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Patient and professional accuracy of recalled treatment decisions in out-patient consultations

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Abstract

Aims To test the assumption that professional recall of consultation decisions is valid and more accurate than patient recall of consultation decisions.

Methods One hundred and thirty-four consultations between diabetes specialist nurses and diabetes specialist dietitians in an adult out-patient diabetes service were audiotaped. Patients and professionals were asked to recall the treatment decisions made immediately after the consultation. Patient participants were also asked to complete the Health Care Climate Questionnaire (HCC). Recalled decisions, by patient and professional participants, were then compared with those extracted from the audio tapes, and with each other.

Results The mean duration of consultations was 27 min. Patients recalled a mean of 2.5 (sd 1.4) decisions per consultation, and professionals a mean of 3.2 (sd 1.6) decisions per consultation. A mean of 2.2 (sd 1.1, range 0–4) decisions per consultation were identified on the audiotapes. Patients recalled a mean of 2.3 (sd 1.4, range 0–6) decisions per consultations that could not be found on the tapes, with professionals recalling a mean of 1.7 (sd 1.2, range 0–6) decisions per consultation that could not be found on the tape. More autonomy, as measured by the HCCQ, was correlated with better professional recall ($r = 0.17$; $P < 0.05$).

Conclusions Both patients and professionals have poor recall of decisions made in diabetes out-patient consultations. Although the mean professional recall is marginally better than that of the patients, they recall a vast number of unmade decisions and the implications of these being recorded in patients' notes is substantial.

Keywords

Patient, professional, accuracy, recalled, treatment, decisions, out, patient, consultations

Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

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Patient and professional accuracy of recalled treatment decisions in out-patient consultations

T. C. Skinner, K. Barnard, S. Cradock, and T. Parkin

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1. INTRODUCTION

The literature is consistent in documenting low levels of self-care in many individuals with diabetes [1–4]. Although group self-management education programmes continue to rise in popularity, the bulk of diabetes care and treatment decisions, at least in the UK, continues to be made in 1 : 1 consultations. Studies have consistently demonstrated that patient recall of decisions is poor [5], or that patient–professional concordance of recalled decisions is poor [6,7]. This lack of concordance between patient and professional recall is frequently attributed to poor recall by the patient of the content of the consultation, and the conclusion that is generally reached is that we need to find ways to improve patient recall in the consultation. However, this is based on the assumption that professional recall of the consultation is accurate and reliable, an assumption that has yet to be substantiated. Therefore, as part of a study determining the impact of a computerized psycho-social

assessment, we sought to test the assumption that professional recall of consultation decisions is more accurate than that of patients.

2. PATIENTS AND METHODS

After obtaining permission from the Portsmouth & Isle of Wight Research Ethics Committee, and clinical governance, individuals attending for a scheduled out-patient appointment at a specialist diabetes centre were invited to participate in the study. All individuals attending for an out-patient appointment were eligible to participate, with the only exclusion criterion being that the individuals did not speak English as their first language.

If an individual consented to participate, the audiotape recorder was switched on as the participant entered the room for their consultation. At the end of the consultation, the healthcare professional and patient were asked to complete a consultation recall sheet [7]. For the professional this contained only a request to write down what decisions had been made in the consultation. For participants there was a similar question concerning what decisions had been made, and in addition they were asked to complete the Health Care Climate Questionnaire (HCCQ) [8], which measures the degree of autonomy support perceived in the consultation (the extent to which providers elicit and acknowledge patients' perspectives and support their initiatives, while minimizing pressure and control). The professionals completed the recall sheet in the consultation room once the patient had left, but before they saw the next patient. Patients completed the recall sheet in the waiting area of the diabetes centre, before leaving.

The audiotaped consultations were then transcribed and all clear statements of treatment decisions made in the consultations were extracted from the recorded consultations. For a decision to be recorded, two criteria had to be met: (i) the health professional, or patient, had to make a clear statement; questions such as 'what do you think about increasing your insulin?' were not considered as advice or a treatment decision; (ii) the statement needed to include an action that either the patient or professional was to undertake. All decisions were extracted from the recordings by one researcher, with reliability of this ascertained by a 10% sample checked by a second research.

No discrepancies were observed in this checked sample, so that the rest were assumed to be reliable. To compare recall, each decision, whether identified from the tape or from the completed recall sheets, was coded into topic area (see Parkin and Skinner for list of topics [7] and details of coding process). Each source of data was coded by a separate researcher who did not see the data from any other coder. Reliability of coding was ensured by each coder having been trained on coding data for a previous study to the point that there was 90% agreement between researcher and lead author [7]. The topic codes for each set of decisions were then entered into a data file, where the different sources of data were compared electronically to identify correct recall and agreed recall. For the purpose of this study, accurate recall or agreement was deemed to have occurred when a decision in the same topic area was found when comparing two data sources.

3. ANALYSIS

All data were entered and analysed using SPSS v13.0 for Windows (SPSS Inc., Chicago, IL, USA). To compare the accuracy of professional vs. patient recall, a Wilcoxon signed rank test was used. Correlations were conducted using Kendall's τ coefficient, as the data were either of mixed levels, or had substantially different ranges, with only significant correlations being presented.

4. RESULTS

One hundred and thirty-four consultations with 13 professionals (two dietitians and 11 nurses) were recorded, a recruitment rate of 55%. All the professionals were females, of the people with diabetes 51% were female, and 64% had Type 2 diabetes, with a mean age of 57 (SD 14.5) and mean duration of diabetes of 14 years (SD 10.3). The mean duration of consultations was 27 min. A summary of decision topic areas recalled by patients, professionals and identified from the tape can be found in Table 1. Patients recalled a mean of 2.5 (SD 1.4) decisions per consultation, and professionals a mean of 3.2 (SD 1.6) decisions per consultation, with patients and professionals agreeing on a mean of 1.0 (SD 1.2) decision per consultation.

Table 1: Frequency of decision topics

	Patient recall	Professional recall	Identified from recording
Diet	26	47	15
Mood/emotions, etc.	15	22	1
Recording (not blood glucose)	2	7	2
Weight	4	10	2
Insulin	49	67	68
Blood glucose level	32	36	7
Blood glucose monitoring	29	31	51
Activity	4	2	2
Hypoglycaemia	3	14	4
General health	3	8	
Cholesterol	1	1	1
Blood pressure		4	
Feet	2	2	
Eyes		3	1
Kidney		2	

	Patient recall	Professional recall	Identified from recording
Smoking	2	5	1
Complications other	1	6	
Teeth		3	
Erectile dysfunction	1	2	1
Medication (not insulin)	6	8	7
History		3	
Appointments	27	44	87
Other tests	9	5	3
Illnesses		4	
Alcohol		1	
Complaints	1	2	
Operations	12	9	
Information, e.g. group education, gaining knowledge	15	7	
Behaviour (e.g. change)	3	1	
Urination	4	7	13
Post natal			
HbA _{1c}	2	8	29
Job			1
Thyroid levels	1	4	
General self control		47	

A mean of 2.2 (SD 1.1, range 0–4) decisions per consultation were identified on the audiotapes. Patients correctly recalled a mean of 0.6 (SD 0.8, range 0–3) decisions per consultation and professionals correctly recalled a mean of 0.8 (SD 0.9, range 0–3) decisions per consultation. Comparing the number of patient vs. the number of professional correctly recalled decisions indicates that professional recall is significantly more accurate than patient recall ($Z = -3.08$; $P = 0.002$); this equates to patients accurately recalling 27% of decisions identified on the audiotape and professionals accurately recalling 38% of identified decisions. Patient and professional accuracy of recall were correlated ($r = 0.39$; $P < 0.001$). Analysing consultations, rather than treatment decisions, in only 7% of consultations did the patients correctly recall at least one decision when the professional did not recall any correct decisions, whereas in 20% of consultations, the professionals correctly recalled at least one decision when the patient did not recall any correct decisions (see Fig. 1).

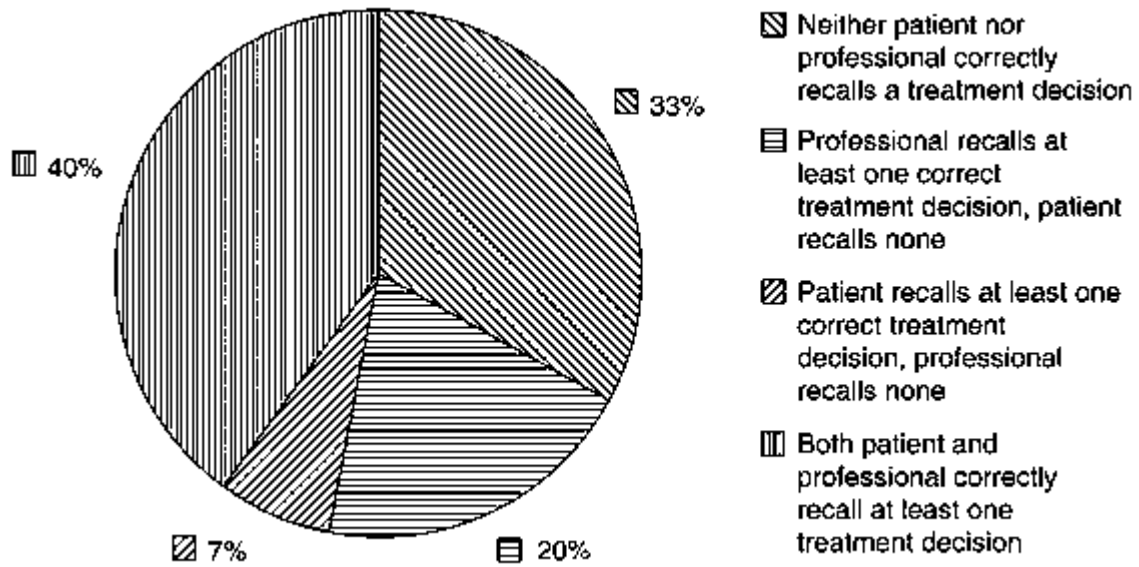


Figure 1: Summary of accuracy of decision recall when a decision is identified as being made in the consultation.

More autonomy, as measured by the HCCQ, was correlated with better professional recall ($r = 0.17$; $P < 0.05$) and the more decisions that were identified from the tapes, the less were correctly recalled by the patient ($r = -0.31$; $P < 0.001$). The more decisions the patient and professional agreed on, the greater professional accuracy ($r = 0.37$; $P < 0.0001$) and patient accuracy ($r = 0.57$; $P < 0.001$) of recall.

5. DISCUSSION

These results indicate that both patient and professional recall of consultations is poor and that the assumption that professional recall of consultations is accurate is not substantiated. Of particular concern is the number of decisions recalled by patients and by professionals that could not be clearly located on the recordings of the consultation. It should also be remembered that these data compared the topic area reported, not the details of the decisions. With previous research suggesting that details may be discrepant, even when the general topic is the same [7], these data overestimate the amount of correctly recalled decisions.

There is an abundance of literature on patient recall of consultations and how this is discrepant from consultation content and that patient and professional recall frequently do not concord with one another [6,7]. This evidence is used frequently to target interventions to enhance patients' agreement with professional recall. However, the data presented here clearly indicate a more fundamental problem. Professionals recall decisions being made that are not overtly clear to an independent observer. With a lack of literature on this problem, the results of this study were subsequently fed back to the participating professionals to try to gain some insight into what causes the discrepancy found in the recall of consultations. Two key issues were identified: (i) that professionals may have discussed a possible action with the patient, and recorded this as a decision, whereas, when listening to the tape, it is clear that although an action is discussed, there is frequently no overt clear statement of a decision or

plan of action being made; (ii) that professionals can recall thinking about the need for an action, and may have even noted this during the consultation, but time constraints meant this was never actually articulated in the consultation, even though the professionals thought they had done so.

It should be noted that the professionals and patients were aware that the consultations were being recorded, but they had not been explicitly told that their recall of decisions were to be compared with the content of the tape. However, the information provided may have led both parties to over-identify decisions to try to be as comprehensive as possible in their recall. Although this may have artificially elevated the number of incorrectly recalled decisions, it does not account for the low level of recall of actual decisions.

The implications of these results are substantial. If these incorrectly recalled decisions are recorded in patient notes, this may lead to patients being inappropriately berated at follow-up appointments for not 'complying' with these decisions, either by the same or a different professional. These results may also help to explain why so many healthcare professionals become frustrated with patients 'not doing what they have been told to do'.

These results suggest that further work is needed to improve both patient and professional recall of the decisions made in the consultation. Clearly these results require replication in other diabetes centres. However, experience of the authors with other similar studies and in training professionals in consultation skills, along with conversations with colleagues, suggest that the results are generalizable beyond this one specialist diabetes centre. These results provide further empirical support to the philosophical and empirical arguments [9,10] demonstrating that the concepts of compliance and adherence need to be dropped from the health professional vocabulary, as, based on this study, no one seems to know what patients should be complying or adhering to.

Abbreviation

HCCQ: Health Care Climate Questionnaire

Competing interests

None to declare.

REFERENCES

1. Morris AD, Boyle DI, McMahon AD, Greene SA, MacDonald TM, Newton RW. Adherence to insulin treatment, glycaemic control, and ketoacidosis in insulin-dependent diabetes mellitus. *Lancet* 1997; 350: 1505–1510.
2. Donnan PT, MacDonald TM, Morris AD. Adherence to prescribed oral hypoglycaemic medication in a population of patients with Type 2 diabetes: a retrospective cohort study. *Diabet Med* 2002; 19: 279–284.
3. Toobert DJ, Hampson SE, Glasgow RE. The summary of diabetes self-care activities measure: results from 7 studies and a revised scale. *Diabetes Care* 2000; 23: 943–950.
4. Evans JM, Newton RW, Ruta DA, MacDonald TM, Stevenson RJ, Morris AD. Frequency of blood glucose monitoring in relation to glycaemic control: observational study with diabetes database. *BMJ* 1999; 319: 83–86.
5. Page P, Verstraete DG, Robb JR, Etwiler DD. Patient recall of self-care recommendations in diabetes. *Diabetes Care* 1981; 4: 96–98.
6. Heisler M, Vijan S, Anderson RM, Ubel PA, Bernstein SJ, Hofer TP. When do patients and their physicians agree on diabetes treatment goals and strategies, and what difference does it make? *J Gen Intern Med* 2003; 18: 893–902.
7. Parkin T, Skinner TC. Discrepancies between patient and professionals recall and perception of an outpatient consultation *Diabet Med* 2003; 20: 909–914.
8. Williams GC, Freedman ZR, Deci EL. Supporting autonomy to motivate patients with diabetes for glucose control. *Diabetes Care* 1998; 21: 1644–1651.
9. Anderson RM. Patient empowerment and the traditional medical model: a case of irreconcilable differences? *Diabetes Care* 1995; 18: 412–415.
10. Glasgow RE, Wilson W, McCaul KD. Regimen adherence: a problematic construct in diabetes research. *Diabetes Care* 1985; 8: 300–301.