An estimated one in six hospital beds are occupied by people with diabetes (NHS Digital, 2018), costing the NHS around £10bn a year (Diabetes UK, 2014). However, the number of diabetes inpatient specialist nurses in post is significantly lower than the recommended one per 250 beds (NHS Digital, 2017). In total, 22% of hospitals have no diabetes specialist nurses (DSNs) at all and only 12% provide a seven-day service (NHS Digital, 2019).

Lack of title protection or a national accreditation framework for DSNs, means there is wide variation in credentialing and role structure. This can reduce the potential for peer support and means specialist nurses from different trusts have varying expectations, training and experience. NHS England’s (2019) NHS Long Term Plan specifies that all hospitals should provide a DSN service to reduce variations in care. A literature review of evidence on the DSN workforce has clarified the ways they improve patient outcomes and experiences (Lawler et al, 2019); this article summarises its findings.

Key points

There is a national shortfall of diabetes specialist nurses (DSNs) in the UK

In total, 28% of people with diabetes in hospital did not see a specialist diabetes team when they should have

DSNs increase patient safety, reduce medication errors and provide essential education for patients and staff

The title of specialist nurse needs to be protected, and measures of effectiveness should be broadened

An annual census for workforce planning is needed to meet the rising demand for diabetes services

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Abstract

There is a profound mismatch between the capacity of the diabetes specialist nurse (DSN) workforce and the steadily rising demand for diabetes services in the UK. A literature review of evidence in the field highlights the reasons for this, and the necessity to protect and propagate the DSN workforce.

Citation


Keywords

Diabetes/Diabetes specialist nurse/Hospital diabetes services

The role of specialist nurses for people with diabetes in hospital

A n estimated one in six hospital beds are occupied by people with diabetes (NHS Digital, 2018), costing the NHS around £10bn a year (Diabetes UK, 2014). However, the number of diabetes inpatient specialist nurses in post is significantly lower than the recommended one per 250 beds (NHS Digital, 2017). In total, 22% of hospitals have no diabetes specialist nurses (DSNs) at all and only 12% provide a seven-day service (NHS Digital, 2019).

Lack of title protection or a national accreditation framework for DSNs, means there is wide variation in credentialing and role structure. This can reduce the potential for peer support and means specialist nurses from different trusts have varying expectations, training and experience. NHS England’s (2019) NHS Long Term Plan specifies that all hospitals should provide a DSN service to reduce variations in care. A literature review of evidence on the DSN workforce has clarified the ways they improve patient outcomes and experiences (Lawler et al, 2019); this article summarises its findings.

Safety

Caring for people with diabetes in hospital requires expertise in treatment and an understanding of how diabetes may affect care (NHS Digital, 2019). NHS England (2016) states the benefits of DSN interventions include reducing inpatient harm, including prescription errors and medication errors. In 2017, 31% of inpatients with diabetes experienced at least one diabetes-related medication error (NHS Digital, 2017). Furthermore, hospital-acquired emergency states, such as diabetic ketoacidosis and hyperglycaemia, are potentially fatal, yet preventable. In 2017, 28% of inpatients with diabetes did not see a specialist diabetes team when they should have (Diabetes UK, 2018).

DSNs respond to crises, prevent patient deterioration, and provide safe and consistent care. In addition, specialist nurses are widely acknowledged to reduce unscheduled care (Read, 2015). Reason’s (2000) Swiss Cheese model showed safety is more than just the absence of harm; specialist nurses ensure the delivery of safe care, rather than simply reducing errors.

Measures of effectiveness

As well as reducing inpatient harm, DSNs:

- Reduce the length of hospital stays in people with diabetes;
- Contribute to admission avoidance by promoting patients’ understanding and self-management of their diabetes.

Reduced length of stay is an often-used metric to determine the effectiveness or value of DSNs (NHS England, 2019).
However, it should not be the only target or measure of quality or effectiveness and it is not an accurate or representative guide of safe care. Other factors to consider are:

- Patients’ survival, experience and satisfaction;
- Reduction in medication errors;
- Knowledge of diabetes management among patients and hospital staff.

The wide-reaching benefits of specialist nurses are well documented but narrowly measured (Leary, 2011).

**Education and continuity of care**

Working in partnership with people who have diabetes to promote self-management is an invaluable part of educative interventions by DSNs. Improving their understanding of the physical, social and emotional effects of the condition, along with the tools to manage and cope with these effects, is part of comprehensive care. Providing psychological care for patients, and support and advice for families and carers, is also crucial.

As Lawler et al (2019) elucidate, education by DSNs is usually given in one-to-one therapeutic conversations, and associated with improved outcomes. There is a long-standing debate around the effectiveness and suitability of providing bedside education in hospital, but the review suggests disempowerment is common in people with the condition in hospital, and that diabetes education is critical for those with newly diagnosed diabetes to reduce avoidable hospital admissions.

DSNs also provide continuity of care for people with diabetes when they are in hospital – whether for diabetes-related issues or other conditions – giving essential care and managing complex needs and care planning. This undoubtedly improves the patient experience and quality of care.

**Increasing recognition of the role**

With the wealth of evidence showing their value, why are there significantly fewer DSNs than recommended and how can this be remedied? The specialist nursing workforce is continuously asked to prove its worth, with nurses having to fight to remain in post or for posts to be created. Simplistic perceptions and short-term cost considerations often prevent consideration of the benefits and necessity of specialist nurses, and long-term financial and economic benefits are often ignored (Read, 2015).

Workforce pressures, and a shortfall in specialist nurses, mean the task of training new DSNs falls on teams already struggling with their workload. Yet moving from crisis management to proactive care relies on having a well-staffed and stable workforce. The review calls for accreditation and protection of specialist nursing titles, along with increased inpatient DSN roles to meet, if not surpass, national targets.

Appropriate and effective use of DSNs for inpatients is important in ensuring high standards of care. The NHS Institute for Innovation and Improvement launched its ThinkGlucose campaign in 2009 with the aim of improving the care, outcomes and experience of people with diabetes in hospital. The campaign, which used a traffic-light system to advise staff which patients should be referred to specialist diabetes teams, reduced inappropriate referrals, and increased diabetes knowledge and awareness among other hospital staff (Eaglesfield, 2012). Although the tool was created to improve the efficiency of DSNs’ work, the way it is used in practice is not explicitly recorded or defined. Further reporting using such tools could help demonstrate the benefits of DSNs.

**Improving access to diabetes care**

Increasing the accessibility and convenience of care is important and telemedicine is now viewed as a way to provide guidance to patients about next steps or when to seek advice from a health professional. It involves specialist assessment and active listening to meet patients’ information needs and educate them on symptom control, and is particularly well received for people with long-term conditions.

Diabetes care should be patient centred and tailored to the individual to promote confidence in self-management. The review concluded that telemedicine was a cost-effective way for DSNs to deliver care. As well as enabling follow-up for some recently discharged patients without them needing to visit a clinic or make an appointment, it purportedly reduces the number of acute hospital admissions. DSNs ran telephone helplines, as well as holding telephone appointments or ‘check-ins’, to support rather than substitute direct contact care.

**Moving forward**

DSNs reportedly have limited access to, and time for, professional development. This could threaten the future of the role by creating problems with recruitment and retention. There is no census of DSNs in the UK and, therefore, no way of accurately predicting future workforce needs. Currently one in 15 people in the UK have diabetes and this proportion is predicted to rise (NHS Digital, 2018). An annual national census of the diabetes workforce would ensure the NHS to plan for a sustainable and efficient workforce capable of meeting the demands of an increasing diabetes workload. Although undertaking the census might add to current workload pressures, short-term action may be needed for long-term success.

**Conclusion**

The review shows DSNs improve care and outcomes for people with diabetes by:

- Educating and empowering them in self-management and educating other health professionals, bridging gaps in expertise and diabetes knowledge;
- Providing direct patient care, including medicines management and psychological care;
- Reducing inpatient harm (including medication errors), as well as further associations with reduced length of hospital stay, fewer hospital admissions and improved patient satisfaction.

There is a profound mismatch between the limited capacity of the DSN workforce and the steadily rising demand for diabetes services in the UK. The results of Lawler et al’s (2019) literature review highlight the necessity to protect and propagate the DSN workforce.

**References**


