

**Making the transition from student to newly qualified vascular sonographer: An exploration of the domains of professionalism**

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## **Making the transition from student to newly qualified vascular sonographer:**

### **An exploration of the Domains of Professionalism**

#### **Abstract**

**Introduction:** Rapid increases in the utility of vascular ultrasound combined with increasing expectations from reporting physicians has required a shift to a more defined professional role for the vascular sonographer in Australia. This has created increasing pressure on newly qualified sonographers to be more job-ready and better able to navigate the challenges of the clinical workplace early in their career.

**Topic Description:** There is a distinct lack of structured strategies that newly qualified sonographers can utilise to assist their transition from student to employee. In our paper we aimed to answer the question of ‘What makes a sonographer a Professional?’ with the view to extending understanding of how a structured framework can assist the development of a professional identity and can encourage participating in Continuing Professional Development by the newly qualified sonographer.

**Discussion:** The authors reviewed their own clinical experiences and the current literature to source tangible and practical strategies that can be easily enacted by newly qualified sonographers to motivate their continuing growth. Through this review, the ‘Domains of Professionalism in the role of the sonographer’ framework was developed. In this framework, we describe the various domains of professionalism and their associated dimensions, making it specific to the discipline of sonography and to the point of view of a newly qualified sonographer.

**Conclusion:** Our paper contributes to the discussion on Continuing Professional Development using a purposeful and targeted approach to support newly qualified sonographers across all

discipline areas of ultrasound specialisation navigate the challenging pathway to becoming a professional.

**Key Words: sonographer, professionalism, transition, novice, continuing professional development**

## **Introduction**

The profession of vascular sonography has progressed rapidly over the last forty years due to advances in technology resulting in ultrasound being recognised as a reliable method in the process of vascular disease diagnosis, treatment and management of the patient.<sup>1</sup> In Australia, vascular ultrasounds are performed by a vascular sonographer who works closely with vascular surgeons or radiologists. As defined in the SCoR/BMUS Guidelines for Professional Ultrasound Practice 2021, sonographers are “qualified healthcare professionals who undertake, analyse, report and take responsibility for the conduct of diagnostic, screening and interventional ultrasound examinations”.<sup>2</sup> The pathway to becoming a vascular sonographer in Australia is achieved through the completion of a specialised postgraduate qualification.

Once qualified, vascular sonographers are expected to be ‘work-ready’; to work autonomously, care for their patients and possess high levels of technical skills and clinical decision making skills that will enable them to produce high quality ultrasound scans with detailed and accurate reports.<sup>3</sup> These expectations of the skills and abilities that a newly qualified vascular sonographer should possess are generic and apply to all newly graduated sonographers regardless of their chosen area of specialisation in ultrasound practice. When a sonographer enters the workforce post-graduation, they are considered to be a novice (according to the Dreyfus and Dreyfus model of clinical competency). In other healthcare professions, such as nursing and midwifery, the term novice applies to the first year of independent practice and can extend for a further two years before reaching proficiency.<sup>4</sup> Hence newly qualified

sonographers must be mindful of their level of competency and the need for a continual focus on their level of professional development.

The profession of sonography requires individuals to make a career-long commitment to develop their capacity for patient-centred care, reflective practice, effective communication skills and productive interactions with other healthcare professionals. Recent developments in the literature focus on the need for the development and integration of professional competency frameworks in sonography in Australia, which are aimed at the qualified sonographer.<sup>5</sup> This paper aims to focus on the newly qualified sonographer so as to provide suggestions and strategies for making the transition from student to health-care professional a successful one. Making this step can induce negative responses such as ‘reality shock’ as the individual adjusts to the demands of their new role, including “bridging the theory/practice gap, coping with workloads, feeling incompetent, no time to reflect”<sup>4</sup>. Novice sonographers may possess a fear of the unknown (particularly concerning on-call duties), a lack of confidence in terms of performing complex imaging and a desire to distance themselves from being a student and instead be identified as a professional.

### **The domains of becoming a professional in the healthcare workplace**

The term professional and the concept of professionalism in healthcare is challenging to delineate. In their review, Wilkinson and Wade<sup>6</sup> defined a professional in terms of the following measures: adherence to ethical practice, effective interactions with patients and staff, reliability, and the commitment to improvement. As Monrouxe and Rees<sup>7</sup> commented in their article, “Becoming a professional requires going beyond the development of competency; it is about developing a professional identity”.<sup>7</sup>

A pertinent question that must be asked is ‘*What makes a sonographer a professional?*’ This concept was explored by Kinnane and colleagues<sup>3</sup>. Their study on the views of final year

sonography students and clinical supervisors reported the five most important attributes required to transition into the clinical workplace, are the ability to work in a team, technical knowledge, communication skills, insight and self-awareness and clinical reasoning skills.<sup>3</sup> In their 2011 research report into ‘Professionalism in healthcare professionals’<sup>9</sup>, the Health Professions Council suggested that professionalism is a continuous construct which develops over time and is obtained through continued practice in learning on the job and is shaped by the individuals interactions with patients, colleagues and their workplace environment. These findings from the literature are also incorporated into professional standards such as the Australasian Sonographers Association (ASA) Code of Conduct (2014)<sup>9</sup> which states that there are “certain professional values on which all sonographers are expected to base their practice”<sup>9</sup>, including the need for sonographers to be ethical, trustworthy, good communicators, work within their scope of practice adhering to workplace protocols and that “sonographers should be committed to safety and quality in health care”.<sup>9</sup>

These interactions, attainment of knowledge and developing a professional identity can be summarised as Professional Socialisation. In this paper, we propose the concept of the ‘Domains of Professionalism’. The Domains of Professionalism and their associated dimensions are summarised in Figure 1. In this figure, each domain has been adapted to the role of the sonographer. This paper intends to provide a detailed discussion on the domains of Identity and Behaviour.

Figure 1: Domains of professionalism in the role of the sonographer; the process of Professional Socialisation

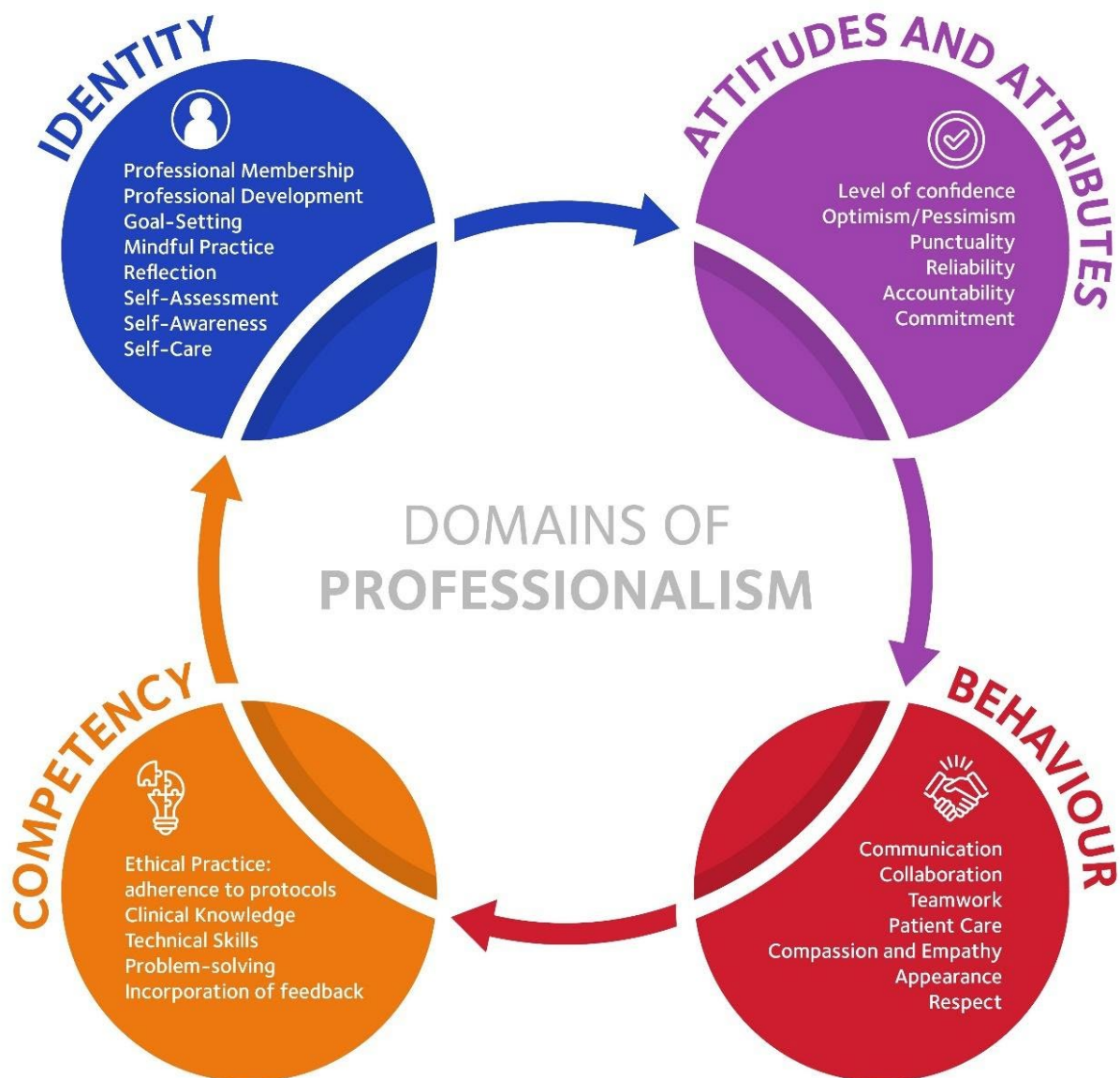


Figure 1 legend: Domains and associated dimensions of professionalism of the sonographer. This figure is a compilation of concepts drawn from work by Phillips<sup>4</sup>; Health Professionals Council<sup>8</sup>; Kinnane<sup>3</sup>; Monrouxe<sup>7</sup>

## **The behaviour domain**

### *Working with patients: understanding the requirements and putting theory into action*

Patient-centred care has been identified as essential to ensuring quality healthcare and patient safety.<sup>11</sup> Globally, the terminology of patient-centred care varies, however the concept itself is universal and involves delivering healthcare in a manner that encourages patient-practitioner partnerships that fosters the delivery of personalised healthcare. As sonographers, the patient-sonographer relationship should encompass respect, empathy, effective communication including active listening, confidentiality, and interactions without prejudice, exploitation or coercion.<sup>9</sup> From the patients' perspective, the healthcare professional should display a caring approach, expressions of empathy, respond to patients' needs and be trustworthy and reliable.<sup>12</sup> From the viewpoint of the professional association, "Sonographers have a duty to make the care of patients their first concern and to practise safely and effectively".<sup>9</sup>

Receiving compassion and kindness has been indicated as strong predictors of whether a patient seeks or attends future healthcare appointments.<sup>13</sup> When a caring approach is removed from the patient-sonographer interaction, the patient is de-humanised and objectified, becoming a commodity which research indicates is increasing throughout the medical industry and particularly evident in medical imaging.<sup>13</sup> This concept highlights the need for newly qualified sonographers to demonstrate compassion, understanding and empathy when interacting with their patients.

Maintaining patient confidentiality is a key part of the role of a healthcare professional. Sonographers are bound legally and ethically to maintain patient privacy. Patient information should be approached with attention to detail and informed patient consent must always be obtained.<sup>1,9</sup> For consent to be informed the patient must be advised of all potential risks and benefits associated with the ultrasound scan and the consent must be obtained without

coercion.<sup>1</sup> Newly qualified sonographers need to enact the principle of informed consent with every procedure they perform regardless of the risk profile of the procedure. In the case of low-risk procedures verbal informed consent will be adequate, however, in higher risk procedures consent must be obtained in writing.

It is imperative that newly qualified sonographers recognise that no two patients are the same and make adjustments accordingly. Adjustments in patient positioning, acknowledging the limitations of the scan procedure due to patient body habitus, recognising the emotional status of the patient and the need for flexibility in approach to communication in the COVID-19 era are all important considerations for the newly qualified sonographer. The newly qualified sonographer must possess knowledge of and adherence to scanning protocols and standard patient positionings, however, at the same time show flexibility by thinking laterally to provide personalised best practice patient care. At times, scanning protocols may need to be adapted to accommodate specific patient needs.<sup>9</sup>

Examples of adjustments that newly qualified sonographers will need to consider include engaging the services of an interpreter when English is a barrier to communication or altering the scan protocol to fully interrogate the presence and extent of vascular disease. In the instance that the patient has difficulty standing for long periods of time, the standard venous protocol may need to be adjusted to alter the patient positioning, for example, utilising the reverse Trendelenburg position. Knowing what equipment is available and understanding scanning protocols will help newly qualified sonographers to find solutions to meet the complexities of the scan and appropriately adapt the scanning protocol to ensure patient comfort and safety whilst not comprising the quality or accuracy of the results.



### *Professional practice and working with other health professionals*

Effective relationships between healthcare professionals are essential to effective team relationships. When healthcare professionals fail to communicate effectively with each other, the quality of patient care is compromised, leading to a decrease in clinical processes and efficiency outcomes.<sup>9</sup> Collaboration is maximised when healthcare professionals know their own role and respect the roles of other healthcare professionals. Communication breakdowns can occur as a result of individual personality traits, perceived individual differences, self-focus, self-esteem, worldview, cultural or racial background and management styles. Organisational elements including ambiguity in professional roles, lack of clarity regarding scope of practice, workload overscheduling or a lack of division of tasks can equally contribute to a decrease in collaboration. By the newly qualified sonographer acquiring an understanding of their role, respecting the role of other healthcare professionals, knowing team members limitations and responsibilities, helps to foster understanding.<sup>9</sup>

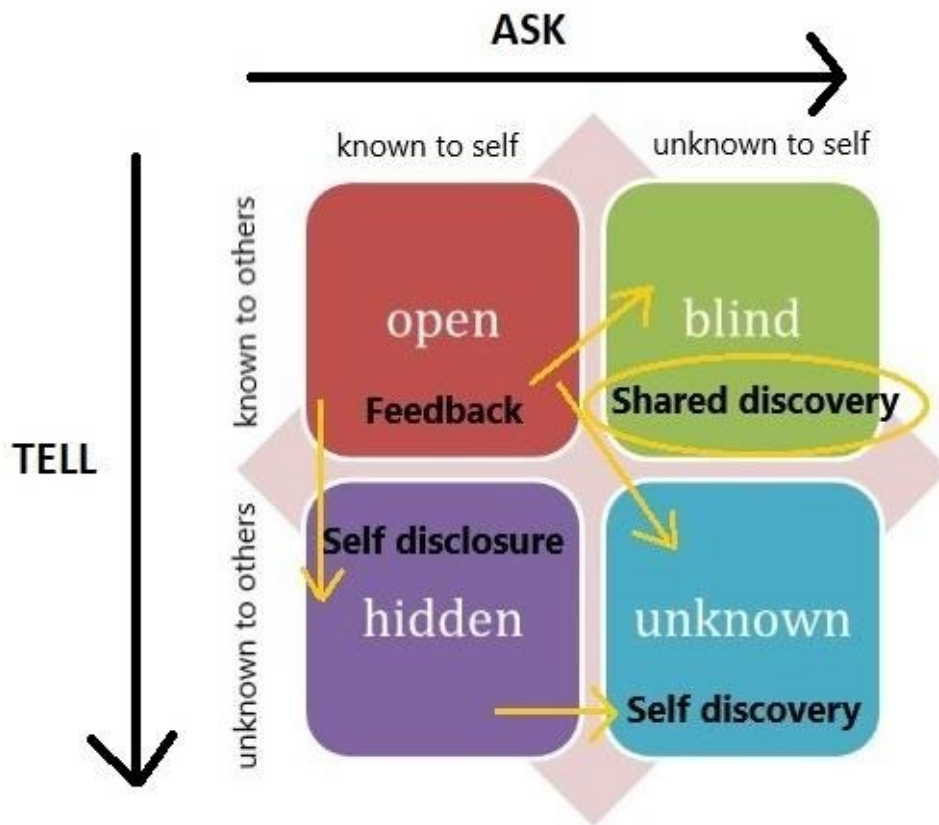
Destructive workplace behaviours from team members such as bullying, alienation and a low degree of support can occur when a newly qualified sonographer enters the workforce.<sup>14</sup> These conflict promoting behaviours have the potential to cause an emotional, mental or physical toll on the newly qualified sonographer, resulting in absenteeism, reduced productivity, reduction in the quality of patient care, reduced job satisfaction and reduced employee retention.<sup>15</sup> Maintaining professional and collegial relationships with co-workers is paramount to the successful functioning of the healthcare system and its delivery of quality care.

Workplace tension is reduced when there is clear, prompt and effective communication between professionals. These elements of communication help to establish and cultivate respect between team members.<sup>9</sup> One communication model that can assist a newly qualified sonographer to achieve effective communication is the 'Situation, Background, Action and

Recommendation' (SBAR) model. The SBAR model provides a template for communication for healthcare professionals, promoting assertive communication and ensuring important and relevant information is conveyed.<sup>9, 15</sup>

Another communication model that a newly qualified sonographer can utilise is the Johari Window. The Johari Window is a technique which can promote mutual respect amongst individuals by analysing social interactions and uncovering prejudices or bias that hamper effective communication.<sup>16</sup> There are four quadrants in the model which incorporate the unknown and the known, denoting what is known and unknown to both you and others. As an individuals' increases their understanding of each quadrant, their level of self-awareness grows and their ability to understand their relationships with others increases. Applying the Johari Window encourages individuals to consider situations from different perspectives, identify blind spots (hidden bias) and increase the potential for learning and growth.<sup>16</sup> Figure 2 demonstrates the four quadrants and how they interact with each other to promote mutual respect and understanding. The direction of the arrows in the figure demonstrates opportunities for growth and expansion of that quadrant. For example, through the process of acceptance of feedback the open quadrant expands, and the blind quadrant shrinks. A key point about the Johari Window is that the size of the quadrants is not fixed and can be increased or decreased as growth of the individual occurs.<sup>18</sup>

Figure 2: The Johari Window



Suggestions for how a newly qualified sonographer can apply the Johari window include:

- **Feedback:** actively seek feedback on your work from a senior staff member to regularly review your ultrasound images and sonography reports so as to discover elements that are unknown to you. This promotes growth and motivates further learning, and over-time by remaining open to feedback, your 'open' quadrant will enlarge, and your 'blind' quadrant will shrink.
- **Self-disclosure:** be willing to share information with others in your team. This may be information about a patient case, or it might be about your hobbies or personal interests. Striking the right balance between sharing personal information needs to be considered.
- **Shared Discovery:** shared goals can be set in the team and individuals' members are encouraged to work towards the shared goal. An example of a shared goal may be to

participate in regular internal departmental education meetings or to create a data base of interesting case studies that showcase technical or clinical examples. All team members can be involved in establishing and growing this shared goal which over time has the potential to build trust and collaboration amongst team members.

- **Self-Discovery:** actively reflect and analyse your interactions with your colleagues. This means 'putting yourself in their shoes'. Try to reflect and analyse why the team member is behaving in the manner that they are. Instead of over-reacting to a situation you can start to understand the reasons for their behaviour. This does not imply that you are to subsequently dismiss inappropriate or destructive behaviour, however, it allows a starting point that promotes understanding, aids negotiation and has the potential to diffuse conflict.

Effective conflict resolution skills are important to maintaining collegial relationships. Respectful engagement is more beneficial than avoidance. Parties must also have the emotional self-awareness to understand what part they have played in the conflict. Emotional awareness is a learned skill that is practised through structured reflection.<sup>14</sup> Regardless of the systems and structures in place, at times, conflict is unavoidable. If the discourse is delivered respectfully it can be a healthy exercise that improves understanding of roles and tasks, promotes team development and coherence in group decision making.<sup>14</sup>

A newly qualified sonographer can be faced with the situation of an output focussed workplace rather than a quality focussed workplace. One strategy that a newly qualified sonographer can employ to avoid becoming overwhelmed in an output focused workplace and thus increase their degree of job satisfaction, is to focus on their own successes, strengths and milestones in skill obtainment, rather than focus on outputs alone.

## **The Identity domain**

### *Professional Identity: the role sonographer self-care*

Best practice care cannot be maintained without a lifelong commitment to learning. The development of a professional identity occurs over a period of time as an individual increases their knowledge, and incorporates both clinical and nonclinical experiences to form a connection with the community of practice in which they operate, thus achieving a sense of belonging in the clinical workplace.<sup>21</sup> Wald<sup>22</sup> describes the development of professional identity as a “dynamic and constructive” process and involves “deepening of one’s commitment to the values and dispositions of the profession into habits of mind and heart”.<sup>22</sup> One method of developing a professional identity is to gain self-awareness through the practice of reflection.

The benefit of reflective practice in healthcare is highlighted by Wald<sup>22</sup> as “without reflection, it has been asserted, personal identity transformation cannot occur”.<sup>22</sup> This is because reflective practice has been identified as an effective continual professional practice technique that assists with improving clinical knowledge and practices while also developing practitioners in emotional and social dimensions.<sup>9</sup> The practice of self-reflection in healthcare has evolved from a cognitive based one which focussed on evaluating learning and planning actions, to a focus on reflection as a transformative process in which the individual makes sense of their actions with the outcome of achieving a change in personal understanding and behaviour. As Fragkos<sup>23</sup> stated “Many reflective techniques used in healthcare education have been associated with deep learning, understanding attitudes and beliefs”.<sup>23</sup>

An example of a reflective model that sonographers can utilise is Gibbs model of reflection which requires the sonographers to<sup>24</sup>.

1. **Describe** the event that has taken place.
2. **Explain** how it made you feel, identifying your emotional responses to the event.
3. **Evaluate** which elements of your response to the situation had a positive impact and which elements had a negative impact on patient outcomes?
4. **Analyse:** can you make sense of what happened? This is the step where emotional responses (feelings) are linked to values. By placing the emotional response in the context of your own values (the process of framing), it is possible to make sense and create meaning about the response. Understanding how values drive emotional responses, promotes growth of self-awareness and in turn, develops more effective communicators. The analysis step in any reflective model is the crucial step. Without analysis, reflection cannot be transformative, and the reflection remains a shallow process that promotes stagnation.
5. **Action:** plan what could you do differently in the future. What changes in behaviour can be made in the future in similar situations in order to have a more positive effect on yourself, your colleagues and your patients?

To gain benefit from the reflective exercise, the reflection must be completed in its' entirety. Failure to complete all steps reduces the power of the analysis and can promote the potential for bias and impedance of personal progress.<sup>24</sup> The benefit of effective reflection extends beyond the individual undertaking the reflection to include improvements in patient care. Sinclair and colleagues<sup>25</sup> identified the "need for healthcare providers to develop a practice of self-reflection as an essential competency of compassionate care".<sup>25</sup>

### *Mindful Practice*

The broader conversation of the concept of sonographer self-care must include discussion of the concepts of mindfulness and mindful communication. The concept of mindfulness includes

being fully present at that moment in time, avoid becoming hijacked by emotional responses, excluding distractions and instead focussing with an unprejudiced approach on the event.<sup>26</sup> Being mindful and present in communication facilitates the attention of the listener to be unhindered. Simple mindfulness techniques include regulating your breathing, making time for relaxation, making time for exercise, mindfully engaging in activities that are usually mindless (e.g. walking) and participating in activities that bring a sense of joy.<sup>26</sup> Simple examples of how to practice of mindfulness in the workplace include focussing on the task at hand (e.g. washing hands or changing the bed linen between patients), which in turn, can assist a sonographer to reset emotionally between patients. When mindfulness is practised regularly, a reduction in the degree of psychological distress and the avoidance of burnout can be achieved, and as such, all newly qualified sonographers should investigate and put into action mindfulness practice.<sup>26</sup>

### *Continuing professional development*

Establishing performance reviews and measuring clinical competency and accuracy post qualification has been a difficult task to design and implement in ultrasound practice.<sup>27</sup> Parker and Byass<sup>27</sup> in their research, conducted internal reviews with the aim to develop effective and sustainable auditing tools to ensure practice standards were maintained, areas of service improvement were identified, performance measurement tools were implemented, and sonographers were supported in their professional development. Staff discussion and coaching from others ranked as the most beneficial methods of work-based learning by sonographers.<sup>27</sup> The concept of structured support from experienced sonographers for the newly qualified sonographer in the workplace is a model that is strongly endorsed by the British Medical Ultrasound Society (BMUS). In their recent report titled 'Preceptorship and Capability Development Framework for Sonographers', 2022, the concept of a structured program of peer instruction from experienced sonographers for newly qualified sonographers who enter the

clinical workforce is proposed through the statement that “ A high-quality and formalised programme is generally recognised as being essential in giving the best possible start to newly qualified healthcare professionals”.<sup>28</sup> This report also recognises the challenges that newly qualified sonographers encounter when transitioning into the workplace: “effective preceptorship will help the newly qualified sonographer to cope more effectively with these challenges”.<sup>28</sup>

Parker and Byass<sup>27</sup> in their study, proposed that peer support can occur via the assessment of ultrasound studies. Experienced sonographers assessed ultrasound cases that were performed by sonographers who had a range of experience, using a web-based assessment tool to evaluate images obtained, as well as reporting and worksheet detail, with the outcome of promoting discussion at inter-department meetings, with learning points highlighted and individual sonographer feedback given post discussion. While Parker and Byass<sup>27</sup> have not determined the effectiveness of their proposed audit tool, the perceived benefit of a collaborative peer review process is the encouragement of open discussion where ideas for quality improvement can be generated and shared. Newly qualified sonographers should be pro-active in seeking open discussion so as to promote and continue the development of their technical and clinical decision-making skills.

Formal professional development opportunities exist for vascular sonographers including conferences, both in-person and virtual, webinars, and podcasts. Being a member of a relevant professional organisation such as the Australasian Sonographers Association (ASA) or the Australasian Society of Ultrasound in Medicine (ASUM) is important as it “officially demonstrates your interest and commitment to advancing your field”.<sup>29</sup> In addition, membership provides access to resources, including clinical guidelines and standards of practice, worksheets and posters and access to professional indemnity insurance. A strength



of being a member of a professional association is the opportunity to meet, interact and network with both vascular sonographers and the wider sonography profession.

Online and virtual learning has offered industry professionals and students the ability access content globally. When physical attendance was a requirement, patronage was limited by venue capacities, traveling restrictions, finances and public health restrictions. The COVID-19 Pandemic has re-imagined how professionals interact, becoming the catalyst for the exponential growth in freely available medical and healthcare content online, including that disseminated on social media.<sup>30</sup> This includes sites and applications such as Twitter™, Facebook™, LinkedIn™, Instagram™, Whatsapp™, and Skype™. Positives include reduced costs of participation and reduction in absence from employable hours, speed of information dissemination, forging international connections, accessibility and efficiency.<sup>31</sup> Recent evaluations show an increase in the ability to translate evidence to practice with social media delivery methods.<sup>30</sup> Drawbacks of using social media as a platform for professional development, professional communication and networking include a lack of quality control due to the potential for dissemination of mis-information, no peer review process, risk of unprofessional behaviour and the potential for patient privacy breach. Social media has cemented itself as a powerful tool for information and education, however it should be used cautiously so as to avoid its pitfalls.<sup>31</sup>

## **Conclusion**

A newly qualified sonographer's ability to offer patient centred care is decreased without continued attention to professional development and the development of a professional identity. Professional development must be intentional, multifaceted, consistent and holistic, addressing all areas including clinical skills, patient skills, interpersonal skills and reflective practice, all of which promote the development of a professional identity for a newly qualified

sonographer. The journey from novice to expert is a path which is challenging at times; doubts can surface, motivation can wane, and dissatisfaction can creep in, all of which are common responses in any profession, but even more so in a highly technically complex profession such as sonography. We propose that through intentional practice of the Domains of Professionalism, newly qualified sonographers can make a successful transition from student to novice sonographer and continue their journey in the multiple steps in development from novice to expert.

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