Diabetes specialist nurse telephone helpline: A survey of incoming and out-going calls

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Abstract

Background: Numerous telephone calls for advice on diabetes-related issues are received by diabetes specialist nurses (DSNs), but resources required to deal with such calls are rarely formally identified.

Aim: To identify the number, duration, nature of calls, type of callers and impact of calls on DSN workload, in order to help plan future requirements of diabetes services.

Methods: In preparation for restructuring how diabetes services are provided locally, a record of all calls made in relation to the diabetes clinic's helpline during June 2007 was collated. Date and time, type of caller, duration and nature of call were recorded.

Results: In June 2007, there were 386 calls (mean [range] 18.4 [4–33] calls per day). Duration was recorded for 80 of the calls, which took up 335 minutes in total, giving an average of 4.2 minutes per call. This gives an estimated total call time of approximately 1621 minutes' (27 h) during the month. Of the 386 calls, 6% were from general practitioners, 10% from practice nurses, 44% from patients, 4% from nursing homes, 4% from care providers/relatives and 32% from others (ward nurses, doctors, dietitians, district nurses, diabetes care technicians and other primary care trust staff).

Conclusion: The helpline is heavily used and its impact on DSN workload is considerable. Appropriate resource allocation is necessary when planning for the future requirements of patients with diabetes.

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Key Words

Diabetes specialist nurse; workload; telephone helpline; phone contact; diabetes mellitus

Introduction

Diabetes mellitus affects 1.8 million people in England and a further 1 million people are likely to have undiagnosed disease.[1] People with diabetes require a high standard of care and support from childhood to adulthood, to help them to self-manage their condition.[2]

As the care of people with diabetes becomes less hospital-based and more community-based, there is increasing reliance on telephone contact with healthcare professionals, especially diabetes specialist nurses (DSNs), for diabetes-related questions and enquiries.

Telephone contact between patients and DSNs is often an established and integral part of the professional workload. However, this important aspect of care has been unrecognised and hidden for years, and contributes to the increasing pressures associated with the provision of care for patients with diabetes.[3,4] In our region, the local resources required to maintain this service had not been formally identified prior to this survey.

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Background

Population

In Peterborough, the 2001 census highlighted a total population of 156 000, with an ethnic minority population of 14%.[5] The largest ethnic populations in Peterborough are from Pakistan and Italy. However, since the publication of this census, many people from other European countries have been integrated into the 'White, Other' category: therefore in the diverse population of Peterborough, the current percentage of non-British or Irish people is likely to be between 15% and 20%.

Within the Peterborough Primary Care Trust, approximately 7000 adults with diabetes, the majority of whom had type 2 diabetes, were registered in 2007. The register does not include clients residing in neighbouring counties who are also cared for by the Peterborough diabetes team. In addition, the local paediatric diabetes team care for approximately 170 children under the age of 16 years.

Diabetes specialist nurse helpline service

There is evidence that telephone contact by DSNs has an impact on

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diabetes management.[6,7] Currently, the Peterborough diabetes team has a dedicated helpline telephone, which patients and their relatives call for advice. This helpline is also an access point for primary and secondary care staff seeking guidance about diabetes management. Each call is documented, assessed and the appropriate action taken. The helpline phone is one of several in an office shared by up to seven DSNs and three diabetes care technicians (DCTs).

There are two additional phones in the office, which healthcare professionals call for urgent advice. Pregnant women and parents/carers of children with diabetes also have access to emergency mobile phones, which are carried by the adult DSN and paediatric DSN between 9 am and 5 pm, Monday to Friday. Each DSN is also allocated a personal mobile phone, enabling them to receive and make outgoing calls to patients and healthcare professionals in relation to diabetes care.

Although an assigned DSN is allocated to the helpline, our anecdotal observations highlighted how other colleagues within the team are also interrupted by telephone calls during the working day. Our experiences at the diabetes unit appeared to be very similar to those described by Miles[4] and Gardner.[8] In between accessing telephone calls, the DSN may be dealing with a nurse-led clinic, a consultant-led clinic, ward referrals and other situations.

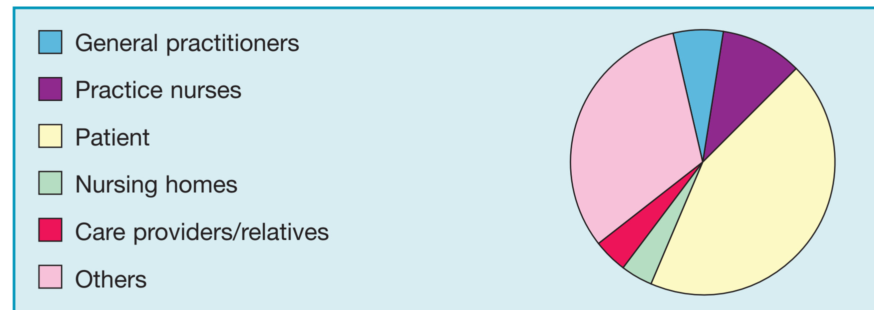

Figure 1. Breakdown of all incoming calls in terms of types of callers (n=386)

Figure 2. Breakdown of all incoming calls (n=386) in terms of clinical and administrative issues

Telephone conversations

The Nursing and Midwifery Council (NMC) acknowledges that all healthcare professionals must listen to the people in our care and respond where possible to their concerns and preferences.[9] In the local environment it can be very difficult not to be interrupted, therefore it is acknowledged that the shared office is not always a quiet place to take calls. Meaningful phone contact relies on a nurse's communication skills, which determines how each call is managed.[10] Absence of eye contact with a patient may present a challenge to the DSN, who is totally reliant on the verbal information offered via telephone communication. As healthcare professionals, we are personally accountable for our actions and omissions in our practice as outlined by the NMC.[9]

Documentation

Paper notes on patients exist, but, as our team works across secondary and primary care, such information is not always available to the DSN who is answering the phone. Each call to the helpline is logged and comments are documented (for example, 'unable to return call', which is useful should a patient leave a further message stating that no DSN has made contact). Advice given during the call can be taken, acted on or ignored, which allows the caller to remain in control. But documenting each call is paramount, because the call log and comments about any advice given provide a written report that minimises the legal risks involved with telephone advice provision.[9]

Service development

Within the next few months the diabetes care team plans to move out of the hospital environment into a community-based Healthy Living Centre. Currently, DSNs record all incoming and outgoing telephone calls on a monthly basis, and this information is then submitted to the Primary Care Trust. It is hoped that this information will help with the direction and allocation of resources towards the provision of cost-effective care for our patients.

Aim

This survey aimed to identify the number, duration and nature of calls, and the type of callers, and the impact of the helpline on DSN

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workload, in order to help plan future requirements for people with diabetes.

Methods

Data collection

The DSNs and DCTs working in the diabetes unit at Edith Cavell Hospital, Peterborough, recorded all incoming calls to the clinic's helpline during the working days in June 2007. Date, time, type of caller, caller's problem, and duration of call were documented for each call. The DSN and DCT also recorded all out-going calls to patients or other healthcare workers in relation to patient care.

Data were collated prospectively to reduce any errors that could occur due to delayed recording of events.

Data analysis

Descriptive data were collated and presented using the mean, range and percentages as appropriate.

Results

In total, 628 incoming and out-going calls to the DSN helpline were recorded during the month (21 days, excluding weekends).

Incoming calls

A total of 386 incoming calls were recorded, giving a mean (range) of 18.4 (4–33) incoming calls per day.

Call duration was recorded for 80 of the calls received, giving a sum total of 335 minutes' call time and a mean (range) duration of 4.2 (1–10) minutes per call. Extrapolation using this average gives an estimated total incoming call time of 1621 minutes (≈27 h) for June 2007.

Figure 1 provides a breakdown of the 386 incoming calls, which came from general practitioners, practice nurses, patients, nursing homes, care providers/relatives and 'others' (who were either unspecified callers or ward nurses, senior house officers and other doctors, dietitians, district nurses, other DSNs or DCTs, and other primary care trust staff).

The majority of calls were in relation to clinical issues (Figure 2). Two hundred and sixty-one incoming calls were related to such issues, which covered a range of subjects, including insulin dose adjustment, use of pen devices, blood glucose monitoring, travel advice, pregnancy, hyperglycaemia and hypoglycaemia. The remaining 125 calls were related to administrative issues.

Out-going calls

Several calls were made to patients in response to messages on the DSN answer phones (left by patients or healthcare professionals out of office hours); other calls followed up matters raised in physician- or nurse-led outpatient diabetes clinics, or home visits by DSNs.

A total of 242 outgoing calls were made in relation to patient care, which averaged at ~12 out-going calls per day. Most of these calls were made to patients and the average call duration was 4 (range 1–10) minutes. If we extrapolate using this average, the estimated total out-going call time was 960 minutes (16 h) across the month studied.

Discussion

This survey demonstrated that the DSN helpline receives an average of 18 calls per day and makes around 12 out-going calls per day, in relation to patient care. After extrapolation, this may have accounted for about 43 h total call time (incoming and out-going calls) in the month studied. There were several types of incoming callers, but patients made up the majority of callers and most calls were related to clinical issues. Most of the out-going calls were made to patients and healthcare professionals, and discussed clinical issues.

Workload

Although the aim of this survey was to identify the number, duration and nature of calls, some of the incoming calls clearly change the working day for DSNs. The total time taken up by incoming calls during the month studied was estimated at 335 minutes, giving an average of 4.2 minutes per call. The survey also highlighted that 170 calls during the month were from patients. However, one urgent call to the DSN from a patient may involve several follow-up telephone calls to other healthcare professionals, in order to provide correct management of care for one individual. This can impact considerably on the DSN workload.

In future, all incoming calls will be centralised through an administrator who will identify and forward the caller to an appropriate person. However, a designated DSN will still need to be available to triage calls. Eventually, a new electronic patient record will allow all telephone contacts to be documented, which will provide information for future audit.

Limitations

The survey only monitored calls to the helpline in the DSN office, and not all calls from DSN mobiles were included in the study. This may be due to the fact some DSNs are community-based, and do not attend the office regularly. Telephone calls from the paediatric DSN mobile were also excluded from the survey. The survey incorporated numerical data only and the authors recognise the need for qualitative research into the effectiveness of telephone contact by DSNs.

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Conclusion

Although this survey only represented numerical data collected over one month, it has enabled the DSNs to acknowledge the impact that this communication method had on the team's workload. The survey also emphasised the need for the helpline resource to be incorporated into the wider diabetes service, and that new technology may enhance the process of receiving and responding to calls.

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Conflict of interest statement

None

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