect and understanding and a focus on nurturing growth and development through respectful engagement.

empowerment that foster continuous approaches to practice development and ultimate success in the postgraduate journey. Person-centred research supervision involves cultures of learning, compassion and continuous improvement for supervisors and students.

Transforming towards person-centred research supervision practices, may enhance the research environment, as healthful relationships between supervisors and postgraduate students may lead to increased collaborative research outputs (Howells et al. 2017). Consequently for supervisors, a shift to person-centred supervision practices could lead to more effective postgraduate supervision which is driven by mutual respect and understanding within the student-supervisor relationship. Post-graduate supervision should be guided by a coherent set of principles embedded in working with what matters to the student, in a relationship that will benefit both the student and supervisor. Acknowledging the choices, values and preferences of the postgraduate student and supervisor could lead to a compassionate, healthful student-supervisor relationship (Bastalich 2017). Exploring and acknowledging current research supervision practices requires the recognition of patterns that drive behaviour in order to meet various research outcomes. Subsequently the behaviour manifests as specific values, beliefs and assumptions within the workplace which is vital to bringing about change (McCormack et al. 2013).

We identified the opportunity to consider research supervision in the context of person-centred practices to address such challenges and create a context for a more healthful relationship between postgraduate students and supervisors. It was deemed necessary to explore what supervisors view as person-centred supervision including the pre-requisites, the environment, the processes and the envisioned outcomes of such supervision practices. A World Café was held for all health care educators involved in supervision of postgraduate students in the School of Health Care Sciences (SoHCS) to provide a space for ideas to flourish, where supervisors could learn from and with others (Coghlan and Brydon-Miller 2014). In so doing, patterns that drive behaviour could be recognised with values and beliefs across the four constructs of person-centred research supervision practices (McCormack and McCance 2017) being clarified through critical reflection of our supervision practice (Taylor and McCulloch 2017).

The authors identified and reached consensus on twelve tips that could move research supervision towards person-centredness to support the AMEE guide 104 (van Schalkwyk, et al. 2016). The tips were then aligned to the four person-centred constructs presented as pre-requisites, environment, process and outcomes in Table 1.

The tips are not prioritised in terms of importance.

Table 1: Summary of the 12 tips for person-centred research supervision within the person-centred framework

| Person centred construct | Related tips |
|---------------------------------|---|
| Pre-requisites | <ol style="list-style-type: none"> 1. Create a communication platform 2. Continuously enable and enhance the knowledge and skill of health care educators as supervisors 3. Matching of student and supervisor is important |
| Research Environment | <ol style="list-style-type: none"> 4. Create a safe and supportive environment for the supervisor 5. Create a nurturing environment 6. Create an encouraging research supervision culture 7. Sharing and understanding of values and beliefs to frame the student-supervisor relationship |
| Person centred processes | <ol style="list-style-type: none"> 8. Ensure streamlined administrative support is available for the supervisor 9. Prioritise student-supervisor engagement 10. Define roles and responsibilities beyond task-orientation 11. Ongoing monitoring and evaluation is critical |
| Outcomes | <ol style="list-style-type: none"> 12. Celebrating outcomes that are mutually beneficial |

Tip 1

Create a communication platform

Lack of interaction and poor communication are known contributing factors to the breakdown of supervision relationships (Manathunga 2005). A common concern from postgraduate research students included infrequent or erratic contact with the supervisor (Ismail et al. 2011). Supervision is defined by Alam, et al. (2013) as a ‘two-way interactional process that requires both the student and the supervisor to consciously engage each other within the spirit of professionalism, respect, collegiality and open mindedness’ (p. 876). Manathunga (2005) elaborates on issues that students would admittedly conceal from their supervisors. The ability and willingness of supervisors to detect cue concealment and attempt to help students through difficulties that may occur during their research studies plays a role in moving towards person-centred supervision. For successful person-centred supervision, there must be communicative spaces where supervisors and postgraduate students can engage with each other about supervision practices through dialogue and discussion, until mutual agreements are reached. Often the communication space is focussed on the research topic and meeting deadlines that detract from openness and honesty about improvements required within the supervision relationship.

Tip 2

Continuously enable and enhance the knowledge and skill of health care educators as supervisors

A large proportion of postgraduate students fail to complete their studies within the stipulated time frame or give up their studies completely due to problems related to inadequate supervision, research support or a poor research environment (Alam, et al. 2013). Health care educators should continuously enhance their supervision knowledge and skills by taking cognisance of three core elements: professional expertise, research methodologies and

supervision practices. To enhance the knowledge and skill of supervisors and promote throughput and outcomes, supervisors should be aware of support systems available to them as well as to the student within the higher education institution. Institutional support structures are becoming more commonplace (van Schalkwyk, et al. 2016). In the absence of supervisor support structures; institutions, faculties and departments should invest in such support structures to improve outcomes. Support could be in the form of professional development of supervision practices, keeping abreast with new developments in research (Ismail, et al. 2011) and awareness of the availability of funding opportunities. Supervision workshops and skills development programs for supervisors have proved to be beneficial in improving student perceptions of the research experience (Abdullah and Evans 2012). Building research support teams for both student and supervisor enhances sharing of knowledge, skills and the generation of research communities of practice. Mentoring to facilitate learning by novice supervisors from more experienced supervisors is an essential step in enabling effective postgraduate supervision (Amundsen and McAlpine 2009). Essential to this, is critical reflection of one's own supervision practices (van Schalkwyk, et al. 2016) as well as continued feedback from students. We recommend the development of person-centred supervision workshops or faculty development activities to enable novice and experienced supervisors to support postgraduate students in the endeavour to timely completion (Petrie et al. 2015, van Schalkwyk, et al. 2016).

Tip 3

Hold the matching of student and supervisor(s) in high regard

The matching of student and supervisor is driven by multiple factors including academic and personal reasons such as the research topic, supervisory expertise and interpersonal working patterns (Ives and Rowley 2005). The matching process should be a transparent, two-way process rather than a top down allocation process. Supervisors need to be adaptable to ensure compatibility that meets the needs of both the student and supervisor (Deuchar 2008). Students should be offered the opportunity to select supervisors based on common interests and expertise. Supervisors should have an interest in the topic presented by the postgraduate student or the student should have an interest in the research programme of the supervisor. E.g. researching one of the objectives of the supervisor's research programme. Both student and supervisor should be open to negotiation and should be allowed the space to explore other supervision arrangements since the matching process is one of the most important aspects in research supervision (Ives and Rowley 2005). Incompatibility of the student-supervisor match will negatively affect the nature of the supervisory relationship. There should be an option to renegotiate the student-supervisor match after open dialogue and consensus is reached among all parties concerned.

Tip 4

Create a safe and supportive environment for the supervisor

Non-disclosure and lack of openness regarding research supervision practices lend themselves to the creation of a threatening, inaccessible and intolerant environment. Furthermore, supervisors experience problems with loneliness, insecurity, distress and incompetence (Emilsson and Johnsson 2007). A supportive, non-judgemental environment for novice and experienced supervisors to flourish and grow should be established. Novice supervisors should

be mentored (Grossman and Crowther 2015) into a safe and supportive environment through opportunities to co-supervise (van Rensburg, et al. 2016). Creating opportunities to share research supervision practices is important as differences in supervision skills and experience exist amongst health care academics. “Students should be comfortable seeking outside assistance where appropriate” (Siddiqui and Jonas-Dwyer 2012) and supervisors should seek collaborative input and be receptive to co-supervision to the benefit of the student. Where the interactions between people and relationships are regarded as important factors for person-centred outcomes; individualised coaching, transparency and sharing of supervision practices is pertinent (Emilsson and Johnsson 2007). However, with any human relationship, different personalities and life experiences will influence the dynamic of the supervisor / co-supervisor relationship (van Schalkwyk, et al. 2016). Disagreement and frustration can be expected. Therefore, co-supervision needs to be actively managed with the focus on openness, role clarification, agreed upon expectations, flexibility and a constructive attitude towards diversity (Grossman and Crowther 2015).

Tip 5

Create a nurturing environment

The contribution of research and the nature of research supervision in higher education institutions in developing countries has received much attention (Naidoo and Mthembu 2015). Most higher education institutions have prioritised research and the need for quality research outputs (Askew, et al. 2016, McCulloch et al. 2016, Petrie, et al. 2015, van Schalkwyk, et al. 2016). Subsequently there is pressure on supervisors to ensure that postgraduate students complete their studies within specific time frames. However, supervision is a complex role with multiple increasing demands on the supervisor (McCallin and Nayar 2012). The supervisory role has expanded and now includes an advisory role, a quality control role, a supporting role and a guiding role (De Beer and Mason 2009). Since the supervisory scope has increased with increased demand on timely completion, enabling and nurturing the supervisors by the higher education institution requires a holistic approach. Person-centredness is about a specific type of culture that incorporates caring and one needs to apply that in an organisation (Drennan 1992). The expectations of the institution and the reality of the demands on the supervisor should be balanced and open to negotiation to promote nurturing practices where supervisors can flourish (McCallin and Nayar 2012).

The environment in which supervisors are expected to function should be supportive and inclusive to generate a positive workplace culture towards supervision practices. Postgraduate supervision should not be viewed as an arduous task but rather as a joyful, collaborative effort towards ideal outcomes that benefit both the student and supervisor (Emilsson and Johnsson 2007, Petrie, et al. 2015). Offering supervisors the opportunity to upskill through formal professional development may develop research excellence and promote timely student completion (Deuchar 2008). Although the definition of research supervision excellence is vague and under debate (McCulloch, et al. 2016), an enabling environment with recognition of supervision practices and a rewards (Taylor and McCulloch 2017) system will foster fortitude towards improving postgraduate supervision practices.

Tip 6

Create an encouraging research supervision culture

Culture can be defined as ‘the way things are done around here’ (Drennen 1992, p. 1). Many factors reinforce the typical hierarchical model that underpins postgraduate supervision where unequal power relationships emerge in ways that make students feel uncomfortable (Malfoy and Webb 2000) and affect the student-supervisor relationship (Houston 2015). The student should not be rendered powerless by the supervisor. Instead, a spirit of adventurism in the student should be cultivated by being inspired through the research process and maintaining the joy for research within a culture that supports intellectual freedom (Petrie, et al. 2015). Genuine care must be shown toward the students by the supervisors for a positive and productive relationship to be maintained (Hodza 2007). Ineffective feedback is a known contributing factors to a breakdown in the supervision relationship (Manathunga 2005). The need for open, honest and unbiased communication has been identified (Cornelissen and van den Berg 2014, McCallin and Nayar 2012) as a method to overcome power imbalances in student-supervisor relationships. Unbiased communication through appreciative feedback (van Schalkwyk, et al. 2016) is one way to balance the power relationship and should be regarded as an underlying principle when moving towards person-centred supervision practices.

Tip 7

Sharing and understanding of values and beliefs to frame the supervision relationship

At the starting point of the research journey, the supervisors as well as the student should explore their values and beliefs which will direct the goals of the journey. There should be a common vision where the opportunity exists to challenge the implementation of the agreed values (McCormack, et al. 2013). It has been reported that many postgraduate students experience a temporary breakdown of relations with their supervisor, derived from frustration and lack of clear research goals (Alam, et al. 2013). Similarly a breakdown of relations between supervisors can be expected. Knowing one’s values and beliefs enables a shared vision to be developed about the direction of the journey and the ways of working together to reach the end goal. Values and beliefs clarification should be undertaken as an early step in the supervision process to establish, build and maintain the student-supervisor(s) relationship. Clarifying values and beliefs is also an important step between supervisor and co-supervisor to establish collective supervision roles and responsibilities, supervision practices and to gain a clear understanding of student interaction and feedback. Grossman and Crowther (2015) elaborate on elements of co-supervision that should be clarified at an early stage. One of the core values should during the supervision process should be mutual respect, a key ideal of person-centredness, that leads to positive learning experiences (Abdullah and Evans 2012).

Tip 8

Ensure streamlined administrative support is available for the supervisor

Often, supervisors may be too busy with administrative or teaching responsibilities which hinders the student-supervisor relationship (Ismail, et al. 2011). There is a need for clear guidelines, documented and streamlined processes that are informed by postgraduate students and supervisors reflections on experience. Prioritising efficient administrative issues should be at the forefront of the transformation towards person-centred supervision. All too often

supervisors become overwhelmed with time consuming administration that affects the time that supervisors could effectively be engaging with their students (Askew, et al. 2016, Naidoo and Mthembu 2015). We acknowledge the need for rigorous quality control processes in the research journey bearing in mind the feedback and recommendations made by the various approval committees should be used to fast-track the student throughput. Often, delays in student progress are caused by minor issues that frustrate the supervisor and pressurize the student-supervisor relationship. The quality control processes therefore require revision and refocus to support a shift towards person-centred supervision.

Tip 9

Prioritise student-supervisor engagements

Supervisor-student engagements are haphazard and not necessarily prioritised as a core supervision responsibility. Supervisors may wait for students to initiate / request appointments under the assumption that postgraduate students will initiate the engagement process. However, this may be a barrier to progress as a result of the power dynamics within the supervision relationship. The supervision engagement should be structured with clear goals, expectations and outcomes that are collectively agreed upon. The engagement should embrace collaboration, participation and flexibility. Most student-supervisor engagements are guided by requirements in existing Memoranda of Understanding (MOUs) that are task oriented and contradict a person-centred culture. The MOUs need to be revised to embrace person-centred supervision practices that may enhance the supervision experience.

Tip 10

Define roles and responsibilities beyond task-orientation

Clarification of roles and responsibilities is required to define expectations from both the student and the supervisor (Lee 2008). If there are no clear expectations, it will affect the supervisory relationship and student success (van Schalkwyk, et al. 2016). Among the many roles of the supervisor, they should be adaptable to the needs of the student (Hodza 2007, Ismail, et al. 2011). Although a distinction has been made between the supervisor role and task, Carrol (1996) emphasises that the supervisor role is person-centred where the task is action-centred. The supervisory role is further complicated by supervising colleagues where clear boundaries between the role of friend, supervisor, mentor or colleague should be defined. By establishing the boundaries, confusion within the student-supervisor relationship will not be affected. Setting boundaries will required an open discussion and consensus on expectations within the roles and responsibilities between the student and the supervisor.

Tip 11

Ongoing monitoring and evaluation

The person-centred supervision approach cannot be limited by focussing on audits of measurements such as enrolments, throughput and publications. Additional evaluation is required which focusses on the supervision experience. The 'how' of research supervision needs to be monitored to move towards person-centred supervision practices. Ongoing monitoring and evaluation of person-centred cultures with attention drawn to and placed on the value of supervision improvement and development is required. We have to develop creative

strategies for evaluating the complex processes that underpin person-centredness in research supervision (McCormack, et al. 2013). Evaluation strategies should adopt a more positive and supportive stance where supervisors and students engage in reflective conversations to continuously transform research supervision practices. Hence, monitoring and evaluation should be appreciative for supervisors striving for excellence (McCulloch, et al. 2016). The supervisor holds a degree of responsibility and accountability in assisting the student to reach the expected and mutually agreed upon outcomes. There is however a shift of responsibility from the supervisor being solely responsible for the success of the postgraduate student, to one where responsibility rests on a wider group of role players (van Schalkwyk, et al. 2016). Within the process of monitoring and evaluation, there should be recognition for good supervision practices. Recognition should be institutional-led and can include certificates or financial rewards where supervisors can be nominated by peers and/or students according to clear criteria (Taylor and McCulloch 2017).

Tip 12

Celebrating outcomes that are mutually beneficial

Currently, there is a mismatch between the desired outcomes between the student and supervisor. Students aim to obtain a postgraduate degree whereas supervisors aim towards increased publications, throughput rates, funding opportunities and promotion. Debates surrounding completion rates have shifted from the supervisory process, to that of supervision as a pedagogy and recognises research teaching as a sophisticated skill (McCallin and Nayar 2012). The outcomes of the journey of the supervisor and student should focus on more than just quantity of outputs, students and rapid throughput but also include context and cultures of effectiveness and the flourishing of postgraduate students and supervisors. In moving from task-oriented supervision to person-centred supervision, outcomes will not solely be departmental or organisational focused. Person-centred supervision outcomes include holistic outcomes for the student and the supervisor leading to increased satisfaction and retention of students and supervisors. There should be greater emphasis on celebrating the small successes along the research journey as supervision has been described as “the most rewarding aspect of academic life” (Halse 2011). Each completed milestone in the research journey should be regarded as a small victory. Recognising the small victories can lead to greater supervisor intrinsic motivation leading to an enhanced student experience (Askew, et al. 2016). Facilitation of the joy of the journey including the celebration of key milestones is imperative to recognising mutual success (Petrie, et al. 2015).

Conclusion

A clear definition of supervision excellence needs to be established since supervision is a complex and dynamic process. The journey and relationship between the student and supervisor is not straightforward but is vital in the success of students obtaining a postgraduate degree. To move towards person-centred supervision, changes should ideally be systemically implemented at individual, department, faculty and institutional level. It may be an ideal dream to move towards person-centred postgraduate research supervision, however we should continuously strive to improve our supervision practices. Developing and adapting supervision practices is a life-long journey for health care academics. As supervisors, we should

continuously evaluate our research supervision practices through critical reflection and identify effective means to bring about sustainable change in postgraduate supervision. Supervisors should accept the challenge to facilitate supervision by innovative and progressive supervision methods. The use of these tips will enable both supervisors and students to flourish. We should avoid, routine, ritual supervision practices and should embrace person-centredness that will put the postgraduate student at the heart of our supervision practices.

Notes on contributors

Tanya Heyns and Isabel Coetzee are associate professors in the Department of Nursing Sciences with interests in person-centred care in emergency and critical care. Brendan McCormack is the Head of Division of Nursing and the associate director for the Centre for Person-centred Practice at Queen Margaret University, Edinburgh as well as an extra-ordinary professor in the Department of Nursing Sciences. Brendan is a seasoned supervisor with internationally recognised work in person-centred practice development and research. Philippa Bresser is a lecturer and co-ordinator for nuclear medicine in the Department of Radiography and a novice supervisor. Tania Buys is a lecturer in Occupation Therapy with special interest in vocational rehabilitation and disability equity legislation. Elzette Korkie is a lecturer and undergraduate programme manager in the Department of Physiotherapy with special interest in movement analysis, sport and musculoskeletal physiotherapy. Zelda White is a lecturer in the Human Nutrition Department. Zelda is involved in undergraduate and postgraduate research programmes in the Department with her research focus area being nutrition in the life cycle. All authors are currently supervising postgraduate students.

References

- Abdullah MNLY, Evans T. 2012. The relationships between postgraduate research students' psychological attributes and their supervisors' supervision training. *Procedia-Social and Behavioral Sciences*.31:788-793.
- Alam F, Alam Q, Rasul MG. 2013. A pilot study on postgraduate supervision. *Procedia Engineering*.56:875-881.
- Amundsen C, McAlpine L. 2009. 'Learning supervision': trial by fire. *Innovations in Education and Teaching International*.46:331-342.
- Askew C, Dixon R, McCormick R, Callaghan K, Wang G, Shulruf B. 2016. Facilitators and barriers to doctoral supervision: A case study in health sciences. *Issues in Educational Research*.26:1-9.
- Bastalich W. 2017. Content and context in knowledge production: a critical review of doctoral supervision literature. *Studies in Higher Education*.42:1145-1157.
- Carrol M. 1996. *Counselling supervision - theory, skills and practice*. London: Cassell.
- Coghlan D, Brydon-Miller M. 2014. *The SAGE encyclopedia of action research* London: Sage.
- Cornelissen F, van den Berg E. 2014. Characteristics of the research supervision of postgraduate teachers' action research. *Educational Studies*.40:237-252.
- De Beer M, Mason RB. 2009. Using a blended approach to facilitate postgraduate supervision. *Innovations in Education and Teaching International*.46:213-226.

- Deuchar R. 2008. Facilitator, director or critical friend?: contradiction and congruence in doctoral supervision styles. *Teaching in Higher Education*.13:489-500.
- Drennan D. 1992. *Transforming company culture: Getting your company from where you are now to where you want to be*: McGraw-Hill Book Company.
- Emilsson UM, Johnsson E. 2007. Supervision of supervisors: on developing supervision in postgraduate education. *Higher Education Research & Development*.26:163-179.
- Evans C, Stevenson K. 2011. The experience of international nursing students studying for a PhD in the UK: A qualitative study. *BMC nursing*.10:11.
- Grossman ES, Crowther NJ. 2015. Co-supervision in postgraduate training: Ensuring the right hand knows what the left hand is doing. *South African Journal of Science*.111:1-8.
- Halse C. 2011. 'Becoming a supervisor': the impact of doctoral supervision on supervisors' learning. *Studies in higher education*.36:557-570.
- Hodza F. 2007. Managing the student-supervisor relationship for successful postgraduate supervision : a sociological perspective. *South African Journal of Higher Education*.21:1155-1165.
- Houston D. 2015. Quality in postgraduate research. *Quality in Higher Education*.21:1-6.
- Howells K, Stafford K, Guijt R, Breadmore M. 2017. The role of gratitude in enhancing the relationship between doctoral research students and their supervisors. *Teaching in Higher Education*.22:621-638.
- Ismail A, Abiddin NZ, Hassan A. 2011. Improving the development of postgraduates' research and supervision. *International Education Studies*.4:78.
- Ives G, Rowley G. 2005. Supervisor selection or allocation and continuity of supervision: Ph.D. students' progress and outcomes. *Studies in Higher Education*.30:535-555.
- James RH, Baldwin G. 1999. *Eleven practices of effective postgraduate supervisors*: Centre for the Study of Higher Education and The School of Graduate Studies, University of Melbourne.
- Lee A. 2008. How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education*.33:267-281.
- Leplege A, Gzil F, Cammelli M, Lefevre C, Pachoud B, Ville I. 2007. Person-centredness: conceptual and historical perspectives. *Disability and rehabilitation*.29:1555-1565.
- Malfroy J, Webb C. 2000. Congruent and incongruent views of postgraduate supervision in M Kiley & G Mulins (eds) *Quality in Postgraduate Research: Making Ends Meet*. In: Adelaide: Advisory Centre for University Education, the University of Adelaide.
- Manathunga C. 2005. Early warning signs in postgraduate research education: a different approach to ensuring timely completions. *Teaching in Higher Education*.10:219-233.
- McCallin A, Nayar S. 2012. Postgraduate research supervision: A critical review of current practice. *Teaching in Higher Education*.17:63-74.
- McCormack B, Manley K, Titchen A. 2013. *Practice development in nursing and healthcare* Oxford: Wiley-Blackwell.
- McCormack B, McCance T. 2017. *Person-centred practice in nursing and health care: Theory and practice* Oxford: Wiley.

- McCulloch A, Kumar V, van Schalkwyk S, Wisker G. 2016. Excellence in doctoral supervision: an examination of authoritative sources across four countries in search of performance higher than competence. *Quality in Higher Education*. 22:64-77.
- Naidoo J, Mthembu S. 2015. An exploration of the experiences and practices of nurse academics regarding postgraduate research supervision at a South African university. *African Journal of Health Professions Education*.7:216-219.
- Petrie K, Lemke G, Williams A, Mitchell BG, Northcote MT, Anderson M, de Waal K. 2015. Professional development of research supervisors: A capacity-building, participatory framework. Paper presented at the Australian Association for Research in Education (AARE) Conference, Fremantle, Australia. Retrieved from https://www.aare.edu.au/data/2015_Conference/Full_papers/116_Kevin_Petrie.pdf.
- Siddiqui ZS, Jonas-Dwyer DR. 2012. Twelve tips for supervising research students. *Medical teacher*.34:530-533.
- Taylor S, McCulloch A. 2017. Mapping the landscape of awards for research supervision: A comparison of Australia and the UK. *Innovations in Education and Teaching International*. 54:601-614.
- van Rensburg GH, Mayers P, Roets L. 2016. Supervision of post-graduate students in higher education. *Trends in Nursing*.3(1).
- van Schalkwyk SC, Murdoch-Eaton D, Tekian A, van der Vleuten C, Cilliers F. 2016. The supervisor's toolkit: A framework for doctoral supervision in health professions education: AMEE Guide No. 104. *Med Teach*. 38:429-442. Epub 2016/03/22.
- Zucconi A. 2016. The Need for Person-Centered Education. *Cadmus*.3:1.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.