Educational preparation of the DSN in the UK

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Introduction

It is widely accepted that initial professional education is inadequate preparation for the multifaceted, advanced and complex role of the diabetes specialist nurse (DSN). This article presents the results of a national survey which examined, in part, the educational preparation of 334 DSNs working in Great Britain. Results suggest that almost 80% of respondents had undertaken post-registration education and further training to prepare as DSNs. The majority held an ENB-928, but only 22% held a master's degree. Approximately 40% had undertaken further training which, although not specifically related to diabetes, had contributed to the integration of their role.

The clinical nurse specialist (CNS) in diabetes or diabetes specialist nurse (DSN) has been defined as a nurse clinician with extended knowledge and skills in diabetes management, an educator, counsellor, manager, researcher, communicator and innovator, who is held responsible for his/her actions (Castledine, 1989). It has been recognised that initial professional education is inadequate preparation for these complex, expanded, and advanced specialist nursing activities. If DSNs are to meet the needs of patients, they will have to adopt multifaceted roles which require further professional education and training (McGee, 1998).

Educational preparation for the CNS

According to Sparacino (1990) graduate curricula for CNS preparation may be divided into specific specialties, which should address the common key components of theory content, clinical practice, and research. These components offer the CNS the opportunity to learn the scientific basis for advanced practice, to acquire research skills, and to increase clinical competence by focusing on skill development. Moreover, during the postgraduate educational programmes, CNSs learn to integrate expert clinical judgment, management, education and consultation skills within their role.

In the USA, the CNS is required to have a master's level degree and expertise in a selected clinical area to enter the role (Hamric, 1989; Sparacino, 1990), whereas in the UK the entry requirements are still vague and vary from practice to practice.

With regard to diabetes nursing as a specialty, Diabetes UK recommends that training and professional development should be continuing and open-ended (British Diabetic Association, 1996). Those involved in diabetes care can never be completely trained, and will continue to have responsibility for training other health professionals. Training and educational programmes on diabetes are therefore vital to ensure that DSNs remain up to date with new developments and integrate these into their own practice (Crowley, 2000).

In the UK, the first course designed for nurses caring for patients with diabetes was established by Janet Kinson in 1978 at the Birmingham General Hospital. This is presently known as the English National Board (ENB)-928 Course in Diabetes Nursing Care; it is a 20-day course that gives a broad overview of diabetes care and is designed to teach new developments in this field (Cradock, 1991).

Aims of the study

A two-stage cross-cultural study between the UK and Greece was undertaken to examine, in part, the educational prepara-

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1 Basic nursing education is inadeqate preparation for the advanced role of the DSN.

2 A national survey examined in part the educational preparation of DSNs working in Britain.

3 The majority of respondents (39%) held a degree in nursing, but only 22% held a master's degree.

4 Approximately 80% had undertaken post-registration education related specifically to their role as DSNs.

5 Almost half had undertaken other academic qualifications not related to diabetes.

KEY WORDS

- **Questionnaire survey**
- **DSN's role**
- **Professional education**
- **Post-registration education**
- **Further specialist training**

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1 A total of 653 DSNs or diabetes specialist health visitors, working full- or part-time in diabetes care, from all 10 NHS executive regions of Great Britain, were surveyed.

2 Data were collected by means of a postal questionnaire.

3 The response rate was 51%.

4 The question 'What is the highest academic qualification you have earned in nursing?' was answered by 87% of respondents.

tion of DSNs working in Great Britain. The first stage, undertaken in the UK, comprised two phases: the pilot study, which involved all DSNs working in Northern Ireland; and the main study, which involved DSNs working in Great Britain. It aimed to explore the role of the DSN by examining:

- The personal characteristics, attributes and skills of DSNs related to their role
- Factors derived from the work setting that may influence the DSN's role
- The development process of the DSN
- Role performance: sub-roles, components and activities constituting the DSN's role
- Demographic characteristics and educational preparation of DSNs.

Stage 2, based on the results of the first stage, examined the feasibility of implementing the DSN's role in the Greek healthcare system. For this purpose, focus group interviews involving nurses and physicians working in diabetes, as well as people with diabetes, were undertaken.

This article is concerned with the main study (stage one) and presents only the results obtained from the section relating to the educational preparation of DSNs in the UK. Findings of the study regarding the role development and performance of the DSN have been presented elsewhere (Llahana et al, 2001a,b).

Main study

Study sample

The *Diabetes UK – Diabetes Specialist Nurse Directory 2000* provided access to the study sample. Inclusion criteria for participants in this study were nurses working full- or part-time in diabetes care whose title was DSN or diabetes specialist health visitor. In this paper, for simplicity purposes and as it was not possible to distinguish between the two groups, 'DSN' includes diabetes health specialist visitor. The sample comprised 653 (628 female and 25 male) from all 10 NHS executive regions of Great Britain.

Data collection

A postal questionnaire was used for data collection. The questionnaire was reviewed by a panel of seven experts and was pretested with DSNs working in Northern Ireland, before use in the main study.

It combined quantitative and qualitative measures and was divided into five sections based on the aims of the study (discussed above). The section relating to the educational preparation included questions on participants' basic nursing education and their further training to prepare as DSNs.

Analysis

Quantitative data were analysed using the SPSS software computer package. Descriptive statistics were used to show frequencies of responses. A content analysis approach was used to analyse the comments made by DSNs about their educational preparation.

Results

The number of questionnaires returned was 341, of which 7 were incomplete and therefore not usable, giving a final response rate of 51% (334 DSNs). Eighty-nine respondents were employed part-time as DSNs and 245 full-time. Duration of employment ranged from 3 months to 23 years (mean 7.66 years; standard deviation 5.05).

Forty-four (13%) respondents did not answer the question 'What is the highest academic qualification you have earned in nursing?' Of the remaining 290 (87%), the highest percentage (39%) held a degree in nursing and 8% held qualifications such as RGN, RSCN and RHV, identified by the 'Other' category (*Figure 1*).

In addition, 264 (79%) respondents had undertaken (or were undertaking at the time of the survey) further education or training related specifically to their role as DSNs.

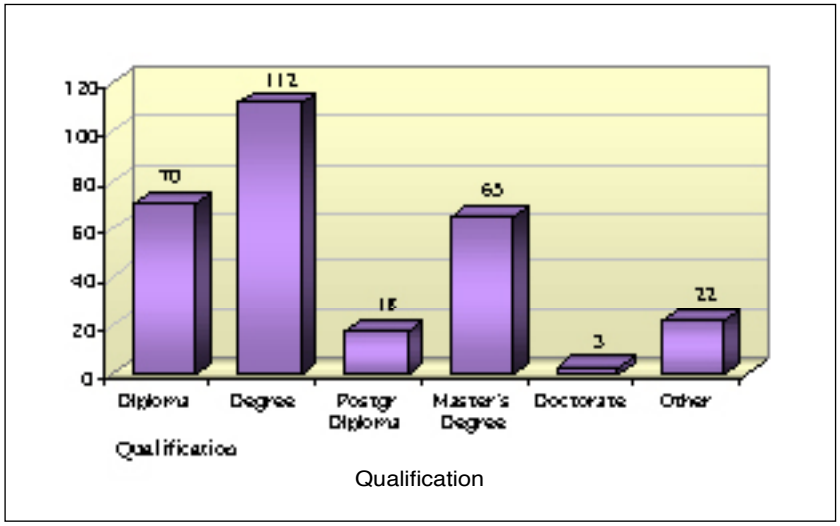

Figure 1. Highest qualification in nursing held by the 290 respondents to the question 'What is the highest academic qualification you have earned in nursing?'

Table 1. Respondents' qualifications related specifically to their role as DSNs

	Respondents to question (n=264)	
Academic qualifications	**No.**	**%**
English National Board (ENB)-928 course	182	69
Other National Board courses	70	27
Specialist NMC recordable academic qualification	23	9
Accredited short course(s) in diabetes	74	28
Non-accredited short course(s) in diabetes	57	22
BSc/BA (Hons) in specialist practice	37	14
Diploma in diabetes nursing	53	20
Graduate certificate in diabetes	13	5
Postgraduate diploma in diabetes	19	7
Master's degree in diabetes	47	18
Other academic qualifications in diabetes	30	11

A breakdown of the type of education taken or being undertaken by respondents is presented in *Table 1*; it can be seen that most respondents had undertaken an ENB-928 course.

One hundred and twenty-six (38%) respondents had undertaken (or were undertaking) academic qualifications that were not specifically related to diabetes but had contributed (or respondents believed they would contribute) to the integration of their role.

Forty-three (34%) respondents had undertaken an academic course related to teaching, such as a certificate in education, an adult teaching certificate, an MA in education or a registered nurse tutor qualification. Respondents stated that this course had enhanced (or they believed it would enhance) the integration of their role through improvement of their teaching skills, as the education of patients and carers as well as health professionals was a major part of their role. Examples of respondents' comments include the following:

'The MA in education has contributed to my role by reflecting current practice on the delivery of diabetes education.'

'The postgraduate certificate in education has assisted me in educating students and other qualified nurses more effectively.'

Twenty (16%) respondents had undertaken a course on counselling. This education had not only improved their counselling skills and increased their competence in this component of their role, but also helped them to understand the psychological issues involved in the care of people with diabetes. One DSN commented:

'The counselling course has provided me with a greater depth of understanding of the psychological impact of diabetes.'

Fourteen (11%) respondents had undertaken a management course, such as a leadership course, a health service management course, a postgraduate certificate in leadership and management or an MA in management. This training had assisted them in dealing with management issues and in evaluating practice and identifying gaps in the service, and had improved their organisational skills in team or staff management, as well as in managing budgets. One DSN who had undertaken a master's degree in business administration reported:

'We work in a business environment and this helps to address the bigger picture of issues relating to management and administration.'

Eight (6%) respondents had undertaken

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1 Most respondents had undertaken an ENB-928 course.

2 One third had undertaken an academic course related to teaching.

3 They stated that this course had enhanced (or they believed it would enhance) the integration of their role through improvement of their teaching skills.

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1 The majority of respondents (39%) held a degree in nursing and 22% held (or were undertaking) a master's degree.

2 Nineteen (15%) thought the master's degree programme had developed their research skills markedly.

3 They also reported that studying at this level had contributed to their overall competence and confidence.

4 While acknowledging the importance of qualifications, respondents also emphasised the need to continually update their knowledge by reading and attending study days and conferences.

a course on computer technology, and had found it helpful in collating and accessing information quickly and efficiently. One respondent reported using IT skills in the design of a web page for disseminating information on diabetes care and for communicating with patients, colleagues or other health professionals.

Six (5%) respondents reported using alternative therapies in diabetes by undertaking training in fields such as acupuncture, aromatherapy and reflexology.

Four (3%) DSNs had undertaken a course in research methods, which had improved their skills in this component of their role. Nineteen (15%) considered that their research skills had developed markedly through a master's degree programme. Moreover, they reported that studying at this level had helped them to understand the wider context of 'care' and nursing and had contributed to their overall competence and confidence. It had also enhanced their skills and abilities to practise at an advanced level. Similar comments were made by 12 (10%) respondents who had undertaken a course at degree level.

While acknowledging the importance of the above qualifications, respondents also emphasised the need for continual updating of their knowledge by reading and attendance at study days and conferences. Characteristically, one of them reported:

'My educational attainments have not been classified as "diabetes" courses. However, I have applied them to my work and therefore view them as having contributed to my development as a DSN. I am not convinced of the need to do "diabetes" courses specifically in order to grow and develop. I am also a very self-directed learner'.

Discussion and conclusions

In the present study, the majority (39%) of respondents held a degree in nursing and 22% held (or were undertaking at the time of the survey) a master's degree. Humphris et al (1999), in their study of 299 DSNs working in Great Britain, found that 18% of respondents held a first degree (BA or BSc) whereas only 4% held a master's degree (MA or MSc).

It is encouraging that significantly higher percentages of respondents in the present study were qualified to first degree level and to master's degree level. This is an indication of how rapidly DSN attendance on these courses has increased, and, in particular, of the importance now being given to a master's level of education in specialist nursing.

In the UK, in contrast to North America, although a master's degree is not a requisite, the CNS has to undertake additional educational preparation related to the specific area of specialist practice (Castledine, 1995). The results of the present study reveal that the majority (69%) of respondents had undertaken an ENB-928 course. Similar results were reported by Humphris et al (1999) and Llahana et al (2001c).

As noted earlier, this course was established in 1978, and almost a decade later Redmond (1988) found that 29% of the 123 DSNs involved in her study held an ENB-928. Redmond also asked respondents to indicate what they saw as their training needs in the future. Interestingly, none of the respondents considered that this course was adequate to meet their future educational needs.

In a more recent study, Crowley (2000) found that the ENB-928 was delivered by 37 institutions or universities across the UK, which may be one of the reasons for the high attendance at this course by DSNs. However, a wide variation was found in the curricula, and only seven met the standards set by the National Board of Nursing for a 20-day course that included clinical visits.

Although the ENB-928 and other equivalent courses are essential for the newly appointed DSN, they do not meet the broad spectrum of requirements of this role. As early as the 1980s, DSNs perceived the need for a more advanced course than ENB-928, which would lead to a recognised qualification within the specialty (Redmond, 1988). Turner (1987) suggested that courses at graduate level which could foster critical thinking and analysis would be the answer to this limitation. With the current emphasis on advanced education, it is surprising that, over a decade later, this constraint still exists.

As a solution, Watkinson (2000) suggested that DSNs should undertake any health-

related degree-level course, such as health promotion, psychology or healthcare studies, and apply the content to diabetes nursing. This could also ease current accessibility problems due to geographical proximity constraints that exist relating to available degree courses on diabetes.

Most respondents in the present study were qualified at degree level, with 14% holding a BA or BSc (Hons) in specialist practice. A considerable number of DSNs reported that studying at this level had enhanced their self-confidence and their skills and abilities to practise at an advanced level.

Ideally, DSNs should undertake postgraduate training that covers all areas of their complex and broad role besides that of a practitioner, such as training in research, education, counselling, and management. There is therefore a need for advanced postgraduate courses for DSNs, which may not be designed solely for DSNs, but should include a specialist module to meet the needs of their multifaceted role (Turner, 1987).

Crowley (2000) noted that, at present, only a small number of universities across the UK offer postgraduate or master's courses that meet the needs of DSNs. The same author found a wide variability in the level of available courses, which was also confirmed by the present study. The fact that many of the courses identified by Crowley (2000) were inadequate to meet the educational needs of the DSN's role highlights the need for the urgent organisation of a national course for newly appointed DSNs.

Almost 40% of DSNs in the present study had gained academic qualifications which, although not specifically related to diabetes nursing, had enhanced the integration of their role. These courses related mainly to teaching, counselling, management and research methods, and reflect the key components of the DSN's role. These findings provide further confirmation of Crowley's findings (2000) that the available educational programmes fail to prepare DSNs appropriately for the broad requirements of their multifaceted role.

As MacKinnon (1998) stated, in order to overcome the problems that exist in the field of education for DSNs:

'A national professional framework for DSNs, associated with accredited training, accessible at appropriate levels and encompassing the necessary knowledge, skills and expertise to "do the job", is now urgently required.'

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1 The DSN's role encompasses many areas besides that of practitioner, such as training in research, education, counselling, and management.

2 Ideally, postgraduate training for DSNs should cover all of these areas.

3 Only a small number of universities across the UK currently offer postgraduate or master's courses that meet the needs of DSNs.

4 There is an urgent need for the organisation of a national course for newly appointed DSNs.