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The X-factors of PhD supervision: ACNAP top-10 tips on choosing a PhD supervisor.

Britt Borregaard^a, Angela Massouh^b, Jeroen Hendriks^c, Ian Jones^d, Geraldine Lee^e, Panagiota Manthou^f, Catherine Ross^g, Suzanne Fredericks^h, Julie Sandersⁱ

^aBritt Borregaard: ACNAP Young Community, and the Department of Cardiothoracic and Vascular Surgery and Department of Cardiology, Odense University Hospital, J.B. Winsloews Vej 4, 5000 Odense C Denmark, and Department of Clinical Research, University of Southern Denmark, Campusvej 55, 5230 Odense M, Denmark. Email: Britt.Borregaard@rsyd.dk

^bAngela Massouh: ACNAP Young Community, and the American University of Beirut, Hariri School of Nursing, P.O. Box 11-0236, Riad ElSolh, Beirut 1107 2020, Lebanon. Email: am50@aub.edu.lb

^cJeroen Hendriks: ACNAP Science Committee, and the Caring Futures Institute, College of Nursing and Health Sciences, Flinders University and Department of Cardiology, Royal Adelaide Hospital, Sturt Road, Bedford Park South Australia 5042, GPO Box 2100 Adelaide SA 5001, Australia. Email: jeroen.hendriks@flinders.edu.au

^dIan Jones: ACNAP Science Committee, and the Liverpool Centre for Cardiovascular Science, School of Nursing and Allied Health, Tithebarn Building, 79 Tithebarn St, Liverpool L2 2ER, , UK. Email: I.D.Jones@ljmu.ac.uk

^eGeraldine Lee: ACNAP Science Committee and the Division of Applied Technology for Clinical Care, Florence Nightingale Faculty of Nursing, Midwifery & Palliative Care, King's College London, James Clerk Maxwell Building, 57 Waterloo Road, London, SE1 8WA, UK. Email: gerry.lee@kcl.ac.uk

^fPanagiota Manthou: ACNAP Young Community and the University of West Attica, Department of Nursing, Timiou Staurou 14, Kaliftaki, Kifissia, 14564, Athens, Greece. Email: nagiamanthou@gmail.com

^gCatherine Ross: ACNAP Science Committee, and the School of Health and Social Care, Edinburgh Napier University, Sighthill Campus, Sighthill Court, Edinburgh EH11 4BN, UK. Email:

C.Ross4@napier.ac.uk

^hSuzanne Fredericks: ACNAP Science Committee, and the Daphne Cockwell School of Nursing, Ryerson University, 288 Church Street; Toronto, ONT; M5B 1Z5;. Email: sfrederi@ryerson.ca

ⁱJulie Sanders: ACNAP Science Committee, and St Bartholomew's Hospital, Barts Health NHS Trust. London EC1A 7BE, UK and Clinical Professor Cardiovascular Nursing William Harvey Research Institute, Queen Mary University of London, London EC1M 6BQ, UK. Email: j.sanders@qmul.ac.uk

Corresponding author: Professor Julie Sanders: Director of Clinical Research, St Bartholomew's Hospital, Barts Health NHS Trust. London EC1A 7BE, UK and Clinical Professor Cardiovascular Nursing William Harvey Research Institute, Queen Mary University of London, London EC1M 6BQ, UK. Telephone: +44 (0)7960 311979; Fax: None; Email: j.sanders@qmul.ac.uk; Twitter: @julesanders2

EDITORIAL

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Research culture and activity improves patient outcomes¹, benefits the quality, safety and efficiency of patient care², and influences health policy - which must include that undertaken by nurses and other health professionals³. Doctoral programmes exist to prepare candidates to become committed, skilful, independent researchers who will lead future research to improve patient outcomes and experience. Although nursing doctoral programmes have been around since the early 1930's, there is a shortage of doctorally prepared nurses⁴, which continues to be a barrier to advancing both care delivery and the profession⁵. Thus, there is international recognition that increasing nursing research capacity and doctoral education is needed, including in low-to-middle income countries⁶ and that the quality of doctoral education is paramount⁴

This is especially true in cardiovascular disease (CVD). Despite a European population of over 748 million it is estimated that the number of doctorally-prepared CVD nurses is very low (approximately 200-300)⁷. Since more people than ever before are living with cardiovascular disease (CVD), with significant increases in both disability-adjusted life years and years lived with disability⁸, the Association of Cardiovascular Nursing and Allied Professions (ACNAP) mission 'to support nurses and allied professionals throughout Europe to deliver the best possible care to patients with cardiovascular disease and their families' has never been more important. Thus, efforts to build nursing and allied professional research capacity in CVD is essential.

A key factor in doctoral education is finding an appropriate academic supervisor. The PhD student-supervisor relationship is complex, but there is no agreed consensus on what constitutes excellence in PhD supervision and the quality of doctoral training in nursing is noted to be variable⁴. However, since the student is significantly dependent on the supervisor for successful and timely PhD

completion, and the foundations of their future post-doctoral career, effective research supervision is of utmost importance. Typically, many doctoral supervisors rely on traditional methods which include face-to-face meetings with a lack of opportunities between supervisions for communication⁹. However, just as with clinical care, a more person-centred approach to PhD supervision is now recommended¹⁰. Due to the importance of doctoral supervision coupled with the international need to increase nursing and allied professional research capacity in CVD, the ACNAP Science Committee sought to define a 'top-10' criteria of supporting potential PhD candidates in choosing their primary academic PhD supervisor, based on their vast collective experience, and supported by the evidence. Conversely, since many PhD supervisors report feeling underprepared for this role⁹, this 'top-10' may be useful for prospective PhD supervisors in preparing themselves to become successful PhD supervisors.

Our top-10 tips include consideration of experience, flexibility and openness, creative thinking, approachability, commitment and availability, support and mentorship, ethics and integrity, organisation, working style and 'red flags' (Figure 1). These are not all mutually exclusive, and as we are all different, varying emphasis will be placed on each depending on personal preference, motivations and circumstance. Furthermore, while the majority of the literature in this area relates to nursing, the applicability to allied professionals, and across specialities beyond CVD, is likely to be universal – these should all be characteristics of any good PhD supervisor irrespective of profession or speciality.

A key point is that the primary supervisor has **experience**. This includes a national and international track-record of research in the relevant area, previous successful PhD supervision, and expertise on actively developing nursing and allied professional academic and clinical academic research capacity and careers. We surmise that the extent of experience potentially, but not always, underpins many

of the other top-10 tips, as their supervision is then less likely to be based on repeating the same supervisory style they received¹⁰.

However, being a good PhD supervisor is much more than just being clinically and academically experienced. Having a **flexible and open approach** involving active communication and engagement to encourage transformational learning¹¹, alongside providing a safe, positive research environment that promotes **creative thinking**, allowing PhD students to grow with the freedom to challenge¹², is essential. Similarly, the student-supervisor relationship should be based on mutual respect so choose a PhD supervisor that demonstrates **ethics and integrity**. Ethics in research supervision is more than just 'official approvals' but includes characteristics such as caring, dignity, responsibility and virtue¹³ which are highly regarded characteristics in any discipline or speciality.

Consideration is also needed for more practical working factors, such as **working style, organisation, and commitment and availability**. These areas often cause angst for PhD students, who have potentially unrealistic expectations regarding feedback, supervisor availability and level of support they will receive⁹. Therefore, it is important to explore these issues with any potential supervisor so that expectations on both sides in terms of roles, responsibilities, and ways of working are discussed and addressed. The sign of an excellent PhD supervisor is their ability to be flexible to the needs of the student, and establishing mutually agreeable ways of working, perhaps through a contractual framework, can be helpful. In terms of **commitment and availability** it is also important to explore the potential for your supervisor's commitment and availability for providing support and guidance beyond the PhD. It is worth noting that many nurses have anxieties about the post-doctoral clinical academic careers¹⁴, and this coupled with limited post-doctoral career opportunities and positions available⁶¹⁵ means that continued mentorship and guidance to navigate a successful clinical academic career is highly valuable.

So far, we have focused more on the scholarly activities and qualities we believe constitutes a good PhD supervisor. However, PhD students also need and expect emotional support. Since depression and anxiety is common in doctoral students¹⁶ a PhD supervisor with emotional availability and **approachability** is very important. Supervisors should exhibit emotional intelligence and the ability to provide a psychologically safe environment¹⁷. This is further emphasised through **support and mentorship**, where alongside practical and academic expert supervision, caring and supportive attributes¹¹ should be displayed. Ideally, as indicated previously, this should also extend beyond the PhD.

Finally, it is important to consider any '**red flags**'. These can include poor reflections or completion rates from current or past PhD students, a lack of publications from the supervisors themselves or their students, a poor workplace culture with a high turnover of staff and/or an expectation that PhD students should always be available, which are just some examples. It is advisable to meet with a prospective supervisor and meet their team to establish if you think, in combination with all of the other top-10 tips, whether the supervisor-PhD student relationship on offer is a 'good fit' for you.

These top-10 tips have explicitly focused on the supervisor attributes that the prospective PhD candidate should explore prior to embarking on their PhD to maximise opportunities for success both for the PhD and future clinical academic career. These include consideration of experience, flexibility and openness, creative thinking, approachability, commitment and availability, support and mentorship, ethics and integrity, organisation, working style, and other red flags. However, we have also highlighted that the student-supervisor relationship is complex, and the responsibility for this work does not rest purely with the supervisor. The key is finding the right 'match' of all of these 'X-Factors' and when you find it you will know.

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Figures

Figure 1: The ACNAP Science Committee summary of the top-10 tips for choosing a PhD supervisor



