

Challenges faced by healthcare professionals in the provision of compression hosiery to enhance compliance in the prevention of venous leg ulceration

ABSTRACT

Venous leg ulceration affects 1 in 500 people in the United Kingdom¹ resulting in a detrimental effect on the patient's quality of life. Prevalence increases with age, and venous leg ulcers have high recurrence rates.¹ Compression hosiery is the mainstay of treatment and prevention, although hosiery efficacy is hindered by non-concordance.²

AIM

To enhance the current delivery and management of compression hosiery in a local National Health Service (NHS) Trust.

METHOD

A pilot questionnaire was administered to 26 healthcare professionals to explore the current information provided to patients and to understand the professional's knowledge about and opinions on patient compliance with compression hosiery.

RESULTS

Application difficulties and discomfort were the main reasons healthcare professionals provided for patient non-compliance. 79% of patients experienced difficulties with hosiery application. 90% of professionals provided verbal advice when prescribing hosiery, and 46% provided written information. Healthcare professionals felt that patients did not understand the importance of compression hosiery. These data suggest inconsistencies in the information provided to patients.

INTRODUCTION

Compression hosiery is the mainstay of treatment and prevention of venous leg ulceration and reduction in venous hypertension symptoms.^{3,4}

Reference sources used in the literature search were CINAHL, Medline, Academic Search Complete, and Sciencedirect. The following search terms were used: "ulcers and recurrence," "venous ulcer and hosiery," "compression stockings/hosiery," "compliance/adherence/concordance," and "ulcers and prevention". From the literature review, the reasons given by participants for not using compression hosiery include cost, application difficulties, discomfort, health promotion, and self-efficacy.⁵⁻¹⁵

Difficulty with the application of compression hosiery was found to be the most common reason provided for non-compliance. The literature highlighted that ill-fitting compression hosiery is associated with the skills, training, and competence of clinicians carrying out the assessment.¹⁶⁻¹⁸ Compression hosiery measurement should be carried out by a healthcare professional who has knowledge of the underlying causes of venous ulceration, compression hosiery treatment, and the effect of different types of hosiery knit (flat or circular).^{3,4,18-20} This is imperative not only for successful, cost-effective treatment outcomes, but also and more importantly for convincing patients that the hosiery will improve and manage their symptoms and, thus, reduce the impact of leg ulcers on their quality of life.^{3,4,17,20}

The therapeutic relationship between the nurse and the patient and the role that relationship plays in leg ulcer aftercare is rarely discussed in the literature, although its significance to health promotion appears to be underestimated. Nurses are at the forefront of leg ulcer management, and the standard of care they provide plays a significant role in influencing a patient's concordance



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with treatment.^{25,26} Therefore, an effective nurse-patient relationship is imperative to achieve successful treatment outcomes through the adoption of a holistic assessment, recognising that the patient is an expert in his/her own condition.^{27,28}

Solutions to issues experienced by patients and healthcare professionals are highlighted in the literature; these include a staged introduction to compression hosiery,²⁸ effective use of compression hosiery application aids,²⁹ and clear and consistent health promotion using verbal and written information,³⁰ such as lifestyle advice that incorporates the facilitation of self-efficacy improvement techniques.³¹ These solutions aim to facilitate patient concordance with compression hosiery and leg ulcer aftercare. Ultimately, this could result in improvements in quality-of-life outcomes and a reduction in the financial burden faced by the National Health Service.³²

METHODS

A self-report questionnaire was distributed to a purposive sample of 26 registered healthcare professionals who are members of a County Tissue Viability Team. The aim of the questionnaire was to determine whether respondents considered non-compliance to be an issue in treatment with compression hosiery. In addition, questions were included to discover what information is commonly provided to patients when they are prescribed hosiery. Respondents were asked to identify the reasons they thought caused non-compliance and what they felt could be done to address compliance.

Ethical approval was sought from the local Trust, the study was deemed a service evaluation, and permission for the study was granted.

RESULTS

As shown in Figure 1, the majority of respondents were community nurses. As shown in Figure 2, 62% of respondents completed an accredited leg ulcer management course.

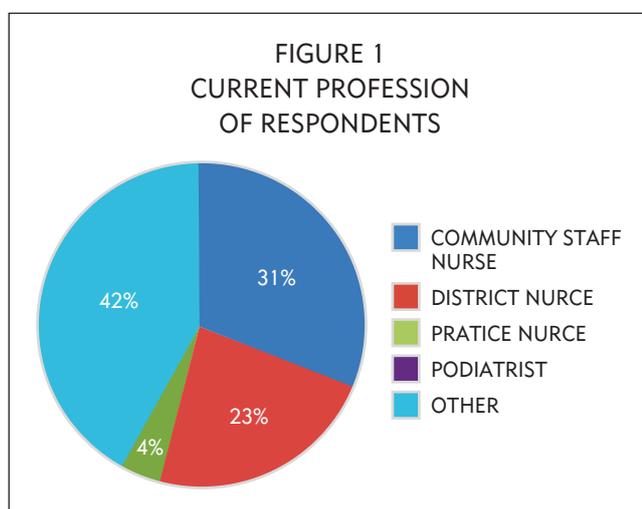


Figure 3 highlights that 4% of respondents provided no advice, 46% provided a compression hosiery advice leaflet, and 60% provided a skin care leaflet. The respondents considered non-concordance as an issue in 25-50% of patients.

Figure 4 signifies that 96% of respondents considered patients to be non-concordant with compression hosiery due to application difficulties.

Following the recommendation/prescription for treatment with compression hosiery, 72% of respondents were contacted by patients with concerns about their treatment.

When respondents were asked whether they thought patients understood the importance of compression hosiery, opinion was split at 50%. However, 72% of respondents believed patients did not take sufficient responsibility for their own compression hosiery application and care.

Figure 5 indicates the view of respondents on what could be done to improve compliance. 77% of respondents considered that initiating a hosiery fitting service would improve compliance. It is the view of 32% that Non-payment of hosiery on FP10. An FP10 is a form which doctors and nurses within the NHS use to prescribe a particular treatment or medicine, the patient then pays a charge for each item which is currently £8.40 per item or £16.80 per pair of hosiery.³³

When asked how often and when respondents followed up with patients prescribed compression hosiery, respondents provided varying answers. Only 25% reviewed treatment before 12 weeks, 50% reviewed between 12-24 weeks, and 25% reviewed after 24 weeks.

DISCUSSION

Sixty percent of respondents thought patients were supplied with sufficient information when prescribed compression hosiery, information which consisted of verbal advice in 90% of responses. Similar findings were highlighted in the literature; clinicians, therefore, may not be providing adequate information and support. 48% of respondents thought better information on compression therapy would

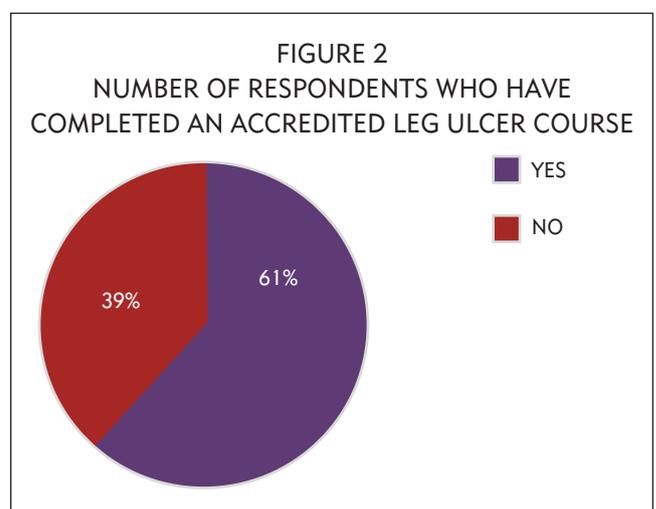


FIGURE 3
ADVICE GIVEN TO PATIENTS WHEN PRESCRIBED COMPRESSION HOSIERY

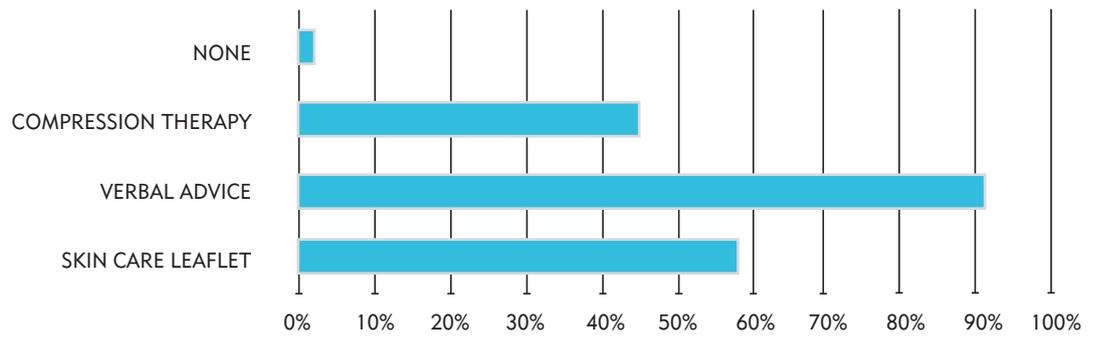


FIGURE 4
MAIN REASONS THAT RESPONDENTS THOUGHT PATIENTS WERE NON-CONCORDANT WITH COMPRESSION HOSIERY

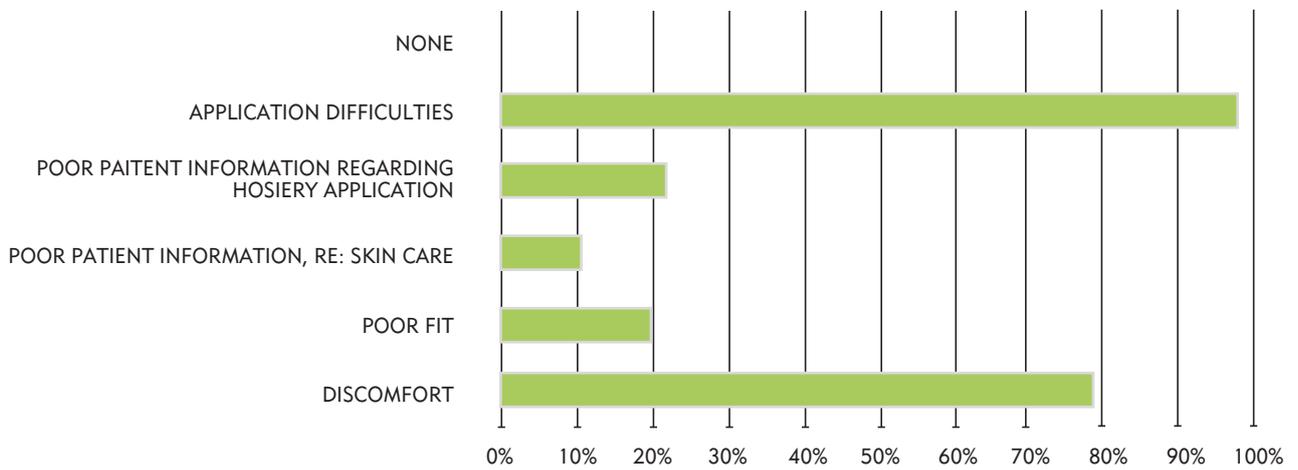
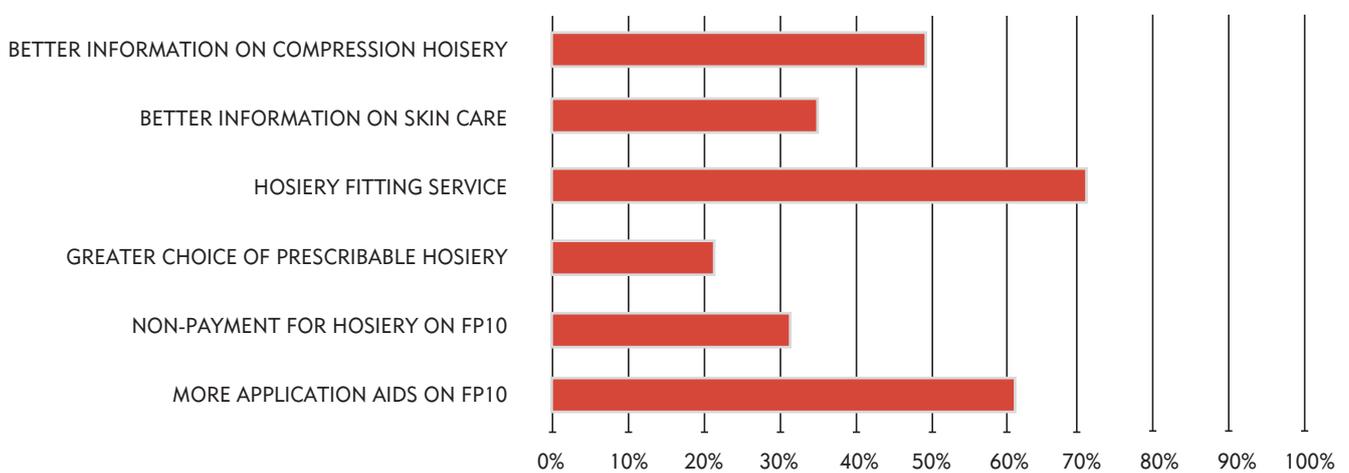


FIGURE 5
WHAT RESPONDENTS CONSIDERED COULD BE DONE TO IMPROVE COMPLIANCE



improve compliance. The literature recognises that non-compliance with treatment is positively associated with the patient's lack of knowledge and understanding of his/her condition and the role of treatment with compression hosiery. The healthcare professional is responsible for ensuring that patients are supplied with sufficient information in an appropriate format¹⁷ to enable the patient to make an informed decision on whether to comply with treatment.

Consistent with findings in the literature, responses to the questionnaire in this study revealed that application difficulties were the single most common reason for non-compliance with compression hosiery. Although the use of application aids is recommended and a selection is available on FP10 prescription, their usage has not been established. 64 % respondents felt that a wider variety would enhance compliance. Such a service might be difficult to deliver and would be means-tested to determine whether an individual may be eligible for government assistance based upon whether the individual has the means to fund this without assistance. This is due to the £20bn efficiency savings needed by the NHS, as highlighted by the NHS Improvement Service.³⁴

Poor application technique or inaccurate sizing of compression hosiery is related to low use by patients. Similarly, 77% of respondents reported discomfort and 19% reported poor fit as reasons for patients' non-compliance with compression hosiery. The accurate measurement and selection of the appropriate type of compression hosiery with regard to flat or circular knit garments are key to ensure that a patient's comfort is promoted at all times.^{3,4,17,18,20,22,23}

The majority of respondents in this study, 62%, had taken an accredited leg ulcer course. The Medical Education Partnership (2006)¹⁹ maintains that health professionals involved in the provision of compression hosiery should be competent to do so. The knowledge, skill, and experience of the registered nurse in providing leg ulcer care and aftercare is paramount and is positively related to the quality of care provided and success of preventa-

tive treatment.¹² Reasons for the gap in the knowledge and skill of the registered nurse have been highlighted by respondents to be attributable to a number of reasons, including funding to complete training and motivation to develop the required skills. Nurses are accountable for their practice and, therefore, need to ensure that they not only are competent to provide the care needed,³¹ but also work towards a patient-centred approach that delivers evidence-based outcomes.^{35,36}

Patients should be encouraged to take control of their health by playing an active role in their treatment through the utilisation of the nurse-patient therapeutic relationship, which is based upon trust, empathy, and empowerment.^{17,25,29,36}

73% of respondents in this study felt that patients did not take sufficient responsibility for their own application of hosiery and care; therefore, consideration must be given as to what can facilitate this in practice.

CONCLUSION

Twenty-six healthcare professionals who are members of a County Tissue Viability Team took part in a small-scale survey providing a representative sample. The questionnaire explored the challenges faced by healthcare professionals and patients in enhancing compliance with the use of compression hosiery. The main findings concur with the literature: application difficulties and discomfort are the most common reasons for patient non-compliance with compression hosiery.

The knowledge and skill of the registered nurse is related to the quality and success of treatment provided. To improve patient concordance, nurses need to be supported in their pursuit of training to develop their knowledge and skills in this area. Additionally, healthcare professionals must ensure that the selection process by which hosiery is prescribed is holistic and engages patients in a therapeutic nurse-patient relationship to empower patients to have an active part in their care. ■

IMPLICATIONS FOR PRACTICE

It is vital that the assessment, measurement, and selection process by which hosiery is prescribed is holistic, ensuring that patients are involved and play an active part in their care to promote compliance.

FUTURE RESEARCH

Future research is required to understand the frequency of the use of application aids, patient's perceived consistency of health promotion advice, and the role of self-efficacy in the prevention of venous leg ulcer recurrence.

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