

# Why patients consult when they cough: a comparison of consulting and non-consulting patients

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## SUMMARY

**Background.** Although it is the commonest symptom presented to general practitioners (GPs), little is known about why someone decides to consult with a cough.

**Aim.** To describe the illness behaviour of patients with a cough.

**Method.** Patients who had consulted a GP because of a cough, and a group of subjects who had recently had a cough but had not consulted, were interviewed in a qualitative study that investigated how they made sense of their illness.

**Results.** Consulting patients understood their cough to be abnormally severe, whereas non-consulting subjects regarded their cough as 'normal' and mild. Consulting patients thought the cough would interfere with social roles and non-consulting subjects did not. The consulting patients were much more likely to be worried about the cough than the non-consulting subjects. In particular, half of the consulting patients were worried about their hearts, whereas the non-consulting subjects were not. The two groups did not distinguish bacteria from viruses, and did not differ in beliefs about the role of antibiotics that they thought were needed for severe coughs. Both groups had concerns about pollution.

**Conclusions.** For consulting patients, cough breached the 'taken for granted property' of health that the non-consulting subjects with a cough were able to maintain. Cough, for the consulting patients, was not a trivial illness.

*Keywords:* cough; consulting behaviour; illness behaviour.

## Introduction

SYMPTOMS occur frequently — almost daily — but, fortunately for general practitioners, only rarely do consultations result.<sup>1</sup> For instance, studies of health diaries indicate that only about 1 in 40 symptoms are brought to medical attention.<sup>2,3</sup>

The reasons why some people consult, and others with an apparently similar symptom do not, are complex. The medical seriousness of symptoms alone is unlikely to be the major reason for consultation.<sup>4,5</sup> Consultation is more likely in manual groups, females and children,<sup>6</sup> and the unemployed.<sup>7</sup> Cultural differences are likely to be important; for example, meanings given to illness are culturally determined,<sup>8</sup> and economic factors determine an individual's response to illness.<sup>9</sup> Availability of medical services affect consultation rates.<sup>7</sup> Greater anxiety,<sup>1</sup> absent close relationships,<sup>10</sup> and interpersonal crises<sup>5</sup> are all associated with consultation. The need for information and the following three factors from the Health Belief Model make consultation more likely: belief that GP care is useful, that the symptom is severe, and that

it will not respond to over-the-counter drugs.<sup>11</sup> People usually take their health for granted<sup>13,14</sup> and continue in social roles<sup>14</sup> despite having symptoms. If symptoms interfere with the taken-for-granted healthy status, and cause worry<sup>15,16</sup> or interfere with roles,<sup>14</sup> consultation is more likely.

Cough is the most common new symptom brought to GPs.<sup>17</sup> As a practising GP, what was of interest to me was: why do patients consult with a cough which usually seems trivial, and what makes patients consult with a cough when many others do not?

Qualitative methods are particularly appropriate where different domains of knowledge (such as biomedical and social) are relevant<sup>18</sup> — in under-researched areas (which cough is, despite being so common<sup>19</sup>) — and where the meanings people give to symptoms (particularly if they differ from professional views) are likely to be important.<sup>19</sup> I therefore used a qualitative approach in this study.

The aim of this study was to describe illness behaviour (defined as the way a symptom is perceived, evaluated, and acted upon — or not acted upon<sup>20</sup>) of patients with a cough.

## Method

I interviewed two groups of patients with a cough; one group had consulted because of a cough and the second had not.

In a pilot study, I interviewed three patients who had consulted with a cough and three non-consulting subjects from my practice chosen in the same way as the main study. The main study took place in three other practices in Cleveland: one in a predominantly middle class town and two in working class areas. Local Ethical Committee approval was given. I intended interviewing 30 consulting patients and a similar number of non-consulting subjects because I knew from a previous study<sup>21</sup> that this would generate sufficient numbers.

Consulting subjects were recruited in the following way. One GP from each practice noted the names of consecutive patients over the age of 16 years who consulted with cough as the main feature of their illness and who had not consulted for a cough in the previous four weeks. Visits and out-of-hours calls were included. A letter was sent, signed by the patient's GP, explaining the study and introducing me as a local GP. Each subject was then contacted by telephone or by a further letter, asked whether they were willing to participate, and an interview was arranged.

Immediately after interviewing 10 consulting patients from each practice, non-consulting subjects with a cough from the same practice were recruited. Twenty patients identified from the practice computer list, of the same sex and of similar age to each of the consulting subjects, were sent a letter. The letter asked whether they had experienced a cough in the previous three weeks that had persisted for three or more days, whether they had consulted because of it, and whether they would agree to participate in the study. All subjects who had experienced such a cough, who had not consulted, and who agreed to participate, were interviewed.

The interviews were conducted between April of one year and September of the following year. I introduced each interview by

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**Table 1.** Age and numbers of subjects in the consulting group.

	Interviewed	Refused interview
Average age	48 years	40 years
Numbers	30 (79%)	8 (21%)

explaining that I was interested in their ideas about what had caused their cough, what it was like, any worries they might have had about the cough, treatment tried (and treatment expected from the doctor for the consulting patients), family histories of illness, and any interference the cough might have caused in their lives. The subjects discussed these areas in whatever order they preferred with the help of open questions followed by closed questions for clarification where necessary. The areas explored in the main interviews were developed from my knowledge of previous research and themes from the pilot study, modified, as the study progressed, by emerging ideas from data analysis. The interviews all took place in the patients' homes, lasted 45–75 minutes, were tape-recorded, and fully transcribed.

The transcriptions were read and re-read on a number of occasions in order to become familiar with the data at intervals during the study and at the end of data collection. From the transcripts, 230 different, fairly specific 'ideas' were identified; for example, 'irritated to be told it's a virus'. The 230 ideas were grouped into three main 'themes': ideas about pathophysiology, worries, and ideas about the severity of the cough. All transcripts were re-read and data relevant to each theme was highlighted. For each main theme, 'categories' of response were identified, varying in number from four to 10. Thus, for instance, for the theme 'severe cough', there were four categories: interference with social roles, embarrassment, expressions of not usually consulting, and abnormal cough. Taking each main theme in turn, a form of 'charting' for further analysis was used;<sup>22</sup> the transcript number was written down the left side of a piece of paper, and each category of the theme was written along the top. Any transcript containing relevant data to a category was ticked. Each category was then taken in turn, and transcripts containing relevant data for each category re-read for the final analysis.

## Results

The consulting patients differed from the non-consulting subjects in three interconnected ways: they believed their cough was abnormal, that it would interfere with social roles, and that it was worrying. The two groups did not have different beliefs about how antibiotics work.

Details about numbers and ages of the subjects are given in Tables 1 and 2.

### Concept of normality and severe cough

Almost all of the consulting patients believed their cough was in some way abnormal: as one subject said:

*'So that was, essentially, the reason I went was the fact it had recurred and this was something unusual for me, I can usually get rid of it.'*

Occasionally, subjects said they consulted earlier than they might have done because of a history of chest problems, but they also appeared to believe their cough was unusual. There were several ways in which the cough of the consulting patients was understood to be abnormal, including: persisting longer than expected, recurring, worsening, or not responding to medication. However, although expressed in various ways, most commonly

the cough was perceived to be more severe than usual:

*'...it was a really deep hacking, not just an ordinary sort of cough, very deep, you know, from your chest.'*

The cough for consulting patients was frequently severe enough to disturb sleep and cause tiredness, cause general debility and sometimes embarrassment during conversations, and even urinary incontinence.

Often, consulting patients stressed that they would not usually consult with ordinary coughs, that they worried about wasting the doctor's time, and that it was not a decision taken lightly:

*'I tend to sort of put off going to the doctors, sort of think if it's nothing I feel as if I might be wasting their time.'*

However, consulting patients sometimes felt that other people would not be so careful about consulting. The occasional patient unhappy about a consultation (such as two not receiving antibiotics, which they thought were indicated), or other subjects recalling previous unhappy consultations with coughs, felt particularly angry and hurt because they had not taken the decision to consult lightly.

In contrast, non-consulting subjects considered their cough 'normal', or, at least, that any abnormal characteristics were unimportant, and rarely thought their cough severe. Nevertheless, non-consulting subjects could describe certain coughs that should be taken to the doctor, such as those associated with chest pain. The occasional non-consulting subject did, in fact, feel their cough was severe, but had not consulted because they felt their GP had not prescribed anything on previous consultations when he or she should have done:

*'I didn't go and see him because I know he won't give me anything so it's no point in going to see him.'*

### Social roles

About half of the consulting patients felt their cough severe enough to interfere with social roles, and this was often a reason to consult. The need to return to work was an example, either for financial reasons, because work was enjoyed, or because of worries about job security. This patient gives an example:

*'I thought I've got to do something to get rid of it, it's not going away soon, you know, and I work and I wanted to be back at work, I'm very busy at work, so I wanted to be back there as soon as possible.'*

Another role that was interfered with by a cough was looking after the family:

*'I'm a single parent with three kids, due to, like, six weeks holiday, and I thought, well, I've got to get myself sorted.'*

Interference with other social roles was another reason to consult:

*'I'm actually an amateur singer and I'd found out I was going to be required to sing on that night.'*

In contrast, non-consulting subjects rarely had coughs interfering with social roles; as for this non-consulting subject:

*'It was irritating when I was at work and I started coughing but then I went and got a drink of water and it just, it wasn't sufficient for me to stay off work.'*

### Worries

Consulting patients therefore felt their cough was abnormal and usually more severe than a 'normal' cough. A consequence of

**Table 2.** Characteristics of subjects in the non-consulting group.

Letters sent to 600 subjects: 337 replies received		
Number with a cough	44 (13% of replies received)	
Number with a cough who had not consulted	34	
	Interviewed	Refused interview
Average age	47 years	44 years
Numbers	26 (76%)	8 (24%)

this was that they were more worried. Most were worried about the cause or what it might lead to. The extent of the worries varied, however. For instance, worries could be in the background or fleeting. Worries were rarely expressed to the doctor, or indeed to relatives.

Worries about the heart were expressed in about half of the consulting subjects. Sometimes feelings of general debility, breathlessness, or chest discomfort brought the possibility of a heart problem to mind:

*'Well my dad died of a heart attack you see, he had heart trouble and, as much as I say that those things don't bother me, occasionally I do sort of worry that there's something there and I think when you feel breathy and you feel as low as what I did and as down as what I did, I did sort of wonder whether it was anything more serious than just a cough.'*

More often, however, the physical strain of coughing was thought potentially severe enough to damage the heart:

*'Well I think the coughing could cause strain on your heart, couldn't it? That's my idea, like.'*

A family history was sometimes a significant factor as to whether a person would consult, either because of beliefs in inherited weakness, or more usually because it brought the worry to consciousness.

Other worries included lung damage through coughing, lung cancer, asthma, and long-term chest problems such as 'bronchitis' and 'emphysema' or TB. Consulting patients were not particularly worried about pneumonia — either that they would not get it because they felt young and healthy, or, although a potential risk if left untreated, effective treatment would be given before the cough reached that stage.

In marked contrast, non-consulting subjects rarely appeared to have these worries about the cough.

#### Concerns about pollution

Commonly, both consulting and non-consulting subjects believed pollution an important cause of chest problems. Often they talked about pollution spontaneously, at length, and some had assumed the study was principally about the effects of pollution in Cleveland. This subject gives a typical description:

*'I always say we live in a very unhealthy area next to all the works and everything, and I always say if I go down south to some relations it's a lovely healthy area, as soon as we come back here I'm ill, well I'm not ill, I cough and things change so I'm always, my husband will tell you, I'm always on about pollution and this area we live in, all the works it's terrible, but it's where the work is so you've got to be somewhere.'*

#### Ideas about antibiotics

Some consulting patients only wanted reassurance from their

GPs, but most had tried proprietary preparations unsuccessfully and now thought antibiotics were necessary (often as a last resort). Consulting patients differed from non-consulting subjects in often believing antibiotics necessary for this particular cough. This did not, however, reflect differences in knowledge about indications for antibiotics. 'Viruses', for instance, when mentioned, appeared to be a 'medical' term, as this subject sarcastically illustrates:

*'Well, I mean, we were, the lady over the road and myself, we laughed because whenever you go to a doctor and you come out, what was it, it's virus, everything seems to be a virus and yet, I mean, when we were little we'd never heard of a virus but nowadays everything's put down to viruses.'*

When viruses were mentioned by a subject, they did not necessarily exclude the use of antibiotics:

*'I know that you have to take the course of them, I suppose that they just kill the virus or whatever.'*

Differences between the consulting and non-consulting groups, with regard to the indications for antibiotics, were not, therefore, based on differences in beliefs about whether antibiotics kill bacteria or viruses, but rather reflected the different perceptions about the severity of the particular cough resulting (or not resulting) in the consultation.

#### Discussion

This study showed that consulting subjects appeared to differ from non-consulting subjects in believing that their cough was abnormal (usually abnormally severe), would interfere with social roles, and was more worrying. The consulting patients' belief that their cough was abnormal is in keeping with previous work: advice to consult is more likely for unusual symptoms,<sup>23</sup> and mothers interpret their children's symptoms by comparison to a standard of 'normality'.<sup>24</sup> Likewise, the importance of disruption to social roles in the decision to consult is supported by previous research.<sup>5,25</sup>

For consulting patients, cough was not a trivial illness in that they were much more likely to be worried. Other work supports the serious worries of consulting patients. The perceived threat of a symptom is a factor in the Health Belief Model associated with the decision to consult.<sup>11</sup> Patients consulting because of dyspepsia are more likely to be worried about heart disease and cancer,<sup>15</sup> and patients consulting with irritable bowel syndrome are more likely to be worried about cancer.<sup>16</sup> Similarly, mothers consulting because of children who are coughing are concerned about death through choking and about long-term chest damage.<sup>21</sup>

Worries about the heart are interesting in that they differ from medical concerns, during consultations, to differentiate upper from lower respiratory tract infections. Nevertheless, worries about the heart do have a certain logic. It is a common lay experience that people die suddenly and frequently from heart dis-

ease. The importance of the family history in bringing such worries to mind has been noted before.<sup>26</sup>

'Containment'<sup>14</sup> and the 'taken-for-granted property' of health<sup>12,13</sup> provide explanations for the different behaviour of the non-consulting and consulting subjects that usefully combine the three themes discussed above: abnormality, interference with social roles, and worries. The cough experienced by the non-consulting subjects did not interfere with an image of themselves as healthy, alive, and fully functional. In contrast, cough experienced by consulting subjects shook this 'taken-for-granted' image of the self. The cough was 'abnormal', not necessarily something that could be easily dismissed, and might interfere with social roles. It was not something that was necessarily trivial, but could indeed be life threatening.

Weaknesses of this study include the small numbers studied, the low rate of return of the letters to identify the non-consulting subjects with a cough, and the different ways in which the two groups were recruited. It is difficult to judge how far the subjects were justifying their decision to consult or not consult in the interviews. A researcher from a non-medical background might produce different (but not necessarily more valid) insights.

There are a number of implications for further research. Other common symptoms presented to GPs could be usefully studied using similar approaches. This particular study about cough could usefully be replicated with a larger scale quantitative approach using the identified factors, and comparing consulting and non-consulting patients with a cough who had been recruited in the same way.

Although people with upper respiratory tract infections can be successfully dissuaded from consulting through education,<sup>27,28</sup> this study indicates the need to investigate, not only the biomedical outcomes, but also what happens to the worries of those patients who would otherwise have consulted.

For GPs, this study suggests that it would be useful to bear in mind that patients consulting with a cough have usually not made the decision lightly. They have assessed their cough as being abnormal, may be concerned about the effect on their social roles, and may have serious worries about the cough, particularly the effect on the heart. In contrast, the usual concerns of the doctor to distinguish lower from upper respiratory tract infections may be less important to the patient. Consultations are unlikely to alter lay beliefs where they differ from medical ideas,<sup>29</sup> and this study would suggest that attempts to explain the non-use of antibiotics on the basis of 'viral' causes are unlikely to be successful. Nevertheless, the sensitive use of antibiotics in upper respiratory tract infections by GPs, though perhaps not always strictly indicated on biomedical terms, does fit in with patient beliefs and may therefore help many patients cope better with their illness.

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