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# Towards effective reassurance in irritable bowel syndrome: The importance of attending to patients' complaint-related cognitions

A. M. Van Dulmen [a]; J. F. M. Fennis [b]; G. Bleijenberg [b]
[a] Department of General Practice and Social Medicine, University of Nijmegen, Nijmegen [b] University Hospital Nijmegen, Nijmegen, The Netherlands

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# Towards effective reassurance in irritable bowel syndrome: the importance of attending to patients' complaint-related cognitions

A. M. VAN DULMEN,[1] J. F. M. FENNIS[2] & G. BLEIJENBERG[2]
[1]*Department of General Practice and Social Medicine, University of Nijmegen, Nijmegen &* [2]*University Hospital Nijmegen, Nijmegen, The Netherlands*



**Abstract** *This article presents an overview of the role of complaint-related cognitions, emotions and behaviours, as well as environmental factors in patients with irritable bowel syndrome during each phase of the medical health care process. Literature findings support the authors' opinion about the importance of attending to patients' complaint-related cognitions as these factors appear to trigger a person to consult a doctor. Although doctors subsequently appear to attend to these factors by means of patient-centred interviewing, it is the opinion of the authors that a more thorough and individually tailored complaint analysis by the doctor is required to systematically and explicitly explore and discuss the different complaint dimensions. Such an interactive complaint analysis is considered to be a prerequisite for the effective reassurance of the patients that is reflected in positive changes in dysfunctional complaint-related cognitions, emotions and behaviours. A structured course in interactive consulting may help doctors to acquire this interactive patient-centred complaint analysis.*

## Introduction

Functional abdominal complaints, otherwise known as irritable bowel syndrome (IBS), referring to somatically unexplained abdominal complaints with or without disordered defecation (Thompson *et al.*, 1989), are widespread in the general population. The estimated prevalence in the developed world is 12–25% (Agreus *et al.*, 1995; Drossman *et al.*, 1982; 1993; Jones & Lydeard, 1992; Kettell *et al.*, 1992; Sandler *et al.*, 1984; Talley *et al.*, 1991). Yet, only 25–38% of such persons seek health care (Jones & Lydeard, 1992; Kettell *et al.*, 1992; Sandler *et al.*, 1984; Talley *et al.*, 1995).

Apparently, not every person interprets the same bodily signal as a reason to require medical attention (Beukema-Siebenga, 1995; Verbrugge & Ascione, 1987). Someone may, for instance, attribute the complaints to having eaten something that disagrees with them, whereas others may be convinced that they suffer from a malignancy. Presumably, persons have different complaint-related cognitions and emotions that determine whether they seek medical health care or not. Consequently, when a person does decide to consult a GP (general practitioner), it is important that the GP determines 'why this person has come with

Address for correspondence: Dr Sandra van Dulmen, NIVEL, P0 Box 1568, 3500 BN Utrecht, The Netherlands. Tel: +31 30 2729703; Fax: +31 30 2729729; E-mail: S.vandulmen@NIVEL.nl

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this particular complaint at this particular moment' (Morrell, 1965). In 55–70% of patients with abdominal complaints the GP cannot find a somatic explanation (Heikkinen *et al.*, 1995; Muris & Starmans, 1993). Of the patients attending a GP, 10–25% are referred for extensive physical examination, most often to internal medicine (Drossman, 1991a; Lamberts *et al.*, 1991; Muris *et al.*, 1993). In fact, 65–89% of the patients referred to internal medicine with abdominal complaints appear to suffer from functional abdominal complaints (Bleijenberg & Fennis, 1989; van Dulmen *et al.*, 1994; Smith *et al.*, 1990; Starmans *et al.*, 1994) for which conventional medical treatments are of limited value (Klein, 1988). Some authors consider that these complaints require a different, more psychological approach (Drossman, 1991a; 1991b; 1994; 1995; Drossman & Thompson, 1992).

In the secondary care setting, however, attention is likely to be primarily somatic, with the intrinsic risk of overlooking the meaning of the complaints for the patient. Insight into the nature of the complaint-related cognitions and accompanying emotions that prompt a person to consult a doctor may indicate which factors need doctors' explicit attention. This is important because understanding patients' beliefs and concerns offers the possibility of correcting dysfunctional cognitions and misconceptions, of diminishing patients' anxieties about health and of giving the patient specific reassurance. Furthermore, it offers the possibility of increasing patient satisfaction, of stimulating adequate coping behaviour, and thereby of lowering the use of medical health care services (van Dulmen *et al.*, 1995; 1996a).



## The self-regulatory model

Symptoms are considered to be necessary but insufficient stimuli for care seeking (Cameron *et al.*, 1993). According to Leventhal's self-regulatory model a somatic sensation is given meaning when it is cognitively represented as a symptom through cognitions of its possible identity, causes, anticipated consequences, expected duration and potential means of control. These representations then guide a person's decision to engage in coping behaviour, such as seeking medical care. The self-regulatory model also explains how emotional states, such as fear and anger, affect behavioural decisions as it considers seeking medical care a distress-reducing strategy. In addition, social factors, e.g. talking to and informing others about the problem, may be a determinant of care seeking (Baumann *et al.*, 1989; Cameron *et al.*, 1995; Leventhal *et al.*, 1983; Leventhal & Oiefenbach, 1992).

The self-regulatory model provides a framework for understanding patients' motivations to seek health care, thereby focusing on the perspective of the individual actor. Consequently, the model presents a rationale for attending to a patient's complaint-related cognitions and emotions during a medical consultation, a setting in which two actors participate, the patient and the doctor. Although the necessity of systematically exploring patients' needs during medical consultations has been acknowledged (Cameron *et al.*, 1995), no implications for the role of the doctor have actually been investigated or incorporated into the self-regulatory model. In this paper, the self-regulatory model will be applied to the care seeking process of IBS patients. Moreover, as we do not know to what extent doctors subsequently attend to the complaint-related cognitions and emotions of IBS patients in primary and secondary care, this paper will give an overview of relevant literature in this field that supports the authors' opinion about the significance of doctors' attention.

In order to structure the literature, each section is directed by a specific research question related to the phase of health care (Figure 1):

(1) Which factors contribute to the health care-seeking behaviour of IBS patients? (Phase 0)

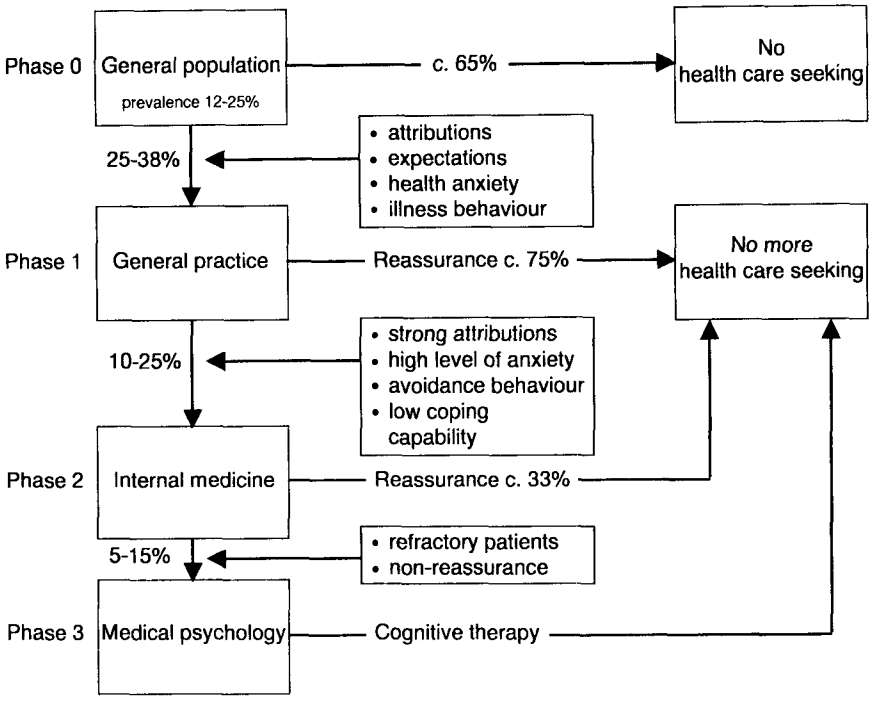


FIG. 1. *The process of health care in IBS patients.*

(2) Do GPs attend to patients' complaint-related cognitions and emotions? Do cognitions and emotions contribute to the referral of IBS patients to secondary care? (Phase 1)
(3) Do medical specialists attend to complaint-related cognitions and emotions of IBS patients? (Phase 2)
(4) Which factors contribute to the referral of IBS patients to psychological treatment? (Phase 3)

Answers to these questions are likely to yield implications for doctor–patient interactions in general and for effective reassurance of IBS patients in particular, which is expected to be reflected in a higher level of patient satisfaction and in a reduction of the use of medical health care services and medication.

## Phase 0: Which factors contribute to the health care-seeking behaviour of IBS patients?

As was mentioned in the introduction, only a small number of people with symptoms compatible with IBS visit their GP for these complaints. Daily reports of abdominal complaints do not appear to differ between IBS consulters and IBS non-consulters (Heitkemper *et al.*, 1995). This suggests that the abdominal complaints *per se* are not sufficient to explain physician visits, an assumption compatible with the self-regulatory model.

One of the factors potentially contributing to patients' health care-seeking behaviour might be patients' attributions, i.e. the causes patients attribute to their abdominal complaints. Sandler *et al.* (1984) found that 15% of a group of 566 healthy subjects had IBS symptoms, but only 38% of those affected had consulted a doctor for these complaints.

Kettell *et al.* (1992) also found that only 33% of the patients who had symptoms compatible with IBS had consulted their GP for these complaints. They followed-up a random sample of 24 consulting patients who were still symptomatic after one year and compared them with 24 other symptomatic patients who had still not sought medical advice for their problems. Consulters appeared to be more concerned about the serious nature of their symptoms than non-consulters, even after controlling for the severity of the complaints.

The causes to which patients attribute their complaints are likely to stir up complaint-related emotions, which might also contribute to the decision to seek health care in IBS consulters. In this respect, Leventhal considers seeking medical care a distress-reducing strategy. Whitehead *et al.* (1988) investigated the health care-seeking behaviour in 22 female IBS patients and 42 female IBS non-consulters. They found that anxiety and somatization influenced patients' decisions to consult a GP. These findings were confirmed by Drossman *et al.* (1988), who found that patients reported stronger somatic concerns and worries about health, even when controlled for the severity of the pain.

The decision to seek health care for IBS symptoms is also likely to be influenced by environmental factors. Whitehead *et al.* (1982) examined whether the illness behaviour of persons with IBS symptoms could be related to childhood experiences. Forty-five per cent of these persons reported that their parents gave them gifts or specific foods when they were sick as a child. This percentage was significantly higher compared with a group of non-consulters with peptic ulcer disease. Lowman *et al.* (1987) found that people with IBS symptoms also differed from healthy subjects by reporting more parental attention and reward for being ill. These findings seem to indicate that environmental factors may contribute to IBS symptoms. Support for this suggestion comes from a study by Kay *et al.* (1994) who found that the more persons tend to be influenced by others, the higher the prevalence of IBS.

In conclusion, a number of factors, i.e. complaint-related cognitions, such as expectations, attributions and worries, and environmental factors, appear to be associated with the decision of IBS patients to seek medical health care. These factors correspond with the cognitive symptom representations identified in Leventhal's self-regulatory model. Apparently, this model applies to the care-seeking decisions of IBS patients. Subsequently, the significance of complaint-related cognitions and emotions in patients' decisions to seek health care will have implications for medical practice.

## Phase 1: Do GPs attend to patients' complaint-related cognitions and emotions?

The authors know of only one empirical study that specifically addressed GPs' attention to the complaint-related cognitions and emotions in IBS patients (van der Horst, 1997). In this study a set of guidelines for the management of IBS patients in primary care was developed and implemented. The effectiveness of the guidelines on patients' self-care behaviour, the course of the complaints, attributions regarding the complaints, psychological wellbeing and medical consumption was investigated using a randomized controlled trial. An essential part of the guidelines for intervention concerned an exploration of the patients' worries and beliefs about the symptoms. In the experimental group, GPs were trained in the application of the guidelines. The guidelines turned out to be effective in decreasing anxiety, avoidance behaviour and medical consumption in IBS patients in primary care. A major prerequisite for the effectiveness of the guidelines proved to be the GPs' patient-centred attitude.

Byrne and Long (1976) were among the first to show the importance of using a so-called patient-centred method in primary care, i.e. allowing the patient to express all the reasons for his or her attendance, including symptoms, expectations, thoughts and feelings. Since then,

patient-centredness has been found to benefit the patient in terms of a reduction in dysfunctional complaint-related thoughts and concerns and an increase in patient satisfaction and compliance (Henbest & Fehrsen, 1992; Henbest & Stewart, 1990; Stewart, 1984; van de Kar *et al.*, 1992; Winefield *et al.*, 1995).

Remarkably, in most studies patient-centred interviewing is primarily focused at allowing patients to express their thoughts and feelings, it only marginally incorporates an (inter)active discussion of patients' cognitions and emotions during medical consultations. Although lately Winefield *et al.* (1995) have, in fact, defined patient-centredness more interactively, it basically only refers to doctors' behaviour. Winefield *et al.* (1996) also recently found that patient-centred consultations last longer. Nevertheless, it is likely that doctors' time investment at present will reduce unnecessary consultations and referrals in the long run. In addition, Stewart and others have argued that when a doctor has mastered a patient-centred attitude, consultations will not take any longer (Stewart *et al.*, 1989).

As approximately one-quarter of IBS patients in general practice are referred to secondary care, patients' complaint-related cognitions and emotions may also have relevance beyond primary care consultations. In the next section it is therefore explored whether doctors in secondary care consultations attend to the complaint-related cognitions of IBS patients.



## Phase 2: Do medical specialists attend to complaint-related cognitions and emotions in IBS patients?

In general practice a useful tool for eliciting patients' complaint-related cognitions and emotions is to perform patient-centred medical interviewing. In outpatient care comparable data are lacking. Health care providers and researchers may consider findings from general practice equally applicable to clinical settings. However, medical specialists are not trained in the same way as GPs, which is probably reflected in the type of care that is delivered. Consequently, the complaint-related cognitions and emotions of secondary care patients are likely to differ from those of primary care patients.

Recently, a comparison between 109 IBS patients in general practice and 86 IBS patients in secondary care revealed that referred patients not only had more severe and frequent abdominal complaints, they also differed from general practice patients in their complaint-related cognitions: the outpatient population attributed their complaints more often to somatic abnormalities whereas the general practice patients, who had never been referred to secondary care, attributed their complaints more often to stress and to their agitated way of life (van der Horst *et al.*, 1997a). As referred patients appear to adhere to dysfunctional complaint-related cognitions and emotions, it may be more difficult to reassure these patients.

Differences between primary and secondary patients might also be revealed in patients' complaint-related behaviour. Corney and Stanton (1990) found that over 40% of referred IBS patients showed moderate to marked avoidance of a number of activities when symptoms were present. van Dulmen *et al.* (1994) also found that 68% of referred IBS patients avoided activities as a result of their complaints.

Avoidance behaviour may be ineffective and even counterproductive in reducing somatic complaints (Philips, 1987). Yet, it appears to be maintained by dysfunctional cognitions, such as expectations of complaint increase, beliefs about one's capacity to control complaints, and memories of past aversive experience (Philips, 1987). Avoidance behaviour, without medical necessity, may also be a sign of inadequate coping strategies. Drossman *et al.* (1988) found that a group of 72 referred IBS patients indeed had lower coping capabilities than a

group of 82 IBS non-patients. In addition, Johnsen *et al.* (1986) demonstrated that problems with coping are associated with IBS symptoms.

Apparently, referred IBS patients worry more about their complaints, have more persistent somatic attributions and more dysfunctional complaint-related behaviours than general practice patients. These dysfunctional thoughts and feelings will probably not diminish as a result of specialists' diagnostic investigations and tests. Although there are indications that diagnostic tests diminish the overall consultation rates in IBS patients (Jones, 1988), they do not alter patients' persistent somatic cognitions (van Dulmen *et al.*, 1995; Sox *et al.*, 1981). Recently, it was found that at least half of referred IBS patients adhered to somatic attributions regardless of negative findings from diagnostic tests and investigations (van Dulmen *et al.*, 1995). Recent findings suggest that a positive doctor–patient interaction may be related to a positive long-term outcome of IBS. Owens *et al.* (1995) followed up a group of IBS patients for a median of 29 years. They found that the quality of doctor–patient interaction was inversely related to the number of return visits for IBS-related symptoms.

Doctors' recognition of patients' cognitions appears to have relevance for patient health outcome. Recently, the authors examined doctors' ability to perceive complaint-related cognitions and emotions in IBS patients, together with the influence of doctors' correct perceptions on patients' cognitions, their satisfaction with the outpatient consultations, complaint improvement at six months, and medical consumption (van Dulmen *et al.*, 1994; 1995; 1996a; 1997). The basic assumption of this study was that, in order to be successful, reassurance by a doctor must take into account the meaning of the complaint for the patient. So, doctors had to recognize patients' complaint-related cognitions and emotions to be able to assist patients in correcting dysfunctional beliefs and fears by providing clear and well-founded information. Results showed that doctors perceived the somatic factors in their patients more often correctly than patients' complaint-related cognitions and emotions (van Dulmen *et al.*, 1994). When during the medical consultations doctors perceived patients' cognitions correctly, dysfunctional somatic attributions were found to decrease and functional psychological attributions were found to increase (van Dulmen *et al.*, 1995). In addition, positive changes in patients' cognitions appeared to be related to a better outcome in terms of improvement of the complaints six months later and to a reduction in the use of medical health services in primary care (van Dulmen *et al.*, 1996a; 1997).

Doctors' systematic exploration of complaint-related cognitions and emotions in IBS patients is likely to have positive behavioural consequences in terms of a reduction of the use of medical health care services (repeat visits and referrals) and avoidance behaviour, positive cognitive consequences, in terms of a decrease in dysfunctional cognitions and emotions (somatic attributions, catastrophizing cognitions and fear of cancer), and a reduction of complaint severity and complaint-related interferences with daily activities.

Before going more deeply into the practical implications of the above-mentioned findings, the factors which identify the sub-group of IBS patients eligible for referral to tertiary care are considered.

### Phase 3: What factors contribute to the referral of IBS patients to tertiary, psychological care?

Camilleri and Prather (1992) reported that as a fairly large proportion of IBS patients continue to experience symptoms despite doctors' reassurance, sometimes more elaborate psychological treatment may be required. Studies evaluating psychotherapy for IBS patients showed that 5–15% of the patients eligible for psychological treatment (Creed, 1994; Drossman & Thompson, 1992) are those with refractory complaints, i.e. patients with

complaints lasting for more than one year (Svedlund *et al.*, 1983) and not responding to conventional treatment (Guthrie *et al.*, 1991; 1993; Harvey *et al.*, 1989; Whorwell *et al*, 1984) or reassurance (Bennett & Wilkinson, 1985; van Dulmen *et al.*, 1996b; Weber & McCallum, 1992).

Apparently, a strong adherence to unhelpful cognitions prevents patients from feeling reassured by the visits to the specialist. Consequently, treating IBS patients in tertiary care requires special attention to patients' complaint-related cognitions and emotions. In fact, cognitive therapy has been shown to be effective in the treatment of IBS patients (van Dulmen *et al.*, 1996b; Greene & Blanchard, 1994; Payne & Blanchard, 1995). In these treatments, attention is primarily focused on identifying and modifying distorted and maladaptive complaint-related cognitions and behaviours and the subsequent acquisition of 'new', more adaptive and helpful cognitions and coping strategies.

As persistent maladaptive complaint-related cognitions and emotions also appear to guide the care-seeking process from secondary to tertiary care, the self-regulatory model has relevance beyond primary and secondary care patients.

While refractory IBS patients possibly benefit from a referral to tertiary, psychological care, most IBS patients are treated by medical specialists in secondary care (Figure 1). The next, concluding section will detail the aspects required to facilitate specialist's intervention.



## Towards effective reassurance

The foregoing has comprehensively demonstrated the role of complaint-related cognitions, emotions and behaviour of IBS patients in their health care-seeking and in primary, secondary and tertiary health care. This section will sort previous findings with the aim of listing the implications they have for medical practice in general and for effective reassurance of IBS patients in particular.

### *Patient-centred attitude*

Undoubtedly, complaint-related cognitions, emotions and behaviours, as well as environmental factors, need to be attended to during medical consultations. For this purpose, doctors need to acquire a patient-centred attitude, i.e. they must be convinced of the importance of allowing patients to express all their reasons for attending, including symptoms, expectations, thoughts and feelings. This means that doctors must be willing to listen to patients, to explore patients' ideas by encouraging and reflecting, and to use patients' ideas for an adequate management of the complaints. Although a patient-centred attitude is considered to be important, it is not sufficient, as it does not explicitly refer to the focus of doctors' attention, i.e. different complaint-related factors.

### *Doctors' active exploration of patients' complaint-related cognitions*

Patient-centred interviewing is considered to be the basis for a thorough complaint analysis, i.e. an active exploration of the different interrelated dimensions of the patient's complaint (Latimer, 1981): the cognitive, emotional, behavioural and environmental dimensions (Figure 2). As Leventhal suggested, understanding how people represent and cope with health problems is essential in achieving behavioural change and in reassuring patients effectively (Cameron *et al.*, 1995; Leventhal *et al.*, 1983). Because cognitive representations are highly individualized (Diefenbach & Leventhal, 1996), the complaint analysis of doctors should primarily be tailored to the individual.

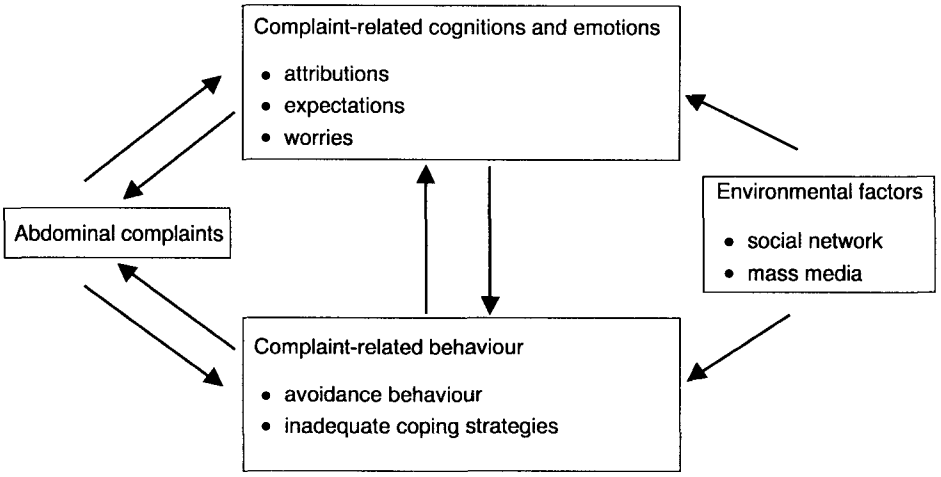


FIG. 2. *Complaint analysis.*

In patient's health care-seeking behaviour (Phase 0), the most prominent factors appeared to be complaint-related attributions, expectations and worries. Additionally, patients' social networks also appeared to contribute to the decision to consult a doctor.

The importance of attending to patient's complaint-related cognitions and emotions appeared to be acknowledged in general practice (Phase 1). In secondary care (Phase 2), doctors were advised to explore patients' attributions, expectations and concerns, as well as their avoidance behaviour and inadequate coping strategies. Practical guidelines were, however, not very explicit (Owens *et al.*, 1995). Finally, previous sections showed that, in tertiary care (Phase 3), attention was directed at correcting dysfunctional cognitions and coping strategies.

Complaint-related factors, especially somatic attributions, catastrophizing cognitions, fear of cancer, avoidance behaviour and environmental factors, do appear to relate to the course of IBS symptoms, i.e. these factors negatively influence the outcome of the complaints in terms of complaint improvement, patient satisfaction and the use of medical health care services (Bleijenberg & Fennis, 1989; van Dulmen *et al.*, 1997; Fowlie *et al.*, 1992). So, handling these factors during medical consultations will probably lead to an improvement of the complaint-related factors (Drossman *et al.*, 1988; Kettell *et al.*, 1992). In general, environmental factors appeared to have received the least attention in doctors' consulting rooms.

### *Effective reassurance*

The ultimate aim of the medical consultation in patients with IBS is to reassure these patients effectively (Jones, 1995). This is likely to be reflected in a reduction of patients' dysfunctional complaint-related cognitions, emotions and behaviours, and consequently in an improvement of complaint outcome and a decrease in medical consumption (van Dulmen *et al.*, 1995; 1996a, 1997; van der Horst, 1997b). Our research findings in referred IBS patients have shown that strong somatic attributions, catastrophizing cognitions and fear of cancer can change positively during a series of outpatient consultations (van Dulmen *et al.*, 1995). Presumably, such changes can also be achieved in patients with other complaints. In order to accomplish these positive changes, doctors need to handle dysfunctional cognitions and

emotions explicitly. Presumably, this can only be achieved by an active exploration and subsequent discussion of patients' complaint-related thoughts and feelings during medical consultations. In the same interactive way, patients' complaint-related behaviours need to be handled as well. Both patient and doctor can be held responsible for this. On the one hand, patients should learn to present their beliefs and fears more explicitly. On the other hand, doctors should realize that patients' presentations are often implicit and indirect and learn to attend to patients' cognitions and emotions more specifically.

## Benefits of interactive complaint analysis

The interactive complaint analysis we advocate in this paper implies that doctors become actively involved in the meaning of the complaints for the individual patient. By attending to patients' at first frequently hidden thoughts and feelings, doctors have the opportunity to get acquainted with patients' true reasons for coming. This knowledge will guide and structure the interaction in such a way that the patient as well as the doctor will benefit from it. The patient will feel relieved once his or her thoughts and feelings are listened to and discussed carefully. The doctor will feel relieved as the patient presents issues that structure the consultation which is otherwise bound to fall back into the patient's disbelief about negative diagnostic findings. The actual benefits for the patient have been thoroughly discussed above; prognostically, dysfunctional beliefs and feelings are likely to decrease, resulting in more effective coping behaviour and eventually in better health and a diminution of the use of medical health care services. Our own research has concentrated on referred IBS patients; our findings indicated that specialists are able to improve patients' complaints by means of systematic attention to their concerns, fears and unrealistic ideas. One may assume that GPs have the same capability, implying that when GPs inquire more specifically about the meaning of the complaints for the patients, some referrals may become unnecessary. This assumption is strenghtened by the fact that continuity of care has shown to influence patients' complaints and complaint-related cognitions positively (van Dulmen *et al.*, 1995; 1997).

Yet, doctors may feel overwhelmed by such an arduous, non-somatic, anamnestic task and may wonder how they should handle dysfunctional complaint-related cognitions, emotions and behaviours. Therefore, doctors are recommended to adopt a patient-centred interactive approach. This may require a change in the medical curriculum, which until now is primarily focused at making somatic diagnoses. Recently, in our university hospital, a Course in Interactive Consulting (CIC) has been developed and given to residents not only in internal medicine but also in other fields. This course is mainly based on the concept of the above-mentioned patient-centred and interactive complaint analysis and has relevance for functional and somatically explained complaints. The primarily somatically educated medical specialists may find it hard to acquire these 'new' interviewing strategies and may fear that it is very time-consuming. Even GPs reported that exploring and discussing avoidance behaviour and the influence of family and friends were new elements for them (van der Horst, 1997b). Eventually, patients will feel more effectively reassured (Suchman *et al.*, 1997) when all their complaint-related cognitions, emotions and behaviours and environmental factors are more explicitly and specifically explored and discussed with the doctor at an early stage.

## References

AGREUS, L., SVARDSUDD, K., NYREN, O. & TIBBLIN, G. (1995). Irritable bowel syndrome and dyspepsia in the general population: overlap and lack of stability over time. *Gastroenterology, 109*, 671–680.

BAUMANN, L.J., CAMERON, L.D., ZIMMERMAN, R.S. & LEVENTHAL, H. (1989). Illness representations and matching labels with symptoms. *Health Psychology, 8*, 449–469.

BENNETT, P. & WILKINSON, S. (1985). A comparison of psychological and medical treatment of the irritable bowel syndrome. *British Journal of Clinical Psychology, 24,* 215–216.

BEUKEMA-SIEBENGA, H. (1995). *To go or not to go. An explorative study on people who seldom consult a general practitioner* (thesis). Groningen: Wolters-Noordhoff.

BLEIJENBERG, G. & FENNIS, J.F.M. (1989). Anamnestic and psychological features in diagnosis and prognosis of functional abdominal complaints: a prospective study. *Gut, 30,* 1076–1081.

BYRNE, P.S. & LONG, B.E.L. (1976) *Doctors talking to patients: a study of the verbal behaviour of general practitioners consulting in their surgeries.* London: HMSO.

CAMERON, L., LEVENTHAL, E.A. & LEVENTHAL, H. (1993). Symptom representations and affect as determinants of care seeking in a community-dwelling, adult sample population. *Health Psychology, 12,* 171–179.

CAMERON, L., LEVENTHAL, E.A. & LEVENTHAL, H. (1995). Seeking medical care in response to symptoms and life stress. *Psychosomatic Medicine, 57,* 37–47.

CAMILLERI, M. & PRATHER, C.M. (1992). The irritable bowel syndrome: mechanisms and a practical approach to management. *Annals of Internal Medicine, 116,* 1001–1008.

CORNEY, R.H. & STANTON, R. (1990) Physical symptom severity, psychological and social dysfunction in a series of outpatients with irritable bowel syndrome. *Journal of Psychosomatic Research, 34,* 483–491.

CREED, F. (1994). Psychological treatment is essential for some. *British Medical Journal, 309,* 1647–1648.

DIEFENBACH, M.A. & LEVENTHAL, H. (1996). The common-sense model of illness representations: theoretical and practical considerations. *Journal of Social Distress and the Homeless, 5,* 11–38.

DROSSMAN, D.A. (1991a). Illness behaviour in the irritable bowel syndrome. *Gastroenterology International, 4,* 77–81.

DROSSMAN, D.A. (1991b). Psychosocial factors in the care of patients with gastrointestinal disease. In: T. YAMADA (Ed.), *Textbook of gastroenterology.* Philadelphia: Lippincott.

DROSSMAN, D.A. (1994) Struggling with the 'controlling' patient. *American Journal of Gastroenterology, 89,* 1441–1446.

DROSSMAN, D.A. (1995). Diagnosing and treating patients with refractory functional gastrointestinal disorders. *Annals of Internal Medicine, 123,* 688–697.

DROSSMAN, D.A. & THOMPSON, W.G. (1992). The irritable bowel syndrome: review and a graduated multicomponent treatment approach. *Annals of Internal Medicine, 116,* 1009–1016.

DROSSMAN, D.A., LI, Z., ANDRUZZI, E., TEMPLE, R.D., TALLEY, N.J., THOMPSON, W.G., WHITEHEAD, W.E., JANSSENS, J., FUNCH-JENSEN, P., CORAZZIARI, E., RICHTER, J.E. & KOCH, G.G. (1993). US householder survey of functional gastrointestinal disorders. *Digestive Diseases and Sciences, 38,* 1569–1580.

DROSSMAN, D.A., MCKEE, D.C., SANDLER, R.S., MITCHELL, C.M., CRAMER, E.M., LOWMAN, B.C. & BURGER, A.L. (1988). Psychosocial factors in the irritable bowel syndrome. *Gastroenterology, 95,* 701–708.

DROSSMAN, D.A., SANDLER, R.S., MCKEE, D.C. & LOVITZ, A.J. (1982). Bowel patterns among subjects not seeking health care. *Gastroenterology, 83,* 529–534.

DULMEN VAN, A.M., FENNIS, J.F.M., MOKKINK, H.G.A., VAN DER VELDEN, H.G.M. & BLEIJENBERG, G. (1994). Doctors' perception of patients' cognitions and complaints in irritable bowel syndrome at an out-patient clinic. *Journal of Psychosomatic Research, 38,* 581–590.

DULMEN VAN, A.M., FENNIS, J.F.M., MOKKINK, H.G.A., VAN DER VELDEN, H.G.M. & BLEIJENBERG, G. (1995). Doctor-dependent changes in complaint-related cognitions and anxiety during medical consultations in functional abdominal complaints. *Psychological Medicine, 25,* 1011–1018.

DULMEN VAN, A.M., FENNIS, J.F.M., MOKKINK, H.G.A. & BLEIJENBERG, G. (1996a). The relationship between complaint-related cognitions in referred patients with irritable bowel syndrome and subsequent health care-seeking behaviour in primary care. *Family Practice, 13,* 12–17.

DULMEN VAN, A.M., FENNIS, J.F.M. & BLEIJENBERG, G. (1996b). Cognitive-behavioral group therapy for irritable bowel syndrome: effects and long term follow-up. *Psychosomatic Medicine, 58,* 501–514.

DULMEN VAN, A.M., FENNIS, J.F.M., MOKKINK, H.G.A., VAN DER VELDEN, H.G.M. & BLEIJENBERG, G. (1997). Persisting improvement in complaint-related cognitions initiated during medical consultations in functional abdominal complaints. *Psychological Medicine, 27,* 725–729.

FOWLIE, S., EASTWOOD, M.A. & FORD, M.J. (1992). Irritable bowel syndrome: the influence of psychological factors on the symptom complex. *Journal of Psychosomatic Research, 36,* 169–173.

GREENE, B. & BLANCHARD, E.B. (1994). Cognitive therapy for irritable bowel syndrome. *Journal of Consulting and Clinical Psychology, 62,* 576–582.

GUTHRIE, E., CREED, F., DAWSON, D. & TOMENSON, B. (1991). A controlled trial of psychological treatment for the irritable bowel syndrome. *Gastroenterology, 100,* 450–457.

GUTHRIE, E., CREED, F., DAWSON, D. & TOMENSON, B. (1993). A randomised controlled trial of psychotherapy in patients with refractory irritable bowel syndrome. *British Journal of Psychiatry, 163,* 315–321.

HARVEY, R.F., GUNARY, R.M., HINTON, R.A. & BARRY, R.E. (1989). Individual and group hypnotherapy in treatment of refractory irritable bowel syndrome. *The Lancet, i,* 424–425.

HEIKKINEN, M., PIKKARAINEN, P., TAKALA, J., RASANEN, H. & JULKUNEN, R. (1995). Etiology of dyspepsia: four hundred unselected consecutive patients in general practice. *Scandinavian Journal of Gastroenterology, 30*, 519–523.

HEITKEMPER, M.M., JARRETT, M., CAIN, K.C., SHAVER, J., WALKER, E. & LEWIS, L. (1995). Daily gastrointestinal symptoms in women with and without a diagnosis of IBS. *Digestive Diseases and Sciences, 40*, 1511–1519.

HENBEST, R.J. & FEHRSEN, G.S. (1992). Patient-centredness: is it applicable outside the west? Its measurement and effect on outcomes. *Family Practice, 9*, 311–317.

HENBEST, R.J. & STEWART, M. (1990). Patient-centredness in the consultation. 2. Does it really make a difference? *Family Practice, 7*, 28–33.

HORST VAN DER, H.E. (1997). *Irritable bowel syndrome in general practice. How effective is patient education and counseling* (Thesis). VU Amsterdam.

HORST VAN DER, H.E., DULMEN VAN, A.M., SCHELLEVIS, F.G., EIJK VAN, J.TH.M., FENNIS, J.F.M. & BLEIJENBERG, G. (1997a). Do patients with irritable bowel syndrome in primary care really differ from outpatients with irritable bowel syndrome? *Gut, 41*, 669–674.

JOHNSEN, R., JACOBSEN, B.K. & FØRDE, O.H. (1986). Associations between symptoms of irritable colon and psychological and social conditions and lifestyle. *British Medical Journal, 292*, 1633–1635.

JONES, R. (1988). What happens to patients with non-ulcer dyspepsia after endoscopy? *The Practitioner, 232*, 75–78.

JONES, R. (1995). Management of the irritable bowel syndrome. *British Medical Journal, 310*, 1067.

JONES, R. & LYDEARD, S. (1992). Irritable bowel syndrome in the general population. *British Medical Journal, 304*, 87–90.

KAR VAN DE, A., GRINTEN VAN DER, R., MEERTENS, R., KNOTTNERUS, A. & KOK, G. (1992). Worry: a particular determinant of consultation illuminated. *Family Practice, 9*, 67–75.

KAY, L., JØRGENSEN, T. & JENSEN, K.H. (1994). The epidemiology of irritable bowel syndrome in a random population: prevalence, incidence, natural history and risk factors. *Journal of Internal Medicine, 236*, 23–30.

KETTELL, J., JONES, R. & LYDEARD, S. (1992). Reasons for consultation in the irritable bowel syndrome: symptoms and patient characteristics. *British Journal of General Practice, 42*, 459–461.

KLEIN, K.B. (1988). Controlled treatment trials in the irritable bowel syndrome: a critique. *Gastroenterology, 95*, 232–241.

LAMBERTS, H., BROUWER, H.J. & MOHRS, J. (1991). *Reason for encounter-, episode- and process-oriented standard output from the transition project.* Amsterdam: Department of General Practice/Family Medicine, University of Amsterdam.

LATIMER, P.R. (1981). Irritable bowel syndrome: a behavioral model. *Behaviour Research and Therapy, 19*, 475–483.

LEVENTHAL, H. & DIEFENBACH, M. (1992). Illness cognition: using common sense to understand treatment adherence and affect cognition interactions. *Cognitive Therapy and Research, 16*, 143–163.

LEVENTHAL, H., SAFER, M.A. & PANAGIS, D.M. (1983). The impact of communications on the self-regulation of health beliefs, decisions, and behavior. *Health Education Quarterly, 10*, 3–29.

LOWMAN, B.C., DROSSMAN, D.A., CRAMER, E.M. & MCKEE, D.C. (1987). Recollection of childhood events in adults with irritable bowel syndrome. *Journal of Clinical Gastroenterology, 9*, 324–330.

MORRELL, D.C. (1965). *The art of general practice.* Edinburgh: E. & S. Livingstone Ltd.

MURIS, J.W.M. & STARMANS, R. (1993). *Non acute abdominal complaints. Diagnostic studies in general practice and outpatient clinic.* Maastricht, RUL.

MURIS, J.W.M., STARMANS, R., FIJTEN, G.H., CREBOLDER, H.F.J.M., KREBBER, T.F.W.A. & KNOTTNERUS, J.A. (1993). Abdominal pain in general practice. *Family Practice, 10*, 387–390.

OWENS, D.M., NELSON, D.K. & TALLEY, N.J. (1995). The irritable bowel syndrome: long-term prognosis and the physician–patient interaction. *Annals of Internal Medicine, 122*, 107–112.

PAYNE, A. & BLANCHARD, E.B. (1995). A controlled comparison of cognitive therapy and self-help support groups in the treatment of irritable bowel syndrome. *Journal of Consulting and Clinical Psychology, 63*, 779–786.

PHILIPS, H.C. (1987). Avoidance behaviour and its role in sustaining chronic pain. *Behaviour Research and Therapy, 25*, 273–279.

ROBBINS, J.M. & KIRMAYER, L.J. (1991). Attributions of common somatic symptoms. *Psychological Medicine, 21*, 1029–1045.

SANDLER, R.S., DROSSMAN, D.A., NATHAN, H.P. & MCKEE, D.C. (1984). Symptom complaints and health care seeking behavior in subjects with bowel dysfunction. *Gastroenterology, 87*, 314–318.

SMITH, R.C., GREENBAUM, D.S., VANCOUVER, J.B., HENRY, R.C., REINHART, M.A., GREENBAUM, R.B., DEAN, H.A. & MAYLE, J.E. (1990). Psychosocial factors are associated with health care seeking rather than diagnosis in irritable bowel syndrome. *Gastroenterology, 98*, 293–301.

SOX, H.C., MARGULIES, I. & HILL SOX, C. (1981). Psychologically mediated effects of diagnostic tests. *Annals of Internal Medicine, 95*, 680–685.

STARMANS, R., MURIS, J.W.M., FIJTEN, G.H., SCHOUTEN, H.J.A., POP, P. & KNOTTNERUS, J.A. (1994). The diagnostic value of scoring models for organic and non-organic gastrointestinal disease; including the irritable bowel syndrome. *Medical Decision Making, 14*, 208–216.

STEWART, M., BROWN, J.B. & WESTON, W.W. (1989). Patient-centred interviewing. Part III: Five provocative questions. *Canadian Family Physician, 35*, 159–161.

STEWART, M.A. (1984). What is a successful doctor–patient interview? A study of interactions and outcomes. *Social Science and Medicine, 19*, 167–175.

SUCHMAN, A.L., MARKAKIS, K., BECKMAN, H.B. & FRANKEL, R. (1997). A model of empathic communication in the medical interview. *Journal of the American Medical Association, 26*, 678–682.

SVEDLUND, J., SJÖDIN, I., OTTOSON, J.O. & DOTEVALL, G. (1983). Controlled study of psychotherapy in irritable bowel syndrome. *The Lancet, ii*, 589–592.

TALLEY, N.J., ZINSMEISTER, A.R. & MELTON, L.J. (1995). Irritable bowel syndrome in a community: symptom subgroups, risk factors, and health care utilization. *American Journal of Epidemiology, 142*, 76–83.

TALLEY, N.J., ZINSMEISTER, A.R., VAN DYKE, C. & MELTON, L.J. (1991). Epidemiology of colonic symptoms and the irritable bowel syndrome. *Gastroenterology, 101*, 927–934.

THOMPSON, W.G., DOTEVALL, G., DROSSMAN, D.A., HEATON, K.W. & KRUIS, W. (1989). Irritable bowel syndrome: guidelines for the diagnosis. *Gastroenterology International, 2*, 92–95.

VERBRUGGE, L.M. & ASCIONE, F.J. (1987). Exploring the iceberg. Common symptoms and how people care for them. *Medical Care, 25*, 539–569.

WEBER, F.H. & MCCALLUM, R.W. (1992). Clinical approaches to irritable bowel syndrome. *The Lancet, ii*, 1447–1452.

WHITEHEAD, W.E., BOSMAJIAN, L., ZONDERMAN, A.B., COSTA, P.T. & SCHUSTER, M.M. (1988). Symptoms of psychologic distress associated with irritable bowel syndrome. *Gastroenterology, 95*, 709–714.

WHITEHEAD, W.E., WINGET, C., FEDORAVICIUS, A.S., WOOLEY, S. & BLACKWELL, B. (1982). Learned illness behavior in patients with irritable bowel syndrome and peptic ulcer. *Digestive Diseases and Sciences, 27*, 202–208.

WHORWELL, P.J., PRIOR, A. & FARAGHER, E.B. (1984). Controlled trial of hypnotherapy in the treatment of severe refractory irritable bowel syndrome. *The Lancet, ii*, 1232–1234.

WINEFIELD, H.R., MURRELL, T.G.C., CLIFFORD, J.V. & FARMER, E.A. (1995). The usefulness of distinguishing different types of general practice consultation, or are needed skills always the same? *Family Practice, 12*, 402–407.

WINEFIELD, H., MURRELL, T., CLIFFORD, J. & FARMER, E. (1996). The search for reliable and valid measures of patient-centredness. *Psychology and Health, 11*, 811–824.