Why do doctors issue sick notes? An experimental questionnaire study in primary care

Amaryllis Campbell\textsuperscript{a} and Jane Ogden\textsuperscript{b}


**Background.** Issuing sick notes is one of the core tasks of General Practice and yet little research has explored how doctors decide whether or not to offer a sick note.

**Aim.** To explore what factors influence this decision with a focus on the impact of type of problem (psychological versus physical), adverse family circumstances (present versus absent) and patient demand (asks for note versus does not ask).

**Design.** Experimental factorial design using questionnaire-based vignettes with eight scenarios which varied in terms of the three core factors.

**Setting.** East and West Sussex PCTs.

**Outcome measures.** Doctors’ beliefs about the patient and their subsequent behaviour.

**Participants.** Four hundred and eighty-nine GPs completed a questionnaire asking them to rate one of eight hypothetical patients in terms of their beliefs about the patient and their hypothetical behaviour.

**Results.** The doctors rated the patient with the psychological problem as more ill, less work-shy, more unfit for work and described feeling more sympathy towards him compared with the patient with the physical problem. The presence of adverse family circumstances generated more sympathy and doctors considered this patient as less work-shy. A patient demand for a sick note had no effect on doctors’ beliefs about the patient. In terms of doctors’ behaviour, the doctors were more likely to give the patient with the psychological problem a sick note overall and because they felt he needed or deserved one, and more likely to give the patient with the physical problem a sick note in order to maintain a relationship with him. The decision to give a sick note was not influenced by either adverse family circumstances or patient demand.

**Conclusion.** Doctors have more positive beliefs about patients with a psychological problem and are more likely to offer them a sick note. Issuing sick notes is unrelated to the patient’s family circumstances or patient demand.

**Keywords.** Sick notes, decision making, doctors’ beliefs.

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**Introduction**

Issuing sick notes is one of the core tasks of general practice and has been estimated to be either the main or subsidiary cause of consulting in between one-tenth and one-third of clinical encounters in primary care.\textsuperscript{1} The proportion of the population of working age claiming sickness or invalidity benefit has risen sharply over the past two decades. With annual spending on social security benefits costing almost three times as much as total expenditure on the National Health Service,\textsuperscript{2} the issue of a sick note has financial implications which potentially far exceed the costs of issuing a prescription. The Department of Work and Pensions (DWP) suggests that the main problem surrounding the doctor’s role in sickness certification is variability of practice, and that this in turn relates to a lack of information about the process and a (perceived) lack of adequate support from the Benefits Agency (BA) and DWP. The literature on doctors’ decision making in the area of prescribing,\textsuperscript{3,4} referral\textsuperscript{5,6} and diagnosis emphasize decision making as complex process, incorporating biomedical perspectives, lay health beliefs and the health beliefs held by health professionals.\textsuperscript{7} However, with the exception of a recent qualitative study commissioned by the DWP\textsuperscript{8} there has been little UK research to date that
explores how such factors might influence decision making in the area of sick notes. The aim of the present experimental study was therefore to explore the extent to which a GP's decision to offer a sick note was influenced by three core factors, namely type of presenting problem (physical versus psychological); information relating to family circumstances (present versus absent); and patient demand (request for a sick note versus no request). These factors were selected as research indicates that they influence other areas of decision making such as prescribing, referral and diagnosis\textsuperscript{3–5,7} and the previous qualitative study suggested that they might also be of relevance to the decision to write a sick note.\textsuperscript{8,9}

**Method**

The study involved a factorial design using a questionnaire survey of general practitioners. The questionnaire was based round a set of hypothetical case scenarios involving a request for a sick note which varied in terms of three factors hypothesized to influence the doctor's decision making processes. These three factors each had two levels and were type of presenting problem (physical versus psychological); information relating to family circumstances (present versus absent); and patient demand (request for a sick note versus no request). This resulted in a factorial design with three independent variables (type of problem, family circumstances and patient demand), each with two levels. Each participant only completed responses for one scenario.

**The scenarios**

The factors were described as follows:

**Type of problem**

(i) **Physical.** “Mr X is 38 and works in the local Housing Department. He has back pain and has been off work for the past 10 weeks. His doctor has been unable to find any serious cause for his back pain, but no treatment so far has helped. Mr X has an appointment to see a specialist in 6 months time. He says he cannot afford to take time off work unpaid.”

(ii) **Psychological.** “Mr X is 38 and works in the local Housing Department. Clients are often angry and rude and recently he was threatened as he left work. He is sleeping poorly, wakes up feeling sick every morning, and dreads going to work. He feels his manager is unsympathetic to his problems. He says he cannot afford to take time off work unpaid.”

**Family circumstances**

(i) **Present.** “He lives with his disabled wife and two children, one of whom has learning difficulties.”

(ii) **Absent.**

**Patient demand**

(i) **Patient request for a medical certificate.** “He asks for another sick note.”

(ii) **No request.**

Combinations of these three factors with two levels resulted in eight different scenarios.

**Participants**

Eight hundred and thirty-four GP principals in East and West Sussex were randomized to receive one of the eight versions of the case scenario and accompanying questionnaire with a covering letter and information sheet about the study. Non-responders were sent one reminder letter 2 to 3 weeks after the initial mailing.

**Outcome measures**

After reading their particular scenario participants were asked to rate their agreement with a series of statements designed to operationalize two main constructs: beliefs about the patient and their behaviour in issuing a sick note. Statements for each construct were summed and divided by the number of items in each construct to create a total construct score. The reliability of each of the constructs was assessed using Cronbach’s alpha which is an assessment of internal reliability.

(i) **Doctors’ beliefs about the patient**

Participants were asked: To what extent do you think that:

**Illness (three statements).** (1) Mr X has a medical problem; (2) Mr X is ill; (3) Mr X needs to sort his problem out himself (alpha = 0.69).

**Fitness for work (three statements).** (1) Mr X is fit for work; (2) Going to work might harm Mr X; (3) Mr X is work-shy [alpha = –0.18. Statements 1 and 2 were therefore summed and divided by 2 to give a total construct score for fitness for work (r = 0.73). Statement 3 was analysed as a separate item].

**Sympathy (three statements).** (1) I feel sorry for Mr X; (2) Mr X deserves sympathy; (3) Mr X is in a difficult position (alpha = 0.73).

**Patient autonomy (three statements).** (1) Mr X knows best whether he is fit for work; (2) Mr X deserves to have his needs met; (3) Mr X knows best what his needs are (alpha = 0.61 doctors).

Higher scores reflected a greater belief that the patient was physically ill, that the patient was fit for work, that the patient was work-shy, that the doctor felt sympathy for the patient and that the patient knows what his needs are.

(ii) **Doctors’ behaviour**

Participants were asked: And would you?

**Give a sick note (three statements).** (1) give a sick note because Mr X needs one; (2) give a sick note because
Mr X deserves one; (3) give a sick note to maintain a good relationship with Mr X (alpha = 0.41). These items were analysed individually, and also summed and divided by 3 to create a total construct score for giving a sick note). Higher scores reflected a greater tendency to give a sick note for all these reasons.

Profile characteristics
Doctors were also asked to describe a range of profile characteristics [age, gender, type of practice (urban/suburban/rural), practice size (<5000/5000–10 000/ >10000), unemployment (low/medium/high), special interests (GP trainer/GP tutor/occupational health/DWP role)].

Data analysis
First, profile characteristics of the doctors were described; second, the impact of the three independent variables (presenting problem; the patient’s family circumstances and patient demand) on both the doctors’ beliefs about the patient and their behaviour was then examined using a 3-way ANOVA. Alpha was set at 0.01 due to multiple comparisons.

Results
Response rate
Questionnaires were sent out to all 834 general practitioners on the list of principals held by East and West Sussex Health Authorities. Five GPs were subsequently excluded from the analysis (two were temporarily absent from practice, two had left the practice address supplied by the PCT and one had a patient list composed entirely of hospice patients). Four hundred and eighty-nine valid responses were received from the remaining 829 GPs giving a response rate of 59%.

Profile characteristics of doctors
Doctors’ profile characteristics are shown in Table 1.

The average age of the doctors was 45 years, and two-thirds were male. The largest number of GPs had been in practice for between 11 and 20, years and those who had been in practice for >30 years formed the smallest group of respondents. Three-quarters of the GPs worked full-time and a quarter stated that they worked part-time. Rural practices were somewhat under-represented, as were small practices. Two-thirds of respondents felt that unemployment levels were low amongst their practice population, whereas <10% believed that they practised in an area of high unemployment. Twenty-three doctors had an occupational health role or qualification and 112 were GP trainers, tutors or both.

Impact of type of presenting problem, family circumstances and patient demand
(i) Doctors’ beliefs about the patient
The impact of type of presenting problem (psychological or physical), family circumstances (present versus absent) and patient demand (request for a sick note) on doctors’ beliefs about the patient is shown in Tables 2 and 3.

In terms of the impact of problem type, the results indicate that the doctors considered the patient with the psychological problem as more ill, less work shy, that they felt more sympathy towards him and were more likely to consider him unfit for work than the patient with the physical problem. In terms of the impact of family circumstances, the results indicate that the doctors felt more sympathetic towards the patient when these were present and less likely to consider the patient work-shy. A patient demand for a sick note had no effect on doctors’ beliefs about the patient.

(ii) Doctors’ behaviour
The impact of type of presenting problem, family circumstances and patient demand on doctors’ behaviour is shown in Tables 4 and 5.
TABLE 2  Impact of problem type, family circumstances & patient demand on doctors’ beliefs about the patient (means/SDs)

<table>
<thead>
<tr>
<th></th>
<th>Psychological (n = 243)</th>
<th>Physical (n = 246)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No family circumstances (n = 127)</td>
<td>Family circumstances (n = 116)</td>
</tr>
<tr>
<td></td>
<td>Not ask (n = 62)</td>
<td>Asks for note (n = 65)</td>
</tr>
<tr>
<td>Total illness</td>
<td>3.41 ± 0.77</td>
<td>3.48 ± 0.62</td>
</tr>
<tr>
<td>Total unfit for work</td>
<td>3.70 ± 0.75</td>
<td>3.76 ± 0.64</td>
</tr>
<tr>
<td>Work-shy</td>
<td>1.93 ± 1.0</td>
<td>1.90 ± 0.8</td>
</tr>
<tr>
<td>Total sympathy</td>
<td>3.84 ± 0.63</td>
<td>3.69 ± 0.65</td>
</tr>
<tr>
<td>Total patient autonomy</td>
<td>3.73 ± 0.67</td>
<td>3.26 ± 0.53</td>
</tr>
</tbody>
</table>

TABLE 3  Impact of problem type, family circumstances and patient demand on doctors’ beliefs about the patient (F- and P-values)

<table>
<thead>
<tr>
<th></th>
<th>Main effect problem F/P</th>
<th>Main effect family circs F/P</th>
<th>Main effect asks for note F/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total illness</td>
<td>F = 43.59</td>
<td>F = 1.08</td>
<td>F = 0.46</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>P = 0.298</td>
<td>P = 0.497</td>
</tr>
<tr>
<td>Total unfit for work</td>
<td>F = 217.72</td>
<td>F = 0.49</td>
<td>F = 1.05</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>P = 0.485</td>
<td>P = 0.307</td>
</tr>
<tr>
<td>Work-shy</td>
<td>F = 79.69</td>
<td>F = 6.24</td>
<td>F = 0.126</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>P &lt; 0.001</td>
<td>P = 0.723</td>
</tr>
<tr>
<td>Total sympathy</td>
<td>F = 66.92</td>
<td>F = 55.07</td>
<td>F = 0.35</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>P &lt; 0.001</td>
<td>P = 0.553</td>
</tr>
<tr>
<td>Total patient autonomy</td>
<td>F = 6.29</td>
<td>F = 2.11</td>
<td>F = 0.01</td>
</tr>
<tr>
<td></td>
<td>P = 0.012</td>
<td>P = 0.148</td>
<td>P = 0.908</td>
</tr>
</tbody>
</table>

The results indicate that the doctors were more likely to give the patient with the psychological problem a sick note overall and because they felt he needed or deserved one, and more likely to give the patient with the physical problem a sick note in order to maintain a relationship with him. The decision to give a sick note was not related to whether or not adverse family circumstances were present or whether or not the patient demanded one.

Discussion

A doctor’s decision to offer a sick note is influenced by the type of presenting problem but not by family circumstances or patient demand.

There are some problems with the study, however, which need to be considered. First, the study used hypothetical scenarios which can be criticized as an over-simplification of the complex process of decision making. However, this methodology enables the findings of a previous qualitative study to be tested experimentally, and facilitates the manipulation of specific variables whilst controlling all others. Second, these scenarios were brief and only provided a limited amount of information which can be criticized for being unrealistic. However, GPs are often expected to make decisions based upon a restricted understanding and knowledge of their patients. Further, this limited information was constant across the different arms of the experimental study. In addition, the scenario described one particular individual who was male and aged 38 and the responses to such a patient may not generalize to other patients who differ in their demographic characteristics as research has indicated that doctors make different decisions for patients according to such variables.10 However, the aim of the study was to explore the impact of other variables on the decision to issue a sick note (i.e. type of problem, family circumstances and patient demand) and such a design enabled the case individual's age and sex to be held constant across the different conditions. Finally, it is possible that the GP’s own demographics interacted with those of the case patient. Further research could explore such a possibility but would require a larger sample size in order to have sufficient power for such subgroup analyses.

In terms of the impact of type of problem, the GPs who took part in this study were more likely to consider a patient with a psychological problem to be ill, unfit for work and deserving of sympathy than a patient in similar circumstances with a physical problem and were more likely to issue him with a sick note because they considered that he needed or deserved one. The patient with the physical problem was more likely to be
Primary cares and sick notes: a study

TABLE 4 Impact of problem type, family circumstances and patient demand on doctors’ behaviour (means and SDs)

<table>
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<td><strong>Not ask</strong> (n = 62)</td>
<td><strong>Asks for note</strong> (n = 65)</td>
</tr>
<tr>
<td>Give a sick note (total)</td>
<td>2.99 ± 0.70</td>
</tr>
<tr>
<td>Needs a sick note</td>
<td>3.95 ± 1.02</td>
</tr>
<tr>
<td>Sick note to maintain relationship</td>
<td>2.23 ± 1.12</td>
</tr>
<tr>
<td>Deserves a sick note</td>
<td>2.83 ± 1.15</td>
</tr>
</tbody>
</table>

| **No family circumstances (n = 114)** | **Family circumstances (n = 122)** |
| **Not ask** (n = 58) | **Asks for note** (n = 66) | **Not ask** (n = 62) | **Asks for note** (n = 60) |
| Give a sick note (total) | 2.95 ± 0.58 | 3.20 ± 0.73 | 2.90 ± 0.71 |
| Needs a sick note | 3.98 ± 0.80 | 4.29 ± 0.85 | 3.56 ± 0.87 |
| Sick note to maintain relationship | 2.22 ± 1.09 | 2.24 ± 1.10 | 2.66 ± 1.14 |
| Deserves a sick note | 2.65 ± 1.15 | 3.02 ± 1.30 | 2.51 ± 1.07 |

TABLE 5 Impact of problem type, family circumstances and patient demand on doctors’ behaviour (F- and P-values)

<table>
<thead>
<tr>
<th></th>
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<th>Main effect asks for notes F/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give a sick note total</td>
<td>F = 9.55 P = 0.002</td>
<td>F = 4.21 P = 0.041</td>
<td>F = 0.45 P = 0.505</td>
</tr>
<tr>
<td>Needs a sick note</td>
<td>F = 59.02 P &lt; 0.001</td>
<td>F = 3.83 P = 0.051</td>
<td>F = 2.48 P = 0.116</td>
</tr>
<tr>
<td>Sick note to maintain relationship</td>
<td>F = 13.90 P &lt; 0.001</td>
<td>F = 0.12 P = 0.733</td>
<td>F = 0.28 P = 0.598</td>
</tr>
<tr>
<td>Deserves a sick note</td>
<td>F = 9.09 P = 0.003</td>
<td>F = 3.80 P = 0.052</td>
<td>F = 0.58 P = 0.446</td>
</tr>
</tbody>
</table>

labelled work-shy and less likely overall to be given a sickness certificate. Previous research suggests that there may be a number of reasons for this which may relate to the particular conditions chosen to represent a physical and a psychological problem, namely back pain and stress. First, recent literature has emphasized the psychosocial dimension of chronic back pain and stress. First, recent literature has emphasized the psychosocial dimension of chronic back pain and the role and the present study provides some insights into how doctors decide whether or not to offer them.
results suggest that whilst type of problem and family circumstances influence the doctor’s beliefs about the patient, their behaviour is only influenced by whether the presenting problem is psychological or physical. In particular, although GPs are often criticized for missing psychological problems\footnote{Kessler D, Lloyd K, Lewis G, Pereira Gray D. Cross-sectional study of symptom attribution and recognition of depression and anxiety in primary care. \textit{Br Med J} 1999; \textit{318}: 436–439.} it would seem that it is this type of problem which generates greater sympathy, less criticism and a increased likelihood of issuing a sick note than a more physical problem such as back pain which may have become the new stigmatized condition of general practice. The decision to issue a sick note would seem to be as complex as other medical decisions such as prescribing and referral, and would seem to be as open to doctor’s own beliefs and experiences as all other areas of medical care.

What is known already

Research shows that doctors vary in their rates of sickness certification. Although studies have explored other sources of doctor variability, this area remains unexplored.

What this study adds

The decision to offer a sick note is influenced by the type of presenting problem but not by the presence of adverse family circumstances or patient demand. Patients with a psychological problem are more likely to be offered a sick note than those presenting with back pain.

Acknowledgements

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Declaration

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Conflict of interest: none.
Ethical approval: local research ethics committee.

References

\footnotetext[1]{Tellnes G. Sickness certification in general practice: a review. \textit{Fam Pract} 1989; \textit{6}: 58–65.}
\footnotetext[2]{Ford FM, Ford J, Dowrick C. Welfare to work: the role of general practice. \textit{Br J Gen Pract} 2000; \textit{50}: 497–500.}
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\footnotetext[7]{Marteau TM, Johnston M. Health professionals: a source of variance in health outcomes. \textit{Psychol Health} 1990; \textit{5}: 47–58.}
\footnotetext[8]{Hiscock J, Ritchie J. The role of GPs in sickness certification. Huddersfield, UK: HMSO; 2001.}
\footnotetext[10]{Di Caccavo A, Reid, F. The influence of attitudes towards male and female patients on treatment decisions in general practice. \textit{Sex Roles} 1998; \textit{38}: 613–629.}
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\footnotetext[29]{Paykel ES, Hart D, Priest RG. Changes in public attitudes to depression during the defeat depression campaign. \textit{Br J Psychiatry} 1998; \textit{173}: 519–522.}
\footnotetext[31]{Dunner S, Decrey H, Burnand B, Pecoud A. Sickness certification in primary care. \textit{Sozial und Praventivmedizin} 2001; \textit{46}: 389–395.}