Evidence-based practice: developing mentors to support students

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Abstract
This article, the ninth in a series of 11, provides guidance for new and established mentors and practice teachers on evidence-based practice, the seventh domain of the Nursing and Midwifery Council’s Standards to Support Learning and Assessment in Practice (SSLAP). Evidence-based practice is an important aspect of contemporary healthcare and is central to student preparation programmes for nursing, midwifery and specialist community public health nursing (SCPHN). The article describes evidence-based practice, discussing the importance and implementation of an evidence-based approach in the context of role development for mentors and practice teachers in the preparation of nursing, midwifery and SCPHN students.

Keywords
evidence-based practice, mentors, mentorship, practice teachers, professional development

THE CODE: PROFESSIONAL STANDARDS of Practice and Behaviour for Nurses and Midwives (Nursing and Midwifery Council (NMC) 2015) provides a foundation for safe and effective practice for nurses and midwives. The Code supports the need for nurses and midwives to demonstrate up to date knowledge and skills to maintain professional standards (NMC 2015). This is essential when working in the rapidly changing healthcare environment, where registrants are expected to develop their practice to ensure the continued delivery of high-quality care (Ellis 2013). Furthermore, patients are better informed as a result of advances in information technology and expect interventions based on reliable and thorough research evidence (Nicklin and Kenworthy 2000). Therefore, mentors and practice teachers have a responsibility to ensure that they support students to develop their knowledge and skills in regard to evidence-based practice.

Evidence-based practice
There are several definitions of evidence-based practice. Melnyk and Fineout-Overholt (2005) define it as ‘a problem-solving approach to clinical practice that incorporates: a systematic search for and critical appraisal of the most relevant evidence to answer a burning clinical question, one’s own clinical expertise, and patient preferences and values’. Therefore, there are many aspects to implementing evidence-based practice.

Guidance on Professional Conduct for Nursing and Midwifery Students; students who are enrolled in nursing and midwifery programmes are expected to base the care they provide on the best available evidence using a best-practice approach.

Students are required to work and learn alongside registrants in the challenging milieu of professional practice. This requirement is reflected in the NMC (2011)
(NMC 2008). These elements are integral to the framework of clinical governance and, as such, healthcare professionals are under scrutiny with regard to whether their practice is worthwhile and cost effective (Ellis 2013).

There is a link between clinical effectiveness and evidence-based practice in the context of clinical governance (Cranston 2002). Indeed, evidence-based practice exists when there is integration of clinical expertise and the best available evidence from systematic research (Sackett et al 2000). The Public Health Outcomes Framework 2013 to 2016 (Department of Health (DH) 2015) and the Adult Social Care Outcomes Framework 2015/16 (DH 2014) provide a starting point for nurses by establishing areas for reviewing current practices, in whichever sector they work in, against a set of outcomes. For example, the Public Health Outcomes Framework 2013 to 2016 (DH 2015) provides outcomes focused on five domains and indicates areas for improvement. Lynne Maher, head of innovation practice and improvement at the NHS Institute for Innovation and Improvement, indicated that nurses, by virtue of being the largest working group in the NHS, have the capacity to improve service delivery by establishing and implementing necessary changes (Andalo 2006).

Pre-registration nursing and midwifery programmes must include content about research methods and the use of evidence in their curriculum (NMC 2004a, 2009, 2010). In addition, the NMC (2004b) requires that evidence-based practice and contemporary knowledge are reflected in the programme provider’s curriculum. Competencies that all nursing students must demonstrate before registering with the NMC are set out in the competency framework and professional values domain of the Standards for Pre-Registration Nursing Education (NMC 2010), which states that: ‘All nurses must appreciate the value of evidence in practice, be able to understand and appraise research, apply relevant theory and research findings to their work, and identify areas for further investigation.’

Mentors and practice teachers have a role in enabling students to recognise the evidence base for practice and to support them in advancing their knowledge and skills relating to evidence-based practice, throughout their educational programme and beyond. It is assumed that all mentors and practice teachers are proficient in the process of engaging in evidence-based practice. Lack of expertise and experience are common barriers to the implementation of evidence-based practice, posing significant limitations to the process (Beyea and Slattery 2006).

**Barriers to implementing evidence-based practice**

The document Standards of Proficiency for Pre-Registration Nursing Education (NMC 2010) states that ‘within the complex and rapidly changing healthcare environment, it is essential that the best available evidence informs practice’. However, certain factors may hinder the implementation of evidence-based practice in healthcare. Kedge and Appleby (2009) recognised that there is a plethora of information available to nurses, but that its usefulness is questionable without the willingness and ability to access this information. The willingness to adopt an evidence-based approach may be linked to an individual’s or a group’s attitude to change. Nurses may question the need to change, feeling that their practice is adequate, and may be concerned that a new approach would not be effective (Ellis 2013). A lack of understanding of the need for change may perpetuate resistance to change. In addition, there may also be an element of confusion about what nurses consider to be ‘evidence’ and knowing where it can be found.

There is a perception among some healthcare professionals that evidence is based entirely on research and that intuitive clinical skills are largely ignored (Mulhall 1999). The use of clinical experience is an important aspect of evidence-based practice, however its use is hindered by the lack of guidance for practitioners on how clinical experience may be integral to the development and implementation of evidence-based practice (Foundation of Nursing Studies 2001). Several organisations employ clinical research nurses who can...
be a source of support and information for nurses, mentors, practice teachers and nursing students. For evidence-based practice to flourish, mentors and practice teachers should ensure that any barriers to implementation are overcome by equipping students with the necessary skills (Box 1).

**Supporting and developing students in applying evidence-based practice**

From the perspective of a mentor or practice teacher, it is necessary to promote a set of skills that prepare students to engage in practice development from an early stage and throughout their lifelong learning. The development and use of critical thinking is included in many nursing programmes. It is fundamental to enquiry and reasoning in practice as a means of developing and maintaining standards in healthcare and is an essential skill that nursing students should develop (Flesner et al 2010). Critical thinking has been defined as ‘the rational examination of ideas, inferences, assumptions, principles, arguments, conclusions, issues, statements, beliefs, and action’ (Bandman and Bandman 1995). This process is integral to the application of evidence-based practice and should be ongoing. Critical thinking skills enable the adaptation of performance through experience, emphasising the need for consideration of actions (practice) and the way approaches to care delivery are routinely examined (Nicklin and Kenworthy 2000). In addition to facilitating students in implementing evidence-based practice, mentors and practice teachers should consider how they nurture critical thinking skills in their students. This will, in turn, help the mentor and practice teacher to develop their appraisal skills (Box 2).

Mentors and practice teachers are required to ‘apply a knowledge and practice evidence-base to their own work and contribute to the further development of such an evidence-base for practice’ (NMC 2008). They should also be aware of their own practice and how it is informed by evidence and the origins of that evidence. Students who think critically and challenge and question their own practice and the practice of others will look to those who facilitate their learning for answers. Mentors and practice teachers should ask students about their practice and the evidence that supports this, while nurturing a desire for best practice (Walsh 2010). Mentors should support and guide nursing students to help them develop and implement evidence-based practice, but should also enable them to recognise and locate the best available evidence (Emanuel et al 2011). Those who facilitate nursing students are not expected to know everything; however, they should be able to search for evidence and be confident in appraising it (Erickson-Owens and Kennedy 2001)

**Types and sources of evidence**

To appreciate what constitutes the best available evidence, mentors and practice teachers should be aware of the merit or value of the information available. A hierarchy can help to identify the strongest evidence and enable practitioners to establish the level of trust they place in the available evidence (Ellis 2013). Figure 1 indicates the different types of evidence, ranging from the strongest: systematic review of randomised controlled trials, to the weakest: case reports based on observations or experience. Although knowledge acquired through research should be the ultimate guide for evidence-based practice, experience, including clinical judgement and intuition, should

**BOX 1. Learning activity 1**

Consider the attitude of your team towards the implementation and development of evidence-based practice. Reflect on and evaluate the possible barriers to the development or implementation of evidence-based practice in your team.

**BOX 2. Learning activity 2**

Jenny, a first-year nursing student on her first placement, has just observed you dressing a patient’s wound. She is a quiet, shy student and did not ask any questions throughout the procedure. You have overheard her telling a nursing assistant that she would like to learn more about what you did and why, but she didn’t want to appear stupid and so did not ask any questions. Consider how you would approach this situation in relation to nurturing Jenny’s critical thinking skills. For example you might encourage her to ask the following questions:

> Why do we do it this way?
> Is there evidence to support a different approach?
> How credible is the evidence?

How would you signpost Jenny to the evidence that supports your practice?
not be overlooked as a valid source of evidence (Penz and Bassendowski 2006). It is important for mentors and practice teachers to know where the best available evidence can be found and to signpost and support students in accessing and reviewing sources of credible evidence (Box 3). Jacobs et al (2003) suggested that the ability to locate and appraise the available information is central to evidence-based practice. The learning activity in Box 3 also provides an opportunity for practice teachers to provide evidence for the outcome ‘disseminate findings from research and practice development to enhance practice and the quality of the learning experience’ (NMC 2008).

NHS and university librarians are an appropriate starting point for locating evidence and may provide sessions on developing skills in searching for evidence. Students should be made aware of such sessions via staff or the placement student notice board. The benefits of these sessions are twofold; they may not only increase the student’s skills from a practice perspective as part of their academic work, but the student might also be asked to undertake a review of available literature (Kinnell and Hughes 2010). Students will usually have had an introduction on where to look for evidence from their educational institution; however, mentors and practice teachers can enhance these skills in the practice setting, by adding the dimension of context. Some examples of where the best evidence is available can be found in Box 4.

### Appraisal of the available evidence

Having located the evidence available to support practice, those who seek to apply the evidence to their practice should be able to determine the strength of the evidence. Some nurses might embark on a research study. However, all nurses should have an understanding of how this is undertaken.

#### BOX 3. Learning activity 3

Reflect on and evaluate your knowledge and skills in developing and implementing evidence-based practice in your area of practice, giving examples where possible. Consider the types of evidence available to you and where you would locate this evidence (Box 4). If necessary, develop an action plan for your professional portfolio.

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**Figure 1. Hierarchy of evidence for the effectiveness of an intervention or therapy**

(Adapted from Gibson and Glenny 2002)
(Ellis 2013). Unless nurses are able to make a judgement about the quality of the available evidence, there are limitations as to whether the evidence can be applied in a meaningful way. Discussion of the sources of evidence available is beyond the scope of this article. However, Aveyard and Sharp (2013) suggested that evidence to support practice should be obtained from systematic reviews and research articles (with the caveat that one article might not be enough); further evidence may be obtained from guidance and policy documents.

Appraising evidence is an essential skill in the application of evidence-based practice; mentors and practice teachers should have achieved an adequate level of proficiency so that they can perpetuate these skills in their students. Mentors and practice teachers may have their own ideas about how appraisal skills could be fostered, for example some advocate journal clubs to help develop critical appraisal skills.

Goodfellow (2004) investigated a journal club where students met on a monthly basis in the practice setting, with the support of registered staff, to critically analyse nursing research. Using a critical appraisal tool, a structure to evaluate research by answering specific questions, the students were able to discuss their findings. The students developed their skills of reading and appraising research through this journal club approach. Furthermore, the registrants who participated in the journal club also developed their own skills of critical appraisal and reflection (Goodfellow 2004).

Antoni et al (2003) implemented a series of ‘lunch and learn’ sessions, during which students developed a research question, performed literature searches and used appraisal tools to assess the evidence. Appraisal tools, many of which can be found online, can be useful during such sessions because they provide a focus for questions during the appraisal activity. Mentors and practice teachers could facilitate these sessions, particularly if there are a group of students working in their practice area or other practice areas (Box 5). The learning activity in Box 5 enables mentors and practice teachers to evidence the outcomes specified in the seventh domain, evidence-based practice, of the Standards to Support Learning and Assessment in Practice (SSLAP) (NMC 2008) (Box 6).

Nurses may find the process of applying the evidence to practice particularly daunting; this has to be a team effort and the team culture needs to be open to adopting an evidence-based approach (Aveyard and Sharp 2013). This is not without its challenges,

**BOX 4. Sources of evidence**

- National clinical guidelines, for example those published by the National Institute for Health and Care Excellence.
- Specialism-specific healthcare journals.
- NHS-based librarian.
- Evidence-based practice journals.
- Systematic review databases such as the Cochrane Library.
- Specialist conference presentations.
- Knowledge and experience of clinical nurse specialists, advanced nurse practitioners and consultant nurses.
- Senior and specialist doctors.
- Benchmarking activities.

(Adapted from Gopee 2010)

**BOX 5. Learning activity 4**

Consider participating in or organising a journal club for students. If this is not possible, you could work with an individual student. Agree a topic relevant to a policy, guideline or relevant outcome framework. Work with the student(s) in searching for the evidence that informs this guidance or policy. Facilitate the student(s) in appraising the evidence using an appraisal tool. Discuss with the student(s) how the available evidence can inform practice. You could include a reflective piece on the process as a development activity for yourself and the student in your professional portfolio. Ask the student(s) for a testimony as to how the process has helped their development.

**BOX 6. Domain 7 of the Standards to Support Learning and Assessment in Practice: evidence-based practice**

Stage 2: mentor

- Identify and apply research and evidence-based practice to their area of practice.
- Contribute to strategies to increase or review the evidence base used to support practice.
- Support students in applying an evidence base to their own practice.

Stage 3: practice teacher

- Identify areas of research and practice development based on interpretation of existing evidence.
- Use local and national health frameworks to review and identify developmental needs.
- Advance their own knowledge and practice to develop new practitioners, at both registration level and education at a level beyond initial registration, to be able to meet changes in practice roles and care delivery.
- Disseminate findings from research and practice development to enhance practice and the quality of learning experiences.

(Nursing and Midwifery Council 2008)
some of which have been discussed earlier in this article. Managing and leading the changes necessary to ensure evidence-based practice is integral to what nurses do, but is not always looked on favourably. Nurses might ask why they need to change a practice that has been effective in the past, particularly where making that change requires energy and hard work (Ellis 2013). Changes can affect a nurse’s confidence and status (Ellis 2013). Effective leadership is fundamental to directing that change while supporting staff through it. This aspect of mentorship will be addressed in the next article in this series.

In line with the seventh domain of the SSLAP (NMC 2008), mentors and practice teachers are expected to apply and contribute to the development of practice and support students in applying an evidence base to practice. However, those who facilitate and support students in their development should themselves be aware of the process involved in understanding and applying evidence-based practice. Brown (2008) advocated examining the effectiveness of nursing care and whether this is improved by being able to locate, read and judge the research regarding its value. Having evaluated the strength of the research in terms of application to nursing care, mentors and practice teachers should participate in developing procedures in their area of practice. In line with this process, mentors and practice teachers should support students in asking questions related to practice. This activity is fundamental to evidence-based practice and can arise in various situations, including practice issues, outcomes of audits, and interaction with patients or other healthcare professionals (Baker 2013). Baker (2013) stated, however, that questions need to be specific for the appropriate answers to be found (Box 7).

There are resource requirements for evidence-based practice to flourish within the current and future workforce. A study by Upton and Upton (2005) emphasised that, although nurses’ attitudes towards the application of evidence-based practice are positive, education and protected time are fundamental to the development of practice supported by the best available evidence. Students can benefit from learning in an environment in which they are inspired by expert nurses who are generating new evidence and applying this to their practice (Walsh 2010). Bailey-McHale and Hart (2013) suggested those who support student learning, such as mentors and practice teachers, should contemplate involvement in research, either as researcher or participant, to benefit from the learning opportunities this offers. Engaging students in these activities alongside their mentor or practice teachers presents additional opportunities for learning (Box 8).

This article has provided an overview of evidence-based practice and its importance in contemporary healthcare and how evidence can be generated to support stage two and three mentors and practice teachers (Box 8). This evidence specifically addresses the seventh domain of the SSLAP (NMC 2008); however, evidence for this domain may also inform other domains (Box 9).

**Conclusion**

Evidence-based practice is fundamental to the development of current and future practice. Tradition should not be relied on to inform nursing practice and care delivery. Patients expect high quality care. Nurses are required to provide evidence

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**BOX 7. Learning activity 5**

Reflect on the following scenario. A patient in your care consumes a large amount of caffeine-containing energy drinks and reports difficulty in sleeping. Although you explain the effects of caffeine to the patient, do you have any evidence to support this? If not, where would you start to look for this evidence?

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**BOX 8. Learning activity 6**

With your student(s) and colleagues, identify an area of your practice and examine the evidence base that informs that practice, using some of the sources of evidence identified in Figure 1. By involving patients, reflect on the team’s approach and consider whether this is the best approach based on the evidence available to you. Could this approach be improved? If so, involve student(s) and other team members in identifying ways to develop practice. If not, look at what other areas of practice could be examined with student(s). This activity will provide evidence for your professional portfolio to demonstrate how you examine, apply and develop evidence in relation to your practice. Furthermore, it will enable students to see that practice is being examined and developed using a team approach that involves patients. Encourage students to document this activity in their professional portfolios.
to support their practice, particularly with advances in information technology increasing the ease at which patients can access healthcare-related information, and increased patient involvement in the care they receive. Therefore, nurses should deliver the best possible care supported by the best available evidence. All nurses, regardless of whether or not they are mentors or practice teachers, should not only engage with the development and implementation of evidence-based practice, but also have a responsibility to foster this engagement in the future workforce. Nurses should be able to support students in acquiring the competence and confidence necessary to use and develop evidence-based practice to ensure this engagement.

References


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**BOX 9. Eight domains of the Standards to Support Learning and Assessment in Practice**

1. Establishing effective working relationships.
2. Facilitation of learning.
3. Assessment and accountability.
7. Evidenced-based practice.
8. Leadership.