Wound assessment: exploring competency and current practice

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Wound assessment is vital to providing optimum wound care. Practitioners caring for patients with wounds need to ensure they have the essential skills required to be able to plan, implement and evaluate care on an individual basis.

Wound care is an expensive area of treatment for health care services, estimated to cost the NHS between £2.3–£3.1 billion a year (Posnett and Franks, 2007). However, these figures are based on 2005–2006 prices, and we can be assured these costs will have increased since then. The Department of Health (DH) (2009) published figures for the treatment of pressure ulceration and stated that an average district general hospital spent £600 000–£3 million each year. Currently, the NHS Quality Agenda (DH, 2010) is promoting quality development with finite resources, while simultaneously reducing cost. Accurate wound assessment and the use of evidence-based interventions would ensure high-quality, cost-effective treatment (World Union of Wound Healing Societies, 2008).

Background

There are concerns as to whether nurses are accurately assessing wounds (Ashton and Price, 2006; Dowsett, 2009). McIntosh and Ousey (2008) reported that optimal care is not always provided by nurses, leading to delayed healing, increased pain, increased risk of infection, and inappropriate use of wound dressings. This results in a reduction of patients' quality of life.

ABSTRACT

Management and treatment of wounds is costly to health care. As such, accurate wound assessment is an essential skill required to enhance the wound healing process. Wound assessment tools are available to assist practitioners to ensure that wounds are correctly assessed, healing is documented, and factors that could delay healing are identified and appropriately managed. In an attempt to understand current practices a survey was undertaken of delegates attending the Wound Expo 2011 wound assessment zone to provide a clearer insight into today's practises and opinions relating to wound assessment. The results were collated and are presented in this article.

KEY WORDS

Wound assessment tools ◆ Iconic Wound Care ◆ TIME

Wound Expo

To gain insight into current practitioner experience and the existing knowledge of wound assessment, a survey of the delegates attending the wound assessment zone at Wound Expo 2011 was conducted. Wound Expo is a 2-day educational event offering hands-on interactive workshops covering a variety of wound management issues including assessment and management of pain, exudate and infection. Wound Expo is targeted at any health professional that participates in wound care and is open to all disciplines at all levels, from health care assistants who want to improve their knowledge and skills to tissue viability specialists who are looking for ideas to improve training within their organization.

Wound Expo was held in London in September 2011 and was attended by more than 400 health professionals. The event was chosen as the ideal platform to gain an up-to-date picture on the current levels of knowledge of practitioners who are providing wound care, and to understand the perceptions of how competent nurses felt through self-assessment.

Wound assessment

Wound bed preparation is a fundamental aspect of effective wound management (Schultz et al, 2004), but should not be performed in isolation. Complete holistic assessment needs to be performed to highlight the aetiology of the wound and factors that would contribute to delayed healing. To ensure successful treatment of the wound, the World Union of Wound Healing Societies (2008) stressed the importance of effective assessment and recommended the following diagnostic process:

- Determine the cause of the wound
- Identify any comorbidities/complications that may contribute to the wound or delay healing
- Assess the wound status
- Help to develop the management plan.

Wound bed preparation

Wound bed preparation has emerged as an important paradigm in the management of the wound, and offers

clinicians a comprehensive approach to wound care, removing barriers to healing and stimulating the healing process to maximize outcomes (European Wound Management Association (EWMA), 2004). The concept of wound bed preparation is widely thought of as an approach to be considered for all wounds that are not progressing through the normal stages of wound healing (Dowsett and Newton, 2005).

Frameworks have been developed as a practical tool to assist practitioners. Watret (2005) suggested that the use of a structured assessment tool in conjunction with a good understanding of dressing performance characteristics can lead to more cost-effective wound care.

Wound assessment tools

Wound assessment tools are designed to assist in wound bed preparation and, when used in combination with holistic assessment, they ensure the clinican focuses systematically on all of the critical components of a non-healing wound to identify the cause of the problem. Therefore, the objective is a care programme which aids the outcome of a stable wound that has healthy granulation tissue and a well-vascularized wound bed (Dowsett and Newton, 2005).

Figure 1. Iconic Wound Care

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TIME

The International Advisory Board on Wound Bed Preparation (Schultz et al, 2003) produced the acronym TIME to provide practitioners with a tool to enable a systematic approach to the management of wounds (EWMA, 2004). TIME aims to promote wound healing by providing an ideal wound environment and reducing barriers to healing, therefore optimizing healing and focusing the practitioner on the viability of the tissue, bacterial burden and moisture levels. TIME consists of four main components:

- T – Tissue, viable or non-viable
- I – Evidence of infection or inflammation
- M – Moisture imbalance
- E – Edges advancing or static.

The TIME framework offers clinicians a comprehensive approach to wound care for developing strategies to maximize the potential for wound healing. Using the TIME framework as part of an ongoing holistic wound management strategy has the potential to reduce the financial burden placed on health services from patients with chronic wounds (EWMA, 2004).

Iconic Wound Care

Currently, there is such an array of product options to consider that it can be confusing and time consuming for nurses to ensure they use the right product at the right time. In light of this, a new tool has been created to assist practitioners with wound bed assessment and appropriate product selection. BSN medical launched Iconic Wound Care as a wound bed assessment tool at the Wounds UK conference in November 2010. The principle of the tool was also reviewed in the interative section of the Wound Expo wound assessment workshops in September 2011.

Iconic Wound Care (*Figure 1*) is a collection of bold, easy-to-use icons that aid wound assessment and help the practitioner choose the right dressing for the patient, aiming to prevent product misuse and wastage. Iconic Wound Care centres on three simple categories: wound bed tissue type, wound depth, and exudate levels. BSN medical advanced wound care products also display these icons on product packaging.

Overall, Iconic Wound Care wound bed assessment aims to make the choice simpler and easier for practitioners, ensuring patients' needs are met and products are not used inappropriately or unnecessarily (Phillips, 2010).

Method

As outlined above, a survey was conducted during the wound assessment zone sessions at Wound Expo 2011. The zone delivered a 45-minute educational session which was repeated 10 times, allowing around 350 delegates to participate in this as well as several other workshops. Delegates attending the zone over the 2-day period were asked to complete a survey to gain insight into their professional background, experience of wound assessment and self-assessed competency level. Permission was gained from the delegates to use their results, which were collated anonymously.

Sample and demographic data

A total of 255 delegates who attended the wound assessment zone completed the survey. The first two questions in the survey were designed to gain information about which professional group delegates represented and what care setting they were practising in. In response to question one (what is your profession?) (*Figure 2*), it was

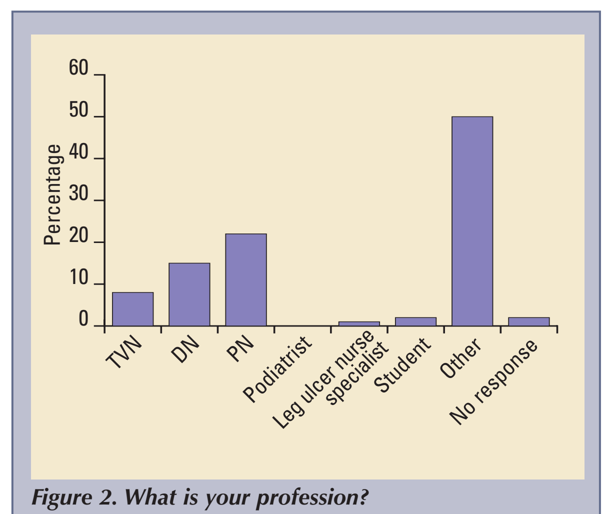

Figure 2. What is your profession?

found that 8% (*n*=20) were tissue viability nurses, 1% (*n*=2) were leg ulcer specialists, 15% (*n*=38) were district nurses and 22% (*n*=56) were from a practice nursing background. Only 1 podiatrist responded and 2% (*n*=4) were students. However, the largest group 50% (*n*=128) classed themselves as 'other', which could include registered or unregistered health professionals working in NHS or private hospitals, care homes, or as community nurses.

For the following question (which type of care setting do you work in?) (*Figure 3*), the majority of respondents (*n*=139, 55%) were currently working within the NHS, with 17% (*n*=43) working in NHS hospitals and 38% (*n*=96) working within the community. In addition, 13% (*n*=34) were practising in private hospitals, 21% (*n*=53) in nursing homes, 1% (*n*=2) were students and 11% (*n*=27) responded 'other'.

Results

Current practice

The next question was asked to gauge the length of time that respondents asked had been practising (*Figure 4*). A majority of 36% (*n*=93) had been practising for more than 3 years, with 17% (*n*=44) reporting to have been practising between 1 and 3 years, 15% (*n*=39) having less than 1 year of experience and 31% (*n*=79) not responding to the question. Following this, the respondents were asked how often they dealt with wounds in their workplace (*Figure 5*). It was found that 93% (*n*=236) indicated they dealt with wounds on at least a weekly basis, 3% (*n*=7) dealt with wounds on a monthly basis and 5% (*n*=12) responded they dealt with wounds less frequently.

Wound assessment and product selection

Delegates were asked how often they undertake wound assessment (*Figure 6*). In response to this, 81% (*n*=206) performed wound assessment at every dressing change but 2% (*n*=6) performed wound assessment at initial presentation only, 4% (*n*=10) at initial and final dressing change, 7% (*n*=18) occasionally/no defined time scales, and a further 4% (*n*=11) performed wound assessment only when there appeared to be a problem. A total of 2% (*n*=4) did not respond to this question.

The next questions were designed to explore how wound assessment was performed, how this affected product selection and whether the practitioner routinely used any wound assessment tools. It is interesting to see that, although 81% of practitioners undertook wound assessment at every dressing change, only 27% (*n*=70) stated they regularly used a wound assessment tool to aid assessment (*Figure 7*). With 28% (*n*=71) saying they sometimes use wound assessment tool, a further 13% (*n*=33) rarely used a tool and 7% (*n*=17) reported they never use a wound assessment tool. However, surprisingly, 16% (*n*=41) answered that they would like to use a wound assessment tool but were unsure of the options available.

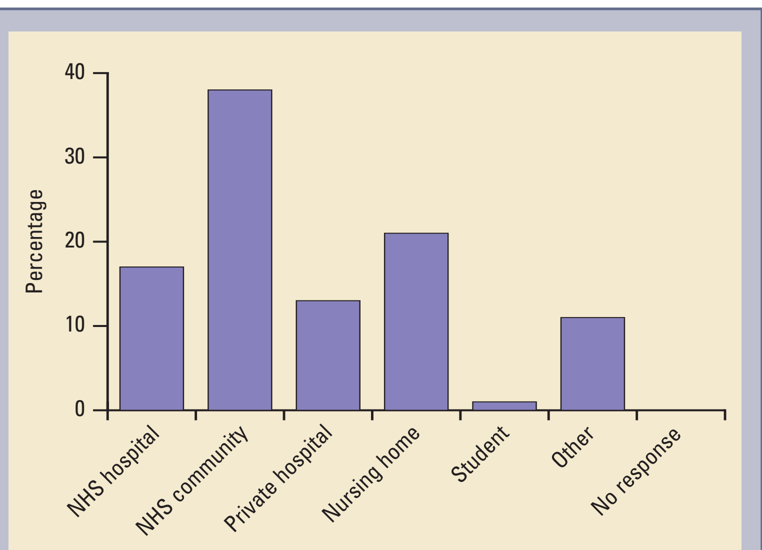

Figure 3. Which type of care setting do you work in?

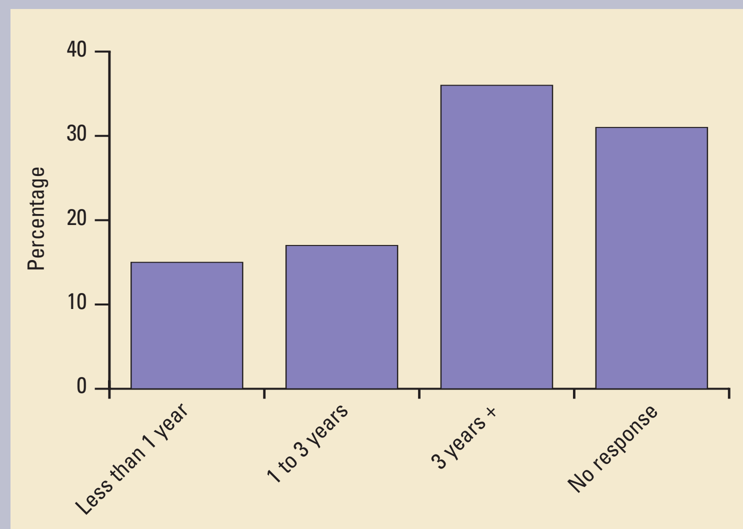

Figure 4. How long have you been practising in wound care?

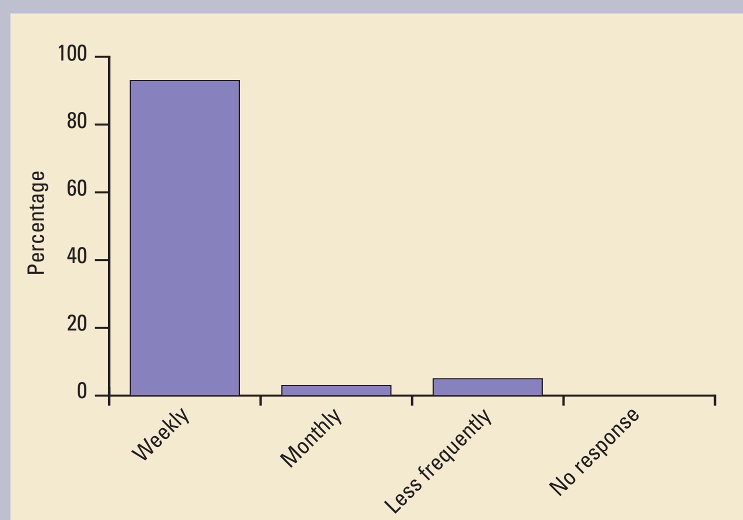

Figure 5. How often do you deal with wounds in the work place?

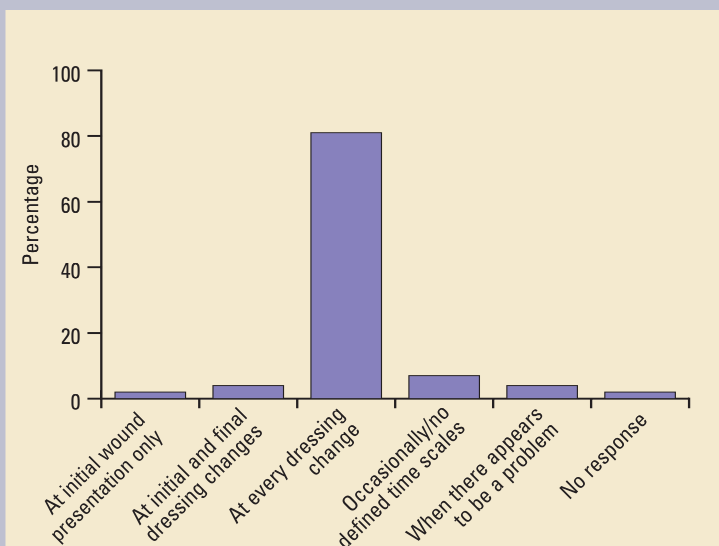

Figure 6. How often do you undertake wound assessment?

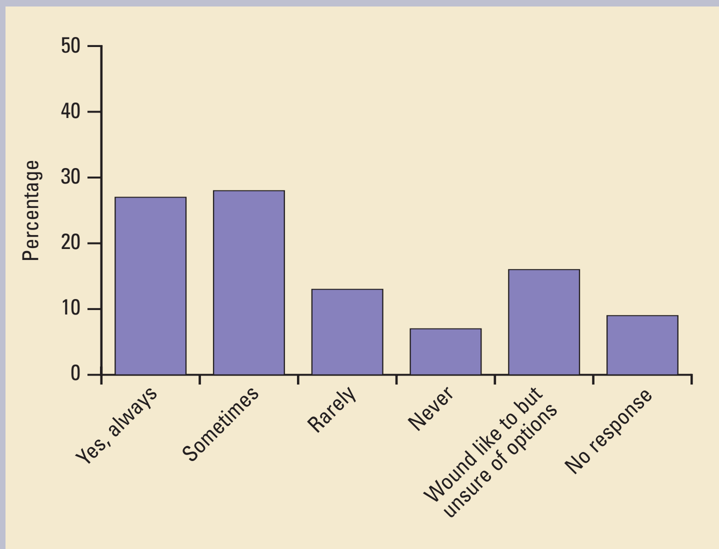

Figure 7. Do you use a wound assessment tool to aid assessment?

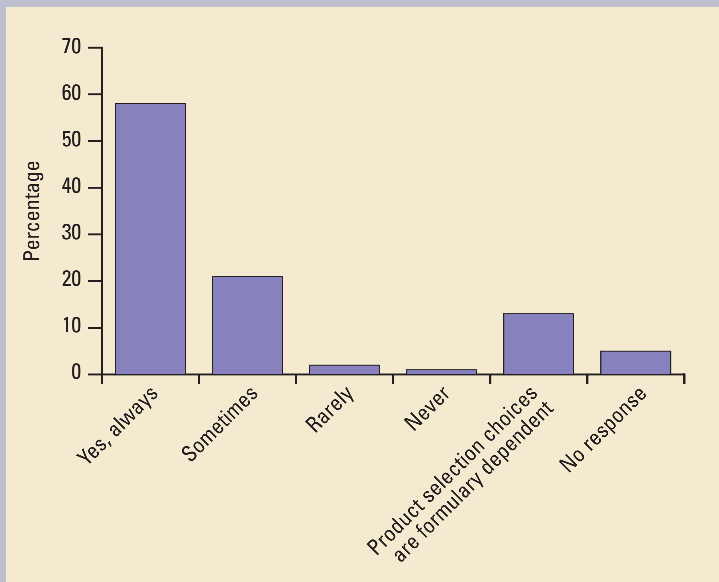

Figure 8. Does wound assessment directly affect product selection?

For the next question, respondents were asked if wound assessment directly affected product selection (*Figure 8*). Only 58% (*n*=149) replied 'yes, always, 21% (*n*=54) answered sometimes, 2% (*n*=4) answered rarely and 1% (*n*=3) answered never. A total of 5% (*n*=12) chose not to respond to the question. Interestingly, 13% (*n*=33) acknowledged that product selection choices are formulary dependent rather than as a result of wound assessment.

Competency

Finally, the delegates were also asked how competent they felt with wound assessment before the workshop (*Figure 9*). Only 6% (*n*=16) felt very competent, 32% (*n*=82) felt competent, 36% (*n*=91) indicated average competency, 16% (*n*=40) felt unsure at times, and 9% (*n*=24) believed that they required further training to become competent.

What did delegates learn?

Results indicated that, during the wound assessment session, 24% (*n*=134) learned that there are tools devoted to assisting with wound assessment and that new icons exist to demonstrate the wound healing stage, levels of exudate and wound depth (*Figure 10*). Additionally, 19% (*n*=109) learned that it is possible to classify healing progression through the use of colours, and a further 19% (*n*=107) learned that wounds have a defined stage of healing. Finally, 14% (*n*=80) learned that industry wanted to work with health professionals to assist in wound assessment.

Discussion

The data from this survey revealed the majority of the delegates taking part in the survey at Wound Expo 2011 regularly dealt with wounds (*Figure 5*), with many having over 3 years of experience of wound management (*Figure 4*). The data also highlighted that many delegates recognized that wound assessment needs to be performed at each and every dressing change (*Figure 6*), suggesting that the majority of practitioners providing front-line nursing have experience and awareness of the importance of ongoing wound assessment.

However, the survey did reveal some results which are worthy of discussion. Firstly, 73% of respondents did not regularly use an assessment tool to aid wound assessment (*Figure 7*). It would have been interesting to explore this further to ascertain the reasons behind these results, in particular questioning how assessment was performed without a tool or whether the practitioner did not recognize they were applying a tool. Many wound assessment charts that form part of the standard required documentation do provide a systematic method of wound assessment, asking the practitioner to document tissue status, exudate levels and desired outcomes of wound care.

Despite this, Sterling (1996) and Hon and Jones (1996) investigated whether information and documentation had any beneficial relationship to wound healing and concluded that wound assessment forms were, at best, aide memoirs to assist in standardizing the content of assessment rather

than providing a tool in wound assessment. However, it is recognized that the use of a standard framework which clearly demonstrates the links between what is observed in the wound, an understanding of the pathophysiology, the setting of appropriate objectives during patient review, and evaluation of the care, should result in improved outcomes (Fletcher, 2007).

The results demonstrated that 81% of practitioners were performing wound assessment at each and every dressing change (*Figure 6*); however, only 58% said that wound assessment directly affected product selection (*Figure 8*). A total of 23% reported 'sometimes' or 'rarely' that wound assessment influenced product selection, with 1% stating that wound assessment 'never' influenced product choice (*Figure 8*). Further to this, 13% stated their product choice was formulary dependent (*Figure 8*). Formularies are designed to guide the practitioner with product selection, but accurate assessment of the wound bed is still required to ensure the appropriate product is selected. Further work is required to explore by what methods products are selected.

Levels of competence

Interestingly, the self-assessed level of competence showed that only 6% of delegates assessed themselves as very competent (*Figure 9*), but 9% were practising at the level of tissue viability nurse or leg ulcer nurse specialist. This figure could be lower than the 6% reported, as the results were not analysed against professional status, and therefore those who stated they were very competent could be working in non-specialist roles. It would be expected that all professionals practising at the level of the tissue viability nurse or leg ulcer specialist would classify themselves as very competent, as this is a fundamental element of specialist roles. The results regarding self-assessed competency were interesting but also very subjective, as competency was not defined in the survey. Therefore, further work is needed in this area.

Education and training

The majority of responders believed they were competent or average at wound assessment, but 16% highlighted that they were unsure at times, and 9% stated they would benefit from further training. This could be highlighting their lack of individual knowledge or more positively highlighting the need for regular updates.

It is important to remember that the Nursing Midwifery Council's (2008) *'The Code: Standards of Conduct, Performance and Ethics for Nurses and Midwives'* states that nurses should recognize the limits of their competence, and that all nurses are accountable for keeping their knowledge and skills up-to-date. However, access to training is becoming increasingly problematic, with increasing pressures in the workplace reducing opportunities to access continued professional development. Therefore, the practitioner needs to find alternative flexible approaches to teaching and learning that cater for different learning styles. Interactive web-based learning that uses a problem-based learning approach may provide a solution.

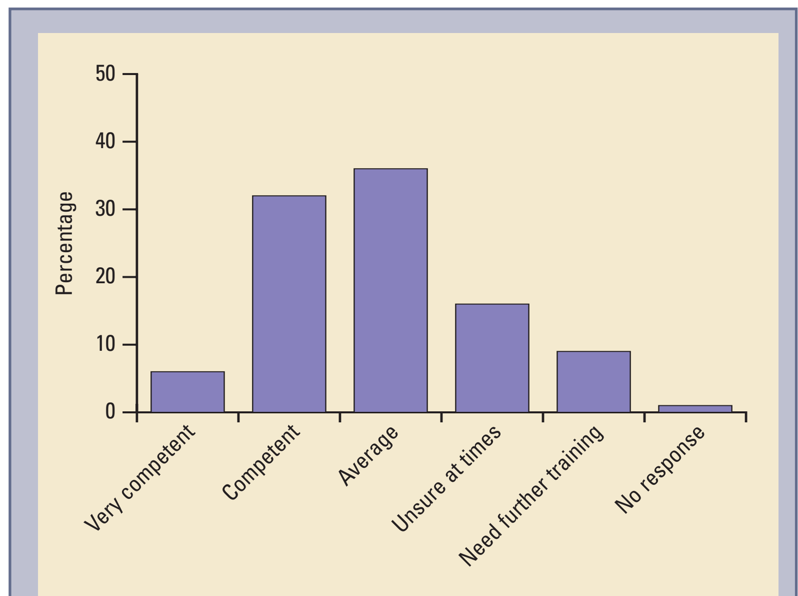

Figure 9. Before the workshop how competent did you feel you were at wound assessment?

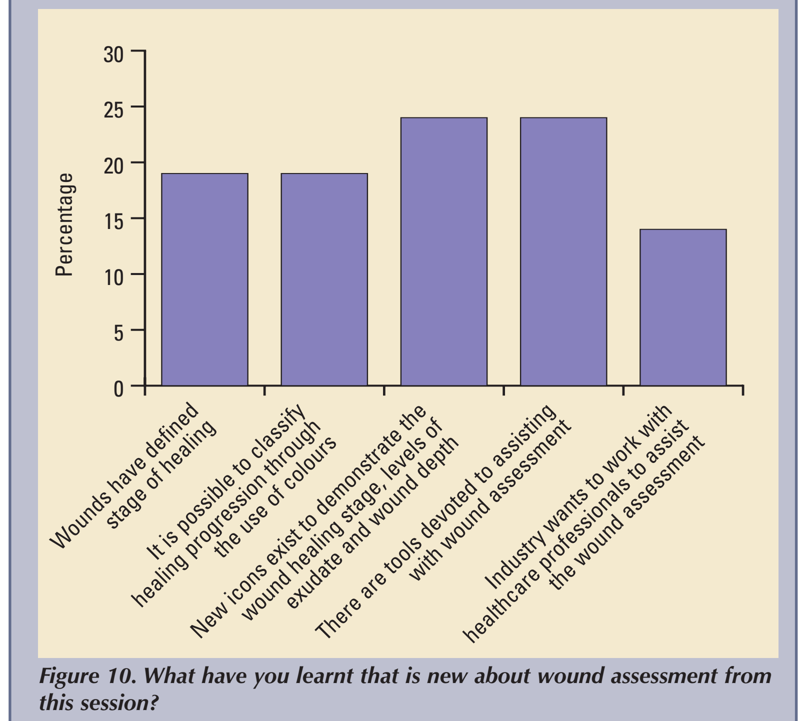

Figure 10. What have you learnt that is new about wound assessment from this session?

Conclusion

The results of this survey have suggested that wound assessment is a complex procedure which can be subject to personal interpretation based on an individual's knowledge and experience. As such, more training is required across a range of clinical professions, as subjectivity and objectivity appear to be major factors in assessing stages of wound healing.

Wound assessment tools have been designed to assist the wound care practitioner in making a systematic and standardized interpretation of the observable characteristics of a wound and to decide on the most appropriate intervention (Dowsett and Ayello, 2004). However, this

KEY POINTS

- Wound assessment is a fundamental aspect of wound management
- Wound bed preparation focuses the clinician on optimizing conditions at the wound bed to encourage healing
- Currently, there is an array of wound products for clinicians to consider. It can be confusing and time consuming for nurses to ensure they use the right product at the right time
- When self-assessed, only 6% of respondents rated themselves as 'very competent' but 9% were practising at the level of tissue viability nurse or leg ulcer nurse specialist

survey highlighted that these tools are not used on a regular basis, and that wound assessment is not seen as directly related to appropriate product selection.

Further research is required to investigate why professionals choose not to make regular use of wound assessment tools and why they consider wound assessment and appropriate product selection as unrelated. This could be owing to lack of awareness of the tools available or that currently promoted tools, e.g. TIME, are viewed as complex and difficult to implement. If this is found to be the case, further awareness of BSN medical's Iconic Wound Care wound bed assessment tool could provide a simplistic solution. In the workshops, the icons within the tool were perceived as being bold, easy to understand and directly related to standard wound care categories, e.g. hydrogels for necrotic wounds (black), antimicrobials for infected wounds (green), and foams or super-absorbents for varying levels of exudate.

The results of this survey also highlighted the importance of ensuring that wound care education is more widely available, so that those practising wound care can, at least, view themselves as competent ensuring high-quality, cost-effective care is delivered to all patients. **BJCN**

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