



Does an orthopaedic workshop improve the confidence of nurses transitioning into the specialty of orthopaedics?

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ABSTRACT

Background: Nurses transitioning into the specialty of orthopaedics gradually

develop the skills required to provide care for patients with musculoskeletal conditions or injuries, but during the early stages this can be challenging and lead to a lack of confidence. Strategies aimed at developing confidence in these nurses to make sound decisions and clinical judgements in their professional practice will assist in strengthening their practice and delivery of quality care.

Aims: This study aimed to investigate if the delivery of an orthopaedic workshop improved the ongoing confidence of advanced beginner nurses, as recognised in Benner's exploration of skill acquisition, to undertake skills required to assess and manage patients with musculoskeletal injuries or conditions and assist in their decision making to achieve optimal patient outcomes.

Methodology: A quasi experimental pre-test, post-test study was chosen to measure nurses' confidence to undertake the scope of practice in orthopaedics at the advanced beginner level of expertise.

Methods: A questionnaire was designed and administered to measure the level of confidence pre-intervention, immediately post intervention and twelve weeks following participation at an orthopaedic workshop. The workshop was designed specifically for nurses transitioning into the specialty of orthopaedics.

Findings: The intervention had a positive impact on the confidence of advanced beginner nurses. The measurement prior to participation at the workshop indicated confidence levels were generally low. Immediately post participation the level of confidence had increased for all participants. When measured again at twelve weeks' post intervention the level of confidence had been maintained or continued to increase in the majority of orthopaedic practice areas. The overall level of confidence between pre-intervention to twelve weeks post intervention demonstrated a clear improvement in all areas of practice.

Conclusion: It was evident that nurses transitioning into the specialty of orthopaedics had lower confidence levels in relation to specialty-specific skills and knowledge. The use of an education workshop improved the confidence of nurses, not only immediately post intervention, but also in the longer term. Supporting a pathway to transition in the specialty which includes specific education delivered at key times is recommended as it could be beneficial to advanced beginner nurses, the specialty, patients and the profession.

Introduction

Musculoskeletal disorders and injuries have been identified as one of the most debilitating conditions world-wide and can have a significant economic impact on society, as well as an individual's independence and lifestyle (Woolfe et al. 2012). The role of an orthopaedic nurse is to ensure the delivery of quality care to individuals suffering from musculoskeletal injuries and disorders (Moloney and Hahessy, 2006). While the surgical care of patients with orthopaedic injuries has evolved over recent decades, with improvements in effective surgical stabilisation and management, care given by specialist orthopaedic nurses remains key in reducing the risks of complications and maximising patient safety (Credland, 2016; Evans et al., 2010).

To deliver quality care, nurses aim to make good decisions and judgements that support positive patient outcomes. However, this is

challenging to achieve without a certain degree of confidence (Drugoswitch, 2016). Based on appropriate knowledge and confidence, assessment, management and evaluation of patient care, relevant nursing decisions contribute to safe quality care (Lamb and Serdalis, 2011). Lack of confidence and increased anxiety can interfere with sound decision making and lead to poor judgement in the delivery of care (White, 2013). Based on individual nurses' prior experience and knowledge, the development of confidence in each of them will occur at different stages (Evans, 2010) and may take up to a year to develop (Ortiz, 2016).

In speciality settings, such as intensive care, when nurses transition to practice, they may feel stressed and anxious that they have not developed the required knowledge, skills, time management or decision making abilities to assess, plan and implement safe patient care (O'Kane, 2011). Furthermore, experienced nurses who are new to a

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specific specialty, can also take time to acquire the confidence to provide competent care based on the specialised needs of that patient population. This also applies to the specialty of orthopaedics (Flynn et al., 2015).

Confidence is a phenomenon which Drugoswitch (2016) defines as an essential component to decision making and judgement, connecting intuition, evidence and choice to assist in accurate outcomes. Confidence is further defined by Evans et al. (2010, p. 335) as; 'an acquired attribute that provides individuals with the ability to maintain a positive and realistic perception of self and abilities'. White (2013) assessed the significance of emotional barriers such as confidence and anxiety to sound decisions and judgement in patient care; noting that, when a nurse is confident and supported, they are more likely to make good decisions. Many factors contribute towards the acquisition of confidence as each person will develop this attribute differently and at different stages throughout their career, dependent on clinical knowledge and experience (Evans, 2010).

The professional and personal growth for a nurse transitioning to a specialty environment are complex but essential processes. Patricia Benner (1984) in her interpretation of the Dreyfus model of skill acquisition for nurses, described the progression to clinical competence through five stages defined as; novice, advanced beginner, competent, proficient and expert (Litwack, 2015) The first stage of skill acquisition defines the student nurse who, as a novice, gains theoretical knowledge that can be applied to clinical practice during placements. The second stage, advanced beginner, incorporates nurses transitioning to practice or new to clinical environments. This group demonstrate marginally acceptable performance and are capable and skilful in parts of practice areas with occasional supportive cues from colleagues, but their knowledge is still developing relevant to patient needs and time management requires guidance. The level of competency, noted by Benner et al. (2009) is accomplished within two years of experience. At this stage the nurse can demonstrate the ability to recognise and prioritise clinical situations based on previous situations/scenarios, whilst displaying a stronger perception of their patient's needs. Proficiency is achieved when the nurses' collective experiences have strengthened their perception and ability to recognise clinical situations with added reasoning and organisational skills (Benner et al., 2009). Finally, the expert practitioner, engages in reasoning, anticipates and prepares for situations with a good clinical grasp to undertake complex care with ease (Burger et al., 2010).

The purpose of this study was to examine the confidence level of advanced beginner nurses transitioning into an orthopaedic ward in a regional Australian hospital setting. Using an educational intervention in the form of an orthopaedic workshop, a questionnaire was developed to measure the confidence level immediately prior to and following the workshop, then at twelve (12) weeks following further clinical experience. Understanding how this intervention may influence the confidence levels of transitioning nurses, and how the nurses see themselves and their confidence in providing specialist care to orthopaedic patients, may lead to a better appreciation of the needs of this group and inform strategies to improve the development of their confidence and practice.

While confidence does not necessarily ensure competency in practice, it is an essential quality to support individual nurses create a sense of strength in their practice that affords them the ability to focus on development of their practice and associated skills and knowledge (Center and Adams, 2013). Without higher levels of confidence it is likely that the nurses' transition into the specialty and development of skills and knowledge is slowed or even hindered (Ortiz, 2016). Therefore the development of the question 'Does an orthopaedic workshop improve the confidence of nurses transitioning into the specialty of orthopaedics?' provided direction for this study.

Background

A literature search identified limited studies with any specific significance in relation to nurses transitioning into the orthopaedic specialty. The search terms used included: *orthopaedics, nursing, confidence, advanced beginner and transition*, and was conducted using electronic databases such as CINAHL, Clinical Key and PubMed. When the term 'orthopaedic' was removed from the search terms, over four hundred articles were revealed, many of which focussed on newly graduated nurses entering the profession and issues regarding confidence during this period and the subsequent challenges during that transition period. Of the four hundred articles, ten were retrieved with relevance to this study - focusing on confidence and advanced beginners transitioning to the orthopaedic specialty.

Flynn et al. (2015) and Benham and Geirer (2014) outlined the significant benefit to practice and patient care when nurses are provided with suitable education to help them undertake a musculoskeletal assessment skill appropriately. Griffiths and Houghton (2013) described the development and implementation of a transition programme for paediatric orthopaedic nurses to help them develop knowledge, skills and competency in practice. Much of the literature focused on confidence and acquisition of advanced nursing skills for specialty environments, and collaboration for transition to critical care environments such as emergency departments (Rautava et al., 2013) or intensive care units (O'Kane, 2011). Consideration of the relationship between education and the development of confidence was demonstrated as valuable considering their influence on safe, appropriate and effective provision of care (Coombs et al., 2016; Tai et al., 2012). The importance of providing support for advanced beginners to increase their confidence as they develop skills specific to the specialty setting, can also assist in the development of professional identity (St Martin et al., 2015). The limited evidence available within the orthopaedic setting about development of confidence and skills at the advanced beginner level of expertise, highlights that this area of practice has not been widely researched and, due to its link with safe practice, is worthy of review.

Aim

This study was undertaken to determine the effect of an orthopaedic workshop on the confidence of an advanced beginner nurse in the specialty of orthopaedics.

Method

A quasi-experimental design using the pre-test, post-test method was employed. This was judged to be the most appropriate path to enable analysis of data which will answer the study aim. Using a questionnaire, the self-reported measurement of confidence was undertaken prior to participation in an orthopaedic workshop, immediately post completion and then twelve weeks following the intervention. The twelve week measurement was chosen to enable identification of any lasting influence of the intervention rather than just at pre/post intervention. A longer follow-up period and a more comprehensive investigation of associated factors such as competence would also have been useful. However, this study was bound by the academic timeframe of a Masters Research project.

Sample

Participants were recruited from the nursing population within the orthopaedic ward at a regional healthcare facility. The inclusion criteria were: registered and enrolled nurses with less than two years' experience in the specialty of orthopaedics. Purposive sampling was chosen as the most effective method for this study to allow the opportunity to include participants who met the selection criteria. The population

Table 1
Orthopaedic workshop programme.

LECTURE CONTENT
<ul style="list-style-type: none"> • Musculoskeletal anatomy and physiology • Fractures – fragility and trauma; assessment and management • Musculoskeletal complications – compartment syndrome, venous thromboembolism, fat embolism • Spinal assessment and management – Halo device • Pain management – including cryotherapy • Hip and Knee replacements – nursing assessment and management • Communication and collaboration
PRACTICAL
<ul style="list-style-type: none"> • Skin traction application and maintenance • Neurovascular assessment • Care and application of orthotic devices • Cryotherapy

within the regional setting who meet the selection criteria was relatively small, accordingly a limitation, but all those in the population who met the inclusion criteria were included as participants. The nurse unit manager and the researcher discussed availability of nursing staff, rostering and workshop dates prior to contacting participants.

Intervention: orthopaedic workshop

The workshop was designed to include the fundamental orthopaedic skills required of an advanced beginner nurse working in an acute setting. The program was aligned with the needs of the patient group within the location specific to this study and included: elective joint surgery, trauma, spinal injuries and fragility fractures (see Table 1). The workshop was taught by senior orthopaedic nurses and a physiotherapist over an eight hour day. Two dates were offered for the workshop within one week which supported rosters and ensured minimal impact on skill mix in the orthopaedic ward and patient care.

A workbook was developed and distributed to each participant at the commencement of the workshop. The planning of the workbook required significant review of current practices and procedural guidelines to ensure best evidence was identified (Clarke and Santy-Tomlinson, 2014). The workbook provided skill guidelines which supported the practical component of the workshop and was recommended to be used as a reference on return to the clinical environment, thus ensuring competency could be maintained. The workbook also provided space for the participant to add future education in orthopaedics which would support their professional portfolio and encourage lifelong learning.

Questionnaire

The questionnaire used in this study included structured closed questions to obtain demographic data and Likert scale questions relevant to self-report of confidence to undertake orthopaedic nursing skills at the level of an advanced beginner. A similar self-assessment tool to measure confidence for medical staff in orthopaedics by Vivekananda-Schmidt et al. (2007) provided a platform to assist in the development of the questionnaire for the present study. Further face validity of the questionnaire was achieved prior to implementation with piloting and review by senior orthopaedic nurses to ensure suitability.

Ethical considerations

Human research ethics approval was obtained from the relevant health service and university as the study formed part of a Masters of Nursing qualification (HREC/16/QCH/116-1089 LR). Information sheets and consent forms were distributed prior to the commencement of the study. Participants were advised that their involvement in the study was voluntary and that they were able to withdraw at any stage

Table 2
Questionnaire themes.

THEME	QUESTIONS
Mobility	Q1, Q2
Assess, Plan, Manage.	Q3, Q4, Q24
Education	Q5 Q18
Traction application	Q6, Q7, Q8, Q9
Orthopaedic complications	Q10, Q19, Q20
Communication	Q11, Q12, Q13, Q14, Q25, Q26
Application of Orthotics	Q15, Q16, Q17
Managing Spinal Injuries	Q21, Q22, Q23

without consequence. Inclusion in the research was not anonymous as they were all rostered on specific shifts for the workshop and others could see that they were attending the workshop. Participant confidentiality within the data collected was maintained, and individual identifiers were removed from the data so the researcher would not be able to determine a specific participant from responses in the questionnaires.

Data collection and analysis

The questions developed for the confidence questionnaire were grouped into themes (Table 2).

The data from the questionnaire, which included closed and Likert scale, questions, was imported into IBM SPSS 23 (Statistical Package for Social Sciences). Means, standard deviations and frequency distributions were used to describe the participant demographics (Table 3).

Confidence levels were then analysed using one way repeated measure analysis of variance (ANOVA) to compare scores pre-intervention, immediately post intervention and at twelve weeks (Table 4). A reliability analysis was also conducted on all questions to test internal consistency using Cronbach's alpha; this indicated good reliability at 0.982 using a value range from 0 to 1 (Pallant, 2007). The confidence mean was scored for each question as noted in Table 4. A low mean score paralleled to a low level of confidence and a high mean score paralleled to a high level of confidence.

Results

The initial post intervention measurement demonstrated an improvement in confidence in each area of practice considered in this study. Twelve weeks following attendance at the workshop, there was continued improvement in confidence in all areas considered except application and education of traction. The following results will be

Table 3
Participant demographics.

Demographic	Frequency	Number	Valid Percent
Age	21–25	4	40
	26–30	2	20
	31–35	2	20
	36–40	1	10
	> 45	1	10
Gender	Male	1	10
	Female	9	90
Level of Education	Diploma of Nursing	2	20
	Bachelor of Nursing	8	80
Experience in Orthopaedic Nursing	0–12 months	7	70
	13–24 months	3	30
Experience in Nursing	0–5 years	10	100

Table 4
Questionnaire results.

QUESTION	TIME PERIOD	Mean	Std. Deviation	Sig.	QUESTION	TIME PERIOD	Mean	Std. Deviation	Sig.
QUESTION 1 How confident are you to mobilise a patient with musculoskeletal injuries?	PRE	3.4000	.69921	.043	QUESTION 8 How confident are you to undertake the care of a patient in skin traction?	PRE	3.0000	1.05409	.007
	POST	3.8000	.63246	.043		POST	4.0000	.94281	.007
	12 WEEKS	4.3000	.48305	.043		12 WEEKS	4.0000	.81650	.007
QUESTION 2 How confident are you to identify risks associated with mobility of patients following orthopaedic surgery?	PRE	3.1000	.73786	.001	QUESTION 9 How confident are you to undertake the care of a patient in skeletal traction?	PRE	2.0000	.94281	.040
	POST	3.7000	.67495	.001		POST	2.7000	1.15950	.040
	12 WEEKS	4.0000	.81650	.001		12 WEEKS	3.3000	1.15950	.040
QUESTION 3 How confident are you to plan the care for an orthopaedic patient following a knee replacement?	PRE	3.0000	.94281	.002	QUESTION 10 How confident are you in identifying the complications associated with a cast?	PRE	2.5000	.70711	.003
	POST	3.8000	.78881	.002		POST	3.4000	.84327	.003
	12 WEEKS	4.1000	.73786	.002		12 WEEKS	3.7000	.82327	.003
QUESTION 4 How confident are you to plan the care of an orthopaedic patient following a hip replacement?	PRE	2.6000	.96609	.010	QUESTION 11 How confident are you in collaborating with allied health?	PRE	3.6000	.96609	.085
	POST	3.7000	1.05935	.010		POST	4.1000	.87560	.085
	12 WEEKS	4.0000	.66667	.010		12 WEEKS	4.2000	.63246	.085
QUESTION 5 How confident are you to discuss the purpose and use of traction?	PRE	2.6000	.84327	.000	QUESTION 12 How confident are you in collaborating with orthopaedic registrars/consultants?	PRE	2.8000	1.47573	.073
	POST	4.4000	.51640	.000		POST	3.4000	1.26491	.073
	12 WEEKS	3.8000	.91894	.000		12 WEEKS	3.4000	1.34990	.073
QUESTION 6 How confident are you to assemble a basic traction frame?	PRE	2.3000	.67495	.000	QUESTION 13 How confident are you in collaborating with the clinical nurses in orthopaedics?	PRE	3.6000	.96609	.044
	POST	4.4000	.69921	.000		POST	4.0000	.66667	.044
	12 WEEKS	3.4000	1.07497	.000		12 WEEKS	4.5000	.52705	.044
QUESTION 7 How confident are you to apply skin traction?	PRE	2.7000	.82327	.000	QUESTION 14 How confident are you to ask for support with patient care from colleagues?	PRE	4.0000	.94281	.130
	POST	4.3000	.67495	.000		POST	4.1000	.56765	.130
	12 WEEKS	3.6000	.84327	.000		12 WEEKS	4.5000	.52705	.130
QUESTION	TIME PERIOD	Mean	Std. Deviation	Sig.	QUESTION	TIME PERIOD	Mean	Std. Deviation	Sig.
QUESTION 15 How confident are you in applying knee splints?	PRE	2.8000	.78881	.036	QUESTION 21 How confident are you in managing patients with thoracic lumbar (spinal) injuries?	PRE	2.2000	.91894	.834
	POST	3.5000	.70711	.036		POST	3.2000	.63246	.834
	12 WEEKS	3.6000	.96609	.036		12 WEEKS	3.3000	.94868	.834
QUESTION 16 How confident are you in applying shoulder immobilisers?	PRE	2.0000	1.24722	.007	QUESTION 22 How confident are you in managing patients with cervical injuries?	PRE	2.3000	1.15950	.017
	POST	3.1000	.99443	.007		POST	3.1000	.73786	.017
	12 WEEKS	3.0000	1.05409	.007		12 WEEKS	3.3000	1.05935	.017
QUESTION 17 How confident are you in applying ice therapy?	PRE	4.4000	.69921	.087	QUESTION 23 How confident are you in managing patients with halo devices?	PRE	1.9000	.73786	.001
	POST	4.4000	.69921	.087		POST	3.1000	.73786	.001
	12 WEEKS	4.8000	.42164	.087		12 WEEKS	3.3000	1.05935	.001
QUESTION 18 How confident are you in discussing orthopaedic orthotics and devices with patients?	PRE	2.3000	.82327	.001	QUESTION 24 How confident are you in managing elderly patients with fractures?	PRE	3.3000	.48305	.004
	POST	3.4000	.96609	.001		POST	3.8000	.63246	.004
	12 WEEKS	3.5000	1.26930	.001		12 WEEKS	4.1000	.73786	.004
QUESTION 19 How confident are you in assessing patients for compartment syndrome?	PRE	2.7000	1.15950	.007	QUESTION 25 How confident are you to discuss your patient allocation with the team leader?	PRE	3.0000	.94281	.005
	POST	4.1000	.87560	.007		POST	3.1000	.87560	.005
	12 WEEKS	3.7000	.82327	.007		12 WEEKS	4.1000	1.10050	.005
QUESTION 20 How confident are you in assessing patients for venous thromboembolism?	PRE	2.5000	.97183	.006	QUESTION 26 How confident are you to tell colleagues you do not know how to undertake care for a patient due to complexity?	PRE	3.4000	1.17379	.000
	POST	3.5000	.97183	.006		POST	3.6000	.69921	.000
	12 WEEKS	3.2000	1.03280	.006		12 WEEKS	4.0000	1.05409	.000
Overall Measurement	PRE	2.5							
MEDIAN – 3.4	POST	3.25							
	12 WEEKS	3.35							

*Full data can be made available on request.

outlined using the themes highlighted in [Table 2](#).

A steady increase in confidence was noted at all measurement levels for mobility. The confidence levels of participants to assess, plan and manage patients with musculoskeletal injuries, specifically hip and knee replacements and fragility fractures in older people, showed an ongoing increase at each intervention. The confidence of the nurses to provide education to patients in traction and with orthotic devices demonstrated an increase in confidence post intervention, although this was not maintained at the 12 week point.

When analysing the results for the questions related to traction, it is noted that the confidence levels for all questions were low prior to the intervention, increased immediately post intervention, but did not continue to increase at the twelve (12) week period. However, questions associated with the care of a patient in skin or skeletal traction, demonstrated an increase at all levels.

Questions specific to orthopaedic complications indicated an increase immediately post intervention with some variation in those confidence levels at the 12 week point, particularly in relation to assessing patients with venous thromboembolism and compartment syndrome. Complications associated with casts demonstrated a steady

increase in confidence level at all three data collection points.

The results for communication showed an increase in all areas between pre-intervention to the twelve (12) period. However, when measuring confidence in application and knowledge of orthotic devices and spinal injuries, an increase was noted post intervention but remained unchanged at the last data collection point

Discussion

This study demonstrated that, following an educational intervention (orthopaedic workshop), the self-reported confidence of advanced beginner nurses in orthopaedics within a regional healthcare facility improved. As may be expected, a significant improvement was noted in all questions immediately following the workshop at the post-intervention measurement. More importantly, however, was that the participants' confidence at twelve (12) weeks demonstrated a steady increase or maintenance in most areas such as: confidence to mobilise patients; assess, plan and manage patients with musculoskeletal injuries; undertake care of skeletal traction; identify complications with casts and collaborate with the multidisciplinary team. The opportunity to gain

experience in the clinical environment and apply the knowledge and skills presented at the orthopaedic workshop is in keeping with the findings of both Destree et al. (2013) and Yang et al. (2015) who noted, in their studies, identifying that education, experience and frequency of performance together increases confidence.

No significant change was noted in the participant confidence levels between the post intervention and the 12-week measurement in relation to collaboration with medical staff. The opportunity for the participants to collaborate with the medical staff should occur daily, so the reason for this cannot be lack of opportunity to engage in this activity. Pfaff et al. (2014) studied the impact of collaboration and confidence in the workplace within the multidisciplinary team and noted that, through good leadership, the advanced beginner can be guided to gain experience in collaboration, improve confidence and, ultimately, provide quality of care for patients through effective team interactions. The results of this study related to collaboration, showed an improvement in all confidence levels between the pre-intervention and the 12-week measurement and most results between immediately post intervention and a the 12-week point, This suggests that education is a significant factor in improving advanced beginners' confidence in collaboration and communication skills.

Care of a patient in traction demonstrated no change in confidence levels between the immediate post intervention period and the 12-week period. This result may be attributed to the lack of opportunity to experience this activity in practice due to changes in the way fractures are managed during the last few decades. This is supported by Yang et al. (2015) who indicated regularity, or lack, of practice can have a significant impact on confidence levels.

In discussions with participants throughout the intervention, education specific to the specialty of orthopaedics was anecdotally noted by the participants as an area which would have enhanced their confidence, had it been made available earlier in their transition and at regular intervals during the first two years of their professional practice. The undertaking of education in the clinical environment can provide valuable learning opportunities, but can also have a negative impact if the education was not guided and supported appropriately (Welsh, 2014; Giffiths and Houghton, 2013).

When nurses transition to specialty environments, their previous placement experiences are likely to be varied, so the challenges may be greater as they adapt to new specialist skills and work environment (Evans et al., 2010). The lack of confidence when patient care is complex and associated experience minimal, could also be related to the advanced beginner's ability to collaborate and communicate effectively, as acknowledged by Pfaff et al. (2015). Chesser-Smyth (2013) and Pfaff et al. (2015) indicate that support provided by mentors, exposure to new procedures and skills and positive reinforcement on performance can assist in building self confidence in nurses. The organisational undertaking of professional and personal support to new colleagues has been noted by Evans et al. (2010) and St Martin et al. (2015) to be critical in the transition phase for an advanced beginner.

Ebrahimi et al. (2016) in their qualitative study reviewing barriers to support for advanced beginners who were new graduates, recognised the impact of the adjustment phase and the disconnect between expectations of experienced nursing staff and advanced beginners. They concluded that a thorough orientation and planned ongoing support for advanced beginners assists in solving the concerns of expectations and in increasing confidence. Formal education activities are beneficial for all levels of nursing practice, but programmes directed at the new graduate workforce can be a valuable asset to the profession and society by ensuring the continued delivery of confident, competent, quality care (Long et al., 2013). With support from organisations and specialties, the advanced beginner is encouraged in their professional development, lifelong learning and progression to expert practitioner.

Study limitation

The limitations of this research included the small scale, one site nature of the study due to the academic timeframe which guided its conduct and completion. This also limited the breadth of scope of the study beyond confidence.

Recommendations

Further study of a similar design with a larger sample in multiple locations and longer follow up may assist in identifying any longer-term impact. A specific study of one aspect of skill requirement, rather than the group model used in this study, could also be valuable to the specialty undertaking deeper for example, analysis of aspects of skill acquisition in orthopaedic nursing, for example the nursing management of patients suffering fragility fractures. Such strategies could include regular orthopaedic workshops targeted towards improving expertise while focusing on communication skills; reflective practice and preparation of experienced staff to plan and implement support for advanced beginners. The outcome of regular education would not only increase the confidence of advanced beginners through a more focused transition process, but reduce the stress on experienced staff. An analysis of the frequency participants practice skills in the clinical environment post education would also be a worthy investigation.

Conclusion

Confidence is a trait which is essential to nursing practice, supports quality safe patient care, judgement and sound decision making. The challenges of undertaking such skills within a specialty such as orthopaedics as an advanced beginner, can impact negatively on confidence and impede patient care. This study has demonstrated that an orthopaedic workshop can improve the confidence of an advanced beginner nurse transitioning to specialty or practice. The opportunity for advanced beginner nurses to gain confidence through education as they transition will support the specialty of orthopaedics in its provision of quality care to patients through the encouragement of professional development reinforcing lifelong learning.

Funding

No funding was obtained or required for this study.

Conflicts of interest

Susan Hull acknowledges that she has worked in the facility associated with this research for 19 years, predominantly within the orthopaedic ward.

Susan Hull is also involved in the development and implementation of orthopaedic education for nurses within the orthopaedic unit.

There is no conflict of interest for Paul McLiesh or Yvette Salamon.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijotn.2019.04.003>.

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