How effective are nurses’ medicine discussions?

Keywords: Nurse prescribing/Diabetes/Medicine beliefs
● This article has been double-blind peer reviewed

Patient adherence to diabetes medicines is linked to a lower risk of mortality. A study explored whether nurses follow guidance on patient-centred medicine discussions

In this article...

▶ What guidance says on patient involvement in decision-making
▶ How a study explored nurse prescribers’ discussions
▶ Key findings and recommendations

Author Andrew Sibley is senior research assistant, Faculty of Health Sciences, University of Southampton.


Background Nurse prescribers face a daily challenge to optimise medicine-taking through effective communication with patients.

Aim To identify the content of, and participation in, medicine discussion between nurse prescribers and people with diabetes.

Method A purposive sample of 20 nurse prescribers regularly involved with patients with diabetes audio-recorded 59 of their routine consultations.

Results Some 260 instances of medicine discussion were analysed. The frequency and type of discussion themes indicated the content of nurses’ discussion was largely “instruction-based”.

Discussion Neither the content nor nature of nurses’ medicine discussion was fully congruent with recent National Institute for Health and Clinical Excellence guidance. Neither the content nor nature of nurses’ medicine discussion was fully congruent with recent National Institute for Health and Clinical Excellence guidance.

Conclusion Despite the enormous cost to the NHS and benefits of taking medicines appropriately, a review of diabetes medicine-taking behaviour reported a wide range (36-93%) of patient adherence to oral hypoglycaemic medicines (Cramer, 2004).

Although there are many potential reasons for non-adherence, these can be grouped into intentional (such as patient chooses not to take the medicine based on perceived concerns) and unintentional (such as patient cannot open the bottle or does not understand the regimen) (Johnson et al, 1999). The former was reported as more common in a systematic review of medicine-taking (Cox et al, 2004).

Current guidance National guidance on medicine discussion has been developed from a range of multi-disciplinary research studies (National Institute for Health and Clinical Excellence, 2009). A key principle relates to the nature of medicine discussion, in that professionals should “offer all patients the opportunity to be involved in making decisions about prescribed medicines” (NICE, 2009). A further recommendation relates to the content of such discussion, in that

5 key points

1. Guidance on effective medicine discussion indicates that patients’ medicine beliefs are a strong predictor of medicine-taking behaviour

2. Despite favourable comparison with research on doctor-patient medication discussion, nurse prescribers’ practice may not fully optimise patient medicine-taking

3. Research suggests nurses discuss issues that address the “unintentional” rather than “intentional” reasons for non-adherence

4. Patients should be given opportunities to initiate medicines discussions

5. Nurses need continuing professional development to help them to explore patients’ medicine beliefs

The societal impact of diabetes is rising. More than 130,000 people were diagnosed with diabetes in the UK in the last year and five million are expected to be living with the condition by 2030 (Diabetes UK, 2013). Moreover, annual spending on diabetes in the UK is expected to increase from £9.8bn to £16.9bn over the next 25 years, the latter accounting for 17% of the entire NHS budget (Diabetes UK, 2012b).

Effective patient adherence to agreed medicine recommendations is linked to:

» Significantly better HbA1c levels (Hill-Briggs et al, 2005);
» Reduced hospitalisation (Lau and Nau, 2004);
» A significantly lower risk of mortality (Ho et al, 2006).

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professionals should “be aware that patients’ concerns about medicines, and whether they believe they need them, affect how and whether they take their prescribed medicines” (NICE, 2009).

The latter is supported by research outlining a “necessity-concerns framework” to explain medicine-taking (Horne and Weinman, 1999), that is, medicine beliefs can be defined as those relating to the perceived need for a medicine (necessity) and those relating to concerns about a medicine (concerns). Patients’ medicine beliefs – as a key example of “intentional non-adherence” – have repeatedly been found to be a stronger predictor of non-adherence to medication than clinical and demographic variables (Mann et al, 2009).

What is known about nurses’ medication communication?

There is a general paucity of research into nurse-patient communication about medicines (Stevenson et al, 2004), and an in-depth empirical examination of the content and nature of medicine discussion between nurses and patients with diabetes has yet to be done.

Despite this, some inferences can be drawn from the wider literature. In relation to the content of medicine discussion, one of the few nurse studies concluded that nurses’ discussion was limited to simple information-giving about the name, purpose, colour, number of tablets and the time and frequency of administration (Latter et al, 2000). Similarly, in the only study to examine nurse prescribers’ communication (Latter et al, 2007), the most frequently observed communication competency was giving patients “clear instructions on how to take their medicine”. This suggests that nurses spend most of their time discussing issues that might be considered to address the “unintentional” rather than “intentional” reasons for non-adherence.

In relation to the nature of medicine discussion, the limited number of studies indicate that nurses inhibited patient participation (unpublished research by Rycroft-Malone, 2002), and that a partnership-based approach to medicines communication was not yet integrated into practice (Latter et al, 2007). These findings were consistent with a systematic review involving a range of health professionals that concluded communication between practitioners and patients retained the asymmetry typical of paternalistic interactions (Stevenson et al, 2004).

Similar content and nature findings have been found during analyses of doctor-patient medicine discussion (Matthews et al, 2009; Dworkin and Lussier, 2007; Dworkin and Lussier, 2006a).

Aim

This study aimed to identify the content of, and participation in, medicine discussion between nurse prescribers and people with diabetes in England using a medicine-specific discussion analysis tool: Medicode (3M).

Method

Design

A quantitative descriptive design on a cross-sectional sample of consultations examined nurse prescribers’ medicine discussion with patients with diabetes.

Sample

A purposive sample of 20 nurse prescribers (either a diabetes nurse specialist, practice nurse or community matron) who prescribe for people with diabetes were invited to participate. Nurses audio-recorded a minimum of two consultations with different patients with diabetes. This happened when a medication assessment was likely to be needed, for example, when a discussion about medicine was scheduled or there was a likely change to prescribed medicines. All medicines discussed during the consultations were included in the analyses.

Data collection

Nurses were asked to audio-record their own consultations without a researcher present to preserve, as much as possible, the routine nature of the consultation.

Ethical approval

Study approval was received from the Southampton and South West Hampshire Research Ethics Committee.

Data analysis

Medicode was used to quantitatively assess nurse-patient medicine discussion (Richard and Lussier, 2006a; 2006b). This has three main functions – to determine the medication status (for example, old and discussed; active and discussed); the frequency of medication discussion themes per medicine brought up during the consultation; and the level of professional and patient participation in the discussion.

The unit of analysis was the medicine and when a specific medicine was identified in the audio-recording, every discussion theme raised in relation to that medicine was coded. This summary focuses on the content and participation only. Medicode discussion themes conceptually mapped to current guidance and “intentional non-adherence” (for example, “concerns about medication” and “reasons for medication”) were of particular interest during the analysis (see Sibley et al, 2011 for further discussion).

Results

A total of 59 audio-recorded consultations were obtained, with a mean of 2.95 per nurse. Over two-thirds of patients were diagnosed with type 2 diabetes (71.2%, n=42) and had lived with the condition for a mean of 11.37 (SD 14.26) years. Eighty different medicines were discussed during the 59 consultations, with a mean of 4.4 per consultation. There were 260 instances of medicine discussion across the recorded consultations and the mean number of discussion themes raised per medicine instance was 6.1. Although half of the discussion themes were raised less than 10% of the time, the range of nurse prescribers’ medicine discussion compares well with doctors’ communication; three-quarters of discussion themes were raised less than 10% of the time by GPs (Richard and Lussier, 2006a).

Content of discussion

Table 1 presents the frequency of discussion themes once a medicine was brought up during the consultation. The five most frequently discussed Medicode themes indicate that consultations between nurse prescribers and patients with diabetes are characterised by “instruction-based” discussion focused on “unintentional” reasons for non-adherence. Rarely raised discussion themes (below 10% of the time) included “concerns about medication” and “reasons for medication”.

Participation in discussion

Empirical assessment of professional and patient participation in medicine discussion was a complex process and further details are published elsewhere (Sibley et al, 2011). Nurse prescribers, consciously or unconsciously, adopted a range of roles depending on the discussion theme but predominantly discussed medicines in a one statement-one response way (dyadic style) and initiated most of the discussion. To some extent this can be considered a patient-centred approach but could also reflect a different approach of limiting patients’ ability to interact. There was a clear absence of a
multiple statement–multiple response style on the same topic (dialogue style).

However, in comparison with doctor-patient discussion, nurse prescribers communicated in a manner more congruent with a patient-centred approach. Research has indicated that doctors predominantly engage in one-sided discussion (monological style) (Richard and Lussier, 2007).

**Discussion**

This study was one of the first to examine nurse prescribers’ communication about medicines, has provided an overview within the context of diabetes care, and has highlighted whether theoretically important medication discussion topics are being discussed.

Overall, the breadth of nurse prescribers’ medicine discussion with people with diabetes was limited although it does compare favourably with that of doctors using the same method of analysis.

The content of medicine discussion was primarily focused on instruction-based communication relevant to unintentional reasons for non-adherence, lacking any sustained focus on intentional reasons, such as patients’ perceptions or concerns about medicines, which are linked to principles from recent guidelines (NICE, 2009).

The nature of nurse prescribers’ discussion was largely dyadic and nurses largely initiated discussion themes. The former suggests a patient-centred approach might be partially apparent and to a greater extent than GPs’ consultations. However, patients with diabetes rarely initiated or had the opportunity to initiate medicine discussion.

**Conclusion**

Diabetes nurse prescribers’ medicine discussion appears limited in its content and interaction style, and unlikely to fully optimise medicine-taking.

Professional development to support nurses to explore patients’ intentional reasons for non-adherence within a patient-centred approach is extremely important. Such training would complement nurses’ existing medicine discussion style and promote balanced discussion to address unintentional and intentional reasons for non-adherence.

As part of this remit to address nurses’ medicine discussion during routine consultations, an intervention to encourage diabetes nurse prescribers to explore patients’ medicine beliefs has recently been evaluated (Latter et al., 2010). It was found to be largely successful in adapting nurse prescribers’ medication communication. 

<table>
<thead>
<tr>
<th>TABLE 1. DISCUSSION THEMES RAISED (n=260)</th>
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<tbody>
<tr>
<td><strong>Medicode discussion themes</strong></td>
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<tr>
<td><strong>Instances (%)</strong></td>
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<tr>
<td><strong>Medication named</strong> 231 (88.8)</td>
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<tr>
<td><strong>Instructions for taking medication</strong> 126 (48.5)</td>
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<tr>
<td><strong>Discussion on medication non-adherence</strong> 111 (42.7)</td>
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<tr>
<td><strong>Class of medication named</strong> 76 (29.2)</td>
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<tr>
<td><strong>Attitudes towards medication</strong> 62 (23.8)</td>
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<td><strong>Control of the problem through the medication</strong> 59 (22.7)</td>
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<tr>
<td><strong>Expected effects of medication</strong> 55 (21.2)</td>
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<tr>
<td><strong>Nurse asks patient’s opinion about medication</strong> 51 (19.6)</td>
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<tr>
<td><strong>Observed adverse reaction</strong> 51 (19.6)</td>
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<td><strong>Possible adverse effects</strong> 50 (19.2)</td>
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<tr>
<td><strong>Nurse gives reasons to consult again</strong> 42 (16.2)</td>
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<tr>
<td><strong>Solutions to medication non-adherence</strong> 41 (15.8)</td>
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<tr>
<td><strong>Discussion of prescription or renewal of medication</strong> 38 (14.6)</td>
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<td><strong>Action of medication</strong> 34 (13.1)</td>
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<tr>
<td><strong>Nurse asks for patient commitment</strong> 23 (8.8)</td>
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<tr>
<td><strong>Reasons for excluding medication</strong> 23 (8.8)</td>
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<tr>
<td><strong>Reasons for medication</strong> 22 (8.5)</td>
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<tr>
<td><strong>Observed effects of medication on symptoms</strong> 20 (7.7)</td>
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<tr>
<td><strong>Patient commits to medication</strong> 20 (7.7)</td>
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<tr>
<td><strong>Patient asks question about medication</strong> 18 (6.9)</td>
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<tr>
<td><strong>Appearance of medication</strong> 15 (5.8)</td>
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<tr>
<td><strong>Nurse recommends medication as needed</strong> 11 (4.2)</td>
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<tr>
<td><strong>Waiting period for medication effect</strong> 9 (3.5)</td>
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<tr>
<td><strong>Substitute medication suggested</strong> 9 (3.5)</td>
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<tr>
<td><strong>Duration of treatment</strong> 8 (3.1)</td>
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<tr>
<td><strong>Substitute medication prescribed</strong> 8 (3.1)</td>
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<tr>
<td><strong>Contraindications</strong> 7 (2.7)</td>
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<tr>
<td><strong>Concerns about medication</strong> 7 (2.7)</td>
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<tr>
<td><strong>Consequences of medication non-adherence</strong> 4 (1.5)</td>
</tr>
<tr>
<td><strong>Cost of medication</strong> 2 (0.8)</td>
</tr>
<tr>
<td><strong>Strength of medication</strong> 2 (0.8)</td>
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</tbody>
</table>

● This article is a summary of a study published in the Journal of Advanced Nursing (Sibley et al., 2011)


*Diabetes UK* (2012a) Insulin 90 Years on - But Rate of Diabetes Still Soaring. Diabetes UK. tinyurl.com/diabetesuk-rate

*Diabetes UK* (2012b) NHS Spending on Diabetes to reach £6.9 billion by 2035*. Diabetes UK. tinyurl.com/diabetesuk-spending


