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# Assessing and managing wounds in mental health settings

## KEY WORDS

- ▶ Content analysis
- ▶ Mental health nursing
- ▶ Tissue viability workshops
- ▶ Wound care

Recently, there has been increasing emphasis on improving the physical health care of people with a diagnosed mental illness. Appropriate wound care for mental health service users is one such area of care that needs consideration. As the largest professional workforce in mental health settings, nurses can undertake appropriate wound care interventions to make improve the healthcare status of service users who have tissue viability problems. This article reports the outcomes of a workshop aimed at increasing the knowledge and skill of mental health nurses in wound care assessment and management.

Individuals with mental illness are at increased risk of physical health problems when compared with the general population (Robson and Gray, 2007). In the UK, it is estimated that individuals with mental illness die between 10 and 15 years younger than the general population (Chang et al, 2011; Thornicroft, 2011). The ability to screen for physical health conditions is of fundamental importance to mental health nursing practice, yet there is evidence that such conditions go largely unnoticed, and – if identified – are often poorly managed (Phelan et al, 2001; Stephen-Haynes and Greenwood, 2011; Edward et al, 2011).

Gray et al (2009) commented that the onus should be placed on registered mental health nurses (MHNs) to intervene and have the necessary skills to practice physical health interventions in the care of service users.

Accurate wound assessment is an essential skill for all clinicians caring for people with wounds to effectively plan, implement, and evaluate the care required in case (Cook, 2011). Holistic assessment of the individual and the wound is vital to ensure accurate diagnosis of the underlying cause of the wound and identify factors that could delay wound healing (Ousey and Cook, 2011).

For the MHN who may have basic first-aid skills, but no specialist tissue viability training, the idea of undertaking wound assessment of care may be a daunting prospect. Day et al (2007) described the lack of wound care skills among MHNs as a deficit that needs rectifying,

considering the frequency they will encounter patients with wound care needs. Stephen-Haynes and Greenwood (2011) found that MHNs had a poor level of wound care knowledge, and that the tissue viability needs of patients with mental illnesses were considered to be low priority. The authors identified a need for strategic planning for tissue viability in mental health settings, and the development of links to specialist tissue viability nursing services.

Stephen-Haynes and Greenwood (2011) also reported that little or no training had been offered to MHNs in relation to wound management, with wounds assessment, documentation, and dressing selection being areas of specific knowledge deficit. A resourcing implication was also revealed; MHNs unable to undertake basic wound care will require the input of specialist services, whereas, if MHNs are trained appropriately in basic wound assessment, this could save time and reduce costs (Kilroy-Findley, 2006; Stephen-Haynes and Greenwood, 2011).

This is not to say that all MHNs should seek to acquire the knowledge and skills equivalent to those of a tissue viability specialist nurse, although there are some examples of MHNs specialising in wound care (Kilroy-Findley, 2006; Whyte, 2010). Kilroy-Findley (2006) identified that Mental Health Trusts have limited access to wound care specialists and they frequently rely on registered MHNs who may not have any formal training in this therapy area.

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## WOUND PREVALENCE IN MENTAL HEALTH SETTINGS

People with serious mental illnesses generally have poor health status. MHNs primarily focus on mental health symptomatology and the management of the iatrogenic side-effects of psychotropic medications (Nash, 2010; Whyte, 2010).

Kilroy-Findley (2010) noted the increased risk of wounding among those receiving psychotropic medications, related to increased shearing and friction forces on the skin. Compounding this are the adverse effects on wound healing associated with low motivation, poor lifestyle choices, and medication side-effects (Whyte, 2010). These factors can result in detrimental effects on the individual's immune system, nonadherence with wound care regimens, and the increased risk of self-harm, whether intentional or otherwise (Stephen-Haynes and Greenwood, 2011). Other issues may include poor appetite as a result of depressive episodes or invasive injuries due to self-harm, all of which present challenges for the clinician (Cook, 2011).

Wounds seen in mental health settings will have a range of aetiologies. Pegram and Bloomfield (2010) suggest that MHNs may need to attend to burns, self-harm injuries, venous leg ulcers, and abscesses related to intravenous drug use. Kilroy-Findley (2006) also outlined the most common wounds in mental health service users as: pressure ulcers, leg ulcers, partial thickness burns, ulcerated injection sites, diabetic foot ulcers, skin tears, trauma injuries, self-harm wounds, and pre-tibial lacerations.

The management of self-harm wounds can be particularly challenging, even for the most experienced clinician, and the decision of whether to actively intervene or educate the individual who is self-harming about general wound care principles is often a difficult one.

The clinician needs to be aware of their own limitations and know when to refer to tissue viability services. The majority of Mental Health Trusts have a service level agreement with Acute or Primary Care Trusts for the provision of specialised tissue viability services, but this is a scarce resource and needs to be used appropriately (Stephen-Haynes and Greenwood, 2011).

## EDUCATION AND TRAINING

In attempting to improve wound care for people with serious mental illness, the role of the MHN in delivering wound care is an important consideration. What level of knowledge and skill does the MHN require to carry out accurate assessments and effective interventions?

Stephen-Haynes and Greenwood (2011) report a clear need for MHNs to have sufficient understanding to why certain wound care interventions are made. Wound care is now seen as a necessary clinical skill set for MHNs (Shorey and Shorey, 2013). Cook (2011) reiterates the need for MHNs to have appropriate education and training in wound care.

Day et al (2007) describe the delivery of an educational session for third-year MHN students. This included examination of skin structure, discussion of where service users may experience tissue damage, an illustration of assessment of wounds utilising appropriate tools, some practical simulated experience of wound dressing, and discussion on when to refer the individual to specialist services.

The session reported by Day et al (2007) is a good example of the methods available to enlighten the novice MHN. However, the question of whether experienced MHNs have the requisite knowledge to undertake wound assessment and treatment that is appropriate to their scope of practice and the complexity of tissue viability of the service user remains (Law, 2003; Kilroy-Findley, 2010; Stephen-Haynes and Greenwood, 2011). There is also the issue of accountability for MHNs in an area where they may feel under-skilled.

## PHYSICAL HEALTH PROJECT

A joint application between the University of Huddersfield and South West Yorkshire Partnership Foundation Trust was made to the Yorkshire and Humber Strategic Health Authority Clinical Skills Network for a grant to produce a series of physical health workshops designed to facilitate MHN in developing the skills and knowledge need to undertake physical health interventions in mental health settings. The project was developed alongside the Yorkshire and Humber Clinical Skills Network

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*“A 10-item multiple-choice questionnaire was developed and used to assess the wound care knowledge of participants, both before and after the workshop.”*

initiative to improve physical health interventions in mental health contexts (Jordan, 2011). The initiative built on previous collaborations (Hargate et al, 2008) towards medicine management education and training for MHNs (Hemingway et al, 2010; Hemingway et al, 2011).

The grant was successful and – after consultation with the collaborating partners and determining the availability of specialist trainers – series of workshops were planned. These workshops focused on: oral health, intramuscular injection skill update, health improvement planning, diabetes, epilepsy, and wound care (Edward et al, 2012).

The organisations involved in the project used Trust and university staff, and service users involved in pre- and post-registration nurse education, to develop the workshops. Such collaboration is identified as a key determinant in achieving positive service user outcomes (Prowse and Heath, 2005).

Here, the authors report on the wound care workshop and its outcomes.

### DESIGN

Participants undertook a 1-day workshop designed to provide an introduction to wound assessment and management. A 10-item multiple-choice questionnaire was developed and used to assess the wound care knowledge of participants, both before and after the workshop. Open-ended comments for qualitative assessment of the workshop were also collected, and participants were asked to comment on how satisfied they were and the relevance of the content to their everyday practice.

### The workshop

The 1-day workshop briefly covered the structure and function of the skin, in addition to outlining the principles of wound healing, to provide the students with the background knowledge required to understand the complex nature of wound healing. Participants were informed about the value of exploring the underlying pathophysiology and the reasons wounds occur, with a view to ensuring that these areas were addressed and treated. The concept of “TIME” in wounds care (developed by the International Advisory Board

on Wound Preparation: T = Tissue, nonviable or deficient; I = Infection or inflammation; M = Moisture imbalance; E = Edge of wound, nonadvancing or undermined) was discussed (Cook, 2012).

At the end of the session, students were shown a variety of different wounds and asked to assess them – using TIME – and to formulate an appropriate wound management plan and to select an appropriate wound care product for achieving the goals of the wound management plan.

### Recruitment

A mixture of qualified and unqualified staff from South West Yorkshire Partnership Foundation Trust, and student nurses from the University of Huddersfield, were invited to participate in the workshop. Participation in the study was voluntary.

### Data collection

A pre- and post-test design was used to evaluate the project. A questionnaire consisting of closed and open questions. In addition Likert-style questions were also used. Each student was assessed on their response to 10 equally weighted multiple choice questions. One mark was awarded for each correct answer, with a maximum score of 10. Some questions required students to identify multiple correct answers: in such cases, a mark was awarded only if all correct answers had been identified. Space for open-ended comments was also provided.

Participant confidentiality was maintained throughout the project and only aggregated data are presented. Permission to undertake the study was granted by the University of Huddersfield School of Health and Human Sciences Research Ethics Panel.

### Analysis

Questionnaire scores achieved before the workshop are referred to as “pre-scores”, while those obtained after are referred to as “post-scores”. In the absence of pairing information, pre- and post-scores were analysed using the independent samples *t*-test. All quantitative analysis was undertaken using SPSS, version 18.0. Open-ended comments were analysed for their content and emergent themes (Newell and Burnard, 2006).

## RESULTS

The workshop was attended by 37 MHNs. All participants completed the questionnaire prior to the workshop; 35 completed the questionnaire after the workshop.

Some demographic data were collected, however not all participants completed this information. Considering valid responses: 11 respondents were aged 18–25 years (40.7%), six 26–35 years (22.2%), seven 36–45 years (25.9%), and three 46–55 years (11.1%). Twenty respondents were female (74.1%) and nine respondents were male (25.9%). In relation to their healthcare employment: 17 respondents had worked 0–5 years (63.0%), five 6–10 years (18.5%), two 11–15 years (7.4%), and three 20+ years (11.1%).

### Questionnaire results

The mean pre-score was 4.78 out of 10, with a standard deviation of 1.97. Among those participants who completed the questionnaire again after the workshop, the mean post-score was 6.40 out of 10, with a standard deviation of 1.14. The change in mean score was 1.62 (16.2 percentage points; *Figure 1*).

An independent samples *t*-test conducted on pre- and post-scores revealed a statistically significant difference ( $t_{70} = 4.22$ ;  $P < 0.001$ ), with a 95% confidence interval for the difference in mean scores in the two groups (0.85, 2.38).

### Workshop feedback

Responses relating to the participants' opinions of the training session saw eight respondents reporting that they were "satisfied" with the topic delivery (28.6%) and 20 were "very satisfied" (71.4%).

Respondents were also asked to rate each of four teaching methods out of five. The method with the highest mean score was guided reading, with a score of 4.70, followed by multiple choice questions (4.21), demonstration of clinical instruments (4.17) and video (3.80). However, there were a large number of missing values for this item.

Only a small number of comments were received, and this may be due to the fact nearly all participants were satisfied with the workshop. Generally, the comments showed the participants were happy with the session content and that it was appropriate for their

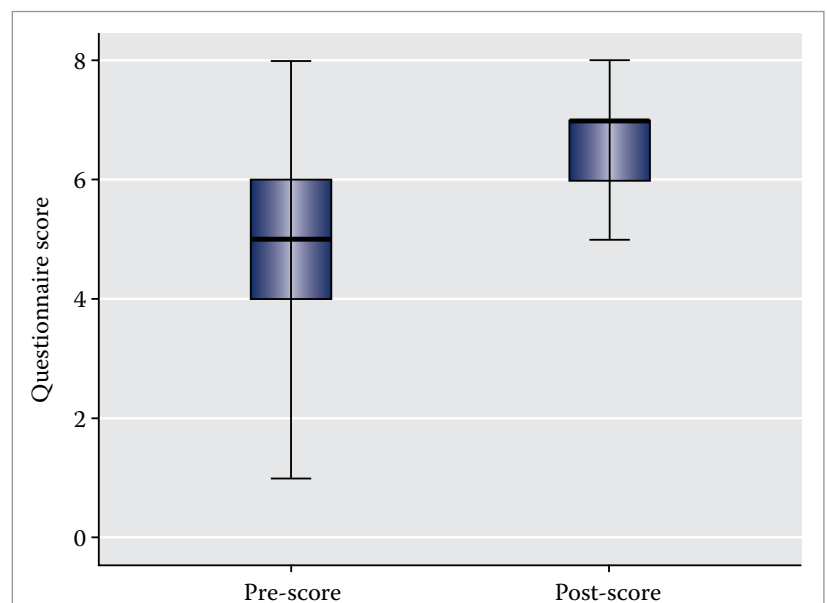
clinical work. Comments included: "Very satisfied and relevant to practice" and "really good practical information". The participants also gave some examples about how the session would have a positive outcome for their day-to-day work, including: "I needed to understand categories and dressings used by primary clinicians when pulling together evidence to establish a primary health care need [case for referral]. So useful"; "Satisfied – useful can apply to practice. Very relevant – work with the elderly"; and "very [positive] as pressure sores are common [older people] in this type of area."

## DISCUSSION

This article reports an evaluation of a workshop on wound care and its effect in terms of participant satisfaction and rating of the educational strategies employed. The ages of respondents were representative of registered and student mental health nurses.

It is important to tailor the content of the education to the experience and understanding of the student. Physical health care has to be seen as part of the MHN role and if the topic is made real for the student then educational intervention is more likely to be successful (Edward et al, 2012).

*"The comments showed the participants were happy with the session content and that it was appropriate for their clinical work."*



**Figure 1.** Wound care questionnaire pre- and post-scores (all respondents).

***“It is hoped that by giving physical health an increasing presence in the education of mental health nurses, their confidence and competence to effectively manage the physical health of mental health service users will be increased.”***

The workshop resulted in a statistically significant improvement in wound care knowledge. The inference of a significant finding would not have been affected by pairing of the data and the findings from the content analysis also showed that the topic and delivery was relevant to participants' practice. Participants were mostly student nurses, so any direct impact on practice is limited. However, the students were in their final weeks of undergraduate study, therefore, it is hoped that this workshop will be pertinent and fresh in the memory when they enter practice as staff nurses.

#### **Limitations**

The findings of this project relate to a study day for clinicians and student nurses from a single NHS Trust and university so claims for generalisability cannot be made. A pre/post test design undertaken on the same day may also be limited in terms of how these results actually improve the clinical skills of the workshop attendees.

The positive results relating to the test scores could also have been predicted, due to the immediacy of the post-test – taking place so soon after the workshop ended. Increased time and resources, as well as more in-depth training, could better meet individual nurse training needs (Law, 2003; Smith et al, 2010).

#### **Implications**

To date, published research on the physical health care skills of MHNs have either been limited to an evaluation of their overall training needs, rather than a prospective evaluation of training (Stephen-Haynes and Greenwood, 2011), or else limited to student nurses (Day et al, 2007). An evaluation of how such training has impacted on the MHN in practice would be needed to determine whether the training content transfers to a real world scenario.

#### **CONCLUSION**

This study suggests that educational interventions can increase the wound care knowledge base of MHNs. The physical health status of service users needs to become a priority for MHNs, and wound

care is no exception as. Workshops that facilitate MHN knowledge and skill acquisition for the effective assessment and treatment of wounds can potentially improve the physical health of people with mental health problems and wounds.

Whether this workshop and project as a whole will have a positive outcome in the real world is uncertain. However, it is hoped that by giving physical health an increasing presence in the education of MHNs, their confidence and competence to effectively manage the physical health of mental health service users will be increased.

**WUK**

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