Communication between social insurance physicians and work disability claimants

Jolanda van Rijssen

BODY@WORK

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This thesis was prepared within the Department of Public and Occupational Health, the EMGO Institute for Health and Care Research (www.emgo.nl), and the Research Center for Insurance Medicine of AMC-UMCG-UWV-VUmc (KCVG, www.kcvg.nl) of the VU University Medical Center, Amsterdam, The Netherlands. The EMGO Institute for Health and Care Research participates in the Netherlands School of Primary Care Research (CaRe), which was re-acknowledged in 2005 by the Royal Netherlands Academy of Arts and Sciences (KNAW). The studies in this thesis were performed in collaboration with TNO Quality of Life, Hoofddorp, The Netherlands, and the Dutch Institute of Employee Benefit Schemes (UWV: 'divisie Sociaal Medische Zaken' and 'afdeling Opleidingen' of the 'Centraal Expertise Centrum UWV'), Amsterdam, The Netherlands. The EMGO Institute for Health and Care Research and TNO Quality of Life participate in Body@Work, Research Center on Physical Activity, Work and Health (www.bodyatwork.nl), which is a joint initiative of the VU University Medical Center (Department of Public and Occupational Health, EMGO Institute for Health and Care Research), VU University Amsterdam, and TNO Quality of Life.

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Contents

Chapter 1

General introduction

"I consider communication to be a very important part of my work in the consulting room"
(social insurance physician, female, working as a social insurance physician for 15 years)

"Our profession actually has more to do with social contact; it's not about being formal. We try to communicate in such a way that people feel at ease when they tell their story."
(social insurance physician, male, working as a social insurance physician for 9 years)

"The physician left me in uncertainty about his conclusions. Later on, that made me worried."
(work disability claimant, female, 35 years)

"The interview was very positive. I did not like the idea of it, but I was reassured and everything was clarified satisfactorily! When the emotions ran high, the physician asked if I needed a break."
(work disability claimant, female, 49 years)

These quotations illustrate, both from the perspective of the physician and from that of the medical disability claimant, that there are many reasons why communication of physicians is important in performing work disability assessment interviews. Also from other perspectives its importance seems obvious. Yet, scientific research has paid hardly any attention to it.

Focus of this thesis

This thesis focuses on communication in face-to-face encounters between social insurance physicians and work disability claimants during assessment interviews for disability benefits. Special attention is paid to the development and evaluation of a communication skills training course for social insurance physicians. This first chapter will present the main definitions used in this thesis. In addition, an explanation is given of the importance of communication in physician-patient encounters in general, and in work disability assessment interviews in particular. At the end of this chapter, the objectives and outline of this thesis are presented.

Main definitions in this thesis

According to the MeSH Dictionary [1] 'communication' is a subcategory of behaviour. In this thesis, we have defined communication in accordance with the MeSH Dictionary

as verbal and nonverbal exchange and transmission of information between the social insurance physician and the disability claimant during a face-to-face encounter. This exchange of information is a continuous, dynamic, two-directional process. The information may include facts, ideas, opinions, attitudes, beliefs, emotions, and feelings. The exchange of information may be both conscious and unconscious.

It is difficult to define when communication is adequate and when it is inadequate. Moreover, definitions change over time. In this thesis, communication is considered to be adequate when it is two-directional and the transferred information is likely to be understood as it was intended, resulting in a mutual understanding. Adequate communication includes that the expectations of both the physician and the claimant (e.g. expectations with regard to the roles of both people) are either met or if they are not met, this lack of meeting expectations is explicitly addressed. Also, adequate communication meets both the cognitive and the emotional needs of the claimants, in an evenly balanced way. In general, cognitive needs ask for instrumental communication by the physician (e.g. information, advice) and emotional needs ask for affective communication (e.g. empathy, emotional support) [2-4].

Other terms that are used regularly to indicate communication between people are 'interaction' and 'interpersonal interaction'. Interaction is less well defined in, for example, the MeSH Dictionary and seems to be used less in scientific writing than communication. Therefore, we have chosen to use communication in this thesis instead of interaction, even though – at least in the Dutch language – both terms have a comparable, largely overlapping meaning.

Relevance of this thesis

In everyday life adequate and effective communication is of great importance. This importance extends to working life [5], especially when jobs are concerned in which the professional is supposed to help, guide, or advise other people (e.g. psychologist, physician). In these professions, adequate communication skills are essential for delivering good care [6-8]. Therefore, it is not surprising that there exist numerous guidelines [9] and approaches in communication skills training for professionals [8,10].

Why is communication in physician-patient consultations important?

In scientific research, it was found that the quality of care of physicians and the degree of effective communication are related. For example, a higher quality of care positively influences the information exchange and leads to a higher satisfaction of patients with the encounter [9,11]. Furthermore, physicians who have adequate communication skills tend to identify problems of patients more accurately [12]. The importance of adequate communication is also stressed by other research findings. It was found that patients often do not understand what physicians tell them about their diagnosis and

treatment [13]. Also, more complaints and malpractice claims are filed against physicians who communicate worse [14,15]. The other way around, physicians who have no history of malpractice claims communicate better. For example, they spent more time explaining the content of the encounter and making sure the patient understood what was talked about [16].

The previous examples are from curative care, but also research findings from other areas of medicine, such as occupational medicine, stress the importance of adequate communication. Studies have indicated that adequate physician communication may increase the likelihood of return-to-work [17,18]. Also, it was found that workers, occupational physicians, insurers, and other stakeholders involved in return-to-work, experience ineffective communication as a barrier for return-to-work [19]. Moreover, communication skills are believed to be an important competency of return-to-work coordinators [20].

Adequate communication skills are not only important from a patient perspective – because of better advice, better care, and a more pleasant encounter – but also from a physician perspective. Physicians with adequate communication skills were found to have less work stress and greater job satisfaction [12]. Therefore, not only patients or claimants, but also physicians themselves, may benefit from adequate communication.

Why is communication in social insurance medicine important?

There are many similarities, but also several pronounced differences between the physician-patient relationship in curative medicine and the physician-claimant relationship in social insurance medicine. Most importantly, contrary to other physicians, social insurance physicians have to assess the functional capacity and ability to work of claimants, who have claimed for a disability benefit. A major part of this assessment is the assessment interview. In this interview, communication is the main method of information gathering. Therefore, communication can be considered a core competence in the profession of social insurance physicians. Moreover, performing a proper assessment means that social insurance physicians have to ask the right questions in an adequate way, in order to get the right information and to reach a legally fair conclusion. When all this information is gathered, the physician's task turns into giving information, by telling the claimant the conclusions from the interview. This 'switch' is more pronounced than in other physician-patient consultations. Especially when the conclusions do not meet the claimant's wishes or expectations, this is a difficult task. Therefore, social insurance physicians, apart from the medical skills, have to have adequate listening skills and skills in reassuring claimants in order that claimants provide them with the necessary information, and simultaneously have adequate skills in bringing (bad) news.

For the claimant, a disability benefit is at stake. Also, an important aspect of the claimant's life – work and the ability to perform it or not – is discussed. Therefore,

emotions can run high. The physician should be emphatic and should be able to make time for these emotions, also when the claimant does not show these overtly. However, social insurance physicians generally work under time-restrictions and may only meet the claimant once, which can make this challenging. In addition, the physicians and the claimant have no free choice about whether they want to do the interview with the other person or not. They are dependent on each other, and whether or not they like each other initially, will influence the communication.

Objectives and outline of this thesis

In view of the above, it is not surprising that both claimants and physicians consider communication in medical disability assessments important [21,22]. It is essential that communication is addressed in research. Moreover, the results of such research should become available to social insurance physicians in practice. In line with that, this thesis had two main objectives:

I To explore the determinants of behaviour of both social insurance physicians and work disability claimants with regard to their communication during assessment interviews for disability benefits.

II To develop (using the results of the first objective and additional information) and evaluate a post-graduate communication skills training course for social insurance physicians.

Chapter 2 presents the theoretical framework that was the starting point in designing the studies described in chapters 3-5. This framework is a conceptualisation of a model for the communication behaviour of social insurance physicians and their claimants, in face-to-face encounters during work disability assessment interviews and the preparation thereof. It was based on the Theory of Planned Behaviour (TPB) and the Attitude/Social influence/Self-efficacy model. In **chapter 3**, the determinants of communication behaviour of social insurance physicians are addressed. These determinants are attitudes, social influence, self-efficacy, skills, barriers, and intentions concerning their communication with claimants in assessment interviews. The aim of chapter 3 was to understand these determinants, by modelling them starting from the TPB. In the study described in **chapter 4**, we firstly aimed to determine which types of disability claimants can be distinguished, based on the determinants of their communication behaviour. Secondly, we investigated their opinions about communication, with the aim to determine if the types of claimants differed in their perception of communication behaviour and their satisfaction with the communication with social insurance physicians. **Chapter 5** brings together the perspectives of social insurance physicians and claimants by studying their agreements and differences of opinion about the same assessment interviews. The study described in this chapter aimed to gain insight into the differences between expectations of claimants about the

communication before an assessment interview and their opinions after that interview. Furthermore, this study aimed to gain insight into the differences between these opinions of claimants and the estimated claimant opinion by the social insurance physician who performed the assessment interview. In **chapter 6**, the results of a systematic review of literature concerning strategies for teaching qualified physicians communication skills are presented. The aim of this review was to identify effective training strategies. **Chapter 7** discusses a focus group study. The aim of this study was to investigate: (1) the content of stereotypes used to classify claimants with regard to the way in which they communicate during assessment interviews; (2) the origins of such stereotypes; (3) the advantages and disadvantages of stereotyping in assessment interviews; and (4) how social insurance physicians minimise the undesirable influences of negative stereotyping. In **chapter 8** the results of chapters 3-7 are combined and integrated. The aim of the study presented in this chapter was to systematically develop a training course aimed at adequate communication of social insurance physicians during work disability assessment interviews with claimants, and to plan an evaluation of that training course. **Chapter 9** describes the results of the evaluation of this post-graduate training course in a randomised controlled trial. The main aims of this study were to assess whether the training course would increase competence and knowledge with regard to communication, and whether it would change the determinants of physicians' communication behaviour. Additionally, we evaluated the opinions about the training course of the participating social insurance physicians. Finally, in **chapter 10**, the results of all chapters are critically discussed and put into perspective, followed by implications for practice and directions for further research.

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Chapter 2

A theoretical framework to describe communication processes during medical disability assessment interviews

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Abstract

Background: Research in different fields of medicine suggests that communication is important in physician-patient encounters and influences satisfaction with these encounters. It is argued that this also applies to the non-curative tasks that physicians perform, such as sickness certification and medical disability assessments. However, there is no conceptualised theoretical framework that can be used to describe intentions with regard to communication behaviour, communication behaviour itself, and satisfaction with communication behaviour in a medical disability assessment context.

Objective: The objective of this paper is to describe the conceptualisation of a model for the communication behaviour of physicians performing medical disability assessments in a social insurance context and of their claimants, in face-to-face encounters during medical disability assessment interviews and the preparation thereof.

Conceptualisation: The behavioural model, based on the Theory of Planned Behaviour (TPB), is conceptualised for the communication behaviour of social insurance physicians and claimants separately, but also combined during the assessment interview. Other important concepts in the model are the evaluation of communication behaviour (satisfaction), intentions, attitudes, skills, and barriers for communication.

Conclusion: The conceptualisation of the TPB-based behavioural model will help to provide insight into the communication behaviour of social insurance physicians and claimants during disability assessment interviews. After empirical testing of the relationships in the model, it can be used in other studies to obtain more insight into communication behaviour in non-curative medicine, and it could help social insurance physicians to adapt their communication behaviour to their task when performing disability assessments.

Background

In addition to their curative tasks, physicians also often perform different types of medical assessments, such as those that are needed for sickness certification, disability legislation, and social insurance. National standards for these medical assessments vary considerably, but there are several basic principles. In this paper, social insurance medicine in the Netherlands will serve as an example. An important task of physicians working in this field of medicine is to assess the medical status or work capacity of employees with prolonged sick-leave. The medical assessment is the first step in determining whether or not the employee, or claimant, is entitled to social security benefits. In addition to the available information and a physical examination, the key component of this medical assessment is the assessment interview, during which the claimant and the physician meet face-to-face. This interview differs from an ordinary physician-patient encounter, because it is of a less voluntary nature than a physician-patient encounter in curative medicine (i.e. the people who are involved have no choice with regard to participation in the assessment interview) and the physician's assessment has legal consequences for the claimant. The social insurance physician's assessment of the employee's work capacity determines the entitlement to social security benefits [1-3]. The attitude and communication behaviour of the social insurance physician during the assessment is likely to influence the behaviour and cooperation of the claimant, and may thus influence the quality of the information that is obtained and the accuracy of the disability assessment. Similarly, the attitude of the claimant and the claimant's coping behaviour will also influence the content and course of the communication during the assessment, and the quality of the information that the physician receives from the claimant.

Objective

In social insurance medicine, the style and content of communication behaviour may not only influence the disability assessment process, but possibly also the outcome of the assessment. In view of the influence of communication behaviour in these physician-claimant encounters, and in order to gain insight into the complexity and dynamics of this behaviour, it is important to develop a conceptualised theoretical framework. Therefore, the objective of this article is to describe the conceptualisation of a model for the communication behaviour of social insurance physicians and of their claimants in face-to-face encounters during medical disability assessment interviews. This conceptualisation will be based on the Theory of Planned Behaviour (TPB), and the main relationships in the TPB will be discussed in the context of disability assessment interviews. Along the lines of this theory, we will refer to literature indicating that communication behaviour of social insurance physicians during assessment interviews can be predicted from a combination of their attitudes, experienced social influence, self-efficacy, intentions with regard to behaviour, skills,

and barriers for communication with claimants in general. Analogously, we will present literature findings to indicate that the communication behaviour of claimants during the assessment interview can be predicted from their attitudes, intentions, skills, and barriers for their communication with social insurance physicians, or communication with physicians in general if they had no prior experience with social insurance physicians.

The importance of communication behaviour

Communication is generally defined as a process of transferring information from one source to another. This broad definition is also applicable to the transfer of information between the social insurance physician and the claimant, i.e. the behavioural process of reciprocal contact between social insurance physician and claimant during their face-to-face assessment interview, aimed at (verbal and non-verbal) continuous, dynamic, two-directional information exchange. Information exchange is used here as a broad term to describe exchange and transmission of facts, opinions, feelings, etc. (conscious as well as unconscious), including the development of an interpersonal relationship and mutual trust within the communication process.

Good and effective communication is essential for the provision of good medical care. The importance of communication for physicians in a sickness certification or disability assessment setting is possibly even more pronounced, as has been clearly illustrated by O'Brien et al. [4]. In their interview study, patients who visited a general practitioner for a sick note indicated that a good doctor-patient relationship was important to them, as were opportunities to talk about various illness-related issues. Moreover, many of these patients stated that doctors lack the necessary time and knowledge for this purpose [4]. On the other hand, doctors also experience difficulties with the relationship during sickness certification consultation, but they believe that communication is one of the most important aspects of sickness certification as well [5].

Very few studies have focussed on the importance of communication during assessment interviews or sickness certification consultations [6], but it has been found that the way in which doctors approach their patients (i.e. the degree of proactive communication: taking the initiative and anticipating the claimant) when discussing return to work was related to the duration of the workers' compensation benefit. More proactive communication was associated with a shorter period of disability benefit, albeit only in the first thirty days [7]. Moreover, the fact that communication is, indeed, important for both the social insurance physician and the claimant, was illustrated by the finding that many of the complaints made by claimants to the social insurance company concerned being treated discourteously by social insurance physicians or by labour experts [8]. Lippel investigated the possible beneficial and adverse effects of the sickness compensation assessment process for injured employees. These claimants

mentioned mental health problems as the most pronounced adverse effects of the assessment process. Stigmatisation, prejudice and lack of support were all contributing factors [9]. Moreover, it has been suggested that increased transparency of the medical disability assessments can result in less complaints about malpractice, by increasing the claimant's satisfaction with and acceptance of the outcome of the assessment [10]. Greater transparency might also increase their general acceptance in political decision-making and society in general [11].

In studies focussing on social insurance physician-claimant communication, the intentions and behaviour of the claimants were found to be just as important as the intentions and behaviour of the physicians. For example, the 'Eurocommunication Studies' focussing on communication between general practitioners and patients in ten European countries, found that it was not primarily the health care system, but patient characteristics that have the greatest influence on communication. Conversely, the contribution of physician characteristics was found to be of less importance [12]. Other important characteristics are age, gender, and social class. Examples of physician-specific characteristics are medical speciality and income, and examples of patient-specific characteristics are prognosis, level of education and health beliefs [13].

The behavioural model

To gain insight into communication behaviour during disability assessment interviews, a behavioural theory (a theory according to which behaviour is learned instead of being innate) was taken as a starting point. There are many common aspects of behavioural theories (also called motivational theories or cognitive theories; for example [14]). Well known theories, such as the Social Cognitive Theory (SCT) [15], the Theory of Reasoned Action (TRA) [16,17], the Theory of Planned Behaviour (TPB) [18], and the Attitude/Social influence/self-Efficacy model (ASE model) [19,20], for example, share the concepts of attitudes, behaviour, intentions with regard to behaviour, self-efficacy, social influence, skills, and barriers. Attitudes refer to beliefs or consistent, external evaluations of another person, action, or idea; intentions are the willingness to adopt a certain behaviour; self-efficacy is the confidence and ability to be able to act adequately in a given situation; social influence is the influence of social norms and beliefs of relevant others on a person's actions; skills concern the capacity to adopt certain behaviour; barriers are potential obstructions that could prevent the occurrence of certain behaviour. Of all the theories mentioned, the TPB and the ASE model are the most recent and comprehensive models. The TPB is based on three types of beliefs: (1) beliefs about and evaluations of the likely results of behaviour, which lead to positive and negative attitudes towards behaviour; (2) beliefs about and evaluations of norms and expectations of others, which lead to compliance with or rejection of these subjective norms; and (3) beliefs about behaviour-facilitating or behaviour-impeding factors and their strength, which lead to perceived behavioural control. The combination of attitudes, subjective norms, and perceived behavioural

control (also referred to as self-efficacy) leads to behavioural intentions, which then lead to behaviour [17,18]. The main difference between the TPB and the ASE model is that the latter explicitly takes the influence of (objective) skills and barriers into account, whereas the TPB does not. However, the TPB has been studied more extensively.

The applicability of the TPB to communication behaviour in medical encounters has been assessed in several reviews, for example by Perkins et al. [21] and Eccles et al. [22] who investigated the relationship between intentions and behaviour. Physician-patient communication was investigated (i.e. education of the patient by the physician) in one study [23] in the Perkins et al. review [21], and it was concluded that the intentions of the general practitioners to provide patients with information were related to their attitudes and, in combination with self-efficacy, also to their behaviour. One study in the Eccles et al. review [22] concerned physician-patient communication in terms of patient education [24]. From the results of this study it was concluded that the TPB (e.g. self-efficacy regarding the education of patients) is a better predictor of intentions and future behaviour than the TRA.

Godin et al. [25] pointed out the weaknesses of both reviews [21,22] and they performed another review of many social behavioural theories. They identified six studies in which physician-patient communication was included, for instance by providing education and addressing mental health problems. It is remarkable that all of these studies used the TPB as their theoretical basis. The review [25] resulted in two important conclusions. Firstly, it showed that the efficacy of the TPB in predicting intentions and behaviour differed when different physicians participated in the study, different behaviour was studied, different methodology was applied, etc. Secondly, it nevertheless seems possible to predict the intentions and behaviour of health professionals on the basis of the social behavioural theories. The authors conclude that the TPB provides a good theoretical framework with which to predict behaviour [25]. In the field of sickness certification and social insurance medicine, we are not aware of any reviews that have been carried out to evaluate the application of the TPB to communication behaviour. We do, however, know of one study in which the TPB was applied to communication behaviour. Croon and Langius [26] studied the process of sickness certification assessment by social insurance physicians. They took the TPB as a starting point, because they wanted to find out why social insurance physicians assess in a certain way, and were therefore interested in their motivation. They found the TPB very useful [26].

The TPB has also been applied to assess patient behaviour by many researchers. It was used by Munro et al. [14] in their review of adherence to medication, and by Brawley and Culos-Reed [27] in their review of adherence and behaviour change. As will be explained below, the unique features of the contact between a social insurance physician and a claimant, compared to contact between other doctors (such as general practitioners or specialists) and their patients, support

the choice of the TPB as a basis from which to investigate social insurance physician-claimant communication.

Specific features of social insurance physician-claimant communication

The core concept of the present conceptualisation is communication behaviour, and in the social insurance physician-claimant contact there are two important aspects of this behaviour: "to gather sufficient information ... in a caring way" ([28], p. 1118). In other words, according to the Ong et al. review [29], the two main purposes of communication behaviour are "(a) creating a good inter-personal relationship and (b) exchanging information" (p. 903). From the social insurance physician's point of view, these two perspectives could be summarised respectively in the interview as patient-centred behaviour (i.e. behaviour that puts the patient and his/her concerns, perspective and information needs first), and physician-centred behaviour (i.e. behaviour that puts the physician's perspective and information needs first) [28]. The distinction between the two perspectives resembles the division in health care between instrumental (also referred to as task-oriented, paternalistic, or disease-oriented) and affective (also referred to as patient-oriented) patient-doctor relationships [e.g. [30-32]]. Instrumental relationships concern aspects of the relationship between the social insurance physician and the claimant that explicitly serve a goal (information-giving and information-seeking), and affective relationships concern collaborative, social-emotional aspects of the relationship between the social insurance physician and the claimant (positive and negative social talk). This also resembles differences in psychotherapeutic approaches, such as person-centred or client-centred psychotherapy and the more directive therapies. The instrumental model used to be a popular approach in medicine, but the affective approach is now more common [33,34]. However, different patients might prefer a different type of approach, depending for instance on the nature of their health complaints [35].

Although both the instrumental aspect and the affective aspect are important, the main focus of social insurance assessment interviews is an instrumental aim, i.e. gathering information to make the most accurate assessment of the functional capacity of the claimant, whereas in curative medicine there is often an equally strong focus on the affective aim, i.e. empathy, because patients often have a great need for reassurance. Within the assessment, the social insurance physician's main task is to assess the claimant's work capacity in relation to the medical disabilities, and not to cure or care for the claimant. Van den Brink-Muinen et al. [12,31] also concluded from their international comparison study that communication patterns between Dutch general practitioners and their patients are oriented towards instrumental behaviour (e.g. giving information and advice). Affective behaviour was also observed, but to a lesser degree than in other European countries [31]. Of course, the claimant might also ask for information, for example about the assessment process and the outcome (e.g. method of assessment, perceived work capacity, consequences for disability

benefits, etc.). In addition, the claimant has an explicit or implicit need for a certain degree of empathy (e.g. someone to listen to his/her worries and frustrations, reassurance, emotional support in talking about disabilities), and possibly needs to be motivated or slowed down with regard to job performance. In this respect, the social insurance physician's background knowledge and experiences could, in general terms, be seen as his/her intentions during the communication, his/her self-efficacy, his/her skills, and perhaps even the social influence of others, such as colleagues and the employer.

Social insurance physicians generally work under substantial time-restrictions, and in some cases they only meet the claimant once, the latter unlike other physicians, such as general practitioners or specialists. Therefore, the social insurance physician's previous experience of communication with claimants and intentions, or general and claimant-specific preferences with regard to this communication, will have considerable influence on the communication behaviour during each specific contact. Moreover, the physician and the claimant have no choice with regard to participation in the assessment interview. They are thus dependent on each other, and whether or not they like each other initially – whatever the reason may be – will influence their communication. Empirical findings from social psychology research suggest that similarities in attitudes and behaviour are important in first-time encounters between people, and lead to better communication and personal attraction. This also applies to many other similarities in attitudes and behaviour [36-39], and can help to solve language problems and remove emotional barriers. It is important to note that these similarities not only increase the effectiveness of the exchange of information, but they also influence the emotional relationship: similarity in behaviour leads to personal attraction between people. Moreover, research findings indicate that this personal attraction is closely related to feelings of security and trust [40], and that during medical encounters, similarities between physicians and their patients enhance their communication and their satisfaction with it [41]. However, cultural differences cause problems in communication [42]. Similarities or differences between the social insurance physician and the claimant might therefore influence the course of their communication. Especially, during a once only or occasional contact, or when there is limited time to establish a relationship, the physician must quickly make the claimant feel at ease in order to obtain the information that is necessary for the assessment. In such situations the claimant has little time to gain trust in the physician in order to feel comfortable enough to talk in detail about his of her medical problems.

In social insurance medicine, not only the communication behaviour itself, but also satisfaction with that behaviour may play an important role, because to a certain extent satisfaction determines how, and how efficiently information is exchanged. If a physician is unhappy with the communication during an assessment interview, he is more likely to change his behaviour and look for different ways in which to gather the necessary information. Similarly, the satisfaction of a claimant will probably influence

his or her willingness to provide the physician with the necessary information. Moreover, assessment interviews are daily routine for social insurance physicians, whereas they are only incidental for claimants.

From the perspective of the physician it is important to note that there are two distinct groups of claimants. Those in the first group have had previous experience of an assessment interview, which means that they already know what to expect (their expectations and attributes are perhaps more realistic), or at least know more about how an assessment interview is conducted (whether good or bad) and will behave accordingly. For this reason, they will probably feel that they have more control over the interview and the communication. Their intentions and preparations will probably differ from those of the claimants in the second group, for whom it is the first assessment interview for a disability benefit. For example, claimants with previous experience will probably base their expectations on visits to physicians in general or a description of the procedure, which may be based on positive or negative stories about assessment interviews.

An overview of the conceptualisation

In summary, it can be concluded from the three reviews discussed above [21,22,25] that the TPB is an appropriate starting point for investigating the key components of physician-claimant communication behaviour. The theoretical framework we therefore propose to use will be explained below, and is presented in Figure 2.1. In general terms, the model states that a combination of attitudes to communication behaviour, social influences, and self-efficacy, leads to the intentions of social insurance physicians to adopt that communication behaviour. Self-efficacy influences the skills to adopt the behaviour, and depending on these skills and on barriers preventing the physician from adopting it (the concepts of skills and barriers are derived from the ASE model), these intentions will or will not lead to several core aspects of actual communication behaviour. The specific characteristics of social insurance physician-claimant communication support the use of this general theoretical framework. As the figure shows, we make a distinction between the assessment interview itself and the preparatory phase, in which the physician and the claimant mentally prepare for the assessment interview independently. The preparatory phase for the physicians consists of their attitudes and intentions with regard to communication with claimants in general. Both the instrumental, physician-centred orientation and the affective, patient-centred orientation are included in those core-aspects. Furthermore, the physician will be influenced by other people, have a certain degree of self-efficacy, master specific skills, and experience specific barriers.

At the centre of the model is the actual assessment interview, during which both the physician and the claimant are present. This is the action phase that follows the preparatory phase. The core issue of an assessment interview is the communication behaviour, and how this is perceived and evaluated by the people involved. Since both

people are present during the assessment interview and the exchange of information is a continuous, dynamic process, the model states that the behaviour of the physician influences that of the claimant, and vice versa. The psychological mechanisms of 'transference' (the claimant expresses feelings, wishes and experiences towards the physician that are actually felt towards other people who are of were important in the claimant's life) and 'countertransference' (reactions from the physician to the claimant) might be involved here. Moreover, there will always be interaction between the occurrence of and satisfaction with the communication behaviour, both of which are constantly changing and influencing each other. This is in line with findings that the general consultation characteristics of patients and physicians might influence their satisfaction [e.g. [43,44]], and that satisfaction is related to a patient's perceptions of an encounter, but not to more objective observations [45]. Therefore, the core of our framework stresses the more subjective, perceived communication behaviour and

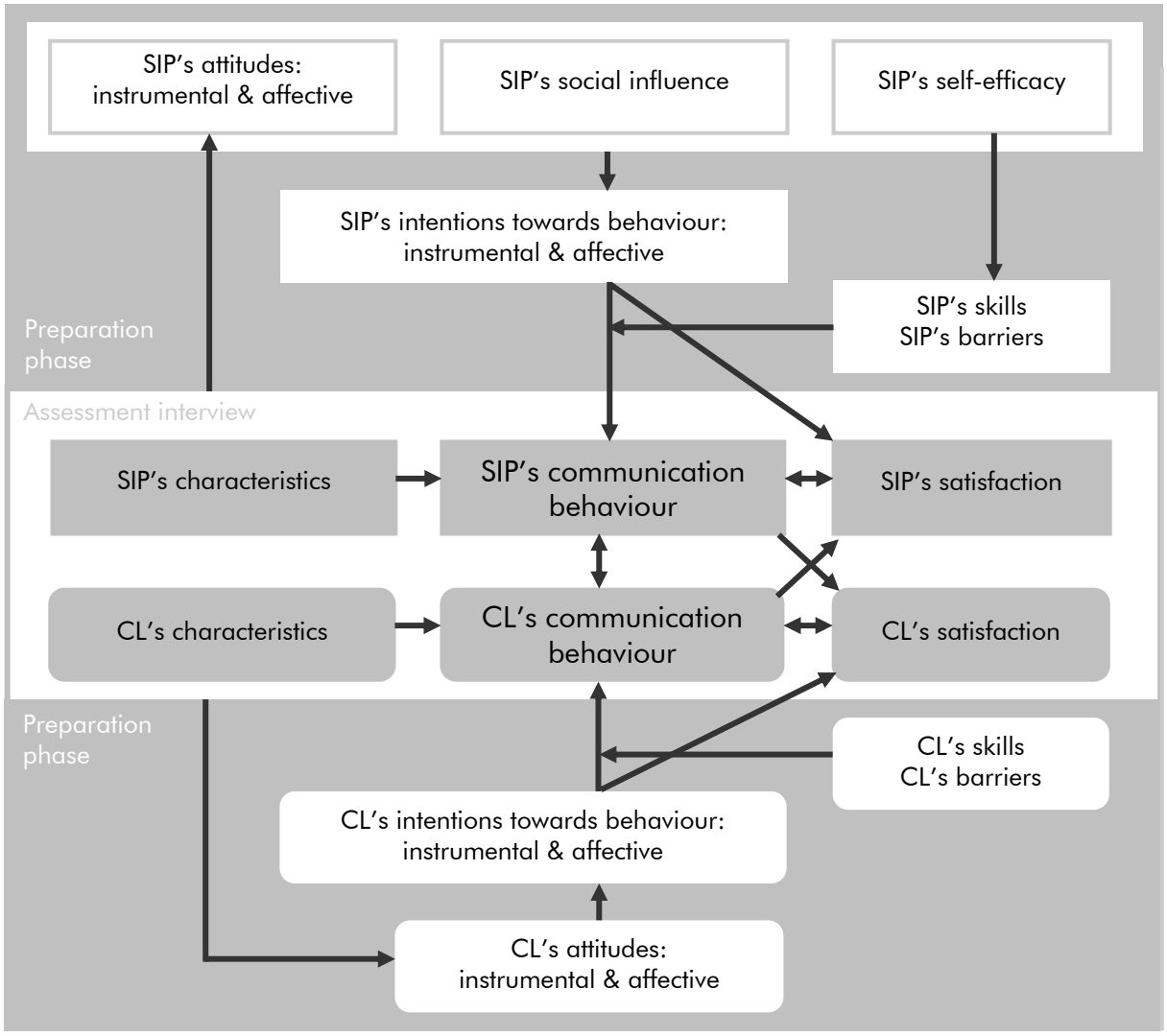

Figure 2.1: Behavioural model regarding communication between social insurance physicians (SIP) and claimants (CL) during assessment interviews.

people's evaluations of that behaviour (i.e. satisfaction), instead of objective, observable behaviour. The full theoretical framework that results is substantial, in that it covers the communication process as a whole, including the relationships between the different aspects and persons involved, and 'environmental' aspects, such as the personal characteristics of the people involved. This 'ecological approach' (i.e. an approach that states that behaviour results from multiple sources which interact, including the person himself/herself, other people, and the context, including the situation and environment), is advocated by Street et al. [46], who argue that an ecological approach is the most suitable method for describing physician-patient communication. They stress that from an ecological viewpoint all relevant influences on the communication are taken into account within the context of the medical consultation.

The conceptualisation for social insurance physicians

In the following, we will conceptualise the theoretical model applied to communication behaviour during assessment interviews. We will do this for the social insurance physician and the claimant separately. A summary is presented in Table 2.1.

Behaviour

The core concept of the present conceptualisation, based on the TPB, is communication behaviour, which occurs when the social insurance physician and the claimant meet during the assessment interview. At this point, the communication process takes place, and both people will have an opinion about the content and process of this communication behaviour. Given the afore mentioned arguments, both the instrumental and the affective dimensions of communication behaviour are important. Instrumental behaviour, for example, includes applying technical skills such as the specific method of asking questions and summarising the information the claimant provides. Examples of affective behaviour are expressing empathy and making contact in a respectful way. Derived from the TPB, intentions with regard to the communication (i.e. assessment styles), and the physician's communication skills and perceived barriers are conceptualised to influence the communication behaviour. Assessment styles, and especially the preferred assessment style(s) of the physician are believed to influence his perception of the claimant's communication behaviour and thus his/her appraisal thereof. The same applies to barriers, such as expectations based on knowledge of the claimants records or previous experiences of similar claimants. Personal intentions might 'precondition' perception of the other people's intentions, and hence their behaviour. This is in line with the results of Adler's overview [47], in which he found that empathy was the result of mutual responses. We postulate that the communication behaviour of the claimant will influence that of the physician and vise versa (which we will explain below). The physician will probably change his or

her own behaviour, either consciously or unconsciously, in reaction to the behaviour of the claimant [47]. For instance, if the physician dislikes the claimant's behaviour, he or she will attempt to change it or minimise the negative consequences. Moreover, the physician's satisfaction with the communication is also influenced by the claimant's behaviour.

Summarising, the physician's communication behaviour influences and is influenced by the claimant's communication behaviour. In turn, the claimant's behaviour influences the physician's satisfaction with the communication, which will subsequently influence the behaviour of the physician, at which point the circle is closed.

Table 2.1: Conceptualisation of the behavioural model regarding communication between social insurance physicians (SIP) and claimants (CL) during assessment interviews.

	Concepts	Conceptualisation to communication	
		Social insurance physician	Claimant
Preparation before assessment interview(s) (preparation phase)	Intentions	Problem-solving communication style[a] Insurance-technological communication style[a] Careful communication style[a] Intention to give in to CL[e] Intention to force the own will on CL[e] Intention to solve problems jointly with CL[e]	Problem-focussed, strategic coping[i] Psychological distancing and avoiding[i] Seeking social support[i] Seeking practical support
	Attitudes	Practice-directed attitude[a] Result-directed attitude[a] (sharing attitude[b]) Patient-centredness[b] Distribution of responsibility[c] Attitude towards own profession[d]	Relationship-focussed attitude[a] Result-directed/information-focussed attitude[a] Attitude regarding patient-centredness[b] Passive coping attitude[f] Wait-and-see coping attitude[f] Active problem-focussed coping attitude[f] Attitude about expression of emotions[f]
	Social influence	Public opinion° Opinion of colleagues° Opinion of other SIPs Opinion of employing institute	Influence of other people°
	Self-efficacy	Self-efficacy trait about communication[g]	Self-efficacy[g]
	Skills	Skills related to disease/disability Degree of control over communication (process) Handling communication problems (perceptual)	Providing information[J] Verifying information[J] Presence of social support
	Barriers/ support (in prepa-ration)	CL's characteristics and skills Lack of information	SIP's characteristics CL's own characteristics (including disability)

Satisfaction

Satisfaction includes the evaluation of the consequences that are directly associated with the performance of the behaviour. The degree of physician's (dis)satisfaction with the communication with the claimant will depend on a combination of two factors. Firstly, it depends on the perception and appraisal of the claimant's behaviour, and secondly, on intentions, or more specifically, the degree to which these match the claimant's behaviour.

Social insurance medicine practices are a good starting point for the different domains of satisfaction. For instance, in the Netherlands a periodical monitoring survey that is carried out by the research centre of the Institute of Employee Benefit

Table 2.1 (*continued)*

	Concepts	Conceptualisation to communication	
		Social insurance physician	Claimant
During assessment interview (action phase)	Barriers/ support (in interview)	CL's characteristics and skills Other people who are present Lack of information (e.g. missing files)	SIP's characteristics CL's own characteristics (including disability)
	Behaviour	Instrumental communication behaviour Affective communication behaviour	Instrumental communication behaviour Affective communication behaviour
	Satisfac-tion (appraisal of beha-viour)	Focus on instrumental aspect (information exchange and making decisions): • Listening[n] • Correctness[n] • Clarity[n] • Satisfaction with provided information[a] Focus on affective aspect: • Empathy[n] • Carefulness[n] • Take CL seriously[k] • Helping alliance[m] • Trust and confidentiality[k] • Knowledge-based trust[c] • Identification-based trust[c] • Satisfaction with cooperation[a] General overall degree of satisfaction[l]	Focus on instrumental aspect (information exchange): • Listening[n] • Correctness[n] • Clarity[n] • Satisfaction with provided information[a] Focus on affective aspect: • Empathy[n] • Carefulness[n] • Being taken seriously as a CL[k] • Helping attitude[m] • Trust and confidentiality[k] • Knowledge-based trust[c] • Identification-based trust[c] • Satisfaction with cooperation[a] General overall degree of satisfaction[l]
	Personal characte-ristics	Age Gender Socio-cultural background Legal context	Number of previous assessment interviews Age Gender Socio-cultural background Level of education Personality characteristics[h]

[a] [26]; [b] [32,90]; [c] [54]; [d] [95]; [e] [56]; [f] [91,92]; [g] [79]; [h] [96]; [i] [83]; [J] [86]; [k] [49,50]; [l] [51]; [m] [52]; [n] [48]; [o] [97].

Schemes was developed especially for use in this context, and optimisation is still in progress. It includes six behavioural aspects of satisfaction with the communication during assessment interviews: listening, empathy, correctness, clarity, carefulness, and expertise [48]. Because the dimension 'expertise' partly overlaps with other dimensions (e.g. asking appropriate questions is one aspect of this dimension and information exchange is also an aspect), 'expertise' is not included in our conceptualisation.

Verbeek et al. [49] added the aspects of 'being taken seriously' and 'trust and confidentiality', based on their review of the literature on consumer satisfaction with occupational health care. Moreover, they conclude that satisfaction is a multidimensional construct, and they therefore recommend that specific dimensions of satisfaction as well as general dimensions of satisfaction are taken into account [49-51]. In primary health care, Van der Feltz-Cornelis et al. [52] stressed the importance of effective and helpful communication in the physician-patient relationship. They followed the psychotherapeutic concept of the Helping Alliance, i.e. considering the psychotherapeutic relationship as a means by which a health professional can engage with the patient, and suggest that satisfaction with the helping attitude of physicians is an important aspect of patient satisfaction in primary care [52]. As we have already pointed out, trust is important in the social insurance physician-claimant communication. Nauta [53,54] made a distinction between knowledge-based and identification-based trust. Knowledge-based trust is trust in the competence of the other person, and identification-based trust is trust in the way the other person communicates, in other words affect-based trust [53,54]. Both types of trust are likely to be present in social insurance physician-claimant communication.

All the above mentioned components of satisfaction can be considered as part of the instrumental dimension of satisfaction or part of the affective dimension of satisfaction. Croon and Langius [26] demonstrated that these two dimensions are also explicitly perceived by claimants, who distinguish (1) a dimension focussing on the actual provision of information to them during the communication; and (2) a dimension focussing on the inter-personal communication and negotiation during the assessment interview.

Summarising, the appraisal of communication behaviour is believed to be a multidimensional concept. Several aspects could be distinguished regarding: (1) the exchange of information and decision-making (instrumental dimension), and (2) the inter-personal relationship (affective dimension). For the first aspect, listening, correctness, and clarity are relevant domains of satisfaction, as is satisfaction with the actual provision of information. For the second aspect, empathy, carefulness, being taken seriously, helping alliance, general trust and confidentiality, knowledge-based trust, identification-based trust, and satisfaction with co-operation in the communication are believed to be important concepts. Furthermore, overall satisfaction should be taken into account.

Intentions, skills, barriers

According to the TPB, behaviour is influenced by intentions to adopt that behaviour, and this relationship is mediated by skills and barriers. Social insurance physicians will have habitual and standard methods for exchanging information with claimants, since this represents a substantial part of their job. Intentions with regard to communication behaviour are therefore conceptualised as habitual communication styles during the assessment interviews, or in other words as specialised assessment styles. This is in agreement with the conceptualisation according to Croon and Langius [26], who proposed that the general behavioural intentions of social insurance physicians could be made explicit as their assessment styles. They defined 18 assessment styles with four underlying dimensions. The most professional style is the problem-solving style, which is defined as a preference for effective problem-solving, together with the claimant. It includes providing information and paying attention to the content of the assessment interview. The three other dimensions they proposed are of a more bureaucratic nature. The dimension of carefulness in handling the claimant consists of giving information about the course of the assessment interview, about the assessment itself, and about relevant laws. The insurance-technological dimension encompasses social, insurance-technical and workload/work capacity aspects, implying that both the instrumental and the affective aspect of the intention with regard to communication are represented. The knowledge-handling dimension concerns knowledge about disability benefit laws, medical disciplines, and occupational health disciplines. However, this dimension is not relevant, because this knowledge is not needed for communication during the assessment interviews, and is more applicable to the assessment procedure as a whole [26,31].

In the context of the assessment a lot is at stake for the claimant, and the opinions of the physician do not necessarily match those of the claimant, so it is not unlikely that differences of opinion might occur. It is clear that the way in which the physician handles small (and serious) conflicts during an assessment interview will influence the well-being of both parties [55,56]. For instance, a relationship between communication problems and (dis)satisfaction has been found in general health care [57]. The way conflicts are dealt with may influence the claimant's trust in the physician, especially in such a 'critical situation' as an assessment interview [58-60]. These findings are in line with the opinions of De Dreu et al. [56], who found that the style of handling conflicts is reflected in a combination of the degree of concern for yourself and that for others. These combinations include giving in to the claimant (high concern for the other and low for oneself), forcing the own will on the other person (high concern for oneself and low for others), and trying to solve the problem together with the claimant (high concern of self and others) [56]. Each social insurance physician will have his or her own preferences or intentions dealing with conflicts.

Since skills and barriers play a similar role – they are in a way the two sides of the same coin – they are linked together in the model. However, skills and barriers do

differ in their conceptualisation. The importance of skills in the communication is emphasised by the many training courses in communication skills for physicians that have been developed and tested (e.g. [61-64]). It is clear that the physician's skills with regard to the claimant's disease or disability might influence the communication [65]. Moreover, the degree of control the physician has in general over the communication during an assessment interview, as well as the physician's ability to change direction and handle problems during the interview are relevant skills. This agrees with the general distinction made by Kurtz [66] of three types of skills: content skills, process skills, and perceptual skills. Content skills refer to the physician's basic medical knowledge, including the content of the questions asked, the information that is given, and the answers that are received. Process skills concern the way in which questions are asked, how to explain things, how to listen, and how to build up a relationship with the claimant. Perceptual skills concern the content and awareness of the physician's own thoughts and feelings.

Barriers previously experienced by physicians or barriers they have trouble dealing with, could be the result of other people being present during an assessment interview, for instance a claimant's relative or partner, or a union member, who might hinder the interview, for example because of unwanted participation (e.g. [67]). Other barriers created by the claimant might be level of education, language restraints, family members functioning as an interpreter, and the diagnosis from curative health care. The expectations and experiences of the claimant are also important; for instance, previous experiences of visits to social insurance physicians (good or bad), and media reports about social insurance medicine (e.g. [68]). Swartling, for example, reported that the societal attitude to sickness certification and benefits is an important barrier for sick-listing, according to Swedish general practitioners [6].

On the one hand, such barriers occur frequently, and could have a negative influence on obtaining information from the claimant or on the atmosphere during the interview [69]. On the other hand, some aspects might be supportive, instead of forming a barrier. Examples of this are that other people who are present help to explain things to the claimant and clarify the information the claimant gives (e.g. family member, trainee, or colleague), or claimants with a high level of education.

Attitudes, social influence and self-efficacy

According to the proposed theoretical framework, the physician's intentions to exchange information in a certain, habitual way (i.e. assessment styles) are derived from a combination of three components: (1) attitude to the communication during the assessment; (2) social influences; and (3) self-efficacy, which influences the assessment style of social insurance physicians as well as the skills and barriers they encounter.

As was explained above, Croon and Langius [26] used the TRA and the TPB as a basis to study the relationship between the attitudes and behavioural intentions of social insurance physicians. The content of their practice-directed attitude and result-

directed attitude is directly related to the communication. A practice-directed attitude defines the physician's aim to avoid conflict and to negotiate with claimants, taking the disability as a starting point for the assessment. The result-directed attitude is pragmatic, and aimed at helping the claimant to find a solution to the problems (e.g. better working conditions, assistance with return to work).

Furthermore, an 'attitudinal component of patient-centredness' [70] is believed to exist. More tangible, an instrumental and an affective dimension can be distinguished in the physician's attitude [70]. This is in agreement with the opinions of Krupat et al. [32], who studied attitudes in doctor-patient relationships and made a distinction between patient-centredness and disease-centredness, or in their own words, between a 'caring' and a 'sharing' element in the doctor-patient relationship [26,32].

The social insurance physician's task is to evaluate the degree of the claimant's disability, which has important implications for the claimant, and makes the relationship unequal by definition, as opposed to the purpose of a medical consultation. Equality in the communication might be conceptualised according to Nauta [54]. One of the recommendations she makes in her study focussing on co-operation between occupational physicians and general practitioners is to maintain a clear distribution of responsibility. Applied to equality in the physician-claimant contact, the question that arises would be whether the responsibility for an effective communication lies with the physician or (also) with the claimant. This distribution of responsibility is an important aspect, because of the shift in general health care from a paternalistic view of the patient to a more patient-oriented view [33]. Although the social insurance physician's attitude towards his or her own profession [71] is not directly related to communication, it may play a central role in the assessment interview. Nauta, for example, found that identification with one's own profession results in greater feelings of responsibility [54]. Research results confirm this concept by demonstrating that job perception and job satisfaction influence doctor-patient communication [72]. For instance, Grol et al. [73] found that general practitioners with a positive attitude towards their job were more open and paid more attention to the psychosocial aspects of care, whereas those with a negative attitude gave less explanation to their patients. Job satisfaction may also influence patient satisfaction with the care that is provided as found by Haas et al. [74] in a study population of general internists.

In addition to attitudes, social influences are also believed to determine assessment styles or intentions with respect to communication behaviour during an assessment interview. Based on research findings, it would be expected that social influences co-determine how the physician performs his/her job. For instance, the medical professions are criticised regularly, public mistrust exists (e.g. [75]), and physicians feel a lack of support from society, politicians, the media, etc. [76,77]. Moreover, patients are active health care utilisers, health information is easily

accessible to them and they have high expectations [76]. A combination of these three aspects will probably influence the way in which the physician communicates with claimants [72]. More specifically, public opinion, the opinion of colleagues, and the policies, standards, and values of the company for which the physician works could be important sources of social influence [78]. This social influence could affect three aspects of the assessment interview: (1) the skills of the physician compared to those of others; (2) his/her knowledge; and (3) his/her experience.

The last factor that influences the physician's assessment styles is self-efficacy. According to Bandura, self-efficacy is domain-specific, and should thus be conceptualised. Therefore, in line with Scholtz et al. [79], we define self-efficacy as a global and stable confidence in the ability to cope with the communication with claimants during assessment interviews. Self-efficacy is regarded as a one-dimensional global construct [79], and is thus conceptualised as a type of trait, resulting from previous positive and negative experiences in communication with claimants [80].

Personal characteristics

The personal characteristics of the social insurance physician are not incorporated in the TPB. They are conceptualised to exert their influence on the 'communication circle' that originates during the disability assessment interview.

The most important and pronounced personal features which can be similar are age, gender, and socio-cultural background. Research supports the assumption that these personal characteristics are relevant with regard to similarity in the communication between physicians and their patients [41,46]. Furthermore, the legal context in which the assessment interviews take place could be considered a feature that also corresponds with the characteristics of the social insurance physician.

The conceptualisation for claimants

Because not every aspect is visible for the social insurance physician, the conceptualisation for claimants will be only partly analogous to that for the social insurance physician, and only part of the TPB will be conceptualised for the claimant. Attitudes and intentions are the core concepts of the TPB, so it is likely that the physician will be aware of the influence of the claimant's attitudes and intentions during the assessment interview. The other aspects of the model will have their influence through the intentions. The only exceptions are the skills and barriers, which influence the relationship between intentions and behaviour. Because of the direct influence of skills and barriers on behaviour, these are included in the claimant's side of our theoretical framework. The included aspects are intentions with regard to behaviour, attitudes, skills, and barriers. The way in which claimants cope with assessment interviews – their communication behaviour and their satisfaction with the communication – is also included, because this is directly relevant, visible, and

experienced by physicians. The application of these aspects of the theoretical framework to claimants will now be presented.

Behaviour and satisfaction

Because it is believed that the dimensions of patient or claimant satisfaction are mostly similar to the dimensions of physician satisfaction [49], the communication behaviour and perceived behaviour of the claimant during the assessment interview is conceptualised in the same way as that of the physician. Communication behaviour and satisfaction with that behaviour are conceptualised as multidimensional, with the same dimensions as for the physician.

Intentions, skills and barriers

Although attending an assessment interview is not a routine activity for the claimant – as it is for the physician – the claimant's normal way of communicating will probably be similar to the way in which he or she will communicate with the physician. Moreover, we know from research that the communication style of the patient is equally important as that of the physician [46], and that this communication style (i.e. intention) is also the claimant's way of handling communication in general and communication with other physicians in particular. Folkman and Lazarus [81] argue that before stressful encounters – such as examinations during a study, and also assessment interviews – people tend to handle the situation in an instrumental way (problem-focussed), and afterwards they tend to display more emotion-focussed coping (e.g. seeking social support). This conceptualisation is supported by Carver et al. [82], who discriminate between the use of instrumental support and the use of emotional support (among other types of coping), and by the results of studies in general health care, as mentioned above. Thus, the claimant's intentions with regard to communication can be both instrumental and affective. Bramsen et al. [83] made a more detailed distinction: problem-focussed coping according to a preceding plan, psychological distancing and avoiding (i.e. mentally creating distance between oneself and the environment), and seeking social support [83]. These last two styles are forms of emotion-focussed coping, which Miller [84] referred to as a 'blunting' and a 'monitoring' coping style, respectively. Patients who blunt will avoid information, and those who monitor are very alert and are keen to receive information. According to Nordin et al. [85], these coping styles moderate satisfaction with the communication behaviour of medical staff. We therefore suggest that claimants, apart from seeking social support, may also intend to seek practical support. For example, they may intend to gather information about the assessment interview before attending, they may ask someone to go with them to the assessment interview, or they may practice beforehand by giving the relevant information to someone else.

The skills and barriers that claimants experience are conceptualised to affect the relationship between intentions with regard to behaviour and actual behaviour, and as

we mentioned earlier, some connections do exists between these two factors, but they also have their own specific characteristics. Cegala et al. [86] found that training patients' skills in handling medical interviews resulted in more patient-controlled communication, and that trained patients gave physicians more detailed information about their disabilities and were more able to summarise the information they received. Thus, training the skills needed to seek, provide, and verify information, seems to be important [86]. For claimants, seeking information is not usually the primary goal during an assessment interview, so this skill is not included in the framework, whereas the other two are. Some examples of such skills are command of language, ability to explain their functioning, and ability to understand the physician. As the CanMed Physician Competency Framework states, it is important that physicians can gather information and understand it, as well as establish a good relationship with the patient [87]. Presumably, the same applies to claimants, since their claim depends on the physician's assessment. Being able to influence the course of the interview and to handle difficult situations (solving problems) seem to be particularly relevant skills for claimants [87,88].

Claimants might anticipate several barriers which may be related to the characteristics of the physician, for instance a different socio-cultural background from that of the claimant or the use of difficult language. The claimant's own characteristics, possibly related to the disability, could also form a barrier, such as concentration problems or physical fatigue.

Attitudes

Parallel to the importance of the physician's attitude towards communication, the attitude of the claimant might also influence the communication during an assessment interview. Claimants might have different attitudes with regard to the role of the physician in the communication, and these might hinder or aid the physician. These attitudes can be conceptualised analogously to the attitudes that the social insurance physician has about his or her own role in the communication. Therefore, the attitude of claimants towards the communication is conceptualised as relationship-focussed, result-directed/information-focussed [26], and focussed on the patient-centredness of the physician [89]. Relevant aspects of such attitudes are: expectations about support, listening, and asking questions for the relationship-focussed attitude; asking and thinking about return to work and talking about possibilities of return to work for the result-directed attitude; and expectations about reassurance and a good atmosphere for the caring attitude. As mentioned above, claimants who have attended an assessment interview before and those who have not will probably have different attitudes.

In addition to the attitude towards the contribution of the physician to the communication, the claimant will also have an attitude towards his own contribution to the communication. We refer to this as the coping attitude, because it concerns the

way in which the claimant anticipates handling (coping with) the communication. Moreover, claimants will use certain general coping strategies while preparing for the assessment interview. Kloens [90] advised psychologists to take general coping strategies into account during the assessment of a patient. He distinguished three components of coping attitudes: a passive avoiding coping pattern of responding to the assessment, a problem-focussed coping pattern, and an emotion-focussed coping pattern, which includes the degree of seeking social support and expressing emotions. The passive avoidance coping attitude could then be sub-divided into a passive coping attitude and an avoidance (wait-and-see) coping attitude, in line with the Schreurs definition [91].

Personal characteristics

We have already stated that the number of previous assessment interviews a claimant has experienced, is an important claimant characteristic, explaining the difference between a first-time claimant and a claimant who has already attended one or more interviews. As in the conceptualisation for social insurance physicians, prominent characteristics which may be similar for claimants and social insurance physicians are age, gender, and socio-cultural background [41,46]. Moreover, the claimant's level of education might influence the communication, for example because claimants with a higher level of education are generally more assertive, and physicians tend to give them more information [31,41,46]. In addition to attitudes and intentions, the claimant's personal characteristics will influence the communication. For example, an anxious claimant is likely to communicate quite differently with the physician than a depressed or confused claimant [31]. This depends on the claimant's 'locus of control' (i.e. a personality trait indicating the degree to which gains are thought to result from one's own efforts or considered to be random events; according to the claimant, for example, who is responsible for whether or not the claimant will receive a disability benefit), and the related degree of control experienced in the communication.

Discussion

We have presented a theoretically conceptualised model, based on the TPB, to study the communication behaviour of social insurance physicians and their claimants during (the preparation of) medical disability assessment interviews. This model will help us to understand the communication process during assessment interviews, and how this communication could go wrong, and we have made suggestions that could be appropriate to improve this communication. Because the conceptualisation specifically focuses on non-curative medicine, with social insurance medicine as an example (a field in which to our knowledge no such conceptualisation has been applied), this model might be of assistance in future research in this context.

Strengths and weaknesses of the behavioural model

Our choice to make use of existing behavioural theories, particularly the TPB, has advantages as well as disadvantages, both of which have been stressed by several authors. For instance, Ogden [92,93] argued that behavioural models are pragmatic in guiding research because, although they are considered to be an appropriate basis for the development of interventions to change certain types of behaviour, their conceptual basis is less sound. However, Ogden's arguments based on problems in applying these theories and measuring the concepts, were refuted by Ajzen and Fishbein [93]. The only argument they did not refute is that the concepts are not specific enough. We believe that we have countered this argument by specifying the concepts adequately in our proposed model. Moreover, in our opinions, the advantages of using the TPB to understand the communication processes in social insurance medicine (e.g. focus on the instrumental as well as the affective dimension, application in studies in related areas, and the amount of detail that is possible within the model) far outweigh the disadvantages. This is mainly because the conceptualised model is pragmatic in guiding further research, functional in formulating hypotheses, and useful in developing interventions to improve social insurance physician-claimant communication.

The resulting theoretical framework is quite comprehensive. In order to ensure that the model was feasible, we chose not to assume relationships between the conceptualisations of the aspects within the framework (e.g. the relationship between a problem-solving communication style or an insurance-technological communication style, and a practice-directed attitude or a result-directed attitude). The comprehensiveness of the framework may be both positive and negative. The positive aspect of a comprehensive framework is that there is a choice of focus, i.e. our conceptualisation is suitable for different types of research. For instance, the focus could be on the social-emotional or on the task-oriented aspects. Moreover, parts of the framework could be used for more in-depth evaluations, for instance in observational or qualitative studies. With regard to the negative side, when research is based on such a comprehensive model, there is a danger of wanting to investigate too much all at once. This means that studying the model as a whole implies a more general, less in-depth, procedure with, for example, questionnaires or structured interviews.

Implications for future research

Based on this conceptualisation, we hypothesise that the main relationships, indicated by arrows in Figure 2.1, will be found in an empirical test of the conceptualisation. According to the TPB, it is expected that the communication behaviour of social insurance physicians during assessment interviews can be predicted from a combination of their attitudes, experienced social influence, self-efficacy, intentions with regard to behaviour, skills, and barriers in the communication with claimants in

general. Analogously, it is expected that the communication behaviour of claimants during the assessment interview can be predicted from their attitudes, intentions, skills, and barriers in the communication with social insurance physicians, or in the communication with physicians in general if they have had no previous experience with social insurance physicians. During the assessment interview, it is hypothesised – according to the proposed conceptualisation – that the communication behaviour of both the social insurance physician and the claimant will be the result of their input during the preparatory phase, their personal characteristics, and the degree to which these match those of the other person, their satisfaction with the communication behaviour, and the other person's behaviour.

When the relationships in the conceptualisation have been tested empirically, the TPB-based model for communication behaviour in social insurance medicine can be applied in empirical studies to obtain more insight into communication behaviour in non-curative medicine. We also expect that the concepts and relationships in the conceptualised model could be used in a communication skills training course for social insurance physicians. The model may help these physicians to recognise communication behaviour, and to intentionally and purposefully adapt their communication behaviour to their task when assessing the functional capacity and medical disabilities of claimants.

Conclusion

We have presented a conceptualisation of a behavioural model, derived from the TPB, for social insurance physician-claimant communication. This conceptualisation was based on studies focussing on physician-patient communication and the specific characteristics of social insurance physician-claimant contacts. Of course, just like any model, this model is merely a simplified representation of the reality. Although, obviously not every aspect, dimension, or variation is represented in the framework, it provides ample insight to professional communication from the perspective of non-curative and social insurance medicine.

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Chapter 3

Determinants of physicians' communication behaviour in disability assessments

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Abstract

Purpose: Knowledge about the determinants of communication behaviour of physicians during face-to-face consultations with patients might increase our understanding of communication behaviour, and provide insight into how training might be able to change their communication behaviour. For physicians who conduct work disability assessment interviews, referred to as 'social insurance physicians', communication with patients is their most important instrument. Therefore, the aim of this study was to understand the determinants of communication behaviour of social insurance physicians, by modelling the following constructs of the Theory of Planned Behaviour: attitudes, social influence, self-efficacy, skills, barriers, and intentions concerning their communication with claimants in medical disability assessments.

Method: Cross-sectional data were collected by means of questionnaires. Analyses were performed with the LISREL maximum likelihood estimation procedure.

Results: The results showed a well-fitting model in which attitudes had a significant and substantial direct effect on two intentions. Self-efficacy had a significant, but smaller direct effect on one intention.

Conclusions: Empirical support was found for a model that describes intentions of social insurance physicians, especially intentions to give information and to consider personal aspects. Attitudes were the main determinants of physicians' intentions and therefore these may be a promising focus of communication skills training.

Introduction

Communication behaviour and the underlying determinants are difficult to understand because of the complexity of communication, the presence of two or more people with their personal stakes and the rapid and transient nature of the communication process. Systematic observations of communication behaviour might provide insight into communication and how people respond to each other, but they provide less insight into why people communicate the way they do. Identifying the factors that contribute to this 'why' (e.g. motives, preferences, tendencies) may not only increase our understanding of face-to-face communication, it might also indicate how communication behaviour can be changed by means of training. Therefore, this article focuses on determinants of communication behaviour. Communication behaviour has been defined as reciprocal contact between two people during a face-to-face encounter, aimed at (verbal and non-verbal) exchange of information, including the exchange and transmission of facts, opinions, feelings, thoughts, attitudes etc., consciously as well as unconsciously.

In this article, we focus specifically on physician-patient communication. It is well known that adequate communication skills during consulting hours are important for medical professionals [1-3]. In physician-patient consultations, three aims of communication behaviour have been described: '(a) creating a good interpersonal relationship; (b) exchanging information and (c) making treatment-related decisions' [4]. Underlying these three aims, there are three types of intentions with regard to communication behaviour: (1) intentions regarding the interpersonal relationship; (2) intentions regarding the exchange of information and (3) intentions regarding decision-making.

Although communication with patients is always an important source of information for physicians, communication is more essential with some patients than with others. For example, patients with a broken leg will probably demand less from a physician, in terms of communication, than patients with unexplained symptoms. Moreover, in some cases communication might be the physician's most important instrument, for instance instead of a physical examination or a magnetic resonance imaging scan. It is known in the literature that medical students are already aware of how they communicate and are able to reflect on their communication behaviour [5-7]. Also, awareness of communication behaviour, attitudes with regard to communication, and the ability to reflect on behaviour are considered to be important competencies needed for physicians in general [8]. For physicians, who hold medical disability assessment interviews to evaluate the work capacity of patients, communication with patients is their most important instrument. Therefore, this study focused on social insurance physicians who evaluate the work capacity of sick employees or people claiming social security benefits (e.g. [9-11]). Worldwide, physicians are involved in such assessments, even though in practice these may vary

considerably according to the national social insurance or disability legislation (for information about Dutch practices, see for example [12-14]).

The objective of this study was to determine which of the following constructs: attitudes, social influence, self-efficacy, skills and barriers for insurance physicians (the constructs of the Theory of Planned Behaviour (TPB) and the Attitude/Social influence/ self-Efficacy model (ASE model)) contribute the most in determining intentions with regard to the communication of physicians with claimants in medical disability assessments. The TPB and the ASE model are motivational theories that explicitly apply to determinants of behaviour [15-17]. The TPB and the ASE model are identical, except that the ASE model is extended to include the concepts of skills and barriers. These theories can provide a conceptual model with which to study the communication of social insurance physicians with claimants during medical disability assessment interviews [18]. For example, the belief that it is important to help claimants cope with their work disabilities (physician's attitude), the influence of the opinion of colleagues about this matter (social influence) and the confidence the physician has in being able to discuss problems regarding work participation (self-efficacy), together determine the degree to which the physician intends to actually talk about coping with work disabilities during the interview with the claimant (physician's intention). Moreover, whether or not the work disabilities are discussed will also depend on the physician's knowledge on how to bring up the matter and which questions to ask (skills), and how much benefit a claimant has by staying on sick leave or by returning to work quickly (barriers or support for the physician).

The relationships addressed in the TPB have often been studied with regard to physician-patient communication behaviour (see, for example, [19-21]). In line with the results of one of these reviews [20], we hypothesised that the most important constructs which explain the intentions of physicians are beliefs about their own capabilities (i.e. self-efficacy), social influence and role and identity (i.e. attitudes). Also, based on the results of several other studies [20,22], we hypothesised that the relationships between the constructs of attitudes, social influences, self-efficacy, skills, and lack of barriers on the one hand, and the constructs of intentions on the other hand, would all be positive relationships. That is, stronger attitudes, more social influence, more self-efficacy, more skills and less barriers or more support will all be related to stronger intentions.

Method

Participants and data collection

Data were collected between September 2007 and March 2008. All social insurance physicians in the Netherlands who performed work disability assessments according to the Disability Benefits Acts (i.e. approximately 400) received a postal questionnaire. Exclusion criteria were as follows: not performing assessment interviews at all (e.g.

supervisory functions, managerial functions), only performing other types of disability assessments (e.g. sickness absence certification), only performing second opinion assessments after claimants' objections and not being employed by the Dutch Institute of Employee Benefit Schemes. Data were cross-sectional and self-reported, and written informed consent was obtained. The study protocol was approved by the Scientific Committee of the EMGO Institute for Health and Care Research of the VU University Medical Center and the Institute of Employee Benefit Schemes.

A total of 146 social insurance physicians from 25 Dutch offices (36.5% of the 400 social insurance physicians performing medical disability assessments of employees) participated. Most of them were registered as a social insurance physician (87.0%, n=127). The participants had an average working experience of 21.0 years (SD=7.2; range 7-36) as physician and 15.0 years (SD=7.4; range 1-32) as a social insurance physician.

Measures

The TPB provided the theoretical framework for the questionnaire, which included questions concerning attitudes, social influence, self-efficacy, skills, barriers and intentions with regard to communication with claimants and disability assessment interviews. Attitudes refer to beliefs or consistent, external evaluations (for example, how important it is for physicians to share their opinions with regard to the work capacity of the claimant, or to make sure that the claimant notices that they are willing to listen). Social influences refer to the influences of social norms and beliefs of relevant others with regard to a person's actions (e.g. the influence of social norms at the office, other social insurance physicians or public opinion with regard to the procedure of assessment interviews). Self-efficacy refers to confidence and ability to be able to act adequately (e.g. the confidence to solve communication problems during the interview or to deal with any unexpected situations that might arise). Skills concern the ability to adopt certain behaviour (e.g. to determine the course of the interview instead of leaving this to the claimant). Barriers are potential obstructions that could prevent the occurrence of certain behaviour (e.g. incomplete files and claimants' language problems, expectations, or former experiences). Intentions are the willingness to adopt a certain behaviour as was explained in the introduction. In line with the results of the above-mentioned Ong et al.'s review [4], and based on a Dutch study of assessment interviews performed by social insurance physicians [23], the following three constructs of intentions were conceptualised: (1) intentions with regard to the interpersonal relationship, referred to as the intention to inform carefully; (2) intentions concerning exchange of information with regard to work aspects, referred to as the intention to take aspects of the working situation into consideration and (3) intentions concerning exchange of information with regard to claimant aspects, referred to as the intention to take the personal aspects of claimants into consideration. These three constructs of intentions are successively defined as: (1) an

intention that reflects the general importance that social insurance physicians attribute to informing claimants during assessment interviews about the aims, consequences and reporting of the assessment, the laws and the role of the social insurance physician; (2) an intention that reflects the general importance in the medical assessment of characteristics of the (former) work of claimants, such as exposition to physical and mental loads, type of occupation and shift-work versus day-duties and (3) an intention that reflects the general importance in the medical assessment of certain characteristics of the claimants, such as age, level of education and cultural background. In their study concerning the aspects that physicians take into account in determining work ability, Slebus et al. [23] defined the second construct as functions and participation, and the third construct as environmental and personal factors, according to the ICF model. An overview of all measured constructs is presented in Table 3.1 and more details are provided in Appendix 3.1.

Table 3.1: Theoretical constructs (latent variables) and their measured aspects (observed variables), derived from the TPB, included in the questionnaire for social insurance physicians, with the number of items (#), reliability of the scales (Cronbach's α), median of the scores (Md), mean scores, standard deviations (SD) and ranges.

Theoretical construct [latent variables]	Aspects of the constructs [observed variables]		#	α	Md	Mean	SD	Range
Intention to inform claimants carefully	y1	Intention to inform claimants carefully[a]	9	0.77	3.89	4.01	0.40	3.11-5.00
Intention to take aspects of the working situation into consideration	y2	Intention to take aspects of the working situation of claimants into consideration in the assessment[a]	6	0.80	3.33	3.25	0.60	1.50-4.83
Intention to take the personal aspects into consideration	y3	Intention to take the personal aspects of the claimant into consideration in the assessment[a]	8	0.82	3.00	2.99	0.52	1.13-4.25
Attitudes	x1	Attitude with regard to assisting claimants and finding solutions with regard to work disabilities (result-directed attitude)[a]	8	0.67	4.13	4.18	0.37	2.88-5.00
	x2	Attitude with regard to the own profession of social insurance physician; work engagement[b]	9	0.92	4.44	4.49	1.21	1.56-7.00

Participants answered the questions on a (4- to 7-point) Likert scale, with different anchor points depending on the questions (e.g. 'not at all important' to 'very important', 'totally disagree' to 'totally agree'). Most of the questions were derived from pre-existing questionnaires. Scales were only included if Cronbach's Alpha was equal to or larger than 0.6. For all variables a higher score indicated a stronger construct, and a lower score indicated a weaker construct. One or more of the scales together formed the underlying theoretical constructs of the TPB (i.e. the latent variables). Because we had to adjust items to fit into the context of social insurance medicine, we pilot-tested the entire questionnaire, including adjusted items, for length, comprehensibility and relevance. On average, the participants were able to complete the final questionnaire in approximately 30 min (SD=9.1, range 15-60), according to self-reports in an open-ended question at the end of the questionnaire.

Table 3.1 *(continued)*

Theoretical construct [latent variables]	Aspects of the constructs [observed variables]		#	α	Md	Mean	SD	Range
Social influence	x3	Influence on communication of one's social environment[a]	4	0.72	2.25	2.40	0.61	1.00-4.25
	x4	Influence on work satisfaction of one's social environment[a]	4	0.69	3.00	2.90	0.74	1.00-4.50
	x5	Social influence of direct colleagues[c]	4	0.86	2.75	2.79	0.74	1.00-5.00
Self-efficacy	x6	Self-efficacy about communication with claimants[d]	10	0.87	3.40	3.38	0.39	2.50-4.00
Skills	x7	Skills concerning communication with claimants[e]	7	0.69	4.00	4.06	0.48	2.86-5.00
Barriers and support	x8	Barriers as a result of claimants' background[f]	7	0.76	2.71	2.70	0.61	1.43-4.43
	x9	Barriers as a result of expectations and the people present at an assessment interview[f]	5	0.73	1.60	1.63	0.53	1.00-4.00
	x10	Barriers as a result of claimants' (direct or indirect) former experiences with the assessment institute[f]	3	0.89	2.00	2.41	0.92	1.00-4.67
	x11	Social support the social insurance physician experiences[f]	4	0.63	1.75	1.75	0.54	1.00-3.50

[a] Croon and Langius [24]; [b] UWES: Utrecht Work Engagement Scale [25,26]; [c] Scale 'Relative position' [27]; [d] General Self-Efficacy Scale [28,29]; [e] Pearlin Mastery Scale [30]; [f] Questions formulated by ourselves based on a report of the Dutch Association of Social Insurance Medicine [31].

Analysis

Attitudes, social influence, self-efficacy, skills and barriers (the independent variables) were related to the three aspects of intentions (the dependent variables), by means of structural equation modelling with the statistical package for analysing linear structural relationships (LISREL 8.72) [32]. Because some observed variables were somewhat skewed, the analysis was performed with normal scores. For fitting the model, the maximum likelihood estimation procedure was used to analyse the covariance matrices of the normalised data of the scales. Several alternative models were tested. The fitting process was based on inspection of the measurement models and accompanying values, the 'modification indices' provided by LISREL, and other LISREL output. We defined the best fitting model as the most parsimonious model. The pathways of main interest (indicated by arrows in Figure 3.1) were directed from the latent independent variables of attitudes, social influence, self-efficacy, skills and barriers, to the latent dependent variables of intention to inform carefully, intention to

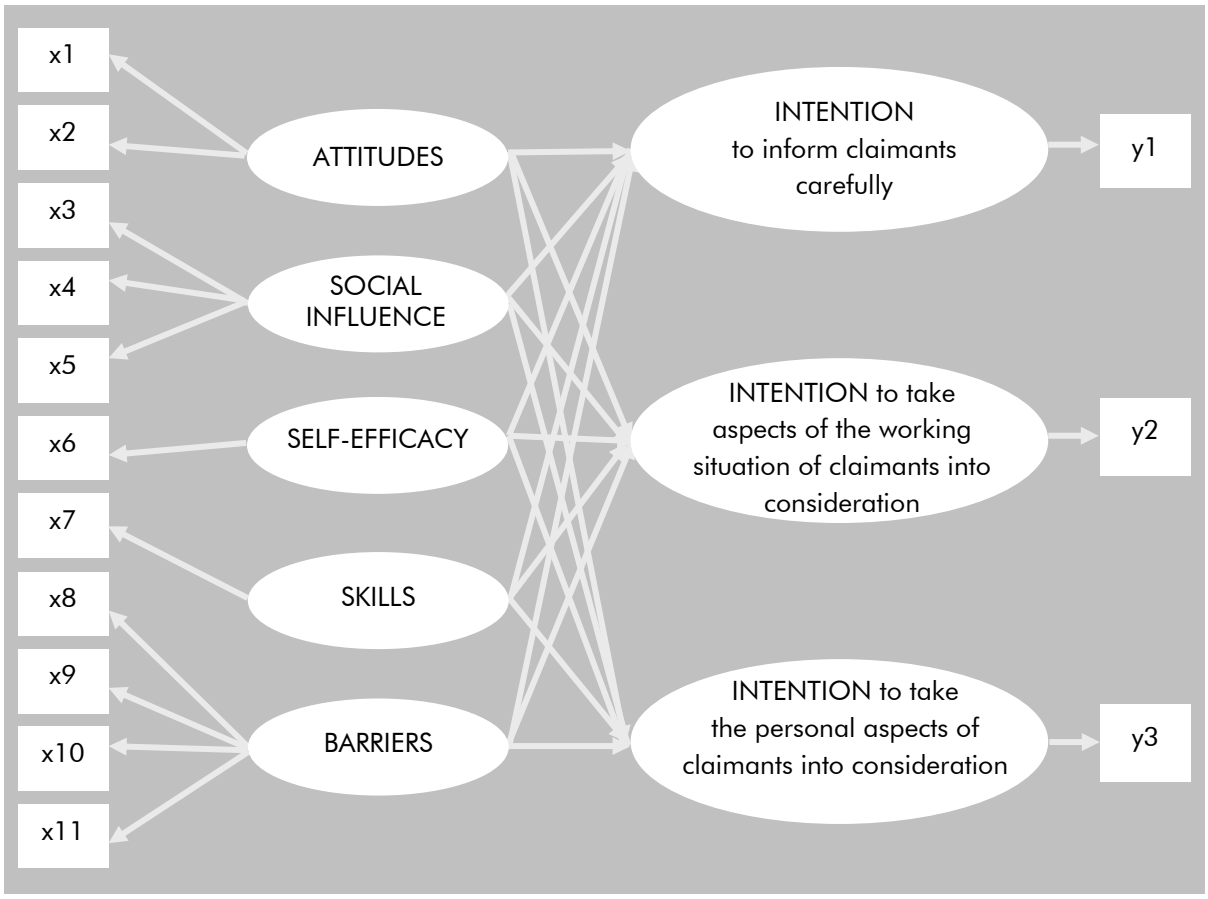

Figure 3.1: Conceptual diagram of the starting model that was tested with hypothesised pathways based on the TPB, with the latent variables attitudes, social influences, self-efficacy, skills, barriers, the intention to inform claimants carefully, the intention to take aspects of the working situation of claimants into consideration, and the intention to take the personal aspects of claimants into consideration (for observed x variables and y variables see Table 3.1).

take aspects of the working situation into consideration and intention to take personal aspects into consideration. Figure 3.1 shows the conceptual model of these hypothesised pathways.

The analyses were performed in two steps. Firstly, the best fitting model was determined with all direct relationships between the dependent and the independent latent variables free. Secondly, the at least as well fitting model was determined, but with the minimum number of direct effects of the independent variables on the dependent variables. We investigated whether or not the data fitted the model, by inspecting the fit indices. The following measures for goodness-of-fit were used (based on recommendations made by Hooper et al. [33]): Chi-square, Root Mean Square Error of Approximation (RMSEA) with 90% confidence interval (CI), Comparative Fit Index (CFI), and Standardised Root Mean Square Residuals (SRMR). CFI is less sensitive to sample size than other fit indices. The model fit was considered to be good if CFI was equal to or greater than 0.95, the RMSEA and RMSR were less than 0.05, and the 90% CI of RMSEA was between 0 and 0.08. Chi-square should be less than twice the number of degrees of freedom for a properly fitting model.

Results

Participants

Because there were no data to perform a complete non-response analysis, we studied whether the group of participants (n=146) was a representative sample of the total population of social insurance physicians working for the Dutch Institute of Employee Benefit Schemes (N=approximately 900) with regard to age, gender and working hours per week. The mean age of the participants was 49.3 years (95% CI=[48.5; 50.5]), 60 (41.1%) were female, and they worked for 33.7 hours per week (95% CI=[32.5; 34.9]). The mean age of the total population of social insurance physicians was 49 years (distribution measures could not be calculated), 41.7% was female, and they worked for 32 hours per week (95% CI could not be calculated).

The study participants and the total population of social insurance physicians did not differ significantly with regard to mean age or gender. Although the average number of hours the total population worked per week was not within the 95% CI of the number of hours the participants worked, the difference was so small that the CI of the total population would presumably overlap that of the participants (it was not possible to calculate the CI of the total population from the available data). Moreover, the mean difference between the number of hours that the participants and the total population worked was small, and did not seem to be relevant (i.e. 1.7 hours).

Starting model and adaptations

The model with which we started our analysis is presented in Figure 3.1. Because the model did not converge, the estimates of the goodness-of-fit indices and the direct

effects were unreliable. Moreover, there were various reasons for the inadequacy of the model (e.g. a positive definite psi matrix, high standardised error variances), and for these reasons, modifications had to be made to the initial model. The most important indications from the LISREL outputs that seemed to be reasonable were: (1) to combine the two variables that independently indicated the constructs of self-efficacy and skills, as measured in our study, to indicate one theoretical construct; (2) to change the status of the correlation between the errors of intentions y2 and y3 to free instead of fixed at zero; (3) to successively remove the variables 'social influence of direct colleagues' (x5) and 'social support' (x11) from the model and (4) to specify several relationships of the error the observed x variables as free instead of fixed at zero. The standard LISREL output also recommended specifying relationships between the error variances of the observed independent x variables and the dependent y variables as free. However, these recommendations were ignored, because such a modification was not supported by the theoretical framework and – more importantly – we were interested in the direct (not indirect) effects of the independent on the dependent latent variables. The subsequent adaptations of the model (according to indications 1-4) resulted in the 'in-between model' in which all direct relationships between the independent and the dependent latent variables were still free (fit indices are presented in Table 3.4).

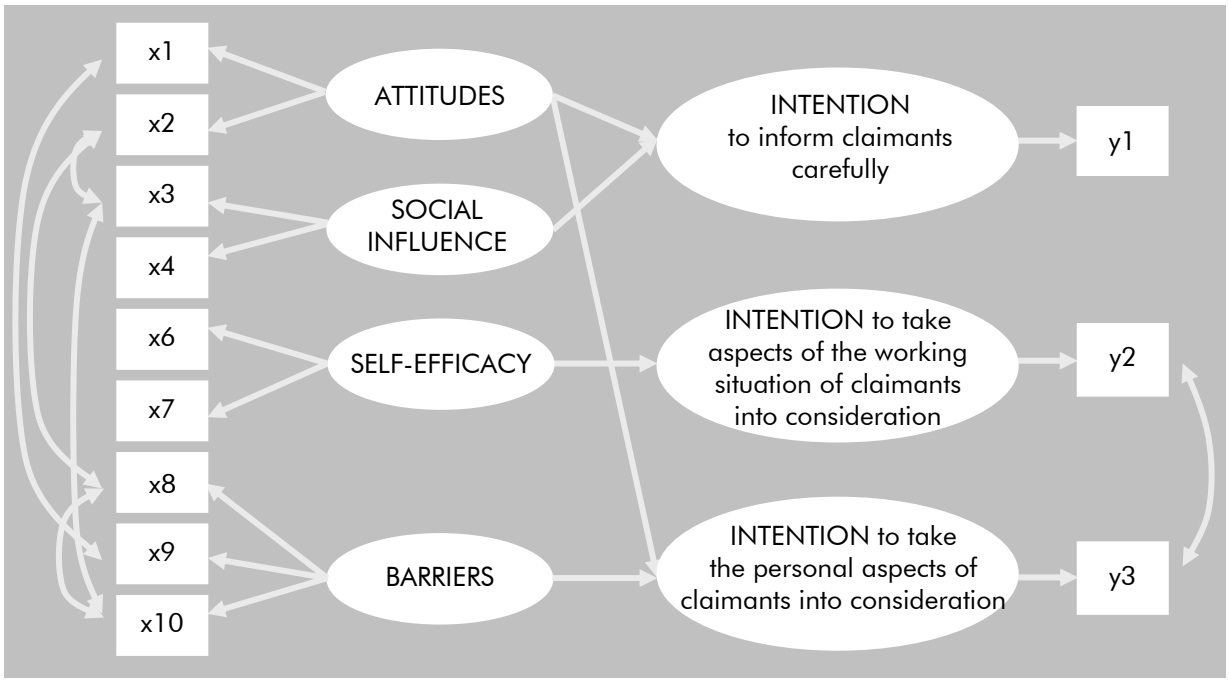

Figure 3.2: Conceptual diagram of the final model with accompanying pathways, with the latent variables attitudes, social influences, self-efficacy, barriers, the intention to inform claimants carefully, the intention to take aspects of the working situation of claimants into consideration in the assessment, and the intention to take the personal aspects of claimants into consideration in the assessment (for observed x variables and y variables see Table 3.1).

The final model

The resulting 'in-between model' was used as a basis for further investigation of the direct effect of the independent variables on the dependent latent variables (i.e. the effect of attitudes, social influence, self-efficacy, skills and barriers on the three intentions). Based on the strengths of the direct effects (standardised solutions), and the corresponding t-values that indicate the significance of the effects, the number of direct relationships between the independent and dependent latent variables specified as free was reduced by fixing several of them at zero. This continued until the final, most parsimonious model was found (i.e. the model that fitted minimally as good as the 'in-between model', but had a minimum number of direct effects of the independent variables on the dependent variables). The conceptual diagram of this final model is presented in Figure 3.2. The corresponding parameter estimates are

Table 3.2: Standardised estimates of the final model presented in Figure 3.2.

	Intention to inform claimants carefully	Intention to take aspects of the working situation into consideration	Intention to take personal aspects into consideration
Attitudes	0.48**		0.53**
Social influences	0.14		
Self-efficacy	[a]	0.20**	
Barriers			0.46*

[a] Empty boxes indicate the parameter was fixed at zero; ** $p<0.05$; * $p<0.10$.

Table 3.3: The final model's standardised coefficients and errors for the effects of the latent variables on the observed indicator variables.

Latent variable	Indicator variable	Standardised coefficient	Error
Attitudes	x1	0.42	0.83
	x2	0.55	0.70
Social influence	x3	0.40	0.84
	x4	0.92	0.16
	x5	(removed)	
Self-efficacy	x6	0.87	0.24
	x7	0.66	0.56
Barriers	x8	0.48	0.77
	x9	0.76	0.43
	x10	0.49	0.76
	x11	(removed)	
Intention to inform carefully	y1	1.00	0.00
Intention to take aspects of the working situation into consideration	y2	1.00	0.00
Intention to take the personal aspects into consideration	y3	1.00	0.00

presented in Tables 3.2 and 3.3. Table 3.4 shows the goodness-of-fit indices of the starting model, the 'in-between model' (with all direct effects between the independent and dependent latent variables specified as free), and the final model. The goodness-of-fit indices of the final model indicated that the model was properly fitted: the value of RMSEA was less than 0.05 (RMSEA=0.025), with the CI within the appropriate range (90% CI=[0.0; 0.064]), the CFI exceeded 0.95 (CFI=0.99), and the SRMR was just above the upper limit of 0.05 (SRMR=0.0505).

All but two of the remaining relationships of the independent variables with the dependent latent variables in the final model contributed significantly ($p<0.05$) to the final model. These relationships concerned the effects of: attitudes and social influences on the intention to inform claimants carefully, self-efficacy on the intention to take aspects of the working situation into consideration in the communication with claimants and attitudes on the intention to take the personal aspects of claimants into consideration in the communication during the assessment interview. All these were positive relationships, two of which showed a more substantial effect than the others: the effect of attitudes on the intention to inform carefully (0.48; $p<0.05$) and the effect of attitudes on the intention to take the personal aspects of claimants into consideration (0.53; $p<0.05$). The third relationship, i.e. the effect of self-efficacy on the intention to take aspects of the working situation into consideration, had a value of 0.20 ($p<0.05$).

Discussion

Main findings

The objective of this study was to determine which constructs of the following: intentions, attitudes, social influence, self-efficacy, skills and barriers for social insurance physicians, contributed the most in determining intentions with regard to communication with claimants in disability assessment interviews. The results showed that the TPB could be applied to describe the influences on the intentions of social insurance physicians in their communication with claimant. We found significant direct effects, of meaningful size, of attitudes on the intention to inform claimants carefully, and on the intention to take the personal aspects of claimants into consideration.

Table 3.4: Test statistics and goodness-of-fit indices for the theoretical starting model (which could not be fitted; the model did not converge), the 'in-between model' with all direct relationships between the independent en dependent latent variables still free, and the final model (n=146).

	Chi-square	df	p-value	RMSEA [90% CI]	CFI	SRMR
Starting model	[a]					
In-between model	40.02	33	0.19	0.039 [0.0; 0.076]	0.98	0.049
Final model	43.47	40	0.33	0.025 [0.0; 0.064]	0.99	0.050

[a] The model did not converge.

Findings in relation to other studies

Our results are in line with those reported by Hagger and Chatzisarantis, who tested two models comparable to ours, in which the observed variables were global variables that consisted of multiple items. Analogous to our results, the correlations of intentions with attitudes were the highest. Correlations with self-efficacy and social influence were lower, except for the direct effect of self-efficacy on intention in one of the two models [34]. In our study, self-efficacy had a significant, but rather small, direct effect on intentions.

The results showed that attitudes and barriers were strongly related to intentions (although the relationship of barriers, in itself, was not significant; $0.05<p<0.10$), whereas the relationships of self-efficacy and social influences with intentions were less strong, or even not significant. In terms of the assessment interview, these results indicate that the way in which physicians intend to communicate with claimants is mostly determined by their beliefs and by barriers, but less by confidence about their own communicative capabilities, and hardly at all by the opinions of other people. The results of other studies also showed the importance of attitudes. For example, it was found that physicians with a more respectful attitude gave patients more information, and showed more positive affect with some types of patients [35]. Other researchers have argued that the most important communication barriers for physicians, with regard to fertility preservation among cancer patients, were their knowledge, attitudes and skills [36]. The small influence of self-efficacy on intentions (compared to its influence on attitudes and barriers) could be the result of the emphasis we laid on unexpected situations and difficulties with regard to self-efficacy in our questionnaire, whereas purposefulness and what is discussed were emphasised less. If the latter aspect of self-efficacy had been taken into account more prominently, self-efficacy might have had a greater direct influence on intentions. The fact that most participants had many years of experience as a social insurance physician might explain the minimal contribution of social influence in the model: these physicians do not need confirmation from others.

The only significant direct effect on the intention to take aspects of the working situation into consideration was small, whereas effects on the other two intentions (to inform claimants carefully and to take personal aspects of the claimants into consideration) were greater. Determinants of communication behaviour thus seem to determine physicians' intentions to create a good interpersonal relationship and intentions to exchange information with regard to claimant characteristics more strongly, than their intentions to exchange information with regard to work.

Strengths and limitations of the study

We recruited 146 social insurance physicians, which was a lower response rate than we had expected (i.e. 36.5% of the social insurance physicians we approached participated). Because comparison of data from the participants with data from the

total population showed no meaningful differences with regard to the available variables, and explanations for non-participation were logical, we believe that the biases that resulted were minimal, and that the results can therefore be generalised to all social insurance physicians who perform medical disability assessment interviews. However, some bias probably did occur in the selection of physicians who were interested in research in general, and in communication processes. Therefore, care is required in the interpretation of the results for future research.

The relationships between the dependent variables and the independent variables were studied with LISREL structural equation modelling [32]. Structural equation modelling, or path analysis, is especially useful in non-experimental research designs, because with this method it is possible to specify causal relationships derived from cross-sectional data when no longitudinal data are available. However, in order to be able to draw definite conclusions about the direction of causal relationships between variables, longitudinal data are needed. The fact that in this study only cross-sectional data were available could therefore be considered as a weakness, despite the fact that structural equation modelling is suitable for analysing such data in this way. Therefore, the results are tentative to a certain degree. Moreover, it is recommended that longitudinal data are used to study the effects of intentions on actual behaviour.

Although LISREL provides the researcher with suggestions on how to adapt the model to make a proper fit, in order to test a theoretical model, and not just explore the paths that could be fitted with the data, it is necessary to make only theoretically sound adjustments. Therefore, we decided not to act upon the LISREL suggestions indicating that relationships between errors of observed x variables and observed y variables should be specified as free. If we had followed this suggestion, this would have led to a marginally better fitting model, as indicated by the goodness-of-fit indices, but it would not have resulted in a completely different final model. This implies that the fitted final model was, indeed, a stable model.

During the fitting process, we decided to combine skills and self-efficacy into one construct of self-efficacy. Initially, this might not seem to be an obvious choice, and it could be argued that this choice contradicts the theoretical model. However, based on the LISREL suggestion to make this adaptation, inspection of the questions that indicated the construct of skills made clear that perhaps the questions had not really measured skills, and that what we had named skills was more of a conceptualisation of self-efficacy. It can, therefore, be concluded that we were unable to measure skills that concern communication by means of a self-report questionnaire. This should be considered as a weakness of the questionnaire method and the questions we used (although others, for example [24], were able to reliably measure physicians' communication skills with a self-report questionnaire).

Implications for practice

This study was performed in order to find empirical support for a previously described framework based on theoretical findings, and findings in other medical disciplines [18]. Because the cross-sectional data of social insurance physicians did, indeed, confirm the utility of the relationships the TPB proposes, it can be used as input in our planned development of a communication skills training course for social insurance physicians. The results showed that attitudes were related to two of the intentions, whereas (to a lesser degree) self-efficacy was only related to one of the intentions. Based on these results, we recommend that a communication skills training course should focus on professional attitudes with regard to communication, as well as on the self-efficacy of social insurance physicians, in order to influence instrumental intentions in the communication with claimants (in this study: intentions to take the personal and working aspects of the claimants into account). To influence affectively-oriented intentions (in this study: intentions to inform claimants carefully), attitudes would seem to be the most promising focus. With regard to opportunities to change communication behaviour by means of a training course, this implies that in order to change intentions about work characteristics, constructs other than the measured determinants should also be addressed, such as available information and claimant characteristics. Moreover, to achieve change in communication behaviour during assessment interviews, intentions to inform claimants carefully and to take their personal aspects into consideration seem to be a more promising target, because we have more insight into the determinants.

Although attitudes can be rather firm, it has been shown that attitudes may be changed by communication skills training. For example, the randomised controlled trial of Fallowfield and co-workers [37-40] measured attitudes of 160 oncologists using questionnaires with Likert scales. The results – from both objective recordings and self-reports – showed significant improvements 3 months after the training in attitudes and beliefs towards the importance of psychosocial issues compared to controls. They concluded: 'Our results show that a communication skills training intervention using behavioural, cognitive, and affective components not only increases potentially beneficial and more effective interviewing styles but can also alter attitudes and beliefs, thus increasing the likelihood that such skills will be used in the clinical setting' (p. 765, [40]). Altiner et al. [41] provided another example. They studied an intervention aiming at motivation of physicians to change their attitudes with regard to communication related to prescribing antibiotics, and they concluded that, although complex, it is realistic to do this.

To increase insight into the way in which social insurance physicians communicate with claimants, this study focused on determinants of communication behaviour of physicians, and not directly on their communication behaviour. Behaviour was not measured, and therefore not included in the model. However, in the development of communication skills training it is also important to take behaviour

into account, preferably measured subsequently (and not at the same moment as intentions). This effect of intentions with regard to communication behaviour on actual communication behaviour should be addressed in future studies. Because, for example, the results of the Eccles et al.'s review [42] showed that the intentions of health care professionals correspond to their subsequent self-reported behaviour, and not to observed behaviour, and the Armitage and Connor review [19] yielded similar results (with better predictions of self-reported behaviour than observed behaviour), it is important to choose an appropriate training focus. Physicians' perceptions of communication behaviour could presumably be changed more easily by addressing the determinants included in this study, than their actual (observed) behaviour could be changed.

Conclusions

In conclusion, empirical support was found to confirm that a model analogous to the TPB could describe intentions with regard to communication procedures in social insurance medicine. The intention to inform claimants carefully and the intention to take the personal aspects of claimants into consideration during medical disability assessment interviews contributed meaningfully to the total model. These intentions were mainly determined by the physicians' attitude to their own profession and (to a slightly lesser degree) their attitude with regard to assisting claimants in finding solutions for work disabilities. Therefore, attitudes may be a promising focus of communication skills training for physicians when the aim is to change determinants of communication behaviour.

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Appendix 3.1: List of the questions on the questionnaires sent to the social insurance physicians (translated from Dutch).

Aspects of the constructs		Questions
y1	Intention to inform claimants carefully	In your opinion, how important is informing claimants during the medical disability assessment interview about … 1. Why claimants are assessed. 2. Your assignment as a social insurance physician. 3. Your role as a social insurance physician in assessing the claimant. 4. The contents of your final report about your conclusions. 5. The laws. 6. Your goals during the disability assessment interview. 7. The possible consequences of inferences/conclusions for a disability benefit. 8. Whom the information you have is from. 9. The inferences/conclusions of your own examination.
y2	Intention to take aspects of the working situation of claimants into consideration in the assessment	In the medical assessment of claimants and the preparation of the medical disability assessment interview, how important do you think these aspects are… 1. Exposition of claimants to a certain physical load in (former) work. 2. Exposition of claimants to acertain mental load in (former) work. 3. The (former) occupation of claimants. 4. Shift work versus day duties of claimants in (former) work. 5. Claimants' type of contract of employment in (former) work. 6. The way of living of claimants.
y3	Intention to take the personal aspects of the claimant into consideration in the assessment	In medical disability assessments, how important are … 1. The current length of work disability. 2. The working history. 3. The claimant's age. 4. The claimant's level of education. 5. The claimant's housing conditions. 6. The claimant's cultural background. 7. The claimant's gender. 8. The magnitude of the claimant's (last) wages.
x1	Attitude with regard to assisting claimants and finding solutions with regard to work disabilities (result-directed attitude)	1. A social insurance physician should express his/her opinion about the disabilities related to work. 2. The social insurance physician should tell the claimant his/her opinion regarding the functional abilities. 3. The claimant should notice you are willing to listen.

Aspects of the constructs		Questions
(x1)		4. During an assessment, the social insurance physician should reactivate claimants or encourage return to work. 5. It is important to aim at complete understanding in the problems regarding the claim the claimant brings up. 6. Discussing return to work (to that degree a person is capable to) is important in assessment interviews. 7. When a claimant asks for support to return to work, a social insurance physician should answer to this. 8. A social insurance physicians should contribute to recovery/ recovery behaviour of claimants.
x2	Attitude with regard to the own profession of social insurance physician; work engagement	1. At my work, I feel bursting with energy. 2. At my job, I feel strong and vigorous. 3. I am enthusiastic about my job. 4. My job inspires me. 5. When I get up in the morning, I feel like going to work. 6. I feel happy when I am working intensely. 7. I am proud of the work that I do. 8. I am immersed in my work. 9. I get carried away when I'm working.
x3	Influence on communication of one's social environment	To what extend are these institutions of influence on your interaction with claimants… 1. The Institute of Employee Benefit Schemes. 2. Social norms at your office. 3. Other social insurance physicians. 4. Public opinion.
x4	Influence on work satisfaction of one's social environment	To what extend does the opinion of these institutions regarding working as a social insurance physician, influence the extend to which you enjoy your job… 1. The Institute of Employee Benefit Schemes. 2. Social norms at your office. 3. Other social insurance physicians. 4. Public opinion.
x5	Social influence of direct colleagues	To what extend do you care about colleagues' opinion regarding the course of medical disability assessment interviews, of colleagues who have … 1. More knowledge about a certain domain than yourself. 2. More skills in a certain domain than yourself. 3. More experience than yourself. 4. A higher rank within the organisation than yourself.
x6	Self-efficacy about communication with claimants	1. I can always manage to solve difficult problems in interacting with claimants, if I try hard enough. 2. If claimants oppose me, I can find the means and ways to get what I want of them. 3. It is easy for me to stick to my aims of the disability

Aspects of the constructs		Questions
(x6)		assessment interview and accomplish my goals. 4. I am confident that I could deal efficiently with unexpected events during assessment interviews. 5. Thanks to my resourcefulness, I know how to handle unforeseen situations during assessment interviews. 6. I can solve most problems during assessment interviews if I invest the necessary effort. 7. I can remain calm when facing difficulties during assessment interviews. 8. When I am confronted with a problem during assessment interviews, I can usually find several solutions. 9. If I get in trouble during assessment interviews, I can usually think of a solution. 10. I can usually handle whatever comes my way during assessment interviews.
x7	Skills concerning communication with claimants	1. I have little control over the things that happen to me in the interaction during assessment interviews. 2. There is really no way I can solve some of the problems I have during assessment interviews. 3. There is little I can do to change many of the important things during assessment interviews. 4. I often feel helpless in dealing with problems during assessment interviews. 5. Sometimes I feel I am being pushed around by claimants, regarding what is discussed during assessment interviews. 6. I can find out just about anything I really need to know for a medical disability assessment. 7. What happens to me in the interaction with claimants mostly depends on me.
x8	Barriers as a result of claimants' background	During assessment interviews, to what extend do you feel hindered by… 1. Claimants with a minimal competence of the Dutch language. 2. Claimants with language problems. 3. Partners or family members of claimants who act as interpreter/translator. 4. Being forced to bring in a professional interpreter/translator. 5. A non-Dutch cultural background of claimants. 6. Missing or incomplete files. 7. A low level of education or no education of claimants.
x9	Barriers as a result of expectations and the people present at an assessment interview	During assessment interviews, to what extend do you feel hindered by… 1. The presence of a third person brought along by the claimant, such as a union member. 2. The presence of a third person with whom the

Aspects of the constructs		Questions
(x9)		claimant has a personal relationship, such as a partner or family member. 3. The presence of a third person by your own invitation, such as a trainee of colleague. 4. Expectations of claimants about your judgement regarding work capacity. 5. Your own expectations about the claimant.
x10	Barriers as a result of claimants' (direct or indirect) former experiences with the assessment institute	During assessment interviews, to what extend do you feel hindered by… 1. (Negative) experiences of claimants in former contact with the benefit providing institute. 2. (Negative) experiences of claimants in former disability assessments. 3. (Negative) notions of claimants regarding the benefit providing institute, for example originating from newspapers or television.
x11	Social support the social insurance physician experiences	During assessment interviews, to what extend do you feel supported by… 1. The presence of a third person brought along by the claimant, such as a union member. 2. The presence of a third person with whom the claimant has a personal relationship, such as a partner or family member. 3. The presence of a third person by your own invitation, such as a trainee of colleague. 4. A high level of education of claimants.

Chapter 4

A typology of sick-listed claimants to improve communication skills for social insurance physicians during medical disability assessment interviews

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Abstract

Introduction: Role-play with standardised simulated patients is often included in communication training. However, regarding physician-patient encounters in medical disability assessment interviews it is unclear what should be included in the scenarios for actors. The first objective of this study was to determine which types of medical disability claimants can be distinguished based on behavioural determinants. The second objective was to determine if these types of claimants differed in their perception of communication behaviour and their satisfaction with the communication with physicians.

Methods: Questionnaire data were collected from 56 Dutch claimants for 13 behavioural determinants before their assessment interview, and for 12 behavioural and satisfaction variables afterwards. For the first objective cluster analyses were performed and for the second objective linear regression analyses were performed.

Results: The results showed that three types of claimants could be distinguished: insecure support-seeking claimants, confident claimants, and socially isolated claimants. Overall, claimants were positive about the communication with the physician: insecure support-seeking claimants were satisfied and confident claimants were highly satisfied, but socially isolated claimants were unsatisfied.

Conclusion: Scenarios for standardised simulated patients should include different types of claimants. In training, special attention should be given to communication with socially isolated claimants.

Introduction

In many communication skills training courses for physicians role-play is used to practise skills or evaluate performance. A recent overview of systematic reviews even showed that role-play, especially combined with feedback about performance, is an effective strategy to teach communication skills to physicians [1]. In simulation-based medical education, scenarios for standardised patients need to be provided. These scenarios should contain realistic patient descriptions with detailed information about important personal characteristics relevant for communication behaviour. However, it is unclear which of these characteristics are the most important in physician-patient encounters. Furthermore, knowing the relationship between satisfaction with communication behaviour and patient characteristics allows a better founded choice of which feedback actors should provide. This could increase the effectiveness of learning about the influence of the physician's communication (i.e. the two-directional exchange of verbal and non-verbal information) in physician-patient encounters.

Medical disability assessment interviews are an example of physician-patient encounters. These interviews are an important step in determining whether a patient with prolonged absence from work due work disability (i.e. a claimant) is entitled to a work disability pension/social security benefits because of long term disability. National practices may vary considerably, but there are several basic principles. In the Netherlands, where the current study was conducted, assessment interviews for long-term work disability are performed after two years of sick leave, when a claimant applies for a long-term disability benefit. A social insurance physician performs the face-to-face interview – generally a one-time encounter between that physician and that claimant – to collect the information necessary to assess work capacity and eligibility for a benefit. Usually, also information from other professionals (e.g. occupational physician, specialists) is available to the social insurance physician [2-4].

In addition to the physician's communication behaviour, the personal characteristics of the claimant might influence the communication during these assessment interviews as well. For example, studies have shown that the communication style of patients with a high socio-economic status is more active and affective, and elicits more information from physicians [5], and that the behaviour of patients influences the way physicians communicate with them [6]. This implies that, although each claimant has unique characteristics and disabilities, claimant behaviour is alike on certain aspects as well. These aspects could be demographic characteristics, such as gender or social class, but also more profound characteristics, such as expectations about the assessment interview or personality. Knowing in advance which claimant behaviour will likely be encountered, might thus make it easier to determine how to communicate with the claimant.

The first objective of this study was to determine which types of medical disability claimants could be distinguished based on behavioural determinants. The

second objective was to determine: (2a) if these types of claimants differ in their perception of the communication behaviour of the social insurance physician during a recently attended medical disability assessment interview; and (2b) if these types of claimants differ in their satisfaction with the communication with the social insurance physician.

Materials and methods

Data collection and subjects

Data were collected between March and July 2008. Approximately 360 claimants of 36 social insurance physicians (10 per physician) were sampled by the Dutch Institute of Employee Benefit Schemes, the national administrative body for employee benefits. Inclusion criteria for participants were: being invited for a medical disability assessment interview according to the Work Disability Benefits Acts after a minimum of two years of sick leave, and being able to attend this assessment interview at an office of the Institute of Employee Benefit Schemes. Exclusion criteria were: being employed by the Institute of Employee Benefit Schemes, living abroad, and insufficient skills in the Dutch language to participate in the study. Data were self-reported and collected at two successive moments in time: shortly before and after the assessment interview.

Potential participants received a letter with explanations of the study. Upon their decision to participate they filled in an informed consent form and completed the first questionnaire. Participants were asked to return the questionnaire prior to attending the assessment interview, and they subsequently received a second questionnaire by mail. This second questionnaire was completed shortly after they had returned from the assessment interview. After the official deadline for complaints and objections about the disability assessment had passed, it was checked if the participants had filed a complaint about the communication with the social insurance physician and if they had objected to the decision regarding social security benefits.

Written informed consent was obtained from all participants. The study was approved by the scientific committee of the EMGO Institute for Health and Care Research of the VU University Medical Center and by the Institute of Employee Benefit Schemes. Medical ethical approval was not needed according to the Dutch law.

Measures

A modified Attitude/Social influence/self-Efficacy model (ASE model [7]), an adapted version of the Theory of Planned Behaviour [8, 9], provided a theoretical framework for this study. The first questionnaire included questions about intentions with regard to behaviour, attitudes, social influence, self-efficacy, skills, obstacles, and support concerning the claimants' communication with physicians in general and with social insurance physicians in particular. Answers were given on 4-point Likert scales. The second questionnaire included questions about the perception of and satisfaction with

the communication behaviour of the physician during the assessment interview. Answers were given on 5-point Likert scales. Because some questions and scales had to be adjusted to the context of the disability assessment interview, the questionnaires were pilot tested for relevance, comprehensibility, and length. This was done in two phases. Firstly, three claimants who had recently attended an assessment interview completed the questionnaires speaking out loudly about their thoughts and the questionnaire was adjusted according to their remarks. Secondly, the adjusted questionnaire and accompanying letter, information brochure, and informed consent form were completed by three members of the Dutch national claimants' counsel and systematically discussed with them. Taking their findings into account, the final version of the questionnaires was established.

To prepare the data for analysis, items were combined into scales with an extended item-total procedure in SPSS 15.0, in which the items were correlated with their scale total and with the totals of all of the other scales ([10]; p. 96). This resulted in four scales of attitudes, three of intentions with regard to behaviour, two of self-efficacy, and one of social influence, skills, obstacles, and support. For the second questionnaire the procedure resulted in two scales of behaviour and three of satisfaction with behaviour. Additionally, two behavioural variables were added (i.e. whether or not a complaint had been filed and whether or not the claimant objected to the assessment outcome), as well as five satisfaction variables. For all variables a high score meant the construct was present and a low score meant the construct was absent. An overview is presented in Table 4.1.

Data analysis

Because no data were available for a non-response analysis, we studied whether the participants were a representative sample of the claimants that completed the first questionnaire and of all approached claimants. To this end Mann-Whitney U tests were performed.

For the first objective standardised, Z-transformed data were analysed with hierarchical cluster analysis using Ward's method (clustering by claimants), followed by non-hierarchical K-means cluster analysis with the number of clusters and initial cluster centres taken from the hierarchical cluster analysis. For validation, the final results were compared to those of K-means clustering with random initial cluster centres [11]. All scales indicating intentions with regard to behaviour, attitudes, social influence, self-efficacy, skills, obstacles, and support were included.

For the second objective linear regression analyses were performed with the measures of claimants' perception of communication behaviour (objective 2a) and claimants' satisfaction with the communication with social insurance physicians (objective 2b) as dependent variables, and the claimant type as independent variable. Adjustments for confounding and effect modification (interaction effects with claimant type) were made when necessary. Based on the literature, the following background

Table 4.1: Constructs and their scales – derived from the ASE model – included in the questionnaires, with the number of items (#), reliability of the scales (Cronbach's Alpha; α), median of the scores (Md), mean scores (M), standard deviations (SD) and ranges.

Construct	Scales[c]	#	α	Md	M	SD	Range
Intentions	Strategic planning in preparation[A]	4	0.82	2.00	2.11	0.71	1.00-4.00
	Avoidance in preparation[A]	5	0.65	2.20	2.25	0.57	1.00-4.00
	Accepting social support in preparation[A]	3	0.68	2.00	2.23	0.76	1.00-4.00
Attitudes	Passive problem solving in preparations[B]	3	0.75	1.86	1.85	0.61	1.00-3.29
	Expressing emotions in preparation[B]	7	0.79	2.00	1.99	0.54	1.00-4.00
	Active problem solving in preparation[B]	7	0.78	2.43	2.40	0.53	1.14-3.71
	Expectations about the communication[1,C]	6	0.69	3.67	3.64	0.63	2.33-4.67
Social influence	Social influence of acquaintances in preparation[D]	7	0.70	2.14	2.12	0.72	1.00-3.57
Self-efficacy	Emotional self-efficacy[E]	5	0.90	2.80	2.58	0.88	1.20-4.00
	Instrumental self-efficacy[F]	10	0.92	2.55	2.47	0.69	1.00-4.00
Skills	Expected skills for the interview[a,G]	7	0.95	3.00	3.13	0.90	1.50-5.00
Obstacles	Obstacles in the interview[a,C]	5	0.69	2.20	2.25	0.79	1.00-4.20
Support	Support from other people[C]	5	0.80	2.90	2.88	0.87	1.00-4.00
Behaviour	Expression of opinions about work abilities[b,H]	5	0.76	2.00	2.06	0.65	1.00-3.00
	Listening behaviour of social insurance physician[H,I]	3	0.86	5.00	4.45	0.85	1.00-5.00
	Claimant filed a complaint about the assessment	-	-	-	-	-	-
	Claimant objected to outcome of assessment	-	-	-	-	-	-
Satisfaction with behaviour	Way of information exchange[H]	5	0.94	4.00	3.73	1.00	1.00-5.00
	Competence of the social insurance physician[J,K]	5	0.89	4.00	3.86	1.05	1.00-5.00
	Satisfaction with relationship[J]	7	0.94	4.00	3.76	1.07	1.00-5.00
	Trust in the medical assessment[L]	1	-	4.00	3.71	1.49	1.00-5.00
	Correctness of expectations about communication[K]	1	-	4.00	3.42	1.51	1.00-5.00
	Satisfaction with communication[K]	1	-	5.00	3.91	1.46	1.00-5.00
	Satisfaction with information[L]	1	-	4.00	4.04	1.14	1.00-5.00
	Satisfaction with atmosphereL	1	-	5.00	4.13	1.26	1.00-5.00

[a] Items in these scales were answered on a 5-point scale instead of a 4-point scale; [b] Items in these scales were answered on a 3-point scale instead of a 5-point scale; [c] References: [A] WCQ: Ways of Coping Questionnaire [15]; [B] UCL: Utrecht Coping List [16]; [C] Questions formulated by ourselves, based on different sources, including other questionnaires and behavioural observations during assessment interviews; [D] Based on the COPE Questionnaire [17]; [E] STAI: State-Trait Anxiety Inventory [18]; [F] GSE: General Self-Efficacy Scale [19]; [G] Pearlin Mastery Scale [20]; [H] Questions of Croon and Langius [21]; [I] AStri Client Monitor of the Institute of Employee Benefit Schemes [22]; [J] PDRQ-9: Patient-Doctor Relationship Questionnaire [23]; [K] Patient Satisfaction with Occupational Health Questionnaire [24, 25]; [L] Questions of Nauta [26, 27].

variables were considered potential confounders (over 10% change of the regression coefficient) or effect modifiers ($p<0.05$): age, gender, level of education, number of attended assessment interviews, main diagnosis (self-reported), functional capacity for work (according to the social insurance physician). For all analyses SPSS 15.0 was used.

Results

Participants

The personal characteristics of the participants are summarised in Table 4.2, as well as those of the claimants who participated in the first questionnaire and those of all claimants who were approached for the survey. A total of 63 participants who lived scattered over the Netherlands, completed the first questionnaire (17.5%). Of them 56 (88.9%) also completed the second questionnaire, and were included in this study. Their mean age was 48.1 years (SD=8.9; range 22-62) and 55.4% were female. The assessment interviews of these 56 claimants were performed by 28 social insurance physicians. The mean age of these physicians was 50 years and 2 months (SD=7 years and 2 months). Of them, 39.3% was female and 60.7% percent male. On

Table 4.2: Mean percentages for the distributions of personal characteristics (age, gender, assessment type, main diagnosis) of the participants of the complete study, the claimants that completed the first questionnaire, and all approached claimants.

	Participants (n=56)	Claimants first questionnaire (n=63)	All approached claimants (n=298)
Age (years) [95% CI]	48.1 [45.7; 50.5]	48.1 [45.9; 50.2]	[a]
Age group (%):			*
Up to 44 years	21.4	22.2	39.6
45 to 54 years	57.1	58.7	47.3
55 years and over	21.4	19.0	13.1
Gender (%):			
Male	44.6	42.9	47.0
Female	55.4	57.1	53.0
Assessment type (%):			*
First time assessment	33.9	36.5	51.0
Subsequent time	66.1	63.5	49.0
Main diagnosis (%):			
Musculoskeletal	28.6	30.2	29.9
Psychological	28.6	28.6	33.6
Cardiovascular	8.9	7.9	6.7
Mix or other	33.9	33.3	29.9

[a] Unknown; * Group differed on this variable from the group of participants ($p<0.05$).

average, they had worked as an insurance physician in practice for 15 years and 9 months (SD=7 years and 10 months) and at that moment they were working for 31.6 hours (SD=10.0 hours) per week as an insurance physician.

No differences were found between the participants in this study who completed both questionnaires (n=56) and the claimants who completed only the first questionnaire (n=63). The participants in this study (n=56) differed significantly from all claimants who were approached for the survey (n=298) on assessment type and age group. No differences were found on the other background variables. A lower percentage of participants was invited to a first time assessment and thus a higher percentage to a second or subsequent assessment, than all approached claimants. On average, participants were older than all approached claimants. Claimants for a subsequent assessment and older claimants thus seemed more willing to participate in the study.

Objective 1: Types of claimants

One outlier was identified and excluded from analysis. The results of the cluster analyses showed that a three cluster classification was the best claimant classification. Because some variables were somewhat skewed, analyses were replicated with those variables log-transformed. These analyses gave similar results. The three cluster solution is presented in Table 4.3 and in Figure 4.1. The results showed: (A) a cluster of constructively preparing claimants with negative expectations and adequate social support, named the insecure support-seeker (34.5% of the claimants); (B) a cluster of positively minded claimants with a non- passive coping pattern, named the confident

Table 4.3: The final cluster centres for each scale (standardised by Z-transformation) and statistical significances of the cluster differences ($p<0.05$) for the final three cluster solution (n=55).

Construct	Scales	Final cluster centres[a]			p-value
		Type A	Type B	Type C	
Intentions	Strategic planning	0.64	-0.46	-0.32	<0.001*
	Avoidance	-0.01	-0.17	0.07	0.734
	Accepting social support	0.69	-0.32	-0.61	<0.001*
Attitudes	Passive problem solving	0.39	-0.72	0.56	<0.001*
	Expressing emotions	0.13	-0.27	0.06	0.348
	Active problem solving	-0.10	0.26	-0.31	0.238
	Expectations about communication	-0.36	0.40	-0.12	0.039*
Social influence	Social influence of acquaintances	0.59	-0.50	-0.12	<0.001*
Self-efficacy	Emotional self-efficacy	-0.69	0.74	-0.23	<0.001*
	Instrumental self-efficacy	-0.56	0.58	-0.05	<0.001*
Skills	Expected skills for the interview	-0.79	0.70	-0.24	<0.001*
Obstacles	Support from other people	0.69	0.10	-1.08	<0.001*
	Obstacles in the interview	0.43	-0.84	0.83	<0.001*

[a] Type A = insecure support-seeking claimants; Type B = confident claimants; Type C = socially isolated claimants; ; * $p<0.05$.

(41.8% of the claimants); and (C) a cluster of moderately able and indecisiveness claimants, who lack social support, named the socially isolated (23.6% of the claimants). More in detail, these types of claimants could be described as follows:

- *Insecure support-seeking claimants* had negative expectations about themselves, the social insurance physician, and the assessment interview (low scores on emotional and instrumental self-efficacy and on skills, high scores on obstacles). Their intentions to accept social support and the availability of social support from other people were high, although they reported only average influence of others. The passivity of their coping attitude was average to low (i.e. they had moderate to little inclination to isolate themselves, withdraw, or ruminate) and their preparation for the interview (an intention measure) was relatively strategic.
- *Confident claimants* were characterised by overall high expectations about themselves, the social insurance physicians and the assessment interview (high scores on emotional and instrumental self-efficacy and skills, low scores on obstacles). Although social support was reasonably to highly available to these claimants, they reported low intentions to accept social support and little influence from others. They had a lack of passive coping attitude (e.g. they were not inclined to isolate themselves, withdraw or ruminate) and had little intentions for strategic planning in preparation for the interview.
- *Socially isolated claimants* were characterised by indecisiveness in their expectations (i.e. they were hesitant or undecided in their opinion about the assessment interview; their views can be described as moderate, subdued, or not extreme). Their emotional and instrumental self-efficacy, skills, and obstacles were average. Intentions to accept social support, social influence, and availability of support from others were all small. These claimants had an average to low passive coping attitude and low intentions for strategic planning.

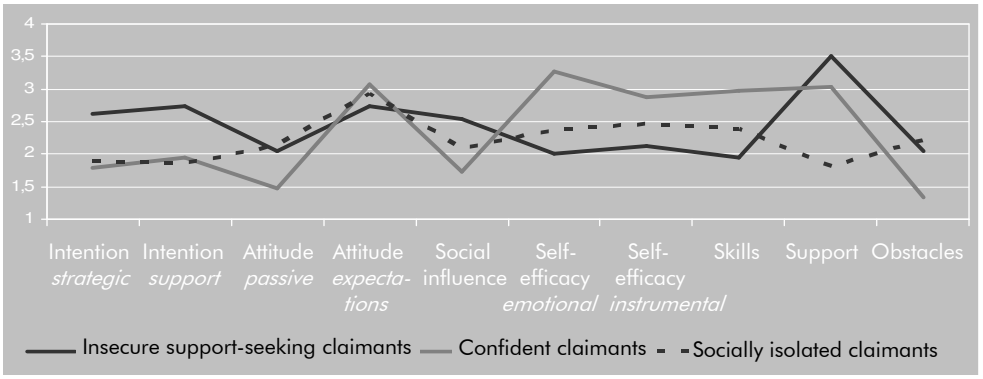

Figure 4.1: Mean standardised scores of the claimants (n=55) on the scales that differed significantly ($p<0.05$) for the three cluster solution (possible range: 1-4).

Table 4.4: Mean scores and significance of group differences (unadjusted and adjusted) for each of the behavioural and satisfaction scales and items for type 1 (N=19), type 2 (N=23), and type 3 (N=13) claimants[a], respectively.

	Mean score (SD)			Significance of group differences Crude analysis (p-values)				Significance of group differences Adjusted analysis[b] (p-values)					
Scale/item	Type A	Type B	Type C	Overall	A vs B	B vs C	A vs C	Overall	A vs B	B vs C	A vs C	Conf.	Effect mod.
Opinions work abilities	2.18 (0.62)	2.18 (0.67)	1.69 (0.51)	0.053**	0.99	0.027*	0.032*	0.063**	0.90	0.008*	0.011*	1, 3	(None)
Listening behaviour	4.47 (0.68)	4.75 (0.47)	3.90 (1.27)	0.012*	0.26	0.003*	0.048*	0.057**	0.24	0.007*	0.097**	3, 6	(None)
Complaint (% yes)	0	8.7	0	0.17	0.99	1.00	1.00					(None)	(None)
Objection (% yes)	10.5	13.0	15.4	0.92	0.80	0.85	0.69	0.82	0.54	0.58	0.94	1, 2, 3, 4, 5, 6	(None)
Information exchange	3.64 (0.97)	4.02 (0.81)	3.58 (1.28)	0.36	0.23	0.22	0.89	0.061**	0.070**	0.051**	0.70	3, 5	2
Competence	3.80 (0.96)	3.99 (1.19)	3.69 (0.99)	0.70	0.57	0.42	0.77	0.27	0.74	0.77	0.98	1, 2, 3, 4, 5, 6	(None)
Satisfaction relationship	3.70 (1.10)	3.99 (0.85)	3.46 (1.36)	0.36	0.39	0.16	0.54	0.77	0.38	0.40	0.90	1, 3, 4, 5, 6	(None)
Trust in assessment	3.58 (1.68)	3.91 (1.47)	3.54 (1.27)	0.70	0.48	0.48	0.94	0.19	0.60	0.72	0.46	1, 3, 4, 5, 6	(None)
Expectations communication	2.89 (1.49)	4.00 (1.35)	3.15 (1.57)	0.045*	0.017*	0.099**	0.62	0.23	0.032*	0.27	0.55	1, 3, 4, 5, 6	(None)
Satisfaction communication	3.74 (1.66)	4.39 (1.08)	3.31 (1.55)	0.080**	0.14	0.032*	0.40	0.27	0.11	0.44	0.64	1, 2, 3, 4, 5, 6	(None)
Satisfaction information	4.00 (1.25)	4.35 (0.98)	3.54 (1.13)	0.12	0.32	0.041*	0.26	0.35	0.51	0.096**	0.29	5	3
Satisfaction atmosphere	4.11 (1.29)	4.39 (1.20)	3.69 (1.32)	0.28	0.47	0.12	0.37	0.20	0.35	0.93	0.53	1, 2, 3, 4, 5, 6	(None)

[a] Type A = insecure support-seeking claimants; Type B = confident claimants; Type C = socially isolated claimants; [b] Possible confounders or effect modifiers were: age (1), gender (2), level of education (3), first or subsequent assessment (4), self-reported main diagnosis (5), functional capacity (6); * $p<0.05$; ** $p<0.10$.

Objective 2: Relationship with behaviour and satisfaction

An overview of the predictive validity of the three claimant types for perceived behaviour during and for satisfaction with the assessment interview, taking confounders and effect modifiers into account, is presented in Table 4.4. Below, the results for the adjusted analyses are presented.

The adjusted analyses showed no overall differences between the three types of claimants on their perception of communication behaviour and on their satisfaction. On three variables differences were found at $p<0.10$: expression of opinions about work abilities ($p=0.063$), listening behaviour ($p=0.057$), and satisfaction with the information exchange ($p=0.061$).

Significant differences between two claimant types did exist. On all three variables just mentioned socially isolated claimants differed from confident claimants, with the former having a low and the latter a high level of satisfaction compared to the mean score ($p=0.008$, $p=0.007$, and $p=0.051$, respectively). About the expression of opinions about work abilities socially isolated claimants also were more negative than insecure support-seeking claimants ($p=0.011$). One other difference was found: insecure support-seeking claimants differed significantly from confident claimants in that the first were unsatisfied while the latter were satisfied about the degree to which their expectations about the communication were met ($p=0.032$). Summarising, insecure support-seeking claimants were satisfied averagely, confident claimants were satisfied more than averagely, and socially isolated claimants were satisfied less than averagely on the variables mentioned above.

For all other variables, no significant differences between claimant types in opinions about behaviour and satisfaction were found, and too few complaints were filed to establish differences between the claimant types. In other words, it seemed that – in the current sample – most of the opinions about the assessment interview were not determined by claimants' intentions, attitudes, social influence, self-efficacy, skills, obstacles, and support, but by other aspects (such as the physician).

Discussion

Main findings

Three types of claimants could be distinguished. These three types were: (A) claimants with negative expectations about their skills and a high intention to accept social support as well as high actual support, named the 'insecure support-seeking'; (B) claimants with reasonably to high social support, low intentions to accept support, and good skills for the interview, named the 'confident'; and (C) claimants with moderate skills and lacking social support, named the 'socially isolated'. On average all claimants were satisfied with the communication with physicians during a recently attended medical disability assessment interview. Of the three types, insecure support-seeking claimants were averagely satisfied, and confident claimants were even more

than averagely satisfied. However, socially isolated claimants were less satisfied, especially with regard to how the physician expressed his or her opinions about work abilities, listening behaviour, and information exchange. Nonetheless, on most variables satisfaction did not differ between the three types of claimants. In other words, for these variables satisfaction was not determined by claimants' intentions, attitudes, social influence, self-efficacy, skills, obstacles, and support, but by other aspects.

Findings in relation to other studies

Many different typologies of patients have parallels with our three types. For example, Flynn et al. [12] categorised people into four distinct types based on preferences concerning participation in medical decision making with regard to deliberateness and autonomy. Differences between our three types of claimants seem related to this autonomy. That is, insecure support-seeking claimants are high on their intentions to get social support and on availability of social support, and thus are less autonomous, while both other types turn to social support less frequently. The dimension of deliberateness, i.e. the need to be offered choices, could be considered parallel to the distinction between passive and active coping. This would imply that confident claimants show the most need to explore the choices, while insecure support-seeking and socially isolated claimants have the need to look for confirmation of their own choices instead of exploring choices.

Boot et al. [13] classified employees with asthma and COPD based on their attitudes, coping with disabilities, views about revealing limitations to others, and other variables, in four groups: adjusted workers, cautious workers, eager workers, and worried workers. Adjusted workers resemble confident claimants, because they accept their limitations, are not overly preoccupied with their emotions, and have a strong need for control. Eager workers also resemble confident claimants, mostly because they are highly motivated. Cautious workers are worried about their health and try to prevent limitations, and therefore bear the most resemblance to insecure support-seeking claimants. Worried workers show similarities with cautious workers. They resemble both insecure support-seeking claimants and socially isolated claimants, because they have negative expectations, feel adequately supported, but face their limitations.

Guck et al. [14] developed a psychosocial typology of diabetic patients. They included social support and self-efficacy as possible cluster variables. Their results showed three types of diabetic patients: spousal over-involvement patients, adaptive coping patients, and low support/low involvement patients. The spousal over-involvement patients bear resemblance to our insecure support-seeking claimants, because social support is highly available to them, but they lack options to autonomously handle situations. The adaptive coping patients appear similar to the confident claimant. The low support/low involvement patients bear the most

resemblance to our socially isolated claimants, although the low involvement aspect is also presented in the confident claimants. These parallels of our results with those of studies categorising other patients on other variables strengthen the plausibility of our typology.

Strengths and limitations of the study

The strengths of this study were that: (1) the typology of claimants was developed based on self-reports of claimants (not on stereotypes of social insurance physicians); (2) all scales used in the cluster analysis were selected – before starting the cluster analysis – based on their relevance for medical disability assessments; (3) several variables of behaviour and satisfaction were included in the study; (4) data were collected at two successive moments in time; and (5) a theoretical model, the ASE model, was taken as a starting point. With regard to the fourth strength, i.e. the collection of data at two points in time, it was important that the questionnaire from which the claimant types were extracted, was completed prior to the actual assessment interview that the second questionnaire asked about. Because of this, no bias from that assessment interview could have occurred in the classification.

The first limitation of this study was the limited number of participants and the finding that claimants for a subsequent assessment and older claimants were more willing to participate in the study (selection bias). A non-response analysis could not be performed, but reasons not to participate might have been: almost simultaneously receiving the first questionnaire and having to attend the assessment interview (i.e. limited time to complete the first questionnaire), and fear of the consequences of participating for the social security benefit (although claimants were explicitly told that the social insurance physician would not be informed about their participation and participation would not influence their chances for a benefit). The second limitation of this study is that cluster analysis does not differentiate between relevant and irrelevant variables: it just divides the participants in the most consistent clusters, based on all the variables the researcher puts in the analysis. The method is thus sensitive to take into account irrelevant variables. It was attempted to overcome this limitation by starting from the theoretical perspective of the ASE model and by pilot testing our questionnaires for relevance of the questions. In addition, the types were discussed in group interviews with social insurance physicians to check their face validity.

Implications for practice and future research

The results imply that, to cover the majority of the claimants, at least three scenarios for actors enacting medical disability claimants in role-playing should be made. These three scenarios should be based on the insecure support-seeking claimant, the confident claimant, and the socially isolated claimant. Of course, within these three types of claimants differences exist, which means more scenarios are possible regarding the same 'basic' type. In addition, future research should focus on the

relationship between the types of claimants and the most effective physician communication styles, as well as possibilities for changing claimant behaviour by the social insurance physician.

The findings with regard to differences in satisfaction between the three claimant types imply that special attention should be paid to socially isolated claimants in communication training. In contrast, it is unlikely that paying special attention to confident claimants will result in more satisfaction, because they were satisfied already. This also applies to insecure support-seeking claimants, because they were rather satisfied on most variables as well. Furthermore, findings indicate that satisfaction with the communication might often not be determined by claimants' intentions, attitudes, social influence, self-efficacy, skills, obstacles, and support regarding the communication, but by other variables. Most likely, those variables concern the interview itself, such as the physician who performs the interview and his/her communication style. Therefore, it may be inferred that claimants are able to give a differentiated opinion about the communication during an assessment interview, despite the large implications of the outcome of the assessment. Due to the relatively low number of participants in this study, carefulness with regard to these implications is required and future studies with a larger population are warranted to be able to draw stronger conclusions.

From the claimant classification several directives can be deduced for social insurance physicians to match their communication styles to claimants' preferences. As noted above, special attention should be paid to socially isolated claimants, because these were the least satisfied claimants. The physician should especially mind his/her sharing of opinions regarding work ability, listening behaviour, and the information exchange. Furthermore, socially isolated claimants may feel a need to elaborate extensively on their personal and working situation, especially at the beginning of the interview. The social insurance physician might want to give these claimants an opportunity to elaborate initially, therewith preventing unnecessary dwelling further on.

We successfully classified claimants in types of people with comparable characteristics. However, of course also differences exist between claimants of the same type and there will be claimants who do not fit exactly within one of the three types. Therefore, it is important that social insurance physicians also stay aware of individual differences between claimants when using the results of this study in practice. This way, possible negative effects of stereotyping, such as overestimated uniformity and rigid expectations, can be avoided. Individual differences considered, complying with directives for matching communication styles to claimants' needs might facilitate a better claimant-physician relationship and a more effective information exchange. However, research is needed to test this assumption. Additionally, future research should focus on the effects and possible difficulties of using the claimant types for role-play scripts in communication skills training for physicians.

Conclusions

Three types of claimants could be distinguished: (A) insecure support-seeking claimants; (B) confident claimants; and (C) socially isolated claimants. The types could be used for role-play scenarios. Although on most variables satisfaction did not differ between the types of claimants, especially regarding the sharing of opinions about work abilities, listening behaviour of the physician, and information exchange confident claimants were highly satisfied, socially isolated claimants were unsatisfied, and insecure support-seeking claimants were averagely satisfied. Therefore, in communication training special attention should be given to recognising socially isolated claimants and communicating with them.

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Chapter 5

Expectations and opinions of work disability claimants and their physicians about the communication during the disability assessment interview

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Abstract

Introduction: This study set out to shed light on how claimants' prior expectations about communication in an assessment interview differ from their opinions afterwards, and how claimants' opinions differ from the interviewing physicians' perceptions of these opinions.

Method: 53 work disability claimants completed questionnaires before and after the work disability assessment interview, and 28 social insurance physicians did so after the interview. Wilcoxon tests were performed to determine the significance of differences between the answers on the different questionnaires.

Results: The results revealed significant differences between claimants' expectations and opinions on three out of four communication components (viz. Listening, Correctness and Clarity, but not Empathy), where claimants with a low level of education showed significant differences on all components (including Empathy). Claimants' opinions differed significantly from the physicians' perceptions of them on two out of six communication components (viz. Correctness and Diligence).

Conclusions: We conclude that claimants are reasonably satisfied about communication after the assessment interview, despite their somewhat unfavourable prior expectations. Social insurance physicians are reasonably capable of accurately judging claimants' opinions about the communication. Nevertheless, they frequently tend to err on the favourable side. It would be worthwhile to incorporate these findings in communication skills training courses for social insurance physicians.

Introduction

Employees in the Netherlands who are chronically (totally or partially) prevented by illness from performing paid work may apply to the Institute of Employee Benefit Schemes for disability benefit when the duration of the illness approaches two years. A work disability assessment interview with a social insurance physician of this Institute, possibly followed by an interview with an employment expert, form the basis of the decision on whether the sick employee or claimant will receive benefit, and, if so, which type [1]. The assessment interview is therefore an important step in the assessment process, and much is at stake for claimants. Claimants moreover find the event stressful [2;3], which is reinforced by unfamiliarity with the physician [3] and perceived power differences [2]. On the other hand, research has shown that effective communication on the part of the physician reduces claimants' signs of stress [4] and increases their acceptance of the physician's advice [5]. The manner of communicating with and handling claimants during assessment interviews is therefore essential [6], as is the quality of the communication, which physicians themselves also emphasise [7].

As the assessment interview proceeds, both the physician and the claimant will form an opinion about the quality of the communication. These opinions may well correspond with prior expectations, but this aspect has never been investigated. However, research has suggested that high claimant expectations – moderated by personal experience and the sociopolitical context – can be detrimental to the evaluation of the quality of care [8], and Dutch research has revealed greater satisfaction with GP out-of-hours surgeries when patients' expectations are confirmed [9]. It has also been shown that claimants' expectations about communication with social insurance physicians are not always confirmed [6]. How effectively health care professionals meet patients' expectations about their reciprocal dealings and communication can be viewed as a measure of the quality of the physician-patient contact [10,11]. The ultimate opinion about the communication is therefore affected significantly by any difference between prior expectations and reality, and the direction of the difference. For instance, an interview that proceeds reasonably well will be more likely to be evaluated positively if prior expectations were unfavourable than if they were favourable. It is therefore difficult to identify the general attributes of communication during an assessment interview that constitute 'good quality'. Furthermore, it cannot be taken for granted that smooth communication will lead to a good quality outcome of the assessment process, or vice versa. In other words, it is easier to study opinions about the communication than the associated quality.

If the claimant's opinion about the communication is known, it is then important to know how it relates to the physician's opinion. Accommodating claimants in the communication during an assessment interview, and taking account of claimants' opinions about the communication, require the physician to be clearly aware of these

opinions. However, claimants are unlikely to express them explicitly and spontaneously. The most obvious way for a physician to discover these opinions is to interpret claimants' behaviour and to read the underlying message between the lines of what they say. However, physicians' capabilities may vary in this respect, or, alternatively, the correctness of their judgment about the claimant's opinion may be affected by the contrast in the contexts from which physicians and claimants enter the interview, and their disparate interests in the interview. For instance, there are differences in prior knowledge (the physician is performing everyday work, while the claimant will probably be in an entirely new situation), the position of power, and the respective aims. The physician will be primarily interested in efficient interview progress, while the claimant will want to explain his/her situation as completely as possible. A greater understanding of the situation may come from comparing the claimant's opinions about the communication with the physician's perceptions of these opinions.

This study focused on the following questions:

I. On which components did claimants' expectations prior to an assessment interview about the communication with a social insurance physician differ from their opinions after the assessment interview?
II. On which components did claimants' opinions (after the interview) about the communication with the social insurance physician differ from social insurance physicians' perceptions of these opinions?

Methods

Participants

Approximately 360 claimants were approached for the study through the Institute of Employee Benefit Schemes. The criteria for inclusion were: invited for a work disability assessment interview, and able to attend at the Institute's offices. The criteria for exclusion were: employed by the Institute, resident abroad, and insufficient command of the Dutch language to complete questionnaires.

Data collection

Questionnaires were administered from March 2008 to the end of July 2008. All questionnaires were sent to the respondents by post, and all respondents gave 'informed consent'.

The first questionnaire (T1) was a general questionnaire for claimants to be completed prior to the assessment interview. This questionnaire asked about the expectations about the communication with the social insurance physician during the assessment interview. T1 also solicited additional demographic data, such as age and gender. Subsequent to the assessment interviews the same claimants who had completed the first questionnaire answered a second questionnaire (T2a), and the

physicians who assessed them completed another questionnaire (T2b). The participants were requested to complete the questionnaires as soon as possible after the assessment interview. At the time of completion the cases had yet to be reviewed by an employment expert, and the final outcomes of the claim assessments were unknown. The questions of T2b corresponded with those of T2a, but were phrased from a different perspective: claimants were asked how they assessed the communication with the physician, whereas physicians were asked about their perceptions of the same claimants' observations of the communication.

Questionnaires

This study sought to comply with the Institute of Employee Benefit Schemes Claimants Monitor [12], which has the following subjects: Listening, Empathy, Correctness, Clarity, Diligence and Expertise. The following questions were included for each of the subjects, as one of the most important aspects of the subject. The last two subjects were included only for questionnaire part 2. All answers to the questions were given on a 5-point scale with, depending on how the question was phrased, answer categories of 'no/I don't think so/undecided/I think so/yes' or 'completely disagree/partly disagree/neutral/partly agree/completely agree'.

- Listening:
  - T1: Please indicate how much you do or do not expect the following in the interview with the social Insurance physician: the physician will listen to me.
  - T2a: Did the physician listen to you well during the interview?
  - T2b: The claimant was of the opinion that I listened to him or her during the interview.
- Empathy:
  - T1: Please indicate how much you do or do not expect the following in the interview with the social Insurance physician: the social Insurance physician will put me at ease during the interview.
  - T2a: The physician put me at ease at the start of the interview.
  - T2b: The claimant felt more at ease as the interview progressed.
- Correctness:
  - T1: Please indicate how much you do or do not expect the following in the interview with the social Insurance physician: the physician will ask me questions that I will find uncomfortable.
  - T2a: Did the physician ask you questions you thought were suggestive (questions that appeared to push your answer in a particular direction) and/or did the physician make any remarks that you found offensive?
  - T2b: The claimant found some of my questions and remarks suggestive and/or offensive, although that was not my intention.

- Clarity:
  - T1: If you think ahead to the interview with the social insurance physician, how likely do you think it will be that you understand what the physician tells you?
  - T2a: Did the physician use words that you understand?
  - T2b: The claimant thought I used clear language (not jargon).
- Diligence:
  - T2a: It was apparent during the interview that the physician was sufficiently familiar with my file.
  - T2b: The claimant noticed that I was sufficiently familiar with his/her file.
- Expertise:
  - T2a: The physician appeared to me to be an expert.
  - T2b: The impression the claimant had of me and the way I work was expert.

Analyses

With a view to answering the first research question, Wilcoxon tests were performed to determine the significance of differences between claimants' answers to questionnaire T1 prior to the assessment interview and their answers to questionnaire T2a after the assessment interview. Wilcoxon tests were also performed in order to answer the second research question, to determine the significance of differences between claimants' answers to T2a and physicians' answers to T2b. The reason for also testing the second research question for dependent samples is that the physicians' and the claimants' answers are always in correspondence: all are concerned with a social insurance physician and a claimant who were present at the same assessment interview. In addition to analyses for the entire group, subanalyses were performed for the group of claimants with a high level of education (general secondary or higher) and those with a low level of education (junior general secondary or professional, or lower). Statistical significance was set at $p<0.05$. All analyses were performed using SPSS 15.0. The means and standard deviations were calculated from the answers and shown in a graph.

Table 5.1: Distribution of level of education of the participating claimants (n=53).

Level	High (n=22)			Low (n=31)		
Completed education[a]	University	HPE	GSE	SSG/PE	LSVE	None
Number of claimants	3	13	6	15	12	4

[a] Highest completed education with certificate: University = university education; HPE = higher professional education; GSE = general secondary education; SSG/PE = senior secondary general or professional education; LSVE = lower secondary vocational education; None = no education or lower school.

Results

Participants

Of the claimants approached, 53 (15%) took part in the complete survey. They were assessed by 28 social insurance physicians. There were fourteen social insurance physicians who each saw one participating claimant, seven who saw two, four who saw three, two who saw four, and one who saw five. The respondents were from all parts of the Netherlands.

Of the claimants, 40.4% were male and 59.6% female, and 73.1% had a partner. Ages varied between 23 and 63, with an average of 48.5 years (SD=8.9). 98.1% of the claimants were of Dutch origin. The educational level is given in Table 5.1. Of the claimants, 61.5% are currently employed in a paid job. The commonest self-reported disorders were locomotor system and psychiatric symptoms (both 21.2%), followed by a combination of the two (13.5%). Two claimants lodged a complaint about the communication after the interview, and seven objected to the conclusion.

The 53 claimants did not differ from the complete group of claimants in terms of gender and main diagnosis. They did differ in terms of age. Our sample included relatively senior claimants than the total group.

Question I: differences between prior expectations and later opinions

The mean scores on each of the communication subjects concerned with claimants' expectations and opinions are shown together with the standard deviations in Figure

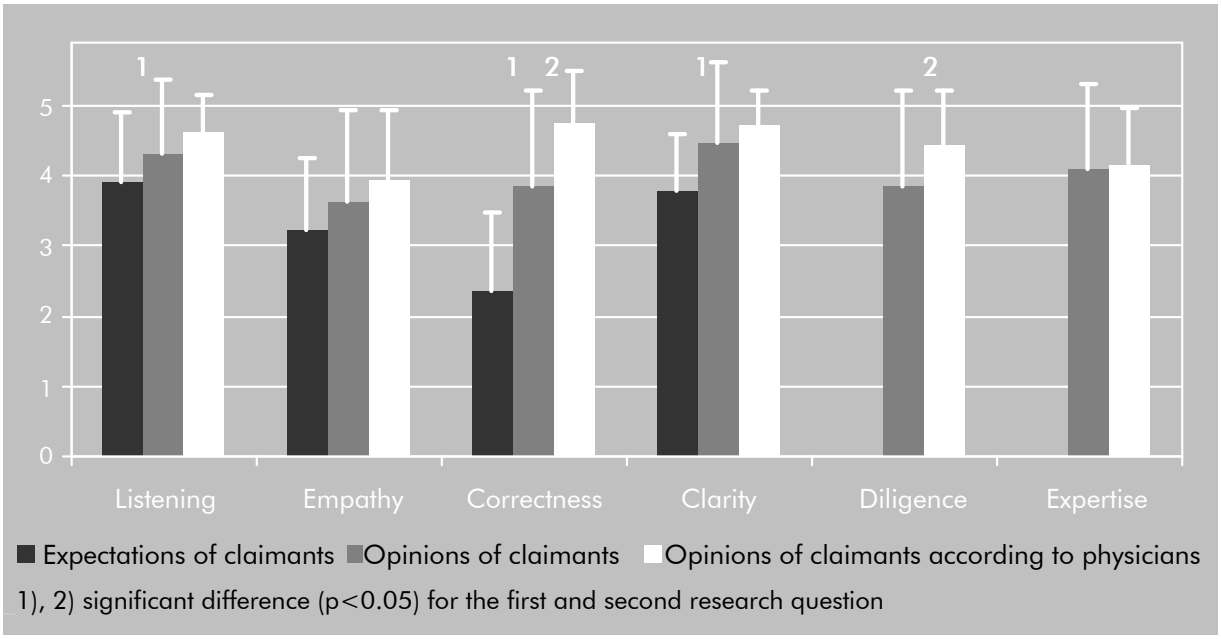

Figure 5.1: Means and standarddeviations of expectations of claimants, opinions of claimants, and opinions of claimants according to social insurance physicians, about the communication with the social insurance physician during the assessment interview.

5.1. Claimants' expectations for all four of the communication components were lower than their opinion after the event. This difference is statistically significant for Listening ($p=0.026$), Correctness ($p<0.00$) and Clarity ($p<0.00$). Looking at the subgroups of participants with a high and with a low level of education, as opposed to the entire group, there is a significant difference between expectations and opinions for the low level of education group on all communication components, whereas there were significant differences for the high level of education group only on Correctness and Clarity. The means and standard deviations for the subgroups are shown in Figure 5.2.

Question II: differences between claimants' and physicians' opinions

The respective mean values of the claimants' and the physicians' opinions about the communication subjects are shown together with the standard deviations in Figure 5.1. Claimants have the highest expectations for the physician's listening behaviour (4.0 on a scale from 1 to 5) and the lowest for correctness (2.3 on a scale from 1 to 5). Claimants'opinions after the interview fluctuated around a score of 4 on a scale from 1 to 5. Clarity and listening behaviour received the most favourable assessments after the event, and empathy the least favourable. The physicians' opinions about all subjects were conspicuously more favourable than the claimants'. This difference is significant for Correctness ($p<0.00$) and Diligence ($p=0.008$). If we single out the subgroups with a higher and lower level of education, the only significant difference

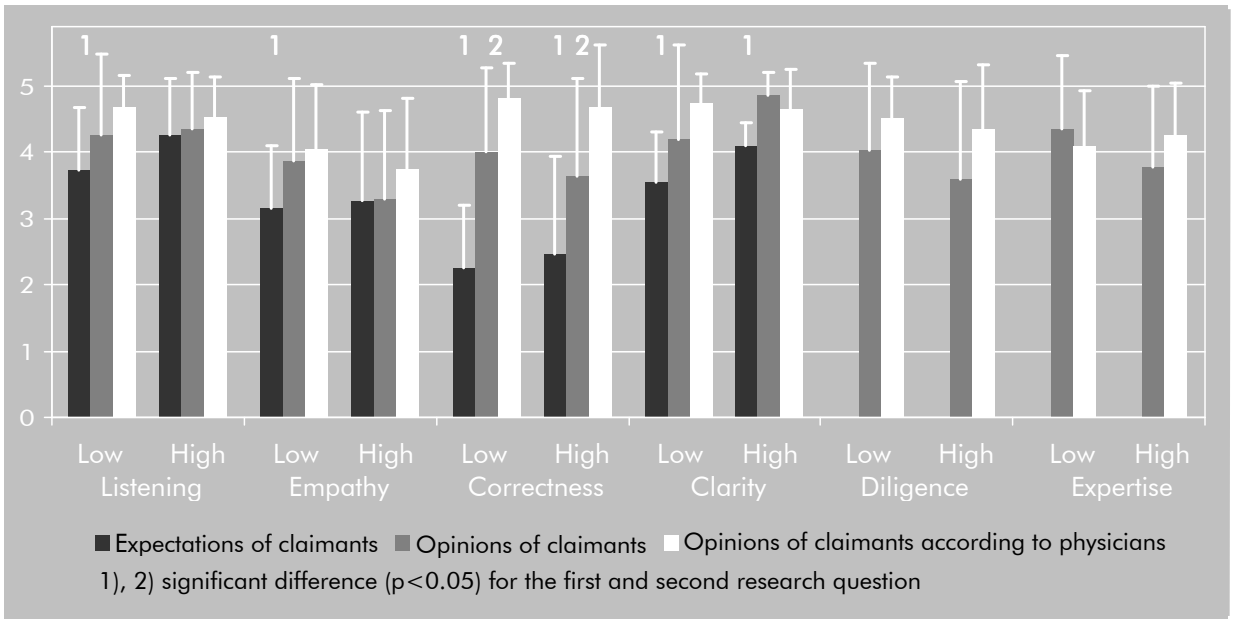

Figure 5.2: Means and standarddeviations of expectations of claimants, opinions of claimants, and opinions of claimants according to social insurance physicians, about the communication with the social insurance physician during the assessment interview, shown separately for claimants with a low level of education (Low) and claimants with a high level of education (High).

between the opinions of claimants and physicians would appear to be for the Correctness communication component. There was a significant difference on Correctness for participants with a higher level of education. The means and standard deviations for the subgroups are shown in Figure 5.2.

Discussion

Main findings

The results of this study show no significant difference for Empathy between claimants' expectations about the communication prior to the assessment interview and their opinions after the event. There was a difference for the Listening, Correctness and Clarity communication components. Looking specifically at the subgroup of participants with a lower level of education, expectations differ significantly from opinions on all communication components. Claimants' opinions (after the interview) about the physician's communication during the assessment interview differed on Correctness and Diligence from the physician's perception of their opinion. Social insurance physicians' opinions on these communication components were more favourable than those of the claimants.

Interpretation

The results of the first research question show differences between the claimants' expectations prior to an assessment interview and their opinions after the event. There appear to be a greater number of differences for claimants with a lower level of education than a higher level. This picture is not entirely consistent with the results of a study of chronically ill and disabled people, in which the patients stated that the interview with the social insurance physician met their expectations about the communication reasonably well [6]. A difference in level of education cannot be the explanation, since the mean level of education of the participants in this study was lower than in ours. However, the cause of the difference could be that the findings in the other study were not categorised according to subject.

The results of the second research question suggest that social insurance physicians are poor judges of claimants' opinions on several communication components, but judge other subjects well. It would appear that physicians tend not to observe claimants' low opinion of the physician's correctness and diligence. Social insurance physicians then judge claimants' opinions more favourably than is actually the case. This could point to 'self-enhancement bias' among social insurance physicians: in other words, an excessively favourable evaluation of themselves through interpreting the situation to their own advantage [13,14]. These findings suggest that social insurance physicians are not absolutely capable of responding satisfactorily to claimants' opinions about the communication during assessment interviews.

The findings of this study could be explained by claimant characteristics. Level of education appeared to have a part in expectations, but had less to do with differences in opinions. Other possible claimant characteristics include the number of functional opportunities, or agreement or disagreement with the physician's opinion. However, supplementary analyses – which are not included in this article – show that these characteristics have no major role in the present study.

Strengths and weaknesses

An important strength of this study is that it incorporates the views of both claimants and social insurance physicians on the same assessment interview, which has not been done previously in this way. Furthermore, the study took place in the framework of an academic study conducted by an independent organisation, which reduces the probability of socially desirable answers. A relative weakness is that this study involved separate questions, not validated scales. Furthermore, discussion is possible about the timing of completing the T2 questionnaires. Our choice was to administer these questionnaires as soon as possible after the assessment interview, with a view to minimising interference from other factors, such as the opinions of a partner, or events in the interview with the employment expert. However, it could also be beneficial to have the questionnaire administered only at the end of the complete assessment, or both after the interview with the physician and after the interview with the employment expert. However, these approaches were infeasible in the present research design.

Only 15% of the claimants approached were willing to complete both questionnaires. One of the reasons for this low response was a practical aspect of the research design: claimants had only a short time to decide whether or not to participate and to complete the first questionnaire. This was because they received the information about the study at the same time as the invitation for the assessment interview. An important possible consequence of the low response is that the results of this study can be generalised only to a limited group of claimants. For instance, we showed that the participants were relatively senior on average, and it is also probable that more people with a high level of education and Dutch nationals took part than are present in the cross-section of Institute claimants. It is possible that modifications to the study, such as the option of a telephone interview, or translated questionnaires, would have increased the response. However, these approaches could not be used in the present study.

It was impossible in this study to incorporate the final outcome of the work disability assessment (i.e. the amount, if any, of the benefit). It was consequently impossible to adjust the analyses of claimant satisfaction for the influence of the final outcome. However, it is probable that claimants' opinions about the communication are influenced by this outcome, or, more in particular: by how closely the outcome corresponds with what the claimant wants. While completing the second questionnaire

claimants did not know the result of the assessment, but will have had a certain expectation, based on what the social insurance physician said about the conclusions in the course of the interview. If claimants' expectations correspond with their wishes, it may bias claimants' opinions in a favourable sense (i.e. the communication would be assessed more positively). If the expectations do not correspond with their wishes, the bias may be in an unfavourable sense. Because both situations may arise in this study, we would expect them to average out (at least partially). We therefore do not expect the possible net influence on our research results to be large.

Implications for practice

Claimants are reasonably satisfied with the communication, with assessments around 4 on a scale from 1 to 5. However, there is more to be gained for the social insurance physician. It would be worthwhile investigating whether and how social insurance physicians could adapt their communication behaviour to give claimants a greater sense of the physician's empathy with the stressful nature of the assessment situation for them. On the one hand, training in the more correct phrasing of questions addressed to claimants, and greater diligence in preparation, are advisable, and likewise in improving judgment of – or asking about – claimants' opinions of the communication during the assessment interview. On the other hand, an intervention could be directed to claimants and their pattern of expectations. For instance, changes in the provision of information could help claimants acquire more realistic expectations. Better adapted communication and a greater understanding of claimants' opinions and perceptions would benefit the communication and thereby promote efficient information collection within the framework of work disability assessment.

Conclusions

Claimants' expectations about the quality of the communication during assessment interviews with social insurance physicians are generally reasonably favourable. However, these expectations appear to be less favourable than claimants' opinions after the interview with respect to half of the communication components considered, and in the case of people with a lower educational level, even with respect to all the components. Social insurance physicians would appear to be reasonably capable of judging claimants' opinions about the communication. Their assessment tended to be too favourable.

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Chapter 6

Stereotyping of medical disability claimants' communication behaviour by physicians

Towards more focused education for social insurance physicians

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Abstract

Background: Physicians who hold medical disability assessment interviews (social insurance physicians) are probably influenced by stereotypes of claimants, especially because they have limited time available and they have to make complicated decisions. Because little is known about the influences of stereotyping on assessment interviews, the objectives of this paper were to qualitatively investigate: (1) the content of stereotypes used to classify claimants with regard to the way in which they communicate; (2) the origins of such stereotypes; (3) the advantages and disadvantages of stereotyping in assessment interviews; and (4) how social insurance physicians minimise the undesirable influences of negative stereotyping.

Methods: Data were collected during three focus group meetings with social insurance physicians who hold medical disability assessment interviews with sick-listed employees (i.e. claimants). The participants also completed a questionnaire about demographic characteristics. The data were qualitatively analysed in Atlas.ti in four steps, according to the grounded theory and the principle of constant comparison.

Results: A total of 22 social insurance physicians participated. Based on their responses, a claimant's communication was classified with regard to the degree of respect and acceptance in the physician-claimant relationship, and the degree of dominance. Most of the social insurance physicians reported that they classify claimants in general groups, and use these classifications to adapt their own communication behaviour. Moreover, the social insurance physicians revealed that their stereotypes originate from information in the claimants' files and first impressions. The main advantages of stereotyping were that this provides a framework for the assessment interview, it can save time, and it is interesting to check whether the stereotype is correct. Disadvantages of stereotyping were that the stereotypes often prove incorrect, they do not give the complete picture, and the claimant's behaviour changes constantly. Social insurance physicians try to minimise the undesirable influences of stereotypes by being aware of counter transference, making formal assessments, staying neutral to the best of their ability, and being compassionate.

Conclusions: We concluded that social insurance physicians adapt their communication style to the degree of respect and dominance of claimants in the physician-claimant relationship, but they try to minimise the undesirable influences of stereotypes in assessment interviews. It is recommended that this issue should be addressed in communication skills training.

Background

Generalising and categorising is necessary to make sense of the complex behaviour of other people. It makes it easier to form coherent impressions of others, and also to understand them. It is, in fact, impossible to start communicating with a stranger without making inferences about that person based on general experiences, and thus stereotyping [1]. The application of general ideas and beliefs about groups of people to individuals is known as stereotyping. Stereotyping increases comprehension, because of its informative value. For example, it enables people to make an educated guess about aspects for which no actual information is available [2,3]. However, stereotyping is also associated with several problems, such as excluding individuals or discriminating them based on prejudices towards groups of people, collective treatment which puts people in an inferior position, and behaviour towards others which leads to stereotype confirmation. Therefore, individual information is generally preferred over stereotyping [2,4,5]. Stereotypes may be applied and discarded during an encounter, but whether or not they are applied in contact with other people depends on many factors, for example on cognitive resources, motivation, and goals [2,6]. Stereotypes may be applied to make communication easier in an initial contact [2].

Studies have indicated that mechanisms of stereotyping can affect a physician's treatment-related decision-making [7], because stereotyping can affect the interpretation of behaviour, symptoms, and diagnosis of patients. Stereotyping can also affect the physician's communication style [7], the physician's behaviour towards the patient [8,9], the patient's motivation and treatment adherence [5,9], and the health care provided [5]. Furthermore, research has convincingly shown that there is no truth in the general belief that physicians are objective and neutral. For example, the demographic characteristics of a patient, such as age, ethnicity, gender, and socioeconomic status, have been found to influence the beliefs and expectations of physicians, especially when complicated assessments, incomplete information, incorrect information, or time-pressure are involved [10,11]. Stereotypes also influence the interpretation of clinical findings, for example because physicians provide inferior care to some groups of patients, due to stereotyping [10].

Social insurance physicians meet their patients (claimants) during the medical disability assessment interview to determine their entitlement to social security benefits. Given the earlier-mentioned research results, these assessments will probably be influenced by the physicians' stereotyping, and especially because one-time contacts are common, claimants will not always be inclined to give correct information, and many claimants have to be assessed in a limited period of time (i.e. approximately one hour per claimant). However, little is known about the mechanisms of the reasoning of physicians during clinical and diagnostic decision-making [12,13]. Moreover, stereotyping is more likely to result when differences in status and power exist between

people [9,14], and those differences obviously exist between physicians and their patients during disability assessments. This is especially relevant, because a lot is at stake for the claimants. Yet, very little is known about stereotyping by social insurance physicians, about their handling of information confirming or disconfirming the stereotyping, and about the influences of stereotyping on medical disability assessment interviews.

Previously, our research group has described the conceptualisation of a behavioural model regarding the communication between social insurance physicians and their claimants [15]. This model describes physician-claimant communication from a distance. However, as an actor within the model, one cannot directly observe the other person's intentions and attitudes. Studying the physician-observed determinants of the communication behaviour of claimants, will increase insight into how physicians evaluate claimants and communication behaviour of claimants. This might help to further develop the model and assist its applicability in education for physicians (i.e. the communication skills training course that we are developing for social insurance physicians).

Medical disability assessments are sometimes criticised by Dutch society for not taking the unique disabilities of particular claimants into account. These critiques are best illustrated by remarks from claimants in our prior questionnaire study among 63 claimants [16]. One claimant, for example, said that "she [the social insurance physician] seemed to observe only information that supported her preconceived notions" and another claimant noted: "The physician clearly had his judgement ready, which contradicted the judgement of my occupational physician, internist, and therapist". Of course, these quotes represent the view of the claimant, which may differ from 'reality', and these situations may not occur very often, but this has never been studied.

Therefore, the aim of this paper was to investigate: (1) the content of stereotypes used to classify claimants with regard to the way in which they communicate; (2) the origins of such stereotypes; (3) the advantages and disadvantages of stereotyping in assessment interviews; and (4) how social insurance physicians minimise the undesirable influences of negative stereotyping.

Methods

Data-collection and subjects

Data were collected in focus group meetings planned during the regular monthly meetings of groups of social insurance physicians. These groups were recruited by randomly approaching chairpersons from the list of all chairpersons of the monthly meetings of the Dutch Institute of Employee Benefit Schemes (the most important employer of social insurance physicians in the Netherlands). These chairpersons were asked to participate voluntarily with their complete group. All participants had to have

been recently involved in face-to-face contact with claimants in a medical disability assessment interview (Table 6.1 provides more information about Dutch social insurance physicians). The participants agreed to devote one of their meetings to a discussion about their perception of claimants in face-to-face physician-claimant encounters during medical disability assessment interviews, mostly because they considered it to be an important and interesting subject, or because they did not yet come up with another subject for their next monthly meeting. Data were collected in three focus group meetings, which were the first three groups of physicians that agreed to participate in the study within a reasonable time. We declined four other groups that applied, because their availability did not match our time schedule. Also, in two groups not all physicians wanted to participate and thus the groups decided not to join. Because over 10 physicians in one meeting might hinder the discussion and interaction (important ingredients for a successful focus group meeting), the three groups were held separately. In the research design we selected focus group meetings, because little is known about stereotyping in medical disability assessment interviews, and we expected the interaction between the participants to provide more information and more in-depth information than individual interviews.

Three researchers were present at each meeting: a process facilitator, an observer and content expert, and a researcher who took notes. Each focus group meeting lasted for approximately two hours, with a short break after one hour. Because of its negative connotation, the researchers refrained from using the term 'stereotyping' during the focus group meetings. At the beginning of the focus group meeting, the participants were informed about the general aim of the project, being to make an inventory of how social insurance physicians apply classifications of claimants during medical disability assessment interviews, and how these classifications might help or hinder them in the physician-claimant communication. After the meeting was over, the researchers explained more about the study and research project to those who showed interest. A summary of the interview protocol is provided in Appendix 6.1. No ethical approval was needed according to the Dutch law, because no claimants were included in the study and the physicians were not exposed to any intervention.

Table 6.1: Characteristics of Dutch social insurance physicians.

In the Netherlands, most social insurance physicians are employed by the Dutch Institute of Employee Benefit Schemes. On average, a physician working there interviews 10 claimants – who may have all kinds of disabilities – each week. The medical disability assessments they perform, are mainly based on an assessment interview, which includes an examination. In addition, usually the physicians have information available from the claimant's occupational physician and the treating physician, or they can consult these professionals [33,34]. Most often, after the interview with the social insurance physician, a labour expert examines which jobs the claimant should be able to perform with the medical disabilities as assessed by the social insurance physician [35]. The combination of the findings of both professionals determines whether or not a claimant is eligible for a benefit.

Directly after the meeting, all participants completed a short questionnaire about demographic characteristics. Also, they received a summary of the content of the focus group meeting which they were asked to check. They were asked to contact the researchers if they found any errors or omissions.

Analysis

All the meetings were audio-taped and transcribed. Qualitative analyses of the transcribed focus group meetings, combined with additional notes taken by one of the researchers, were performed in four successive steps, according to the grounded theory [17,18] and the principle of constant comparison [19]. Firstly, in the exploratory phase, free coding was applied to all data, i.e. all text concerning a particular topic was given a matching descriptive code. Secondly, axial coding was applied, i.e. coding aimed at generalisation of the free codes. This is the phase of specification in which themes and sub-themes emerge. Thirdly, selective coding was applied in the reduction phase. The aim of this phase was to elaborate on the core themes and concepts, and to identify relationships between these themes and concepts. In this phase the results can be summarised in a model. Fourthly, all codes were integrated in the integration phase, and the results of the interviews were compared with those in the formulated model. This entire analysis is an open process in which questions can be adapted for future focus group meetings according to the findings and experiences in former meetings, and therefore only one group is insufficient [19]. The results presented below are the final results after completing the entire analysis.

The software package Atlas.ti 5.2 was used to label the transcripts by assigning codes, to order codes, and to visualise relationships according to the four above-mentioned steps. The first author performed all the coding and the third author also independently performed half of the coding. After all the coding had been completed, a consensus meeting was held. If there were any differences of opinion, the original data were reconsidered until consensus about codes and relationships was established. The data-collection and analysis continued until saturation of information was established, e.g. the transcripts of the meetings provided no new information. Three focus group meetings were enough to achieve saturation.

Results

Participants

A total of 22 social insurance physicians participated in the three focus group meetings. The focus groups consisted of eight, six, and eight physicians, respectively. Their mean age was 47 years and 9 months (SD=7 years and 8 months), on average they had been working as a social insurance physician for 14 years and 2 months (SD=6 years and 2 months), 14 were male and 8 were female. All the participants

currently held medical disability assessment interviews, which was a prerequisite for participation.

Only one group reacted to the content of the summary provided for them to check. In their comments they stressed the importance of certain issues and opinions, and asked for some remarks to be clarified. Their comments were taken into account in the results.

The content of stereotypes

After generalising the responses of the physicians to a still higher level of abstraction (deduction to fewer categories), two dimensions on which physicians classify claimants finally remained. Firstly, a dimension concerning the physician-claimant relationship was identified from the combined responses of the physicians. The physicians indicated that they consider the communication of the claimants to be pleasant if they provide clear information, keep a low profile (i.e. do not argue with the physician, show no hostile behaviour), and the assessment takes very little time. This indicates a relationship of respect and acceptance between the physician and the claimant.

> "Open claimants, people without a hidden agenda – who say I feel this, I can or can't do that – with that person you think 'this is true', you don't have to ask yourself: is this correct, is this consistent or not? People like that." (male, 50 years old, social insurance physician for 17 years)

Respecting, accepting claimant behaviour is on the one end of the relationship dimension. On the other end, there are claimants who show a lack of respect for the physician and do not accept the physician's role and position. Secondly, a dimension concerning the claimant's influence on the interview was identified. This dimension comprises of dominating and controlling claimant behaviour in the communication during the assessment interview on the one end, and obedient and compliant behaviour on the other end.

Examining these two dimensions, we found that the content of the dimensions bared resemblance to the content of the two orthogonal axes of the interpersonal circumplex (a model for conceptualising and assessing interpersonal behaviour, also known as the Leary circle), because the one dimension concerned solidarity, friendliness, and warmth, and the other dimension concerned status, power, and control. In the literature, different authors name the dimensions on these two axes differently [20-22]. We chose the naming that most closely resembled our findings and is the most appropriate in the context of disability assessments. Thus, we described the dimension on the horizontal axis of our circumplex as running from critical to respecting/accepting and the dimension on the vertical axis as running from dominating to submissive.

Next, we placed our findings within the circumplex, resulting in a communication behaviour typology of eight octants that best matches the physician responses. The two dimensions in the interpersonal circumplex and the typology were fine-tuned and validated by looking (again) at the findings of the individual focus group meetings (following the repetitive process of analysis according to the grounded theory and principle of constant comparison). The typology is presented in Figure 6.1, and more details are provided in Table 6.2.

On the 'mutual respect and acceptance' side of the relationship dimension (the half on the right side of the circle in Figure 6.1), four claimant characteristics are located: actively coping with disabilities, motivated behaviour during the interview, a clear physical diagnosis ("When it's a piece of cake, the physical complaint is just a knee complaint, without much mental fuzz. However, you always have to be open minded because it could be more than just a physical complaint, just a painful knee"), and anxiousness. The physicians also stated that the majority of the claimants they meet are 'common' claimants with no 'striking' characteristics and with 'average' behaviour, and that they usually establish a relationship of respect and acceptance with such claimants.

The opposite side of the relationship dimension (i.e. a relationship based on other things than respect and acceptance) contains opposite characteristics: passively coping with disabilities, unmotivated behaviour during the interview, and a mental or unclear diagnosis. Communication problems (e.g. hearing problems, intellectual disabilities) can also be found there. On the dimension of the claimant's influence on the interview, these characteristics are all on the more 'submissive' side (the lower left quadrant in Figure 6.1): claimants take a submissive position in interacting with the physician. These claimants make the interview time-consuming or rather difficult. One physician characterised claimants who passively cope with their disabilities as:

> "The person who sees problems everywhere. Who thinks of 10 problems for every solution you suggest. Also, 10 solutions to every problem but, according to them, they are all no good." (female, 34 years old, social insurance physician for 5 years)

Another physician confirmed the problems of lack of motivation in the interview:

> "They don't know, so they go along completely with my story, but that's not what I want. I want information, but that's not what I get. When I facilitate the conversation, I just fill in the blanks according to my own ideas, but I already know those. I'm interested in what they do, but they don't say anything. They give you the feeling that, no matter how hard you work, you will never get where you want to be. And then you work

> really hard, but that doesn't help either." (male, 51 years old, social insurance physician for 22 years)

The physicians stated that passively coping with disabilities might be due to a different cultural background, because in the Dutch social security benefits system a person is held responsible for his/her own behaviour and its consequences. They argued that people with a different cultural background take one day at a time, do not take personal responsibility, and are not expected to have any control over their life. This creates barriers "because you try speaking in Dutch, or you try to explain the consequences of the Dutch law to such a person, but they can't understand, because it doesn't fit in with their culture". The physicians found it difficult to asses claimants with a mental diagnosis or an unclear 'physical' diagnosis:

> "You actively have to search for what exactly is going on. Of course, we're talking about those syndromes for which it has already been said that they're vague, they're non-specific. Certainly, with those syndromes I'm always suspicious, and wonder what else could be the matter?" (male, 48 years old, social insurance physician for 27 years)

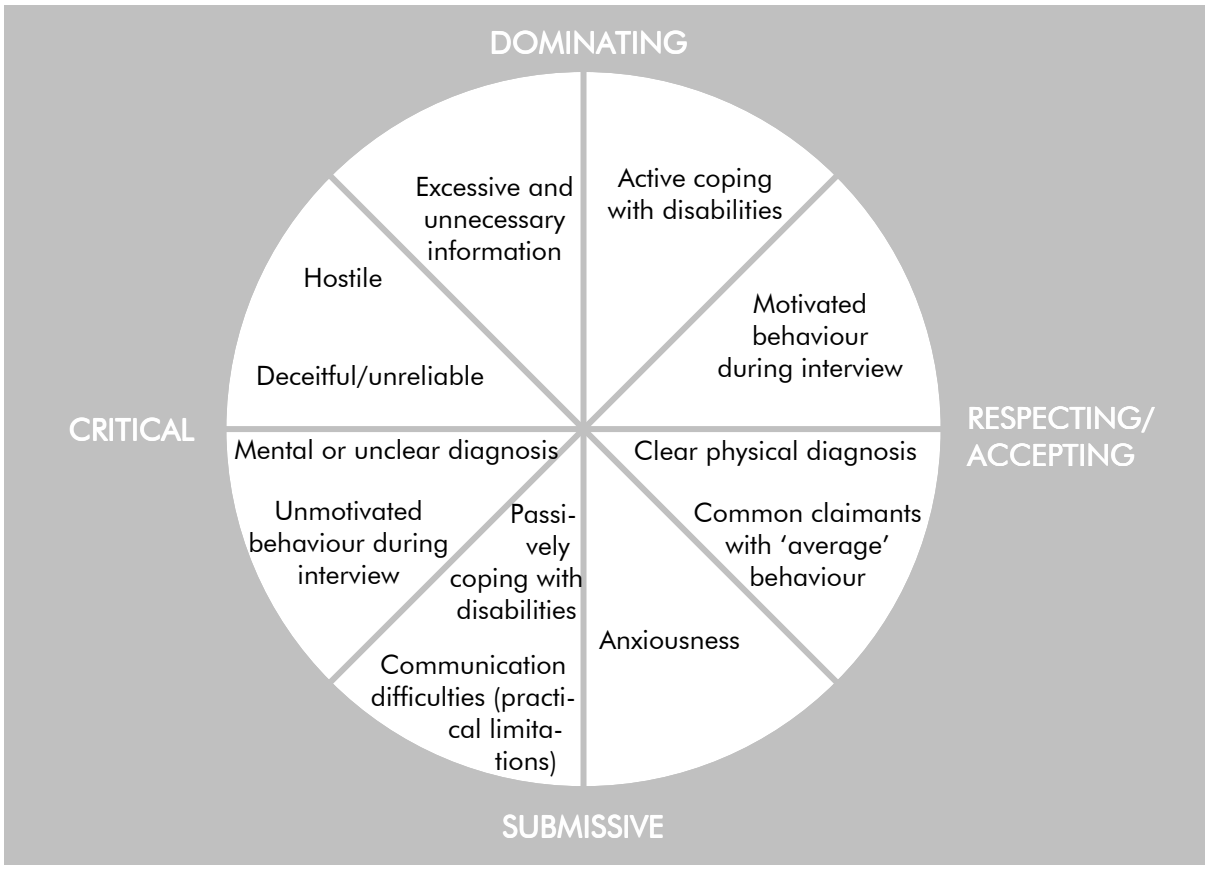

Figure 6.1: A typology of claimants reported by physicians which forms the basis for stereotypes based on the interpersonal circumplex (more details of each of the categories are provided in Table 6.2).

Table 6.2: Categories of claimants reported by physicians, which form the basis for stereotypes and their characteristics.

Category	Characteristics
Active coping with disabilities	- Remain active - Problem-solving ability - Take responsibility - Take control of their lives - Have adequate introspection - Search for opportunities to continue working or return to work - Think in possibilities - Justify the claims - Possible serious disabilities
Motivated behaviour during interview	- Open - Honest - Straightforward - Willing to co-operate - Claim the disabilities they really have - Accept physician's conclusions
Clear physical diagnosis	- Unambiguous physical disability - Easily understandable disability
Common claimant with 'average' behaviour	- "Just normal claimants" - Rather relaxed - Say things the way they are
Anxiousness	- Tense before interview - Tense during interview - Lack self-confidence - Insecure - Dependent - Uncommunicative
Passive coping with disabilities	- Negative or passive attitude - Lack motivation - External locus of control with regard to coping with their disabilities and continuing work or returning to work - See problems everywhere - Focus on what they can not do - Stress the negative - Suffer from their disabilities - Do not want to work - Feel that they are a victim - Possibly the result of a different cultural background
Communication difficulties (practical limitations)	- Hearing problems - Difficulties with speaking and understanding Dutch - Low level of intelligence - Intellectual disabilities

Table 6.2 *(continued)*

Category	Characteristics
Mental or unclear diagnosis	- Psychiatric disorders - Personality disorders - Non-specific disorders - Disorders that are difficult to objectify and have an unclear cause (e.g. somatisation, chronic fatigue) - Claim many different disabilities and medical complaints - Inconsistent disabilities - Physical claim, but mental disabilities
Unmotivated behaviour during interview	- Uncommunicative - Elusive - Silent - Passive and uninformed - Dependent - Claim many disabilities - Unwilling to co-operate - Do not say anything spontaneously
Hostile	- Look for confrontations - Intimidating - Threatening - Aggressive (verbally or physically) - Put physician in inferior position - Dominate interview (verbally or physically) - Might "explode" when disagreeing
Deceitful/unreliable	- Deliberately deceitful - Unreliable - Stubborn - Invent disabilities - Have a hidden agenda - Manipulate - Give contradictory and inconsistent information - Might also be "too nice"
Excessive and unnecessary information	- Give an overload of information - Keep talking (physician does not get a chance to intervene) - Autonomous - Elaborate - Pay a lot of attention to relevant as well as irrelevant details - Immediately place all their points on the agenda - Keep changing the subject - Need structure - May exaggerate disability claim in order to justify it

The physicians also mentioned characteristics that classify the physician-claimant relationship as lacking in respect and acceptance, combined with a dominating attitude that has considerable influence on the interview (the upper left quadrant in Figure 6.1). This group includes claimants who are inclined to provide excessive and unnecessary information ("And it is not exactly that they won't co-operate, but you've lost control over the interview. And that makes the interviews longer than you'd intended") or whose behaviour is hostile, deceitful and/or unreliable ("Right, that man had arms that were bigger than my whole body, so to speak, so I think if he had hit me … He was so full of anger, facing me. I thought, be careful now").

The physicians reported that they deliberately adapt their communication style to the claimant's style of behaviour (and thus to their stereotype of the claimant, as summarised in the four quadrants of the typology). For example, in interviews with claimants with dominant communication behaviour and a lack of respect in the relationship, physicians take care not to end up in an inferior position, they are cautious in their decision-making (because information might be missing or is not correct), they ask more in-depth questions, and they are more alert:

> "Then you start questioning them more, about their routine and their daily activities, for example, which reflects their capacity. To check whether their functional complaints match the things they tell me. That's how I try to find out." (male, 51 years old, social insurance physician for 9 years)

Origins of stereotypes

Most physicians reported that they were retrospectively aware that they unconsciously classify claimants in general groups. They saw this process as a characterisation or arrangement in their heads, a frame of reference, resulting from prior experiences. Based on this frame of reference they adapt their behaviour. However, some physicians stated that they never apply stereotypes: they reported that they behave and communicate in the same way with all claimants, that their first impressions do not influence the interview, and that their reactions are always a direct consequence of what happens in the interview: "Actually, I start the interview in the same way with every person". Nevertheless, focus group discussions revealed that all physicians do make classifications on the first encounter, further on during the interview, and also after the interview. Stereotyping after the interview occurs, in particular, when writing down the findings in the file, thinking back on the interview, and discussing the interview with colleagues. Physicians deal with stereotypes both consciously (deliberately) and unconsciously.

The physicians reported that the opinion about a claimant on the first encounter is based both on the information in the file and the first impressions when meeting the claimant in person. Physicians compare the information in the file with their memories of other, similar claimants, and then see a pattern: "Of course you create an image

for yourself. For example, when I read that the interview will be with a 32 year-old teacher, I've already got a complete mental image, because I've already seen 500 of them". In addition, the medical anamnesis and the reports written by other social insurance physicians who previously met the claimant often paint a clear picture: "I think there's a difference between seeing a person for the first time and having a complete file with information from several social insurance physicians who have seen that person before". Combining this information gives rise to expectations, opinions, feelings, and biases about the claimant.

Subsequently, when the physician meets the claimant for the first time, the sight of the person in the waiting room, their way of shaking hands, and other non-verbal signals also influence the physician's impression of the claimant. The physicians stated that these first impressions are useful, because they only have approximately half a minute to decide on how to approach the claimant. Furthermore, they also use first impressions "as a diagnostic tool. If you think that someone is compulsive or manic – for example people who won't stop talking – you ask other questions to test that presumption".

Advantages and disadvantages of stereotyping

Although stereotyping has its disadvantages, according to the social insurance physicians in the focus group meetings, the information it provides can also be useful. For the physicians the main advantages of having a mental picture of what claimants will be like, before meeting them, were: (1) it provides a framework for the assessment interview; (2) it can save time; and (3) it is interesting to check whether the classification is correct.

Firstly, a practical advantage was that stereotypes provide a framework for the assessment interview, which means that the physician can prepare more thoroughly and has less reason to feel insecure: "I want to prepare well, I want to be able to assess to some degree what I might run into. And that people know that I have prepared". The physician can anticipate the effort that must be made to gather information, the eagerness of the claimant to oppose or to irritate the physician (including possible hidden agendas), and the likelihood that the claimant will file a complaint. Moreover, stereotypes provide the physician with a theory to test the claimant and the claimant's disabilities, and the physician can use the stereotype for diagnostic purposes.

Secondly, stereotyping has the practical advantage that it can help to save time. All the physicians thought that this was important:

> "Saving time is important given our circumstances … We need a lot of information in a short time. We run into time limitations." (female, 41 years old, social insurance physician for 14 years)

Stereotyping claimants can shorten the interview, because the focus of the interview can be determined beforehand, and more effective preparation saves time. For example, collecting information about the disability of the claimant can accelerate the interview and prevent unnecessary sidetracking, and inferences concerning the cultural background of claimants may increase understanding of their disabilities: "The ultimate goal is gathering information within an hour. And than, you have to – with the help of the techniques you know – get that information clear. And depending on the different groups you will have to adjust". However, when physicians classify the claimant wrongly, the interview will probably take more time, instead of less.

Thirdly, some physicians argued that it is rewarding to find out whether their stereotypes are correct. They form an opinion of the claimant, and test this hypothesis for its accuracy: "A little 'professional curiosity' … I can amuse myself with that". Usually, the stereotype is confirmed or rejected. Especially when the reality is exactly the opposite of the expectations, this can motivate the physician to be more cautious and accurate next time, and keeps it interesting. One of the physicians explained this as follows: "Beforehand you create an image, and sometimes also real prejudices … Then I enjoy being confronted with these, and I think: it's going to be a difficult interview … Then afterwards I could have kicked myself and my prejudices, nothing about a human being is foreign to me. Yeah, that's fun".

As stated before, stereotypes often prove to be incorrect, and expectations often remain unmet. This is one of the disadvantages of stereotyping that was mentioned by the physicians. The two other disadvantages they mentioned, are: a stereotype does not give the complete picture, and because people are dynamic constant adjustment is needed anyway.

Firstly, the fact that stereotypes often prove to be incorrect and expectations often remain unmet is illustrated by these citations: "At the same time, that's the weakness, because you never know" and "You think: oh, it will be one of those people. At that moment … it's quite different from what you had expected". The physicians emphasised that it is important to stay as free from value judgements as possible. This is also to prevent unnecessary worrying beforehand, and to prevent an unpleasant atmosphere during the interview. Moreover, stereotyping might cause the physician to miss certain information.

Secondly, the physicians argued that a stereotype does not give them the complete picture; there is much more that should be taken into account, and "classifying in types is one aspect, but you can't base an entire interview on that". The situation (e.g. why a claimant is on sick leave), environment, social network, and intelligence of the claimant are also important, just like the physician's characteristics and the dynamics of the physician-claimant contact. Moreover, the moment at which the interview takes place is also important: "And that defines standards and values. Then you can have a person with many substantial symptoms of rheumatism and several adaptations, and he's willing to work, and another person who barely has any

disability and ... then you think 'what a whiner' – but you don't say it – compared to the other person [with many substantial disabilities]. Things like that do interfere with medical decision-making." Furthermore, not every claimant will fit into a classification, or match a stereotype, and many complex claimants are "nondescript figures" (i.e. average, unnoticed people with very few pronounced stereotypes).

Thirdly, an important disadvantage of stereotyping is that claimants are dynamic, and therefore physicians have to constantly make adjustments during the interview. Classification in stereotypes is stable, whereas the reality of an interview is an ever-changing dynamic process, and thus, as this physician concisely formulated:

> "Interviews from the past don't give guarantees for the future." (female, 61 years old, social insurance physician for 15 years)

Moreover, the classification of a claimant might vary considerably during an assessment interview, for example depending on the phase of the interview (i.e. the claimant can be co-operative in giving information, but not co-operative when informed about decisions). Therefore, stereotypes have to be adjusted continuously.

Minimising undesirable influences of stereotypes

The physicians agreed that stereotypes are often unproductive or undesirable, and therefore the negative influence of stereotyping should be minimised. They used several strategies to achieve this aim: (1) being aware of counter transference; (2) making very formal assessments; (3) staying neutral to the best of their ability; and (4) being compassionate.

Firstly, being aware of counter transference means that the physician is aware of his or her biases and prejudices with regard to claimants: "That gives rise to a particular prejudice, which is okay, but you need to be aware of it". During the assessment interview the physicians show this awareness by discussing findings and opinions with the claimant openly. This implies that "if you've trouble dealing with a particular type of patient, you should first take a look at yourself, because you're the only one who knows what bothers you. Your personality determines your allergies". Outside the interview, discussing stereotypes with colleagues in discussion groups, supervision, or even psychotherapy is recommended:

> "We also confer with each other, we talk about things and hear from each other … That also has to do with your own perception: your own attitude to life and what you expect." (male, 42 years old, social insurance physician for 9 years)

Many of the physicians argued that, when they know that they have a stereotype image of a claimant, they are able to 'un-stereotype' just as easily as they stereotyped,

although some said "but very often you just continue with your first impression". When aware and unable to eliminate all influences, they might also consult other sources of information, for example medical specialists who are treating the claimant.

Secondly, the assessment is made in a formal way, according to a structured assessment method, specifically focusing on the information that is needed, or by applying a structured conversation/communication technique. The physicians try to create a clear structure for the claimant, they are directive, they take their time to gather all the necessary information, they try to make contact in such a way that they obtain the most information from the claimant (e.g. "And there are different ways to treat people, depending on their abilities, their needs, what they don't want, what they do want, their motivation, their intentions, and so on."), and they adapt to the claimant's intellectual level of conversation (e.g. using easier wording and language). They try not to become irritated, or to put pressure on themselves. When necessary, claimants are asked to write down their opinions and concerns in a letter that will be added to their file.

Thirdly, the physicians stay neutral by telling themselves to start with an unbiased, open-minded, objective attitude, and to be free-and-easy in the interview, also trying to avoid value judgements: "Then I have that all in mind and then I say to myself, no, go into the consulting room with a neutral, unbiased attitude.". The physicians stated that they listen to claimants, take them seriously, and first follow their line of reasoning and let them tell their complete story before asking more in-depth questions. They try to readjust during the interview if they notice that the influence of a stereotype increases:

> "At first you're neutral, but at a certain moment you adapt your interviewing technique to the person, to the person's intellect, to the person's reactions, because in the end your goal is to gather information within an hour. And with your techniques, you have to uncover that information. And depending on different groups you have to adapt." (male, 44 years old, social insurance physician for 18 years)

Fourthly, the physicians indicated that they are compassionate. They openly discuss the claimant's findings, opinions, and impressions with the claimant, and they mirror the claimant's behaviour. One social insurance physician said that she acts in the opposite way to the claimant to elicit different behaviour (e.g. being very cheerful with a depressed claimant). Moreover, they also mentioned showing respect and sincere interest, comforting claimants, letting claimants know that they understand them, and taking a positive attitude. That is what it is all about: "Our profession actually has more to do with social contact. It's not about being formal. We try to communicate in such a way that people feel at ease when they tell their story".

Discussion

Main findings

Qualitative analysis of the focus group meetings with the social insurance physicians showed that claimant behaviour can be categorised into the following dimensions: 'respect and acceptance in the physician-claimant relationship' and 'the claimant's influence on the interview'. Combined, these dimensions resulted in a communication behaviour typology with eight octants with regard to the communication during assessment interviews. Physicians adapt their communication style to the claimant, depending on the location of the claimant's behaviour on both dimensions. Although stereotyping is usually an unconscious process, the physicians were aware that it was happening. They explained this as a frame of reference, resulting from prior experiences. Stereotypes mainly result from first impressions when reading the file and the first actual encounter. The physicians were of the opinion that stereotyping has advantages and disadvantages. The main advantages were: it provides a framework for the assessment interview, it can save time, and it is fun to check whether the classification is correct. However, they also thought that there are several important disadvantages: stereotypes often prove to be incorrect and expectations often remain unmet, a stereotype does not provide the physician with the complete picture, and because people are dynamic you constantly have to make adjustments. Therefore, to minimise the negative influence of stereotyping, physicians apply four strategies: being aware of counter transference, making a very formal assessment, staying neutral to the best of their ability, and being compassionate.

Findings in relation to other studies

Our aim was to investigate whether, and if so, how stereotyping might influence medical disability assessments. Although the literature shows that objectivity in this respect is an illusion [10,11], some physicians stated that they are not influenced by stereotypes. Nevertheless, their responses during the focus group meetings did indicate that they did apply stereotypes. Studies have convincingly shown that awareness of stereotypes and the motivation not to apply stereotypes is not enough to prevent their influence, but awareness and motivation are helpful [23]. Thus, teaching physicians who lack awareness – and therefore motivation – about stereotypes is an important challenge for future intervention studies [23]. Findings reported in the literature, that stereotyping might influence the interpretation of symptoms and behaviour [7], are in line with our findings that symptoms and behaviour are characteristics according to which claimants are classified (i.e. clear physical diagnosis, mental or unclear diagnosis, respectively coping behaviour, behaviour during the interview). In general, the literature suggests that the motivation of claimants [5,9] is a relevant characteristic for physicians who make medical disability assessments, and their communication styles [7] did, indeed, seem to be affected by

the stereotypes. Physicians indicated that they adjusted their communication to the behavioural style of the claimant, and this style seemed to be determined by stereotyping, among other things.

The results of our study replicated several general findings in medical disability assessment interviews: that physicians apply stereotypes and this increases their comprehension of patient behaviour [7,10], that physicians experience problems with stereotyping, and that they prefer individual information, and therefore try to minimise the influence of unproductive stereotypes [2]. With regard to the content of stereotypes, our results are also in line with reports in the literature. As mentioned before, the results can be placed in the interpersonal circumplex [20,21]. Moreover, the behaviour of the physicians towards the behaviour of the claimants is consistent with the predictions of the circumplex [24]: a respectful relationship initiated by the claimant evokes respectful behaviour from the physician; disrespectful behaviour evokes disrespectful behaviour, and a submissive claimant evokes an active, dominating response from the physician. However, a dominant claimant does not evoke a submissive response from the physician, which might be because physicians are extra alert with this type of claimant and take care not to end up in an inferior position. Moreover, Balsa and McGuire [25] showed that the patient's degree of co-operation and the physician's degree of effort both influence the physician's stereotyping with regard to patient behaviour. Our results concerning the dimension of mutual respect and acceptance, reflect this degree of co-operation, and our finding that whether or not claimants show a critical, dominating attitude is important for physicians, reflects this degree of effort. Examples of both 'automatic stereotyping' and 'goal-modified stereotyping' [7] were found.

It is known that stereotyping depends on the social context [10,14]. Our results did not support the importance of general social characteristics, such as age and gender, in stereotyping by social insurance physicians, but the physicians did indicate that they consider the type of disability of the claimant (i.e. physical or psychological complaints) and the claimant's way of coping with disabilities to be important in determining their method of communication. These categories are quite relevant and salient in medical disability assessments, and therefore easily linked to stereotyping [14]. The physicians stated that the cultural background of claimants is a relevant category for classification. This finding is noteworthy, because cultural stereotypes may lead to perceiving people originating from the same cultural background as physically and culturally uniform [4], and subsequently different care for different groups of people (e.g. ethnic disparities) [23]. In addition, there is a risk of 'self-stereotyping', that is: claimants evaluate themselves more in line with a negative stereotype when they belief that a person with power over them holds that stereotypic view [26]. Both consequences of stereotyping regarding cultural background might influence the result of the medical disability assessment.

Three goals for stereotyping are generally distinguished in the literature: self-enhancement goals, comprehension goals, and motivation to avoid prejudice [2,7], and these are reflected in our findings. Firstly, self-enhancement goals correspond with the finding that physicians' classify claimants according to the degree of positivity of the physician-claimant relationship. Labelling a claimant as 'negative' or 'critical' might be a reason for communication problems or difficulty in drawing the correct conclusions. Secondly, the physicians mentioned comprehension goals, in that stereotypes provide a framework for the assessment and can make preparation for the interview more effective. However, they also indicated that comprehension could be hindered by stereotypes if it does not provide the complete picture. Thirdly, the physicians were motivated to avoid prejudice, because they found it interesting to check whether the stereotypes were correct, and also mentioned the disadvantages of stereotyping. Our findings therefore seem to be in agreement with the 'goal-based framework for stereotype activation and application' according to Kunda and Spencer [2]. In their framework, self-enhancement goals and comprehension goals, together with stereotype activation, stimulate stereotype application, and simultaneously, the motivation to avoid prejudice inhibits stereotype application.

Several concepts in our previously published theoretical model [15] match the findings from the current study. For example, we conceptualised a passive coping attitude, a wait-and-see coping attitude, and an active coping attitude, which correspond to the dimension of a submissive (first two) versus dominating (third) claimant in the typology. Similarly, the dimension of critical versus respecting/accepting relationship in the typology corresponds to the conceptualisation of a result-directed attitude versus a relationship-focussed attitude. The other attitudes in our framework: the attitude regarding patient-centredness and the attitude about expression of emotions, also match the findings, but more indirectly. These are included in characteristics such as hostility and anxiousness. Overall, the typology seems to confirm the main concepts of the theoretical framework.

Strengths and limitations of this study

This study has several strengths, as well as some limitations. The strengths are: (1) the data-analysis procedure, (2) the participants, and (3) the environment in which the focus group meetings were held. Firstly, although the data were qualitative and not quantitative, they were processed and analysed in a systematic and structured way. Secondly, the participants in the focus group meetings had many years of experience as social insurance physicians. Thirdly, the focus group meetings took place in a familiar and safe environment, in which the physicians had already had the opportunity for self-reflection, talking about sensitive issues, speaking freely, and open discussions. This made the discussions easier, and it was therefore less likely that their answers and opinions would be socially desirable.

Limitations of this study are: (1) the controversy of using stereotypes in relation to the method of data-collection; and (2) unconscious stereotyping was studied by asking participants about their conscious awareness. Firstly, stereotyping appears to be a taboo among social insurance physicians, even though it has been shown that it is valid to differentiate between patients on the basis of characteristics such as age, social circumstances, and gender [27]. The controversy of stereotyping could cause a problem, because we relied on verbal reports from the participants, which implies that they might under-report their application of stereotypes. Secondly, there is a contradiction in asking people about an unconscious process. The social insurance physicians were probably neither aware of their stereotyping behaviour nor the stereotypes they apply. We tried to minimise these limitations by asking indirect and general questions (instead of only personal questions), and by asking the physicians to give examples.

Within this study no time remained to validate the results, particularly the typology, in another way than by asking the physicians about their opinions in the focus groups. However, it would be interesting to use in depth interviews or a quantitative study to further validate these findings and this typology.

Implications for practice

The physicians indicated that there are both disadvantages and advantages of stereotyping, and because of the possible negative consequences, they try to be aware of the processes of stereotyping and try to minimise the undesirable influence of stereotyping. Their strategies to avoid counter transference and to discuss prejudices about claimants with colleagues are useful in this respect [28,29], but paying explicit attention to being compassionate might also be important. These strategies could be taught in training courses or other educational settings for less experienced physicians, or to increase awareness of the potential influence of stereotyping in general. Since medical decisions, and thus also medical disability assessments, depend on clinical reasoning [30], awareness of the potential influence of stereotyping is important. Moreover, because it is known that a decrease in cognitive capacity can increase reliance on stereotypes and stereotype-confirming information [10], attention should be paid to the time limitations and information overload (and the fatigue that could result from this) that some social insurance physicians experience.

One could argue that there is a tension between the process of observing claimants' behaviour for determining their work capacity and that of observing behaviour to form a stereotype. In determining work capacity, physicians have to recognise a pattern, find evidence to confirm this pattern, and thereby make a diagnosis [12]. Similarly, in stereotyping physicians recognise a pattern in claimant behaviour. The tension between these two processes comes from the notion that the first process of stereotyping is acceptable, but the last process is unwanted and only has disadvantages. However, this notion is not defensible because, firstly, the

physicians in the focus group meetings indicated that they sometimes use stereotypes as a diagnostic tool. Secondly, stereotypes are needed to comprehend others and also have other advantages (as our study showed). It is nevertheless important – because both diagnosing and stereotyping include generalisation – that physicians carefully check to what degree the pattern or stereotype matches the individual claimant and what specific additional individual information is needed.

Our results showed that social insurance physicians adjust their communication to the degree of respect in their relationship with the claimant. With respectful claimants, an instrumental communication style, paying little attention to the possible empathic, affective needs of claimants is usually sufficient, and therefore compassion is predominantly reserved for interviews with 'critical' claimants. Because it is known from the literature that empathy influences the diagnosis, patient satisfaction, coping with bad news, and adherence to medical recommendations [31,32], this is an important finding that should be incorporated in future training courses. Training physicians to apply the interpersonal circumplex to medical disability assessments might be beneficial in this respect. It is therefore important to address the awareness and handling of stereotypes in education and training for social insurance physicians.

Conclusions

Physicians are partly aware of the influences stereotypes might have on their communication with claimants and on their decision-making. During assessment interviews, physicians adapt their communication style to the degree of respect and dominance in the claimant's communication. This increases their comprehension of the way in which claimants communicate. Simultaneously, physicians often prefer to receive individual information, which is more accurate, and therefore try to minimise the negative influences of stereotyping on the interviews. Communication skills training or other training courses for physicians should focus on increasing awareness of the influences of stereotyping, by discussing stereotypes and prejudices. The most effective ways to minimise the undesirable influences of stereotyping should also be addressed.

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Appendix 6.1: Summary of the interview protocol.

Time schedule	
Duration	**Subject**
10 minutes	Start and introduction
5 minutes	Getting acquainted
40 minutes	Introduction to classification of claimants
	Why/the goals of classifications
	How do classifications arise
10 minutes	Break
50 minutes	Verifying classifications
	Application of classifications in the communication
	Advantages and disadvantages of classifications
20 minutes	Final questions and closing

Start and introduction
Welcome to the participants. Introduction to the researchers and the study. Explanation of the goals and course of the focus group meeting (including comments concerning audio-recordings and confidentiality).

Getting acquainted
Names and nameplates, participants introduce themselves.

Introduction to classification of claimants
Introductory assignment: on three separate memos each participant makes a 'top 3' of types of claimants (with regard to the communication during medical disability assessment interviews) they encounter most frequently. These memos are collected on a large sheet of paper. Agreements, differences, types that are frequently mentioned, and types that are rarely mentioned are discussed. Questions: Do you or your colleagues classify in types? How often? What are your experiences with using classifications? Why are classifications applicable to claimants and why not? Do you use classifications to facilitate communication?

Why/the goals of classifications
Main question: What are the goals of classification? Follow-up questions: What are the instrumental goals? What are the affective goals? How are classifications used in the communication with claimants? Do classifications change the way you communicate and behave during disability assessment interviews?

How do classifications arise
Main question: Based on which aspects are claimants classified in groups? Follow-up questions: Which aspects contribute to the classification of a claimant in a certain group? How does generalisation occur? How do you recognise the type that a claimant belongs to?

Break
Participants are asked not to talk about any subjects discussed in the meeting during the break.

Verifying classifications
Participants are given a summary of the discussions that took place before the break. Main question: How do you verify classifications? Follow-up questions: How do you know whether a classification is correct? How do you check the validity of a classification during assessment interviews? How do you adjust a classification if it is incorrect?
Application of classifications in the communication
Main question: How are classifications applied? Follow-up questions: When a claimant is classified as a type, which information does that provide you with? If you classify a claimant, what is the effect on the communication? If you do not apply classifications, how do you make sure that classifications do not unconsciously influence your way of communicating?
Advantages and disadvantages of classifications
Main question: Which aspects of classifications are found to be helpful in the communication and which are found to be a hindrance? Follow-up question: How would you be better able to handle aspects that are a hindrance?
Final questions and closing
Summarising and checking all that has been discussed. Is there anything that should be added? Participants are thanked for their participation. Participants fill in the questionnaire.

Chapter 7

Effective training strategies for teaching communication skills to physicians

An overview of systematic reviews

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Abstract

Objective: Physicians need good communication skills to communicate effectively with patients. The objective of this review was to identify effective training strategies for teaching communication skills to qualified physicians.

Methods: PubMED, PsycINFO, CINAHL, and COCHRANE were searched in October 2008 and in March 2009. Two authors independently selected relevant reviews and assessed their methodological quality with AMSTAR. Summary tables were constructed for data-synthesis, and results were linked to outcome measures. As a result, conclusions about the effectiveness of communication skills training strategies for physicians could be drawn.

Results: Twelve systematic reviews on communication skills training programmes for physicians were identified. Some focused on specific training strategies, whereas others emphasised a more general approach with mixed strategies. Training programmes were effective if they lasted for at least one day, were learner-centred, and focused on practising skills. The best training strategies within the programmes included role-play, feedback, and small group discussions.

Conclusion: Training programmes should include active, practice-oriented strategies. Oral presentations on communication skills, modelling, and written information should only be used as supportive strategies.

Practice implications: To be able to compare the effectiveness of training programmes more easily in the future, general agreement on outcome measures has to be established.

Introduction

Adequate and effective communication during medical consultations is essential for the provision of good care [1,2]. It is also complex, because physicians have to gather and process information rapidly, and at the same time they have to reassure patients to make them feel comfortable enough to disclose all the necessary information [2,3]. Many studies have confirmed the inter-relationships between the communication behaviour and efficiency of the physician, and the satisfaction and compliance of patients. For example, it was found that awareness of patient expectations about the physician-patient communication results in more effective communication [4]. Moreover, several studies have shown that the communication styles of physicians influence patient satisfaction and patient compliance. It was also found [5] that patients were most satisfied with interviews in which the physicians were not dominant, because they then felt comfortable enough to talk freely and to ask questions.

Most qualified physicians have had considerable tuition in physician-patient communication, both as medical students and as post-graduates, and communication skills training is integrated in the medical curricula [6]. Communication training is also organised for qualified physicians who work in various medical specialities, but not all specialities. There are even some specialised communication skills training programmes for qualified physicians working in non-curative medicine, such as insurance medicine, occupational medicine, and sickness certification. However, in contrast to the considerable body of research on the effectiveness of communication skills training in curative medicine, hardly any research has focussed on its effectiveness in non-curative medicine. Therefore, to create a framework for an evidence-based training programme specifically aimed at physician-patient communication in non-curative care, we explored the available literature in curative care.

Because medical professionals often lack the time to follow extensive courses, an effective training approach is important. For example, constraints – such as time restrictions or a limited budget – complicate intensive and recurrent training programmes. Consequently, the aim of the present review was to identify from the literature effective approaches for teaching communication skills to qualified physicians. In this review, communication skills training is defined as the entire training programme that physicians attend. Training strategies are defined as the different approaches that are applied in a training programme to teach communication skills to physicians. Examples are oral presentations and role-play.

Even though most medical professionals have received communication skills training in undergraduate as well as post-graduate courses, communication is based on deeply rooted habits and related habitual patterns [7], which makes it difficult and time-consuming to change existing communication behaviour. Our first hypothesis was therefore that longer training programmes (e.g. several days) are more effective than

shorter training programmes (e.g. several hours). Our second hypothesis was that active training strategies are more effective than passive training strategies. Active strategies are defined as practising and discussing skills during the training, and passive strategies are defined as strategies that require far less activity from participants, such as listening to a lecture. The effectiveness of modelling – when a certain skill is demonstrated to the participants – was expected to lie in between these two, since it is a passive strategy, but it closely resembles the real-life consultation [3].

Methods

Search strategy

In October 2008 we carried out a systematic search for scientific literature on the effectiveness of communication skills training for physicians (as defined by the included reviews). An update was performed in March 2009. The first two authors [MB and HJvR] checked all references of the included studies for other relevant studies. Because we were aware of the existence of a large number of studies on the effectiveness of communication skills training strategies for medical professionals, we limited our search to systematic reviews and meta-analyses, which could include all types of original studies. We searched the databases of PubMED, PsycINFO, CINAHL, and COCHRANE, not restricted by date. Inclusion criteria for the reviews were: (1) a systematic review or meta-analysis; (2) focusing on qualified physicians; (3) concerning communication with patients; and (4) describing an educational training course for physicians. Keywords for the first criterion included 'meta-analysis', 'quantitative review', 'systematic review', and 'systematic overview'. Keywords for the second criterion included 'professional-patient relations', physician-patient relations', 'family practice AND communication', general practitioner AND relation*', and 'doctor patient AND relation*'. Keywords for the third criterion included 'communication', 'empathy', and 'inter-personal skills'. Keywords for the fourth criterion included 'medical education', 'professional education', and 'communication training'. The exact keywords for each database are presented in Appendix 7.1. Exclusion criteria were: non-systematic review, training not explicitly directed at communication between physician and patient, physician-patient communication that did not include face-to-face communication, and training programmes for undergraduate medical students. The definition of physicians included experienced as well as inexperienced physicians, physicians training for a specialism, and specialists. Studies including both qualified physicians and other health care professionals or medical students were not excluded, because we had no reasons to assume that in these groups there would be any great difference in the effectiveness of training strategies for communication skills. We also found no evidence in the literature that belonging to one of these other groups might be an effect modifier with regard to the

effect of training programmes or training strategies. The training could include both group and individual training or education.

Selection and quality assessment

Relevant publications were selected by two authors [MB and HJvR], independently. They both assessed the articles according to the above-mentioned criteria, based on title and abstract. We screened the full text of articles for which it was not clear whether they should be included or not based on title and abstract, or for which no abstract was available. Disagreements were resolved in a consensus meeting. If no consensus could be reached, then the third author [AJMS] made the final decision. We traced all included reviews and meta-analyses in full text and systematically assessed their methodological quality with a measurement tool to assess reviews (AMSTAR) [8]. This checklist has been recommended for the appraisal of systematic reviews by Oxman et al. [9]. We added one item to the checklist: whether or not the outcome measures in the reviews were clearly described and integrated in the results. Two authors [MB and HJvR] independently completed the checklist for all the included reviews. Before final consensus, Cohen's kappa for overall inter-reviewer agreement was calculated, as well as one kappa for each item of the AMSTAR checklist [10].

Data extraction and synthesis

Data were extracted from the reviews by the first author [MB], and checked and completed by the second author [HJvR], and the reviews were scored from high to low methodological quality (as assessed with AMSTAR [8]). We classified the reviews as follows: high methodological quality (9-12 times a score of 'yes'), medium methodological quality (5-8 times a score of 'yes'), or low methodological quality (0-4 times a score of 'yes'). For the data-synthesis we constructed two summary tables. The first summary table presents characteristics of the studies which were included in the reviews and meta-analyses. These characteristics were: study quality, study type, target population, patient groups, control groups, type of outcome, theoretical background, and overall conclusions. The second summary table presents the overall conclusions from each review concerning evidence for the effectiveness of training programmes, as well as the conclusions for each individual training strategy. Possible review outcomes with regard to the effects of the strategies were: evidence that the strategy is effective, no evidence that the strategy is effective, evidence that the strategy might be effective, or no information or unclear information was provided with regard to individual strategies. The conclusions with regard to these strategies were drawn by adding up the strategy conclusions from all reviews, taking the methodological quality into account (i.e. results from low quality reviews were considered to be less decisive). To this end, we first discarded results from the reviews that provided no information or unclear information about the effectiveness of specific strategies. Secondly, we counted the number of reviews that found evidence for effectiveness, no evidence for

effectiveness, and evidence for possible effectiveness per level of methodological quality (i.e. high, medium, low). Thirdly, we defined 'evidence for an effect of a strategy' as the same results in at least one high quality review, in at least two medium quality reviews, or in at least one medium quality and two low quality reviews. We also recorded whether evidence for effectiveness was found if the strategy was combined with another strategy. In addition to these conclusions, the second summary table also presents the number of studies that assessed each specific strategy. The two summary tables were combined, and linked to the outcome measurements used in the reviews. We then discussed the results and conclusions about the effectiveness of the communication skills training programmes for physicians, with especial focus on the training strategies that were applied. The results and conclusions with regard to effectiveness are presented separately for the training strategies, with no evidence for effectiveness, evidence for possible effectiveness, and evidence for effectiveness.

Results

Number and quality of the reviews

We searched four databases: PubMED (65 reviews), PsycINFO (6 reviews), CINAHL (10 reviews), and COCHRANE (6 reviews), and exported all the identified reviews to Reference Manager 10.0. After duplicates were removed, the result was 79 potentially relevant reviews. We excluded 45 reviews because they did not meet the inclusion criteria. Of the 34 remaining reviews, and 7 other reviews identified in the reference lists, 29 were excluded after screening the full text. Details of the studies that were

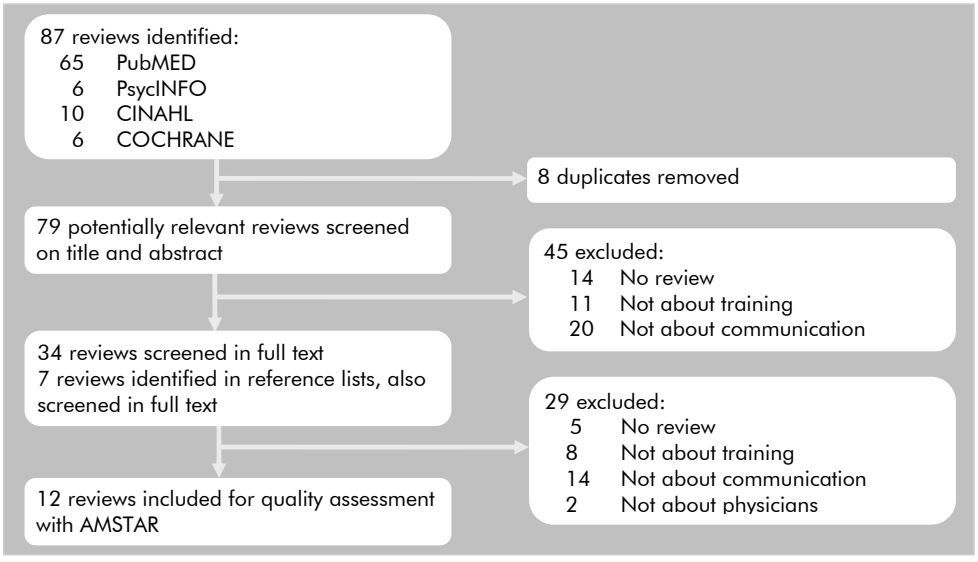

Figure 7.1: Flow chart of identified, excluded and included reviews.

excluded are available on request from the authors. Finally, 12 reviews [11-22] that met our criteria were included (Figure 7.1). The rating of the quality of these 12 reviews with AMSTAR [8] resulted in a Cohen's kappa for all items of 0.88 before the consensus meeting. This value is comparable to that found by the developers of the checklist in a sample of 42 reviews (overall kappa=0.84) [10]. The kappa value for each item, ranging from fair agreement (kappa=0.31) to perfect agreement (kappa=1.00), is presented in Table 7.1. The consensus results of the quality ratings are presented in Table 7.2. According to the quality scores, three of the reviews were of high quality [11,14,15], five were of medium quality [16-18,21,22], and four were of low quality [12,13,19,20].

General results of the 12 included reviews

The characteristics of the reviews are presented in Table 7.3, and the training strategies per review are presented in Table 7.4. A total of 222 individual studies were included in the reviews, and most of the studies were included in only one review. One study was included in 6 of the 12 reviews [24], 3 studies were included in 5 reviews [25-27], and 4 studies were included in 4 reviews [28-31].

As shown in Table 7.3, two reviews focused on specific communication skills training strategies, and 10 focused on communication skills training in general (i.e. a combination of strategies). All the reviews included studies in which the participants

Table 7.1: Items of the AMSTAR methodological quality checklist [10] and the inter-rater reliability (Cohen's kappa).

Nr.	Item	Kappa (95% CI)
1	Was an 'a priori' design provided?	1.00
2	Was there duplicate study selection and data extraction?	1.00
3	Was a comprehensive literature search performed?	0.31 (0.07; 0.58)
4	Was the status of publication (i.e. grey literature) used as an inclusion criterion?	0.83 (0.68; 0.99)
5	Was a list of studies (included and excluded) provided?	1.00
6	Were the characteristics of the included studies provided?	0.63 (0.30; 0.96)
7	Was the scientific quality of the included studies assessed and documented?	1.00
8	Was the scientific quality of the included studies used appropriately in formulating conclusions?	0.82 (0.66; 0.99)
9	Were the methods used to combine the findings of the studies appropriate?	1.00
10	Was the likelihood of publication bias assessed?	0.80 (0.61; 0.99)
11	Was the conflict of interest stated?	0.83 (0.68; 0.99)
12	Were the outcome measures properly defined and integrated with the results?	0.83 (0.68; 0.99)
Overall score		**0.88 (0.84; 0.92)**

were trained individually as well as in a group, and in which improving face-to-face communication with the patient was the primary aim. We will first discuss the reviews focusing on (unknown) combinations of training strategies, and then we will discuss each of the most important specific training strategies and their effectiveness.

The reviews included six main training strategies: feedback on communication skills and performance, role-play with other participants or actors, modelling by the trainers or other participants, discussing the communication skills with other participants, written information about communication skills, and oral presentations on communication skills. Studies in which feedback and role-play were applied were included in all reviews, and studies reporting on modelling and oral presentations were included in all reviews except one [24]. In two reviews [11,14] there were no studies which included written information, and in three reviews [11,14,22] there were no studies which included discussion. Some studies applied other training strategies, such as narrative case summaries, a remedial programme, or rotation in a psychiatry setting [13]. The reviews differed greatly in the number of included studies that applied each of the training strategies. This is shown in Table 7.4, as well as the overall methodological quality of the reviews, and an overall conclusion about the effectiveness of the training strategies.

Table 7.2: Scores of the methodological quality of the included reviews and meta-analyses based on AMSTAR [8].

Authors	Items AMSTAR[a]												Total			
	1	2	3	4	5	6	7	8	9	10	11	12	Y	N	C	A
Fellowes et al. [15]	Y	Y	Y	Y	Y	Y	Y	Y	A	N	Y	Y	**10**	**1**	**0**	**1**
Cheraghi-Sohi & Bower [14]	Y	Y	Y	N	N	Y	Y	Y	A	Y	Y	Y	**9**	**2**	**0**	**1**
Anderson & Sharpe [11]	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	**9**	**3**	**0**	**0**
Gysels et al. [17]	Y	C	C	Y	Y	Y	Y	Y	A	N	Y	Y	**8**	**1**	**2**	**1**
Gysels et al. [16]	Y	C	C	Y	N	Y	Y	Y	Y	N	Y	N	**7**	**3**	**2**	**0**
Hulsman et al. [18]	Y	C	Y	Y	N	Y	N	Y	A	N	Y	Y	**7**	**3**	**1**	**1**
Merckaert et al. [21]	Y	C	Y	Y	N	Y	N	N	A	N	N	Y	**5**	**5**	**1**	**1**
Rao et al. [22]	Y	Y	Y	N	N	Y	N	N	A	Y	N	N	**5**	**6**	**0**	**1**
Cegala & Broz Lenzmeier [13]	Y	C	N	Y	N	Y	N	N	A	N	Y	N	**4**	**6**	**1**	**1**
Aspegren [12]	N	C	Y	N	N	Y	Y	N	A	Y	N	N	**4**	**6**	**1**	**1**
Lane & Rollnick [19]	Y	C	Y	N	N	N	N	Y	A	N	N	N	**3**	**7**	**1**	**1**
Libert et al. [20]	N	C	Y	N	N	N	N	N	A	N	N	N	**1**	**9**	**1**	**1**

[a] Y = Yes; N = No; C = cannot answer; A = not applicable; Studies are sorted from high (top) to low (bottom) quality scores.

Table 7.3: Included systematic reviews and meta-analyses, characteristics of the strategies reviewed, and the conclusions.

Review	Type[a]	Number of studies	Quality of studies included	Type of studies included[b]	Target population	Patient groups	Control groups	Type of outcome	Theoretical background	Conclusions
Fellowes et al. [15]	R	3	All studies met the criteria	- RCTs - CBAs	- Specialists (oncology) - Nurses (oncology)	- Real patients - Simulated patients	- No training - Waiting list	- Objective assessments of patients' and nurses' behaviour with validated coding strategies	- Lipkin model - Unclear	- Two programmes were effective, one was unclear
Cheraghi-Sohi & Bower [14]	R	11	Questionable, only one met all quality criteria	- RCTs	- Physicians (both experienced and trainee)	- Real patients	- No training - Alternative training	- Patient-based outcomes (e.g. trust in physician, perception of information exchange, anxiety, health status)	Unclear (sensitivity for dissatisfaction, biopsychosocial model, reflection on mutual agendas)	- Unclear whether patient feedback is effective - Reasonable evidence that brief training is not effective
Anderson & Sharpe [11]	M	29	Quality ratings vary from 0 to 4 on a 5-point scale, with predominantly scores of 2 and 3	- RCTs - CBA	- Physicians - Medical students (pre-clinical, clerkship) - Residents - Nurse practitioners	- Simulated patients - Real patients	- No training - Alternative training	- Behavioural observation (e.g. empathy score, interviewing skills) - Patient-based outcomes (e.g. satisfaction, knowledge)	Social Cognitive Theory	- Communication skills training might be effective - Conclusions about effecttiveness of strategies could not be drawn, because outcomes differed too much - Interventions and types of behaviour varied
Gysels et al. [16, 17]	R	16	RCTs of good quality, other designs of poorer quality	- RCTs - CBAs - ITSs - OSs	- Medical students - Nursing students - Specialists (oncology)	- Real patients - Simulated patients - Video - Audio	- No training - Training aimed at other groups than the one of interest (cancer) - Not reported in some studies	- Physician self-rating (e.g. self-confidence) - Behavioural assessments - Patient-based outcomes (e.g. self-efficacy)	Not reported	- Training improves basic communication skills - The best results with longer duration, learner-centred training, and combining didactic component with practical rehearsal and feedback - To maintain skills in practice and to handle emotional situations effectively, positive attitudes and beliefs are needed

Table 7.3 *(continued)*

Review	Type[a]	Number of studies	Quality of studies included	Type of studies included[b]	Target population	Patient groups	Control groups	Type of outcome	Theoretical background	Conclusions
Hulsman et al. [18]	R	14	Not reported	- P-Ps - P-only	- Physicians - (Post-) graduates	- Real patients - Simulated patients	- No training - Waiting list - Unclear in some studies	- Physician self-rating (e.g. knowledge, attitudes, skills) - Behavioural observation - Patient-based outcomes (e.g. health, satisfaction, compliance, anxiety)	Balance between cognitive learning and experiential learning, either teacher-centred (predetermined) or learner-centred	- Overall limited training effects - Most training effects found on physicians' self-rating of their knowledge, attitudes and skills - For patient-outcomes training effects on satisfaction and compliance
Merckaert et al. [21]	R	22	Not reported	- RCTs - CBAs - CSs	- Specialists (oncology) - Nurses (oncology)	- Standardised patients - Peers - Simulated patients - Real patients	- No control	- Physician self-rating (participant-based) - Behavioural assessment/ observation - Patient-based outcomes (e.g. satisfaction)	Training programmes should include a cognitive and behavioural component	- Improvements in communication skills - To be effective, training should be learner-centred, skill-focused, practice-oriented, organised in small groups, and lasting at least three days
Rao et al. [22]	R	21	Not reported	- RCTs	- Physicians - Residents	- Real patients - Simulated patients	- No intervention - Intervention after the study ended - Placebo (training not focused on communication) - Alternative training (less or the same intensity)	- Physician self-rating - Behavioural observation of verbal communication - Patient ratings of physicians' behaviour	Not reported	- In general, enhanced communication behaviours was found among physicians - Higher global ratings of communication style and more patient-centred with training - Intense efforts are necessary to change communication behaviour

Table 7.3 *(continued)*

Review	Type[a]	Number of studies	Quality of studies included	Type of studies included[b]	Target population	Patient groups	Control groups	Type of outcome	Theoretical background	Conclusions
Cegala & Broz Lenz-meier [13]	R	27	Often unclear which skills were addressed in the studies	- RCTs - CBAs - P-Ps - P-only	- Physi-cians - Residents - Post-graduates	- Real patients - Simulated patients - Other participants - Instructor	- No control - No training	- Physician self-report - (Video) interview analyses - Patient-reported (e.g. satisfaction)	Differs between studies, often not explicitly reported	- Insufficient information about behaviour taught to participants - Mismatch between stated behaviour and assessment instruments
Aspeg-ren [12]	R	24	All rando-mised studies of good quality	- RCTs - OESs - DSs - Rs	- Medical students - Physi-cians - Nurses - Midwives - Residents	- Real patients - Simulated patients	- Traditio-nal training - No training	- Physician self-rating - Behavioural observation - Patient-based outcomes (e.g. health)	Experiential training strate-gies founded in behavioural psychology. Separate and specific skills trained stepwise	- Communication skills can be taught, but training should be longer than one day and practise is needed to maintain skills - Training in clerkship might be more effective than training in pre-clinical courses
Lane & Rollnick [19]	R	25	Not reported	- RCTs	- Health care practitio-ners	- Simulated patients - Student colleagues	- No training - Didactic learning strategies - Other interactive training strategies	- Behavioural observation - Patient-based outcomes	Interactive training strategies	- Outcomes were better in programmes that included skills practice than in purely didactic programmes - No significant differences were found between simulated patients and role-play
Libert et al. [20]	R	14	Not reported	- P-Ps - P-only - RCTs	- Physi-cians - Medical students - Residents - Specia-lists	- Real patients - Simulated patients	- Not reported	- Physician self-rating (e.g. knowledge, attitudes, satisfaction) - Behavioural observa-tion (e.g. Roter Interac-tion Analysis System) - Patient-based out-comes (e.g. satisfaction)	Differs between studies, often not explicitly reported	- Efficacy depends on the degree of active and interactive strategies - It is important to keep practising the skills - It is important to pay attention to the application in clinical practice

[a] R = review; M = meta-analysis; [b] RCT = randomised controlled trial; CBA = controlled before and after study; ITS = interrupted time series; OS = observational study; P-P = pre-post test; P-only = post-test only; CS = case study; OES = open effect study; DS = descriptive studies; R = review.

Table 7.4: Evidence for the effectiveness of the training strategies: methodological quality of the reviews, number of studies in the reviews, conclusions about training programmes, number of studies in the reviews with a specific training strategy, whether or not there is evidence that those strategies are effective, and overall conclusions about the training strategies.

Authors	Methodological quality[a]	# studies in review	Conclusions about training programmes given in the review	Strategy used in number of studies in the reviews/whether or not there is evidence for the effectiveness of the strategies according to each review[b]					
				Role-play	Feedback	Discussion	Oral presentation	Modelling	Written information
Fellowes et al. [15]	High	3	Effective for some skills	3 / *	3 / ±	2 / *	2 / *	1 / *	3 / –
Cheraghi & Bower [14]	High	11	Limited evidence of effectiveness; patient feedback perhaps effective, brief training not effective	5 / *	4 / ±	4 / *	5 / *	3 / *	4 / *
Anderson & Sharpe [11]	High	29	Communication skills training might be effective but outcome types, interventions and types of behaviour varied	16 / *	26 / *	0	24 / *	13 / *	0
Gysels et al. [16,17]	Med	16	Training does improve basic communication skills; most effect with longer period of time, learner-centred, didactic component combined with practical rehearsal and feedback	13 / +	12 / *	10 / +	5 / ±	11 / *	7 / *
Hulsman et al. [18]	Med	14	Limited effects on behaviour	9 / *	9 / *	8 / *	10 / *	8 / *	8 / *
Merckaert et al. [21]	Med	22	Most effective when learner-centred, skill-focused, practice-oriented, organised in small groups, duration at least 3 days	18 / *	16 / *	13 / *	6 / *	8 / *	7 / *
Rao et al. [22]	Med	21	Effective with intensive training programmes, but interventions were not feasible for implementation in everyday practice	17 / +	17 / *	0	15 / *	10 / *	8/ *
Cegala [13]	Low	27	No appropriate assessment instruments to measure effects	24 / *	13 / *	12 / *	10 / *	15 / *	6/ *
Aspegren [12]	Low	24	More effect if longer than one day; continuing practise needed for maintenance of skills	21 / +	22 / +	5 / *	5 / ±	4 / ±	2 / –
Lane & Rollnick [19]	Low	25	More effect when skills are practised than with purely didactic programs	22 / +	6 / ±	1 / *	7 / ±	4 / ±	2 / –
Libert et al. [20]	Low	14	Efficacy depends on the degree of active and interactive strategies	10 / +	9 / +	5 / +	10 / ±	7 / *	4 / ±
Overall conclusions about individual training strategies				Role-play is effective as a single strategy	Feedback might be effective as a single strategy[c]	Small group discussion might be effective as a single strategy	Presentation might be effective as a single strategy[d]	Too little evidence to draw conclusions for modelling as a single strategy	Written information is not effective as a single strategy

[a] High: quality score of 9-12 times 'yes'; Med: Medium, quality score of 5-8 times 'yes'; Low: quality score of 0-4 times 'yes' on AMSTAR [8] items; [b] +: review provides evidence that strategy is effective, –: review provides no evidence that strategy is effective; ±: review provides evidence that the strategy might be effective; *: review provides no information or unclear evidence for the effectiveness of individual strategies (review findings only focused on combinations of multiple strategies); [c] Evidence is stronger for the effectiveness of feedback in combination with practical rehearsal; [d] Evidence shows that presentation might be more effective in combination with practical rehearsal.

Quality of the reviews and the outcome measures

When comparing the outcome measures in the reviews, it should first be noted that outcome measures were poorly specified or integrated in 6 of the 12 reviews [12,13,16,19,20,22]. Examples of patient-based outcomes mentioned in several reviews were satisfaction with the consultation [11,13,20] and affect ratings of trust or emotional stress [13,16,17,21]. Examples of physician-based outcomes were self-confidence [13,16] and the recognition of psychosocial problems and emotional distress in patients [13]. All the reviews which were of low methodological quality had poorly specified outcome measures [12,13,19,20], and two reviews which were of medium methodological quality [16,22] had poorly specified outcomes. Six reviews specified their outcomes more clearly [11,14,15,17,18,21], and three of these reviews were of high methodological quality [11,14,15]. For example, the outcomes in the Cheraghi-Sohi et al. review [14] focused on patient-based assessments of physicians' skills, including patient satisfaction with the care received. The outcome measures included changes in the physician's generic and specific inter-personal skills. The other three reviews that clearly specified the outcomes were of medium methodological quality [17,18,21]. The outcome measures in the Hulsman et al. review [18] were: behavioural observation, physician self-ratings such as ratings concerning attitudes and detecting psychosocial problems in patients, and patient ratings mainly related to the behaviour of the physician.

Combination of training strategies

Many reviews focused on communication skills training in general [11-13,15-18,20-22], and did not compare specific strategies [14,19]. Moreover, not all reviews gave a clear definition of 'communication skills training'. For instance, in many reviews it was unclear which strategies were used to teach which skills, but there seemed to be a certain amount of common ground between these non-specified training strategies.

Five of the 10 reviews that focused on a combination of training strategies concerned cancer care [15-17,20,21]. Fellowes et al. [15] focused on communication skills training for health care professionals in cancer care, and concluded that the training was effective in improving some skills (but these were not specified). Gysels et al. [16,17] addressed the same target group, and also concluded that the training was likely to improve some communication skills, such as expressing empathy and responding appropriately to patient cues. However, to maintain such skills over time, it is important that physicians continue to practise [16]. The best results were expected from training programmes that lasted for more than one day, that were learner-centred (i.e. practical in nature, thereby increasing the relevance of problems for participants), and that combined a didactic component with practical rehearsal and constructive feedback [17]. Again, aimed at the communication skills of health care professionals working in cancer care, Merckaert et al. [21] gave an overview of current developments. From a comparison of different training strategies, the authors

concluded that effective training is learner-centred, skills-focused, practice-oriented, organised in groups with a maximum of six participants, and has a duration of at least three days. Finally, Libert et al. [20] assessed different communication skills training programmes (including oral presentations, discussion, role-play, and feedback) that were designed to improve communication between physicians and cancer patients. They concluded that the efficacy of a training programme depends on the degree of active and interactive strategies. Moreover, they recommended that physicians continue to practise the skills they have learned, and that the application of communication skills in clinical practice is addressed in the training programme.

Five reviews of communication skills training in general were performed in other settings [11-13,18,22]. The earliest review was published in 1991 by Anderson and Sharpe [11]. In their meta-analysis they compared the methodologies, strategies and outcomes of studies focusing on enhancing the communication skills of health care providers. However, because of variation in the interventions, the types of behaviour studied, and the types of outcome, no conclusions about the effectiveness of the strategies could be drawn. Hulsman et al. [18] focused on teaching communication skills to clinically experienced physicians, and concluded that although physicians can be trained in communication skills, the effects of the training on their communication behaviour are limited. The greatest effects of training were found on the self-rated knowledge, attitudes, and skills of the physicians. With regard to patient ratings, the effects of the training were predominantly found on satisfaction and compliance. In 1999, Aspegren [12] reviewed articles on communication skills teaching and learning in the field of medicine. The results showed that communication skills can be taught and are learnt, but that only training programmes that last longer than one day are effective. Skills also have to be practised to be maintained. Cegala and Broz Lenzmeier [13] reviewed theoretical background, objectives, and the type of skills included in physician communication skills training. They concluded that because there is little agreement with regard to the definition of a communication skill, it is unclear which specific communication skills are taught in the various training programmes. Moreover, many studies did not report on which skills were taught. For inferences regarding effectiveness, they referred to Hulsman et al. [18]. Finally, the Rao et al. review [22] presented and compared the findings of studies that evaluated interventions to enhance the communication behaviour of physicians, most of which included multiple training strategies in the training programmes (e.g. written information, feedback, modelling, and role-play). They concluded that most of the interventions resulted in significant improvements in communication behaviour: physicians in the intervention groups received higher global ratings for their communication style and were more patient-centred than physicians in the control groups. However, to be effective, the training had to be intensive, and had to include multiple training strategies.

Specific training strategies

Two of the 12 included reviews compared specific training strategies. Cheraghi-Sohi and Bower [14] assessed whether improvements in the inter-personal communication skills of primary care physicians could be established through feedback of patient assessments, through brief training (not specified), or through a combination of those two strategies. Lane and Rollnick [19] conducted a review on the use of simulated patients and role-play in communication skills training programmes. Even though not all of the reviews specified 'communication skills training', they did provide some evidence for the effectiveness of specific training strategies (see Table 7.4). With regard to oral presentations, modelling, and written information, no evidence was found for the effectiveness of the strategy alone (see Section 'Strategies with no evidence for effectiveness'). Evidence was found for the possible effectiveness of feedback and discussion (see Section 'Strategies with evidence for possible effectiveness'), and also for the effectiveness of role-play (see Section 'Strategies with evidence for effectiveness').

Strategies with no evidence for effectiveness

The strategy of giving oral presentations, for example, lectures, was included in 11 reviews. None of the reviews explicitly compared oral presentations with other training strategies, but four reviews did draw some conclusions. There was no clear evidence that this strategy is effective in itself. However, if oral presentation is combined with practical rehearsal, it might be effective [12,17,19,20]. These results should be interpreted with care, because one review providing evidence for the possible effectiveness of oral presentations was of medium quality and the other three were of low quality.

The strategy of modelling was included in 11 reviews. Modelling refers to learning by watching and imitating others. Physician-patient contact can be modelled in reality or participants can watch a video. None of the reviews specifically assessed modelling as a training strategy, but some made an overall comparison of a combination of modelling and other training strategies. No evidence was found for the effectiveness of modelling alone. Two reviews did find evidence for the possible effectiveness of combinations of modelling with other strategies, but these were of low methodological quality [12,19].

Written information was included in 10 reviews. Written information is information about communication skills in a manual or in handouts, combined with lectures about the topic. No effects were found for this training strategy in itself [12,15,19,20]. None of the reviews explicitly assessed written information as a training strategy in comparison to other strategies.

In 5 of the 12 reviews, other communication skills training strategies were applied, but none of these strategies were found to be effective [18,19,21-23].

Strategies with evidence for possible effectiveness

Feedback was discussed in all 12 reviews. The aim of feedback is that the physicians learn from their experiences, for example, in role-play, and can adjust their communication behaviour before performing the same task again. Overall, positive effects were found for feedback, but the effects were most pronounced when feedback was given in response to practical rehearsal in, for example, role-play. The one review that explicitly focused on feedback as a training strategy was of high methodological quality [14]. The patient-reported ratings improved in only one [32] of the three feedback studies Cheraghi-Sohi and Bower [14] reviewed, and in only one [33] of the seven brief training studies. They concluded that there is limited evidence of the possible effectiveness of patient feedback, and that brief training might not be effective. Another high quality review [14] and a low quality review [19] confirmed these results. Two other low quality reviews found evidence for the effectiveness of feedback [12,20].

Discussion was included in nine reviews. Discussion is the exchange of opinions about communication skills between the teacher and the physician, or between two or more physicians. Two reviews concluded that small group discussions are effective [17,20], but no effects were found for discussion in larger groups. This evidence should be interpreted with care, because only two reviews came to this conclusion, and one of these reviews was of low methodological quality [20].

Strategies with evidence for effectiveness

Role-play was included in all 12 reviews. Role-play is a learning process in which participants or actors act out roles to help physicians practise their communication skills. Five reviews found evidence for the effectiveness of role-play [12,17,19,20,22], because of the active way of learning. For example, Lane and Rollnick [19] directly compared role-play to other didactic training strategies. It appeared that programmes with simulated patients or peers as role-play partners for the physicians during the training improved the communication skills more than purely didactic strategies.

The best training content

Overall, the training programmes that were effective in improving communication skills were learner-centred and included practising the skills [16,17,19,20,22]. A combination of didactic and practical components appeared to improve skill acquisition, especially in programmes that last for at least one whole day [12,16,17] or, according to one review, at least three days in total [21]. Furthermore, training strategies that seemed to be effective were role-play with simulated patients or real patients, feedback (structured, direct, or written), especially when combined with practical components, and small group discussions. The three reviews that were of high quality [11,14,15] as well as four other reviews [12,20-22], included at least one of these training strategies.

A comparison of the three ways of measuring the effectiveness of communication skills training programmes [34] – behavioural observation, physician self-rating, and patient ratings – showed that feedback contributed most to improved patient satisfaction [14,18]. Most physician-rated training effects concerned their own knowledge, attitudes, and skills [18,20]. The remaining reviews showed that the training had the most effect on the outcome of patient satisfaction [13,21].

Discussion and conclusion

Main findings

We critically appraised reviews focusing on communication skills training for medical professionals to identify effective communication training strategies for physicians, because many studies have reported heterogeneous results. Our results demonstrated that it is possible to teach physicians communication skills during training programmes lasting for at least one day. Role-play, feedback, and small group discussions seemed to be effective evidence-based training strategies. To maintain skills over time, it is important that physicians continue to practise. We found no evidence for the effectiveness of modelling, written information, or oral presentations alone, and this is in line with our hypotheses about the duration and content of training strategies. However, due to a lack of evidence for the effectiveness of modelling, no conclusions could be drawn about its effectiveness in relation to more active and passive strategies. Our results also showed that the outcome measures that were used were predominantly patient-ratings, which differed between studies, and were often unclear. Moreover, the definitions of 'communication skills' were inconsistent.

Findings in relation to the results of other studies

That communication skills training should include active learning strategies is supported by the results of studies in other health care professions and among medical students. For example, the Chant et al. overview [35] of education for nurses and other health care professionals demonstrated the positive effects of simulated patients and experiential strategies, such as role-play. The Smith et al. meta-analysis [36] also showed that feedback from teachers on the medical performance of students during patient interviews and small group discussions were the most effective teaching strategies.

In their review of patient-directed – instead of physician-directed – communication interventions, Anderson and Sharpe [11] concluded that more uniform definitions of outcome measures should be described and applied. From the results of our review, almost 20 years later, the same advice still applies. Moreover, the earlier training programmes and strategies were inadequately described, the training programmes varied greatly, the underlying mechanisms were often unclear because there was no theoretical framework, and the relative efficacy of different approaches

could not be compared because strategies were often combined [11]. This was also concluded in other reviews (e.g. Griffin et al. [37]), as well as in our own review.

Implications for research

We recommend that future studies explicitly describe the training strategies that were applied, the elements that were included in the training, how the training was implemented, what the outcomes were, and how these were measured. If studies have similar outcome measures, it will be possible to compare or pool the results of several studies with different training strategies in future reviews. This will increase our insight into the effectiveness of individual strategies and combinations of strategies. For example, Smith et al. [36] performed a meta-analysis that was of good methodological quality, to evaluate communication skills training programmes for medical students, in which most of the afore-mentioned criteria were met.

Additional questions arise that should be addressed in future studies. It would be interesting to know whether an intensive course lasting for two or more successive days would be more, less, or equally effective, compared to several shorter training sessions spread out over several weeks. It would also be interesting to compare different combinations of strategies, to find out which combinations are the most effective ones and which combined strategies are minimally required as core activities in a training programme. A research question, for example, could be if a combination of role-play, feedback, small group discussions, and modelling, or a combination of role-play, feedback, small group discussion, and written information is more effective than the combination of just role-play, feedback, and small group discussions. Furthermore, when these issues have been clarified, research should focus on effective training strategies for specific topics, such as breaking bad news and risk communication, and on how training strategies and the content of communication skills training programmes can best match participants and their learning needs, might further increase insight.

Strengths and limitations of this review

One strength of our review is that it gives an overview of reviews, comparable to the Grol and Grimshaw review of behaviour change by means of clinical guidelines [38]. Our review summarised the most important training strategies, and compared their effectiveness in improving the communication skills of physicians. Our approach revealed the limitations and methodological shortcomings of literature reviews on communication skills training.

However, our review had two important limitations. Firstly, population bias might have occurred. Five out of the 10 non-specific training reviews were performed in a cancer care setting [15-17,20,21], and it is possible that those findings are cancer care-specific. Furthermore, no distinction was made in the reviews between physicians with problems in communicating with their patients and physicians with no such

problems. There was also no distinction between physicians who previously attended multiple communication skills training courses, those who had little or inadequate communication skills education, and those who had no prior communication skills education. Moreover, in six reviews [12,16,17,19-21] no distinction was made between health care professionals and medical students. However, we included these reviews because they all included many studies that did focus on qualified physicians. We found no evidence in the literature that indicates important differences between the results of studies concerning medical students, studies concerning other health care professionals, and studies concerning qualified physicians. However, it can not be ruled out that the results of reviews of mixed study populations might not be representative for experienced medical professionals, and that training programmes might produce different effects in different populations.

Secondly, there are limitations resulting from methodological problems, such as the heterogeneity of the data, poorly defined and non-standardised outcome measures, and low methodological quality. It was often unclear which training strategies were applied in the studies that were reviewed, and many different strategies were reviewed. Therefore, it was not possible to pool the outcomes of the reviews, and we had to limit our review to a critical appraisal. Four reviews [12,13,19,20] were of low methodological quality, but this does not necessarily mean that the original studies were of low quality. Also, from our review it was not possible to make any recommendations about which outcome measures should be used in future studies. A systematic review, focusing on outcome measures, should be performed for this purpose. This could also provide more insight into the most effective strategies for improving observed communication skills as well as patient-rated communication skills. Thus, conclusions should be drawn with care, due to the lack of comparability between the reviews and the low methodological quality of several of the reviews.

Conclusions

Training programmes are effective if they are learner-centred, practise-oriented, and have a duration of at least one day. Role-play, feedback, and small group discussions are effective training strategies. Therefore, it is important that physicians practise the skills they are taught. Oral presentations, modelling, and written information should only be used as supportive strategies. Although these findings are derived from curative medicine, the consistency of the findings implies that they can be generalised to non-curative medicine.

Practice implications

When developing a new evidence-based communication skills training programme for physicians working in non-curative care, we recommend the inclusion of active, practice-oriented teaching strategies. The training programme should have a minimal

duration of one day, but it should preferably last for several days. Oral presentations, modelling, and written information could be used as an introduction or for illustration. However, the main focus of communication skills training should not be on those strategies, but on practising the skills in practice-oriented role-play, feedback, and discussions in small groups of participants.

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Appendix 7.1: Exact keywords for each database.

PubMed

#1 Education:

"Education, Medical"[Mesh] OR "Teaching"[Mesh:NoExp] OR "Models, Educational"[Mesh] OR "Patient Simulation"[Mesh] OR "Education, Professional"[Mesh:NoExp] OR "Education, Public Health Professional"[Mesh] OR "instruction"[tiab]

#2 Physicians:

"Professional-Patient Relations"[Mesh:NoExp] OR "Dentist-Patient Relations"[Mesh] OR "Nurse-Patient Relations"[Mesh] OR "Physician-Patient Relations"[Mesh] OR "Family Practice"[Mesh] OR "general practitioner"[tiab] OR "Physicians, Family"[Mesh] OR "Health Personnel"[Mesh] OR "Medical Staff"[Mesh] OR "gp"[tiab] OR "physician*"[tiab] OR "Doctor"[tiab] OR ("Doctor patient"[tiab] AND ("relation*"[tiab] OR "communication"[tiab])) OR "patient relation*"[tiab]

#3 Communication (training):

"Communication"[Mesh] OR "Empathy"[Mesh] OR "Role Playing"[Mesh] OR "Patient Simulation"[Mesh] OR "interpersonal skills"[tiab] OR "communication skills training"[tiab]

#4 Social insurance medicine and occupational medicine:

("insurance"[tiab] AND ("physician"[tiab] OR "doctor"[tiab] OR "practitioner"[tiab])) OR "Occupational Health Services"[Mesh] OR "Occupational Health Physicians"[Mesh] OR "company physician*"[tiab] OR "Occupational Medicine"[Mesh] OR "Occupational Health"[Mesh] OR "Sickness certification"[tiab] OR "Sick note*"[tiab] OR "disability assessment"[tiab] OR "Medical assessment"[tiab] OR "Sick Leave"[Mesh] OR "Social Security"[Mesh] OR "Insurance, Disability"[Mesh]

#5 Systematic review (filter):

("meta-analysis"[pt]) OR (meta-anal*[tw]) OR (metaanal*[tw]) OR (quantitativ*[tw] AND review*[tw]) OR (quantitative*[tw] AND overview*[tw]) OR (systematic*[tw] AND review*[tw]) OR (systematic*[tw] AND overview*[tw]) OR (methodologic*[tw] AND review*[tw]) OR (methodologic*[tw] AND overview*[tw]) OR ("review"[pt] AND "medline"[tw])

Final search: #1 AND (#2 OR #4) AND #3 AND #5

PsycINFO

#1 Education:

KW="Medical Education" OR DE="Teaching" OR KW="Group Instruction" OR DE="Theories of Education" OR DE="Observational Learning" OR DE="Learning" OR DE="Teaching Methods" OR DE="Educational Program Evaluation" OR DE="Clinical Methods Training" OR DE="Human Relations Training" OR DE="Social Skills Training" OR DE="Role Playing" OR DE="Communication Skills Training" OR KW="Social Skills Training" OR KW="Role Playing" OR KW="Communication Skills Training"

#2 Physicians:

KW="Doctor patient relation" OR KW="Doctor patient relations" OR KW="Doctor patient relationship" OR KW="Doctor patient communication" OR DE=("physicians" or "family physicians" or "general practitioners" or "gynecologists" or "internists" or "neurologists" or "obstetricians" or "pathologists" or "pediatricians" or "psychiatrists" or "surgeons" or "clinicians") OR DE="Patient Therapist Interaction" OR KW="Medical personnel" OR KW="Health personnel"

#3 Communication (training):

DE="Communication Skills" OR DE="Communication" OR DE="Empathy" OR DE="Interpersonal Communication" OR DE="Oral Communication" OR DE="Conversation"

PsycINFO *(continued)*

OR DE="Nonverbal Communication" OR DE="Interviewing" OR DE="Listening (Interpersonal)" OR DE="Communication Barriers" OR DE="Interpersonal Interaction" OR DE="Social Interaction" OR KW="Communication Skills" OR KW="Communication" OR KW="Interpersonal Communication" OR KW="Oral Communication" OR KW="Nonverbal Communication" OR KW="Interviewing" OR KW="Listening (Interpersonal)" OR KW="Communication Barriers" OR KW="Interpersonal Interaction" OR KW="Social Interaction"

#4 Social insurance medicine and occupational medicine:

DE="insurance" OR DE= "Disability Evaluation" OR DE="Social Security" OR DE="Employee Benefits" OR DE="Employee Health Insurance" OR DE="Workers' Compensation Insurance" OR DE="Employee Leave Benefits"

#5 Systematic review:

(ME= Systematic review) or (ME= meta analysis) or (KW=meta-anal*) or (KW=metaanal*) or (KW=quantitative* review*) or (KW=quantitative* overview*) or (KW=systematic* review*) or (KW=systematic* overview*) or (KW=methodologic* review*) or (KW=methodologic* overview*) or (KW=review AND KW=medline)

Final search: #1 AND (#2 OR #4) AND #3 AND #5

CINAHL

#1 Education:

(MH "Education, Medical+") OR (MH "Teaching") OR (MH "Communication Skills Training") or (MH "Social Skills Training") OR (MH "Models, Educational") OR (MH "Patient Simulation") OR (MH "Education, Theory-Based") OR ("instruction") OR (MH "Learning Methods+") or (MH "Skill Acquisition") OR (MH "Role Playing") or (MH "Simulations") OR (MH "Vignettes")

#2 Physicians:

(MH "Professional-Patient Relations+") OR (MH "Professional-Client Relations") OR (MH "Medical Practice") OR (MH "Medical Care") or (MH "Family Practice") OR (MH "Physicians, Family") OR (MH "Medical Staff") OR "doctor" OR ("Doctor patient" AND ("relation*" OR "communication")) OR "patient relation*"

#3 Communication (training):

(MH "Communication") or (MH "Communication Barriers") or (MH "Communication Skills") or (MH "Nonverbal Communication+") or (MH "Verbal Behavior") OR (MH "Empathy") OR "interpersonal skills" OR "communication skills training" OR (MH "Interviews+")

#4 Social insurance medicine and occupational medicine:

("insurance" AND ("physician" OR "doctor" OR "practitioner")) OR (MH "Occupational Health Services+") OR "Occupational Health Physicians" OR "company physician" OR "Occupational Medicine" OR "Workers compensation" OR "Sickness certification" OR "Sick note*" OR "disability assessment" OR "Medical assessment" OR (MH "Disability Evaluation+") OR "Social Security" OR "Employee Benefits" OR "Employee Health Insurance" OR "Employee Leave Benefits" OR (MH "Sick Leave")

#5 Systematic review:

(MH "Meta Analysis") OR (MH "Systematic Review") OR ("meta-anal*") OR ("metaanal*") OR ("quantitativ*" AND "review*") OR ("quantitative*" AND "overview*") OR ("systematic*" AND "review*") OR ("systematic*" AND "overview*") OR ("methodologic*" AND "review*") OR ("methodologic*" AND "overview*")

Final search: #1 AND (#2 OR #4) AND #3 AND #5

Cochrane

#1 Education:

"Education Medical" OR "Teaching" OR "Patient Simulation" OR "Education, Public Health Professional" OR "instruction" OR "skills training" :ti,ab,kw

#2 Physicians:

"Doctor patient relation" OR "Doctor patient relations" OR "Doctor patient relationship" OR "Doctor patient relationships" OR "Doctor patient communication" OR "patient relation" OR "patient relations" OR "patient relationship" OR "patient relationships" OR "health care professionals" OR "Doctor" OR "Doctors" OR "Physician" OR "Physicians" OR "General Practitioner" OR "General Practitioners":ti,ab,kw

#3 Communication(training):

"Communication" OR "Empathy" OR "Role Playing" OR "Patient Simulation" OR "interpersonal skills" OR "communication skills training":ti,ab,kw

#4 Social insurance medicine and occupational medicine:

"insurance physician" OR "insurance doctor" OR "insurance practitioner" OR "Occupational Health Services" OR "Occupational Health Physician" OR "Occupational Health Physicians" OR "company physician" OR "Occupational Medicine" OR "Occupational Health" OR "Sickness certification" OR "Sick note" OR "Sick notes" OR "disability assessment" OR "Medical assessment" OR "Sick Leave" OR "Social Security" OR " Disability Insurance ":ti,ab,kw

Final search: #1 AND (#2 OR #4) AND #3, restricted by product: Cochrane review, other review

Chapter 8

Systematic development of a communication skills training course for physicians performing work disability assessments

From evidence to practice

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Abstract

Background: Physicians require specific communication skills, because the face-to-face contact with their patients is an important source of information. Although physicians who perform work disability assessments attend some communication-related training courses during their professional education, no specialised and evidence-based communication skills training course is available for them. Therefore, the objectives of this study were: 1) to systematically develop a training course aimed at improving the communication skills of physicians during work disability assessment interviews with disability claimants, and 2) to plan an evaluation of the training course.

Methods: A physician-tailored communication skills training course was developed, according to the six steps of the Intervention Mapping protocol. Data were collected from questionnaire studies among physicians and claimants, a focus group study among physicians, a systematic review of the literature, and meetings with various experts. Determinants and performance objectives were formulated. A concept version of the training course was discussed with several experts before the final training course programme was established. The evaluation plan was developed by consulting experts, social insurance physicians, researchers, and policy-makers, and discussing with them the options for evaluation.

Results: A two-day post-graduate communication skills training course was developed, aimed at improving professional communication during work disability assessment interviews. Special focus was on active teaching strategies, such as practising the skills in role-play. An adoption and implementation plan was formulated, in which the infrastructure of the educational department of the institute that employs the physicians was utilised. Improvement in the skills and knowledge of the physicians who will participate in the training course will be evaluated in a randomised controlled trial.

Conclusions: The feasibility and practical relevance of the communication skills training course that was developed seem promising. Such a course may be relevant for physicians in many countries who perform work disability assessments. The development of the first training course of this type represents an important advancement in this field.

Background

Physicians require specific communication skills, because the face-to-face contact with their patients is an important source of information. Likewise, for physicians who perform work disability assessments, the interview with the claimant is in many countries an important source of information [1,2]. This interview gives the claimant the opportunity to clarify and substantiate his or her claim, and it also gives the physician the opportunity to observe the claimant's behaviour, to discuss the claimant's disabilities and consequences thereof, and to reassure the claimant when necessary. Both the content and the process of the interview are important. The content is important because the physician's goal is to obtain all the necessary information for the disability assessment and to make the right decision. The process is important because the claimant should feel that he or she is being taken seriously and treated fairly, and should be willing to provide information and accept the outcome [3-5]. In this paper we focus on the process of the interview, and especially the communication between the physician and the claimant. Communication is defined as face-to-face contact between physician and claimant, aimed at verbal and non-verbal two-directional exchange of information (including facts, opinions, and feelings, both conscious and unconscious). Although communication behaviour, such as checking understanding and summarising information, is linked to patient trust and satisfaction, and is important for many aspects of clinical care, research has shown that physicians rarely check whether patients comprehend the information [6]. Research has also shown that the degree of effectiveness of the physician-patient communication determines the accuracy and completeness of the information that the physician receives from the patient [7,8]. Furthermore, good communication increases the likelihood that patients accept and follow the advice of physicians [9].

Numerous programmes for training physicians in communication skills exist [10], some of which are intended for physicians in specific fields of care, such as cancer care [11-13]. No evidence-based training course was found for physicians performing work disability assessments. The assessment interviews differ from interviews held by other physicians in that they are not primarily aimed at cure or care for patients, but at assessing the work capacities and incapacities of disability claimants. Moreover, the time that is available to gather all the necessary information for this assessment is generally short, the claimant is more or less obliged to attend the assessment, and there is a lot at stake for the claimant, such as a disability benefit. Because of these specific aspects of the assessment interviews, good communication is essential [14]. The specific demands for physicians and the central role of communication in these assessments, call for a specialised communication skills training course. Physicians do receive communication training during their professional education, but to date there is no evidence-based, post-graduate training course that is tailored to work disability assessments. Therefore, this paper describes

the systematic development of a communication skills training course aimed at improving the communication behaviour of physicians during disability assessment interviews.

Methods & Results

To ensure that the training course would be tailored to its users, and would addresses the communication needs of all directly concerned stakeholders, it was developed according to the Intervention Mapping (IM) protocol [15]. This protocol is generally used for the development of health promotion plans, but it can also be applied in the development of other interventions [16,17]. The IM protocol has three main information inputs: literature searches, theories, and newly collected data. The protocol consists of six steps: (1) assessing needs, (2) formulating programme objectives, (3) selecting theory-based methods and practical strategies, (4) designing the programme plan, (5) designing the adoption and implementation plan, and (6) designing the evaluation plan. We have described the methods for each of these six steps below. In several steps we used the results of our prior research in this area, indicated by referring to accompanying scientific publications. For the purpose of readability and comprehensibility the results are presented directly after the methods for each step.

Step 1: Needs assessment

Methods

The first step in IM was to identify the needs of stakeholders for a communication skills training course for physicians who perform work disability assessments. According to the extended script model [1], there are three main stakeholders within the Dutch system (this study took place in the Netherlands) that should be consulted. The first stakeholder was the Dutch Institute of Employee Benefit Schemes, which is the institute that employs most of the physicians performing work disability assessments for entitlement to benefits (further referred to as 'the Institute'). The second group of stakeholders consisted of medical disability claimants (in this study, employees who had been sick-listed for almost two years, applying for a long-term work disability benefit). The third group of stakeholders consisted of physicians who were specialised in performing work disability assessments (in this study, social insurance physicians). Although the practice varies considerably among countries, long-term work disability assessments are usually performed by specialised social insurance physicians [1,4].

Firstly, we identified the needs of the Institute by consulting the four policy-makers with the most expertise of physician-claimant communication, and studying reports and publications of the Institute and allied organisations. Secondly, we assessed the needs of the claimants (n=56) in a survey, by means of an open-ended question, asking for comments on the communication during an assessment interview

they had recently attended [18]. Thirdly, we used the results from a focus group study among social insurance physicians (n=22) to assess the needs of the physicians [19]. By combining the needs of these three stakeholders, the desired programme outcome for the communication skills training course was determined.

Results

The Institute states on its website that it strives to "excel as a provider of social services by focussing attention on the claimant" (http://www.uwv.nl, accessed 18 June 2010). This includes showing interest in claimants and respecting them, being clear about promises and expectations, and delivering the appropriate services. Other internal publications confirm that delivering good insurance-medical care, which includes correct physician-claimant communication, is the main aim of the Institute. The Institute also considers claimant satisfaction important, and tries to minimise the number of complaints, objections, and appeals that claimants file. Therefore, policy-makers at the Institute would favour a training course aimed at increasing the services for claimants by improving the professional communication behaviour of physicians during disability assessment interviews.

From the claimant's perspective, difficulties in communication during already stressful interviews may have a considerable impact. According to their responses to our questions, the claimants were of the opinion that in a communication skills training course it is especially important that physicians: (1) provide clear and complete information about the assessment, the interview, and the findings, (2) show empathy, for example, with regard to the tension that the assessment may cause in the claimant, (3) take the claimant seriously, by limiting the influence of preconceived notions and suggestive questions, and (4) take the necessary time and make the necessary preparations, in order to obtain sufficient prior knowledge about the disabilities of the claimant.

In the focus group meetings the physicians themselves indicated that the time that is available per claimant is limited, and therefore they would like to learn how to perform the interview more efficiently, while maintaining a professional method of communication. The fact that the physicians reported that they experienced very few communication problems, while claimants had many, might indicate a lack of awareness on the part of the physician. With regard to this, the physicians indicated that they wished to minimise the influence on their communication behaviour of their unconscious feelings and opinions with regard to the claimants (e.g. be aware of counter-transference, recognising the effect of claimant behaviour on their own behaviour).

Step 2: Programme objectives

Methods

Having assessed the needs in the first step, the second step in IM is to formulate the aim of the programme, the programme objectives, the performance objectives, and the change objectives. The aim was deduced from the combined needs of the stakeholders. In a brainstorming session, the programme objectives were formulated, based on the aim, with additional input from result matrices. Input for these matrices were the combined results from two questionnaire studies among social insurance physicians [20], two questionnaire studies among work disability claimants [18], and a focus group study among social insurance physicians (n=22) [19]. The first questionnaire study among social insurance physicians (n=146) assessed their general preferences in the communication during work disability assessment interviews and the psychosocial determinants of their communication behaviour [20]. The second questionnaire study among social insurance physicians (n=56) assessed their opinion about and satisfaction with the communication during 10 assessment interviews. The first questionnaire study among claimants (n=63) assessed their general preferences in the communication during work disability assessment interviews and physician-patient encounters in general, and the psychosocial determinants of their communication behaviour. The second questionnaire study among claimants (n=56) assessed their opinion about and satisfaction with the communication during a recently attended interview. In addition to the results for each questionnaire separately, analyses of the combined results of both second questionnaires were performed to obtain insight into agreements and differences of opinion about the communication between physicians and claimants [21]. Additional analyses were also performed, in which the data from all four questionnaires were combined (n=28 physicians, n=53 claimants), to assess at positive agreement between physicians and claimants with regard to the communication during the interview in more detail.

We formulated performance objectives describing the type of behaviour the physicians should be able to adopt after they had participated in the training course, by translating the programme objectives into more specific training goals, based on matrices. This was done in brainstorming sessions attended by all authors and two experts on the communication skills of social insurance physicians in the Educational Department of the Institute. These experts agreed to collaborate more intensely with the authors in the development and implementation of the training course, in order to ensure practical relevance and feasibility of the aims and objectives. The change objectives at organisational level were derived from the performance objectives and formulated by the authors, after consulting the social insurance physicians in the focus group study and two policy-makers at the Institute.

Results

In brainstorming sessions, combining the results of the needs assessment, and using matrices to summarise and structure all findings, we formulated the main aim of the communication skills training course: social insurance physicians should communicate in a professional way, as a consequence of which both claimants and physicians experience less difficulty in the communication. The communication behaviour of physicians was considered to be 'professional' if: (1) they were aware of the influences on their communication behaviour of their own feelings and assumptions about claimants when communicating with those claimants, and they minimised negative influences, (2) they communicated efficiently, clearly, and empathically, attuned to the claimants, and (3) they met the claimants' needs for information and empathy in their communication behaviour when discussing their findings with the claimants, without compromising the assessment (i.e. while clearly mentioning the conclusions of the disability assessment). The main research findings that resulted in these programme objectives are summarised in Table 8.1.

Next, in brainstorming sessions, using the matrices and other research findings, we specified six performance objectives with regard to two determinants: (a) awareness and knowledge about the communication behaviour, and (b) and communication skills. We decided on these determinants because several reviews have included them as important determinants [12,22,23]. Table 8.2 provides a summary of the performance objectives.

We found that change objectives should concern obtaining support from the Institute, to make it possible to implement the training course. Support includes practical support (e.g. financing, location of the training course, offering physicians the time to attend), as well as 'emotional' support (e.g. making it known that the Institute finds the training course and its subject important, motivating physicians to join). Acquiring accreditation of continuing medical education for this new training course was an important change objective to give the training course an official status within the Institute and its Educational Department. This also made it possible for the training course to be embedded in the Educational Department, including the use of all the available facilities.

Step 3: Selecting theory-based methods and practical strategies

Methods

Having formulated the performance objectives with each determinant and the change objectives in the second step, the third step in IM is to identify theory-based methods and practical strategies that could effect changes in the determinants of the communication behaviour of social insurance physicians.

The methods and strategies were identified on the basis of findings of a previous systematic review of the most effective strategies for teaching communication skills to physicians [10]. We also took the theoretical framework underlying our

Table 8.1: Summary of the main research findings from the matrices for the translation into programme objectives of the communication skills training course for physicians performing work disability assessment interviews.

	Main research findings	Programme objectives
1	- Social insurance physicians (SIPs) have little awareness of the effects of claimant (CL) behaviour on their own communication behaviour, and vice versa. - SIPs are often unable to accurately assess CLs' opinions about the communication. - SIPs assume that CLs' opinions are more positive than those opinions actually are. - Barriers that SIPs may experience in interaction with CLs, may influence the communication. - When the behaviour of SIPs is too self-assured, this may hinder the communication.	Physicians are aware of the influences of their own feelings and assumptions about claimants on their behaviour when communicating with those claimants, and they minimise negative influences.
2	- SIPs should communicate clearly. - SIPs should respond empathically to CLs (affective, emotion-oriented communication), in addition to focussing on the content (instrumental, task-oriented communication). - The former applies especially to CLs who SIPs assume to have little functional capacity. - CLs have a more positive opinion about the communication when the physician pays more attention to them (e.g. is transparent, provides clear explanations, discusses their work and personal situation). - The introduction of the interview is important, because it provides the basis for the rest of the interview. - In interviews with CLs with a lower level of education, with little self-reported communication skills, and with little social support from family, friends, and acquaintances, SIPs need to pay special attention to the exchange of information and their listening behaviour.	Physicians communicate efficiently, clearly, and empathically, attuned to claimants.
3	- When SIPs are transparent and clear, providing information about findings and conclusions, this may prevent unpleasant reactions from CLs that SIPs fear. - Although most SIPs reported that they explained their conclusions to the CLs, many CLs reported that this did not happen. - CLs often find the SIP's conclusion unclear or difficult to understand.	Physicians meet claimants' needs for information and empathy in their communication behaviour when they discuss their findings without compromising the assessment.

Table 8.2: The three programme objectives (1-3) related to performance objectives in social insurance physicians' (SIP) knowledge, awareness, and skills regarding communication with claimants (CL).

Programme objectives	Performance objectives for SIPs	
	a. Knowledge/awareness	b. Skills
1. SIP is aware of the influence of own feelings and assumptions, minimising negative influences	Social insurance physician (SIP) knows that there is a constant interaction between SIP and claimant (CL) communication behaviour, with regard to both content and process.	SIP switches between content and process in the communication, geared to CL's verbal and non-verbal behaviour (e.g. reflects on CL's feelings, labels non-verbal behaviour).
	SIP is aware of the influence of own communication preferences and own state of mind in relation to CL's verbal and non-verbal behaviour.	SIP signals the effect of own disturbing feelings and assumptions in relation to CL behaviour, and takes this into account.
	SIP knows the general rules of giving adequate feedback.	SIP gives appropriate feedback about CL's behaviour, especially if it disturbs SIP.
2. SIP communicates efficiently, clearly, and empathically, attuned to claimant	SIP knows what instrumental (task-oriented, content-focussed) and empathic (affective, process-oriented) behaviour is, what the differences are, and when to use which.	SIP switches between instrumental and empathic behaviour during the interview.
	SIP knows the essential elements of a first-time introduction, including an explanation of the aim of an assessment interview.	SIP uses the essential elements of a first-time introduction, including an clear explanation of the aim of the assessment interview.
	SIP knows which general communication skills exist (e.g. asking open-ended/closed questions, listening, summarising, providing regular breathing spaces), and when to use which.	SIP uses general communication skills, each at the appropriate moments resulting in clarity in the communication.
3. SIP meets CL's needs for information and empathy when discussing the findings	SIP knows the importance of actually mentioning the conclusions to the CL.	SIP mentions and explains the conclusions clearly to the CL.
	SIP knows the essential elements of sharing and explaining a conclusion (i.e. the elements of a bad news conversation) [31,32].	SIP applies all essential elements (e.g. giving CL an opportunity to respond) when sharing and explaining conclusions to CL.
	SIP knows how to apply the knowledge of objectives 1 and 2 (listed above) when explaining conclusions to CL.	SIP applies the skills of objectives 1 and 2 (listed above) when explaining conclusions to CL.

questionnaire studies [5] as a starting point to search the literature for an appropriate cognitive or behavioural model for teaching communication skills. To select appropriate methods and strategies from the systematic review and the theoretical models, we organised brainstorming sessions attended by some of the authors and the two experts in communication skills of social insurance physicians at the Institute. Remarks made by the physicians in the afore-mentioned focus group studies, were also compared to the findings. We then made a matrix to determine the most appropriate methods, strategies, and relevant materials for each behavioural determinant.

Results

The systematic review showed that active strategies, including a lot of practice of the skills, for example in role-play with structured feedback, is a good method for teaching physicians communication skills. Moreover, interactive discussion in small groups, focusing on claimant communication, should be preferred over lectures. The additional literature search for a behavioural model showed that the findings of the systematic review were in line with Bandura's Social-Cognitive Theory (SCT) [24,25] and Kolb's model of learning styles [26]. According to the SCT, learning is facilitated by observing others (observational learning) and imitating examples of behaviour (modelling). Moreover, it considers performing behaviour and receiving feedback to be important strategies for acquiring behavioural skills. The Kolb model of learning styles consists of a processing continuum from active learning ('doing') to reflective observation ('watching'), combined with a perception continuum from abstract conceptualisation ('thinking') to concrete experience ('feeling'). Both models were even more useful because the experts considered both practice and experience to be important. The importance of 'doing' from the model of learning styles was emphasised by the review findings and the opinions of the physicians in the focus group meetings, who stated that communication is often easier in theory than it is in practice. These physicians also indicated a need for 'watching': getting theoretical examples (e.g. theory on communication techniques or how to communicate conclusions) and practical communication examples (e.g. from role models or peers). The need for theory stressed the need for 'thinking', as did the finding that physicians would appreciate a structured list of short and clear hints in the training course. Although 'feeling' was not mentioned by the physicians as a necessary ingredient, the experts we consulted agreed that this ingredient was needed for the learning process during the training course. The theoretical methods, practical strategies, and materials needed to increase knowledge and skills are summarised in Table 8.3 for each of the determinants and programme objectives.

It was agreed that these methods and strategies would be incorporated in the training course in the following way. In order to create a clear and safe situation for the participants, the teachers introduced each subject that was addressed in the training course by providing the relevant theoretical information, when available, in a theoretical model. Guided practice with feedback was the main ingredient of the training course. A practical situation was chosen for role-play, with one of the physicians playing the role of the physician and a teacher playing the role of the

Table 8.3: Theoretical methods, practical strategies, and tools/materials needed to change the behavioural determinants of physicians' communication during work disability assessment interviews.

Determinant & programme objective	Theory-based method	Practical strategy	Tools/materials
General, all determinants	- Abstract conceptualisation (*thinking*) - Reflective observation (*watching*)	Providing written information	Hand-outs on all subjects
Knowledge/ awareness of influences of own feelings	Abstract conceptualisation (*thinking*)	Providing verbal and written information	- Theoretical model of interpersonal communication - Theoretical model of giving feedback
Skills in minimising negative influences	- Concrete experience (*feeling*) - Active experimentation (*doing)*	- Guided practice with feedback - Providing examples (peer modelling)	- Group practice ('playground') - Feedback from teachers and peers
Knowledge/ awareness of communication attuned to CLs	- Abstract conceptualisation (*thinking*)	- Guided group brainstorming - Providing verbal and written information	- Group discussion - Checklist on flip-over - Clarification by teachers
Skills in communication attuned to CLs	- Active experimentation (*doing*) - Reflective observation (*watching*)	- Guided practice with feedback - Providing examples (peer modelling)	- Group practice ('playground') - Feedback from teachers and peers
Knowledge/ awareness of meeting CL's needs when discussing findings	- Abstract conceptualisation (*thinking*) - Reflective observation (*watching*)	- Providing verbal information - Discussing verbal information	- Theoretical model of discussing conclusions - Group discussion
Skills in meeting CL's needs when discussing findings	- Active experimentation (*doing*) - Reflective observation (*watching*)	- Guided practice with feedback - Providing examples (peer modelling)	- Group practice ('playground') - Feedback from teachers and peers

claimant. All the other participants observed, and afterwards the role-playing physician reflected on the performance, followed by feedback and suggestions from the teachers and the other physicians. The physician can be allowed to continue, or to try again, or another physician can be asked to give it a try. This group practice was referred to as 'the playground', in order to stress the opportunity it offers to practice in a safe environment, instead of creating a scary situation in which the participants judge each other's skills. To facilitate the learning process, checklists (e.g. with the essential elements of an introduction) were made, together with the participants, on large sheets of paper, the teachers making sure that all relevant items were included. To promote knowledge, the teachers integrated a top 10 of the most important research findings from the questionnaire studies and the focus group study (see step 2) in the training course. We included a binder with handouts, to remind physicians what they had learned and to enable them to look up information afterward the course.

Step 4: Programme plan

Methods

After formulating theoretical methods and practical strategies in the third step, the fourth step in IM is to evaluate the established content of the programme in relationship to the context of the programme and the intended participants. From the tables and matrices formulated in the previous steps, those performance objectives that could be addressed in a short training course were selected by the authors and the experts. A concept training course was developed, and subsequently discussed and evaluated to assess its strengths and weaknesses. This evaluation was first made with three additional experts in the development and/or provision of training programmes for social insurance physicians, and successively in a group of 15 social insurance physicians. The authors presented the research results and concept versions of the training course in meetings, and asked the physicians to comment on its content and to provide further suggestions for improvement. We then discussed the comments and suggestions from the meetings with the two experts, to establish the final training programme.

Results

From the evaluation of the concept training course in the discussion sessions, it was decided that the training course would be called 'Professional Claimant Communication', because during the development phase communicating with claimants in a professional way became the central theme of the course. In order to create a positive and safe learning environment, it was agreed that the main explicit focus of the training course should be on professional style and not on reducing the complaints of claimants.

As advised by the three experts and the 15 social insurance physicians, the performance objectives were addressed in the training course in the same order as in

a disability assessment interview. Following the sequence of the three programme objectives, the medical disability assessment was divided into three stages for this purpose: (1) preparation and introduction, (2) gathering information for the assessment, and (3) discussion about the conclusions and closing the interview. According to the experts, a two-days period was sufficient to teach the physicians the basic knowledge, awareness, and communication skills. Moreover, in large-scale implementation it would probably be difficult for physicians to spend more than two successive days at a training course. During this fourth IM step, no significant changes needed to be made in the previously established content of the training course. A summary of the training programme is presented in Appendix 8.1. The training course programme was sent to the Dutch Social Physicians Registration Committee for official approval and accreditation for continuing medical education.

The active and interactive design of the training course limited the number of participants per group to 12 (which is a common number in such training courses). It was established that the inclusion criteria for participation in the training course were that the physicians worked as social insurance physicians at the Institute, and performed face-to-face work disability assessment interviews. Staff/executive social insurance physicians and physicians who had been social insurance physicians for less than one year were not eligible for participation.

Step 5: Adoption and implementation plan

Methods

After the programme plan was established in step 4, the fifth step in IM was to develop a plan for the adoption and implementation of the training course in practice. This was done in collaboration with the two experts from the Institute's Educational Department. A plan was made to promote the training course to potential participants, both top-down with the assistance of the managerial staff, and bottom-up by directly approaching physicians. This plan concerned who to approach, at which moment in time, and in which way (e.g. by means of a presentation, e-mail, both directly and indirectly), also including people and institutions that might be able to facilitate in the adoption, for example by raising enthusiasm among physicians. The aim of the plan was to reach all physicians with experience in work disability assessments and working for the Institute. The implementation was supported by a manual which was developed for the teachers of the training course.

Results

We decided that the Educational Department of the Institute would offer the training course. The infrastructure of the Educational Department was used to make the training course known, by approaching the managerial staff and presenting the training course to them to raise awareness and generate enthusiasm for the course among physicians. We also distributed flyers and newsletters with information about

the training course, organised presentations for both social insurance physicians and their executives at four front offices of the Institute, provided information on the website of the research project, and sent e-mail invitations to physicians. Furthermore, physicians who were training to be registered social insurance physicians were approached by their educational institute with information, and informed that they could use the training course as an optional subject in their education. Finally, we sent e-mails to all the social insurance physicians who had previously participated in the research project (i.e. questionnaire studies or focus group study), or had previously shown interest in the study, informing them about the training course.

Two teachers, who were recruited from the Educational Department of the Institute, trained all groups of participants according to the detailed manual.

Step 6: Evaluation plan

Methods

When the plans for adoption and implementation had been completed, the sixth step in IM was to formulate an evaluation plan, taking all findings from the prior steps into account. During the development of the training course, we realised that it was impossible to implement our original idea to evaluate the training course on a large scale in practice in a randomised controlled trial (RCT), with as primary outcomes the claimants' acceptance of the physician's conclusions and satisfaction with the communication. This was mainly due to organisational changes within the Institute, which limited the number of eligible participants and resulted in huge practical problems. To formulate a new evaluation plan, we therefore organised a brainstorming session with all the authors to generate alternative evaluation plans, including other RCT designs and alternative designs. Subsequently, all these plans were presented – with their advantages and disadvantages – to 30 researchers and to 15 social insurance physicians and researchers. They commented on the plans and explained what their choice would be. After consulting the staff and policy makers of the Institute with regard to feasibility issues, the authors made the final decision on the evaluation plan.

Having formulated the evaluation plan, the required measurement instruments had to be developed, taking into account that our study would only be financially feasible if all measurements were obtained with questionnaires. The literature was searched for available questionnaires, and an expert on measurement instruments for communication skills was consulted. The resulting questionnaires were pilot-tested by four social insurance physicians to assess comprehensibility and relevance, and by two researchers who were familiar with the intervention to assess whether the contents of the training course and the questionnaires matched. We made the final choice of questionnaires, taking their remarks into consideration, as well as the time needed to complete the questionnaires.

Results

A plan was made for future evaluation of the intervention in a two-armed RCT. We will randomly assign participants to either an intervention group, or to a waiting-list control group which will not participate in the training course until all measurements have been completed. Participants in the intervention group will complete a questionnaire at baseline and directly after the training course (1-2 weeks after baseline). Participants in the waiting-list control group will complete the questionnaires at the same moments as the participants in the intervention group. The primary outcomes will be skills (measured with a casuistry example) and knowledge (measured with true-false questions) with regard to communication during work disability assessment interviews. A process evaluation will be carried out, to determine the most effective and valued aspects, to identify barriers and facilitators for implementation, and to further improve the training course. This will involve gathering data from the social insurance physicians (questionnaires) and the two teachers (informal interviews). This RCT has been registered in the Dutch Trial Register (NCT, number 2287).

Discussion

Main findings

Following the six steps of the Intervention Mapping protocol, we developed the 'Professional Claimant Communication' post-graduate training course, aimed at achieving professional physician-claimant communication during disability assessment interviews. The results of the first IM step indicated that the stakeholders would prefer a training course promoting a professional physician-claimant relationship, with clear, empathic, and non-biased communication. The second step resulted in the three main programme objectives, i.e. awareness of assumptions about claimants, communication attuned to claimants, and clarity concerning the findings of the assessment. For the change objectives, continuous support in realising and implementing the training course needs to be obtained from the Institute. Step 3 showed the importance of active teaching strategies, based on the Social Cognitive Theory and the model of learning styles. In the fourth IM step, it was established that the training course would be a two-day course that would follow the phases of an assessment interview (i.e. the introduction phase, the information-gathering phase, and the closing phase). Step 5 resulted in the use of the infrastructure of the Educational Department in making the training course known and its implementation. In the sixth and last step, a plan was formulated for an RCT with a waiting-list control group to evaluate the training course.

There is increasing use of the Intervention Mapping protocol for the systematic development of training courses for medical professionals [16,17,27], but it is only recently that researchers have applied the protocol to develop interventions in the context of work disability assessments [16,27]. They found that the protocol, albeit

extensive and time-consuming, is beneficial in this context. This is in agreement with our findings in the present study.

Strengths and limitations of the study

The IM protocol is a substantive protocol, implying that a considerable amount of time is needed to develop an intervention. However, this time-investment seemed to be worthwhile, because the focus of the protocol on practicality and feasibility, as well as the participation of all directly concerned stakeholders in the development of the intervention, seem to have resulted in a training course with great potentials, but the disadvantage is that the training course is only relevant for physicians who perform work disability assessment interviews, and not for other physicians. On the other hand, Bos et al. [28] concluded that training courses need to be based on context-specific needs assessments, which is in agreement with the opinions of the experts who participated in the present study. A strength of this study is that the opinions and experiences of both the Institute and the claimants were used in the development of the training course, thus ensuring its practical relevance and feasibility.

Earlier studies have demonstrated that supervision provided by more experienced physicians is important to facilitate the transfer of the skills that have been learned into practice [29,30]. Although this was confirmed by the experts in our study, due to practical issues it could not be included in the training course. It would, however, be advisable to continue to search for possibilities in this respect. After all, the ultimate aim of such training courses is their generalisation to practice, so that claimants can benefit.

The systematic approach of the IM protocol ensures reproducibility, and therefore implies that the results would be comparable if other researchers performed the same study. However, the choices made in the initial IM steps are crucial, and therefore a difference in choices might result in a difference in emphasis in the development phase, and thus in a totally different training course. Although we made our choices (e.g. which stakeholders to include) very carefully, it is likely that there are also local differences among stakeholders, and that stakeholders of other origin (e.g. physicians or claimants in other countries) would have expressed other needs, resulting in different objectives. The degree of reproducibility is therefore dependent on the context and situation in which the development takes place, but because application of the IM protocol leads to a profound development of interventions, and ensures that no essential steps are left out, the chances of developing at a comparable intervention when including comparable stakeholders, are high.

All the measurements in our evaluation plan will be based on questionnaires. Various other methods of evaluation, such as systematic observations of video-recordings of real assessment interviews, or interviews with simulated claimants, might provide stronger evidence. However, due to practical issues, we had to choose a less time-consuming method of evaluation. We recommend that future studies should use

more robust methods if possible. For example, an extensive RCT could be performed, in which the measurements include observations of actual physician-claimant interviews, instead of only 'paper-and-pencil' measurements. Furthermore, the claimant's opinion about the communication skills of the physician could be taken into account.

Implications

Work disability assessments are performed in many countries [1,3], and always have a big impact on disability claimants, even though the assessments are made in different legal contexts and different procedures may apply. However, when these assessments include face-to-face interviews, communication will obviously influence the process and content of the assessment. Despite common agreement on this matter, our study was the first – to our knowledge – in which an attempt was made to develop an evidence-based communication skills training course for physicians who regularly perform these assessments. Several of our findings with regard to the main objectives, the strategies, and the implementation plan, are relevant for use in other countries than the Netherlands. Preferably, however, the training course should be tailored to the specific practice of work disability assessment in those countries. However, because a large part of our training course focuses on knowledge, awareness, and the communication skills that are relevant for all physicians who perform work disability assessments, and are probably applicable to physicians worldwide, specific tailoring should not be difficult. Due to the fact that IM is not only a systematic, but also a circular approach, the results of our study can be used as a starting point in the tailoring process.

Conclusions

The practical relevance and feasibility of our communication skills training course is promising. Its content is important for physicians in many different countries, and with IM the training course can be tailored to specific local practices. Moreover, the results of our study represent an important advancement in this field, because previously there was no such evidence-based training course available that was tailored to work disability assessments.

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Appendix 8.1: Summary of the training programme.

Manual Professional Claimant Communication

- Day 1: Emphasise on introduction of the interview and gathering information.
- Day 2: Emphasise on gathering information and discussing the conclusion.
- Theme throughout the course: professional involvement.

Day 1

9.30 hours - Getting acquainted

Teaching strategies: plenary

- Teachers introduce themselves (formal/instrumental and empathic/affective).
- Teachers explain their roles: both teacher and role-play actor.
- All participants introduce themselves by answering three questions: (1) who are you (name, etc.)?, (2) do you have any experience with communication skills training courses and related education?, and (3) what do you hope to have learned by the end of this course? The aim is to provide structure and a safe environment.

10.00 hours - Explanation of the programme, aims, and methods

Teaching strategies: plenary

- Basis of the training course: every participant has his/her own personal expertise with regard to the performance of assessment interviews. Singularity of all participants is respected.
- The course topics are predetermined, but all participants will have the opportunity to practice with the situations that they find difficult.

10.15 hours - Theoretical model (self-other model)

Teaching strategies: plenary, interactive

- Short explanation of theory, applied to contact with claimants. The continuous interaction between the communication of the physician (self) and the claimant (other) is highlighted.
- Practice in application of the self-other model.

10.45 hours - Preconditions for learning from the training course

Teaching strategies: plenary, interactive, summary on flip-over

- Focus on safety in the group. What do participants need to participate comfortably?

11.15 hours - Introduction of the assessment interview

Teaching strategies: role-play, video-recordings, brainstorming, group discussion, feedback, hand-outs

- Theme: How do I introduce myself to the claimant, and how do I explain the aims of the assessment interview?
- Participants receive a vignette of a 55-year old construction worker with low back pain and mental complaints. He is surly and uncommunicative. They are not allowed to discuss this vignette with the other participants.
- Each individual participant gives a short introduction – no more than a few minutes – to the first assessment interview with the construction worker (enacted by one of the teachers), as the participant would do in every day practice. These role-plays are recorded.
- Before the group sees the video-recordings, all participants together make a list of criteria that are important in a first introduction.

Day 1 (continued)

12.00 hours - Lunch break

13.00 hours - Introduction of the assessment interview (continued)

- The Korthagen reflection circle is explained, as a method to give adequate feedback to fellow participants.
- The participants watch the video-recordings of the introductions and they are encouraged to give feedback to each other.
- The recordings are evaluated according to the list of criteria.

13.45 hours - Gathering information: concise theory

Teaching strategies: plenary interactive teaching, group discussion, hand-outs

- Both the content of the interview and the process (contact) are always important.
- Short explanation of the theory for each topic (see below). Participants are encouraged to ask questions.
- Short practice of role-play for each topic (one of the teachers plays the role of the claimant).

Topics:

- Types of questions (open-ended, closed, normative, 'why' questions).
- Listening, summarising, asking follow-up questions.
- Using silences as a conversation technique.
- Shifting between the content and the process (contact) of communication.

14.30 hours - Practising assessment interviews

Teaching strategies: plenary role-play, feedback from participants and teachers

- All participants get a chance to practice.
- Main focus on gathering information with an uncommunicative and not forthcoming claimant, with emphasis on the four topics mentioned above.
- Participants are allowed to practise with the types of claimants that they have trouble with and/or situations in the assessment interview that they find difficult, if these are relevant for the topic.
- The following practise cycle is repeated several times:
    - One of the teachers or participants presents a (difficult) situation in the information-gathering phase of an assessment interview.
    - A short role-play takes place, in which one of the teachers plays the role of the claimant. The other participants observe, focusing on the topics mentioned above, and the feedback that should be given on the performance concerning those topics.
    - The participant in the role-play gets the opportunity to reflect on his/her performance in the role-play situation.
    - The other participants and the teacher give feedback on what went well and what could be improved.
    - Another participant, or several other participants, can practise the same situation and receive feedback.

16.15 hours - Review of day 1

Teaching strategies: plenary

- Feedback to teachers. Things that need to be shared.

Day 1 (continued)

16.30 hours - End of day 1

Day 2

9.30 hours - Review of day 1 and preview of day 2

Teaching strategies: plenary

10.00 hours - Non-verbal behaviour

Teaching strategies: plenary interactive teaching, group discussion, hand-outs

- Explanation and discussion of how and what non-verbal behaviour contributes to the assessment interview. What a physician can do with the non-verbal behaviour of a claimant. How to interpret non-verbal behaviour. How to give proper feedback.

Teaching strategies: plenary role-play, feedback from participants and teachers

- Practising assessment interviews with a focus on non-verbal behaviour of both physician and claimant:
  - One of the teachers or participants presents a (difficult) situation in the information-gathering phase of an assessment interview.
  - There is a short role-play, in which one of the teachers plays the role of the claimant. The other participants observe, focusing on the topics mentioned above and what feedback should be given on the performance concerning those topics.
  - The role-playing participant has the opportunity to reflect on his/her performance in the role-play situation.
  - The other participants and the teacher give feedback on what went well and what could be improved.
  - Another participant, or several other participants, can practise the same situation and receive feedback.

10.30 hours - Giving and receiving feedback in an assessment interview

Teaching strategies: plenary interactive teaching, group discussion, hand-outs, plenary role-play, feedback from participants and teachers

- Discussing theory about feedback.
- Practicing assessment interviews with a focus on giving and receiving feedback. The same procedure is applied as described for 'non-verbal behaviour'.
- Both positive and negative feedback: compliments and criticism.

11.00 hours - Discussing the conclusions of the assessment interview

Teaching strategies: plenary interactive teaching, group discussion, hand-outs, plenary role-play, feedback from participants and teachers

- Discussing theory about sharing conclusions with claimants, based on methods for breaking bad news. The focus is on situations in which the claimant disagrees with the physician about the conclusion.
- Practising assessment interviews, with a focus on discussing the conclusions of the assessment and breaking bad news. The same procedure is applied as described for 'non-verbal behaviour'.

12.00 hours - Lunch break

Day 2 (continued)
13.00 hours - Discussing the conclusions of the assessment interview (continued) *Teaching strategies: plenary role-play, feedback from participants and teachers* • Practising the closing of assessment interviews and discussing the conclusions of the assessment with claimants, thereby paying attention to breaking bad news, non-verbal behaviour, and giving feedback. The same procedure is applied as described for 'non-verbal behaviour'.
15.00 hours - Personal Action Plan *Teaching strategies: plenary quiescence, group discussion* • Each participant thinks in silence about what he or she will do differently in the next assessment interview, after this two-day training course. These intentions should be well-defined and concrete. • Each participant explains his or her intentions to the other participants.
16.00 hours - Review of days 1 and 2 Oral and written evaluation.
16.30 hours - End of the training course

Chapter 9

Communication skills training for physicians performing work disability assessments increases knowledge and self-efficacy

Results of a randomised controlled trial

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Submitted

Abstract

Objectives: The aim of this study was to assess whether a two-day, post-graduate communication skills training course, focussing on physician-claimant communication during work disability assessment interviews, would increase physicians' competence and knowledge with regard to communication during these interviews, and would change the determinants of their communication behaviour.

Methods: A two-armed randomised controlled trial was performed, with a waiting-list control group. At baseline and at follow-up, 42 physicians completed questionnaires. The primary outcome measures were competence and knowledge about communication during assessment interviews with work disability claimants. The secondary outcome measures were 21 self-reported determinants of communication behaviour. Differences were analysed by performing one-way analysis of variance and one-way analysis of covariance. For a process evaluation, the physicians rated their opinions about the course on a ten-point scale.

Results: There was no significant difference between the intervention group and the control group in overall competence after the training course. A significant difference in competence was found only for one of the three phases of the interview, i.e. the introduction phase, in favour of the intervention group ($p=0.014$). Knowledge about communication was significantly higher ($p=0.001$) in the intervention group than in the control group, especially concerning the information-gathering phase of the interview ($p=0.001$). For the secondary outcomes, the intervention group scored significantly better on 7 of the 21 self-reported determinants of communication behaviour, including self-efficacy, intentions, skills, and knowledge. The participants were very satisfied with the training course (the mean scores ranged between 8.4 and 9.1).

Conclusions: The communication skills training course may improve some aspects of physician communication, but not all. Nevertheless, the physicians who participated were unanimously positive about the training course, and this warrants further development.

Trail registration: NTR 2287

Introduction

Worldwide, there is an increased awareness of the importance of physician-patient communication in medical encounters [1-3]. As a result, many different communication skills training courses are available for physicians, effective and ineffective, some of which are tailored to a specific medical specialism [4,5]. However, for physicians who perform work disability assessments, no such courses have been described in the literature, or systematically evaluated. This is a striking deficit, because there is a lot at stake for disability claimants during the work disability assessment that the physician performs. Moreover, communication is the physician's main method of gathering information during the assessment interview [6-9]. To fill this gap, we had already developed a post-graduate communication skills training course for physicians who perform work disability assessments [10]. In the past three years we have carried out research on this development, based on a theoretically conceptualised framework [11]. This research included extensive questionnaire studies among physicians [12] and claimants [13], both before and after the assessment interviews [14], and a focus group study among physicians [15]. We also made an overview of systematic reviews to identify effective training strategies [16]. However, we do not yet know whether the training course that we have developed is of added value for physicians, and whether it is capable of influencing their skills in communication with claimants.

The main aim of this study was to assess whether the training course focussed on physician-claimant communication during work disability assessment interviews would increase the physicians' competence and knowledge with regard to communication. We also aimed to assess whether the determinants of the communication behaviour of the physicians changed as a result of the course. These determinants were attitudes, social influence, self-efficacy, intentions, self-perceived barriers, and self-perceived skills. Moreover, we were interested in the opinions of the participating physicians with regard to the methods and content of the course, and the skills learned, because these could provide suggestions for improvement.

We hypothesised that the physicians who attended the training course would have higher levels of competence and knowledge than those who did not. With regard to the secondary aims, we hypothesised that the physicians' attitudes, social influence, self-efficacy, intentions, and self-perceived knowledge, skills, and perceived barriers would have changed in a favourable direction after attending the training course, along the lines of the Theory of Planned Behaviour [11,17-19]. Moreover, we hypothesised that the opinions of physicians with regard to the training course would be positive, because we took their needs and opinions into consideration when developing the course (by following the Intervention Mapping protocol [10]).

Methods

Study design and setting

This study was a two-armed randomised controlled trial (RCT), carried out among social insurance physicians working for the Dutch Institute of Employee Benefit Schemes ('the Institute'). The main task of these physicians is to perform assessment interviews to evaluate the work abilities and disabilities (including sickness, impairments, prognosis, recovery behaviour) of employees who are unable to work and are claiming a work disability benefit ('claimants') [20,21]. Although practice varies considerably among countries, work disability assessments are often performed by specialised physicians, not only in the Netherlands (where this study was performed), but also in other countries [7,9]. The study was registered in the Dutch Trial Register (NCT number 2287) and the Medical Ethics Committee of the VU University Medical Center informed us that the study did not need ethical approval.

Study population and recruitment

Between December 2009 and April 2010, participants were recruited by informing the managerial staff of the Institute about the study and asking them to raise awareness, by distributing flyers, newsletters, and e-mails among physicians, and by giving presentations at front offices of the Institute (the recruitment process has been described in more detail elsewhere [10]). We asked all physicians who enrolled for the study to answer some questions to check whether they met the inclusion criteria. These inclusion criteria were: working as a social insurance physician, working for the Dutch Institute of Employee Benefit Schemes, and performing face-to-face assessment interviews. Executive social insurance physicians (supervisors) and physicians who had been working as a social insurance physician for less than one year were excluded. Before the end of the inclusion period, 48 social insurance physicians had been included. These physicians had either applied for participation in the study on their own account, or their supervisor had advised them to apply.

Randomisation

Randomisation was performed at the level of the physician. An independent statistician provided computer-generated the randomisation scheme with which the participants were randomly assigned to either the intervention group or the control group. Randomisation was stratified according to the degree of experience as a social insurance physician (over 7 years of experience was classified as much experience, and 7 years or less as little experience), gender, and whether or not long-term work disability assessment interviews had been performed in the past year (as opposed to sickness certification or other short-term disability assessments). A research assistant performed the randomisation and informed the physicians about when they could attend the course.

Interventions

Control group

Physicians in the control group were put on a waiting-list, and were only allowed to attend the course after they had completed all measurements. During their under-graduate and post-graduate education, all physicians have attended some courses that have addressed claimant communication. However, none of the participants had attended a course comparable to the present intervention. Therefore, their current method of communication could be considered a 'steady state', and the waiting-list condition was regarded as 'care as usual'.

Communication skills training course

Physicians in the intervention group attended a two-day, post-graduate communication skills training course. We developed this training course during the past three years by conceptualising a theoretical model [11], performing questionnaire studies [12-14], a focus group study [15], and a literature review [16], and using the Intervention Mapping protocol [10]. The training course focuses on professional communication with claimants during assessment interviews to determine their entitlement for a work disability benefit. Communication during the start and introduction of the interview, the phase of gathering information about the work disabilities, and the phase of discussing the conclusions and closing the interview were addressed successively. The main topics that were addressed in the training course were: introducing oneself; explaining the aim of the assessment interview; asking different types of questions (e.g. open-ended, directive, leading); listening, verifying understanding, and asking follow-up questions; summarising; using silences; switching between content and process; non-verbal communication; giving feedback; and explaining the conclusions. Active teaching techniques were applied, such as group-wise role-play, feedback on performance provided by the other physicians and the teachers, self-reflection, video-recordings, brainstorming, and group discussions of theory. The two teachers of the course, who were recruited from the Educational Department of the Institute, received instructions and a detailed manual from the researchers. The same teachers taught all the groups, and because of the active teaching methods, the groups were limited to a maximum of 12 participants. Therefore, the training course was given four times (including the courses after the study had ended for physicians in the control group). The development and content of the intervention is described in more detail elsewhere [10].

Data-collection and outcome measures

All measurements were performed on the basis of questionnaires. Participants in the intervention group completed a baseline questionnaire before they attended the training course (T1) and a post-test questionnaire at follow-up (T2). Participants in the control group completed the same two questionnaires with an interval of

approximately one and a half weeks, without taking part in the training course at that moment. Additionally, all participants in the intervention group completed an evaluation form after the training course.

Primary outcome measures

This study had two primary outcome measures. The first was the competence of the physicians, which was defined as noticing potential difficulties in the communication and knowing how to adjust the communication in order to prevent such difficulties from occurring [22-24]. We assessed competence with a vignette of a sick-listed claimant applying for a disability benefit, about which open-ended questions were asked. Both groups completed this measurement only at T2. Two authors (HJvR and AJMS), who were blinded for the group allocation, independently scored the responses to the open-ended questions according to an agreed list of correct answers. Points were awarded for each correct answer and for each partially correct answer. Disagreements were resolved in a consensus meeting, but if no consensus could be reached the third author (JRA) made the final decision.

The second primary outcome measure was the physician's knowledge about communication with claimants during disability assessment interviews. Knowledge was measured with true-false questions with regard to the start and introduction of the interview (10 questions), the phase of gathering information during the interview (29 questions), and the phase of explaining the conclusions and closing the interview (10 questions). The formulation of these questions was based on the findings of our previous research. Both groups completed these measures at T1 and T2, and at both points in time the questions were identical, but their order was different.

In addition to the analysis of overall competence and knowledge, we studied changes in competence and knowledge for each phase of the assessment interview separately: (1) the start and introduction of the interview, (2) the phase of gathering information during the interview, and (3) the phase of explaining the conclusions and closing the interview.

Secondary outcome measures

Determinants of the physician's communication behaviour were secondary outcome measures. These determinants were attitudes, social influence, self-efficacy, intentions, self-perceived barriers, self-perceived knowledge, and self-perceived skills with regard to communication with work disability claimants. Three aspects of these self-reported determinants were measured with one self-reported question for each aspect (see Table 9.3) rated on a 10-point scale, ranging from totally disagree (1) to totally agree (10). Both groups completed this questionnaire at T1 and T2 (the questionnaire was identical at T1 and T2).

Process evaluation

The process evaluation was based on the opinions of the physicians about the training methods, the contents of the course, and the degree to which they believed that they had learned the skills they had been taught. These opinions were expressed on an evaluation form, which all participants completed directly after the course. All answers were rated on a 10-point scale, ranging from totally disagree (1) to totally agree (10), or from very negative (1) to very positive (10), depending on the content of the question. The participants were asked about their overall appreciation of the training course, as well as their opinion about the training method (e.g. was the role-play useful?), the relevance for daily practice, the level of their communication skills (for each of the 10 earlier mentioned main topics that were addressed in the course) after the course compared to before the course, the quality of the teachers, and whether the course was interesting and enjoyable.

Statistical analysis

All analyses were performed at individual level in SPSS 15.0.

Baseline characteristics

Baseline measurements, age, gender, number of hours per week working as a social insurance physician, practical experience as a social insurance physician (little or much), and having attended other communication-related courses in the past year (yes or no) were compared between the intervention group and the control group. The differences in the continuous variables were tested for statistical significance using a t-test for independent samples, and the differences in the categorical variables were analysed with a Chi-square test ($p<0.05$). When necessary, due to differences at baseline between the intervention group and the control group, we adjusted for these variables in further analyses.

Primary outcome measures

For the outcome measure competence, the Pearson Product-Moment Correlation Coefficient was calculated for inter-rater agreement between the two raters, before final consensus. For further analysis, a total score was computed from the consensus scores by adding up all the points awarded for correct answers for each participant. A One-Way Analysis of Variance (ANOVA) was performed ($p<0.05$) to determine whether the scores of the intervention group differed significantly from those of the control group. Potential confounding and effect modification were checked.

To compute a score for knowledge, the number of correct responses to the true-false questions was calculated for each participant. Unanswered questions were considered to be incorrect. A One-Way Analysis of Covariance (ANCOVA) was performed ($p<0.05$) to study the differences between the intervention group and the control group. The independent variable, attending the training course, consisted of

two levels: course (intervention) and waiting-list (control). The dependent variable was knowledge (number of correct responses) at follow-up (T2) and the covariate was knowledge at baseline (T1). Potential confounding and effect modification were checked.

In addition to the analysis of overall competence and knowledge, we also studied changes in competence and knowledge for each phase of the assessment interview separately.

Secondary outcome measures

The mean scores for each self-reported determinant of communication behaviour were calculated. The intervention group and the control group were compared by performing ANCOVA ($p<0.05$) for each determinant separately. Attending the

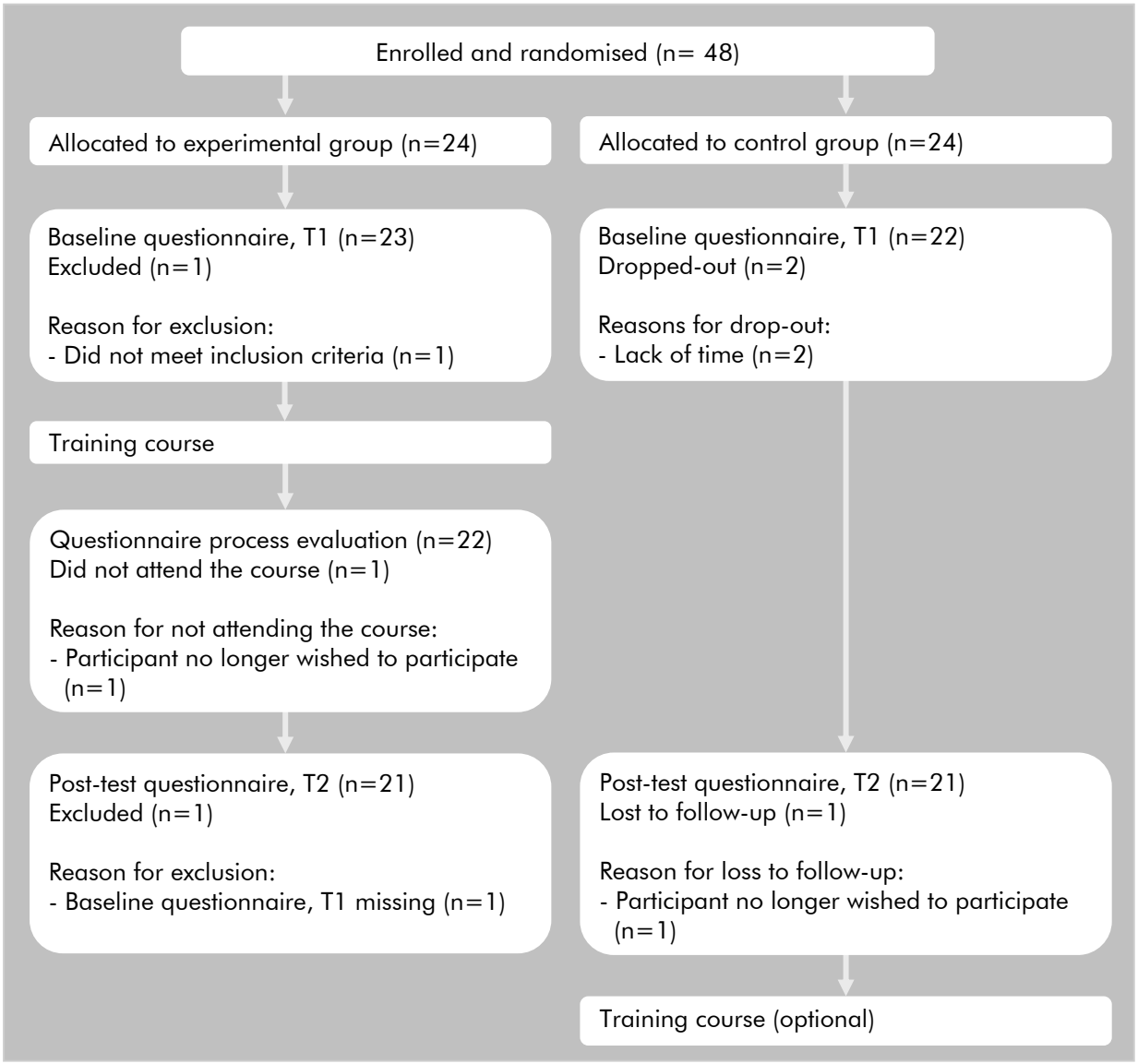

Figure 9.1: Flow chart of physicians in the study.

training course was the independent variable (two levels: intervention or control), the value of the determinant of communication behaviour at follow-up (T2) was the dependent variable, and the value of the determinant of communication behaviour at baseline (T1) was the covariate. Potential confounding and effect modification were checked.

Process evaluation

From the responses of the physicians in the intervention group on the evaluation form, the means scores and their standard deviations (SD) were calculated for each questionnaire item.

Results

Physicians flow

Figure 9.1 presents a flow chart of the physicians in the study. Of the 48 physicians who applied, 42 (87.5%) participated in all measurements and were included in the study.

Baseline characteristics

At baseline, the physicians in the intervention group did not differ significantly from those in the control group with regard to demographic variables (see Table 9.1). There were also no significant differences at baseline between the primary and secondary outcome measures, except for the three items concerning the self-reported skills with regard to communication behaviour (see Table 9.3). These determinants of behaviour were significantly higher in the intervention group than in the control group (p=0.046, p=0.007; p=0.021), but the magnitude of the differences did not seem to be clinically relevant.

Table 9.1: Descriptive information[a] about the demographical and background variables.

	Intervention (n=21)	Control (n=21)	Difference (p-value)
Age	48.1 (7.5)	51.8 (6.3)	0.09
Working hours/week	35.1 (6.1)	34.3 (6.5)	0.70
Gender			0.76
Female	57.1	52.4	
Male	42.9	47.6	
Experience			0.55
Much (>7 years)	90.5	95.2	
Little (≤7 years)	9.5	4.8	
Other courses			1.00
Yes	19.0	19.0	
No	81.0	81.0	

[a] Means and standard deviations are given for continuous variables; percentages are given for the difference categories of categorical variables.

Primary outcome measures

For 67.7% of the items of the vignette measuring competence, both raters gave an identical score, for 30.2% their scores differed one point, and for the remaining 2.1% their scores differed two points. The Pearson Product-Moment Correlation Coefficient comparing the scores of the two raters for all items was 0.79. For the three phases of the interview these correlations were 0.83 (introduction), 0.74 (information-gathering), and 0.77 (closing).

No significant differences in overall competence were found between the intervention group and the control group ($p=0.48$). The intervention group scored an average of 22.1 points ($SD=6.4$) and the control group 20.9 points ($SD=5.1$) out of a total of 45 points. A significant difference in competence was found for one of the three phases of the assessment interview: the introduction phase ($p=0.014$). The intervention group scored an average of 7.0 points ($SD=2.7$) and the control group 4.8 points ($SD=2.7$) out of a total of 13 points. For the information-gathering phase and the phase of explaining the conclusions no significant differences were found ($p=0.43$ and $p=0.92$, respectively).

After the course, the physicians in the intervention group had significantly more overall knowledge about communication during work disability assessment interviews than the physicians in the control group ($p=0.001$). At follow-up, the physicians in the intervention group answered 79.6% of the questions correctly, compared with 70.9% in the control group. The separate analyses of the three phases of the assessment interview showed that the physicians in the intervention group had significantly more knowledge about the information-gathering phase ($p=0.001$) than the controls, but they did not have more knowledge about the other phases. With regard to the information-gathering phase, physicians in the intervention group answered 80.0% of the questions correctly at follow-up, compared to 69.4% in the control group. A marginal significance ($p<0.10$) was found for knowledge about the start and introduction ($p=0.069$), with 84.8% of the questions answered correctly in the intervention group and 77.1% in the control group. There were no differences with regard to knowledge about explaining the conclusions and closing the interview ($p=0.554$). These findings are summarised in Table 9.2.

Secondary outcome measures

For 7 of the 21 determinants of communication behaviour (33.3%), the intervention group scored significantly better than the control group (see Table 9.3). Improvements were found in all three aspects of self-efficacy ($p=0.004$, $p=0.044$, and $p=0.004$), intention to pay special attention to communication during the assessment interview ($p=0.016$), both knowledge aspects ($p=0.001$ and $p=0.001$), and skills with regard to communication and conversation techniques ($p=0.004$). The self-efficacy aspects that improved concerned ability to handle formal aspects of the content, to handle relationship aspects and contact, and to relate to the claimant. The self-reported

knowledge aspects that improved were knowledge of communication and conversation techniques, and knowledge of the process aspects of the communication. Additionally, self-reported skills with regard to the process aspects of the communication (e.g. how to communicate and relate to the claimant, instead of what to say and ask) showed a marginally significant improvement (p=0.098).

Effect modification was found for two self-reported determinants of communication behaviour – i.e. self-reported general knowledge and general skills. An interaction effect was found between group (intervention or control) and the score for the determinant of behaviour at baseline. For both variables, it seemed that when participants had a low scores at baseline, they performed better at follow-up in the control group than in the intervention group.

Process evaluation

All ratings on the evaluation form were high, which indicates that the participants appreciated the training course very much. They also indicated that their communication skills with regard to all ten main topics that were addressed in the training course had improved after attending the course. The highest mean evaluation

Table 9.2: Descriptive information[a] and results with regard to the primary outcomes (percentages correct and standard deviations).

	Intervention (n=21)		Control (n=21)		p-value[a]
	Baseline	Follow-up	Baseline	Follow-up	
Competence (overall)	**-**	**22.1 (6.4)**	**-**	**20.9 (5.1)**	**0.477**
Competence concerning the start and introduction of the interview	-	7.0 (2.7)	-	4.8 (2.7)	0.014*
Competence concerning the information-gathering phase of the interview	-	11.2 (3.8)	-	12.1 (3.2)	0.433
Competence concerning the phase of explaining the conclusions and closing the interview	-	4.0 (1.4)	-	3.9 (1.7)	0.923
Knowledge (overall)	**65.4 (10.4)**	**79.6 (9.2)**	**67.8 (10.9)**	**70.9 (6.7)**	**0.001***
Knowledge concerning the start and introduction of the interview	61.9 (16.6)	84.8 (15.4)	61.0 (16.1)	77.1 (11.5)	0.069
Knowledge concerning the information-gathering phase of the interview	63.4 (12.9)	80.0 (10.2)	67.0 (12.8)	69.4 (8.9)	0.001*
Knowledge concerning the phase of explaining the conclusions and closing the interview	76.2 (12.0)	73.3 (17.1)	78.1 (16.6)	70.5 (16.3)	0.554

* Significant differences between intervention and control group; p-values were corrected for confounding when necessary.

Table 9.3: Descriptive information and results with regard to the secondary outcomes (means and standard deviations, measured on a scale of 1-10).

	Intervention (n=21)		Control (n=21)		p-value
	Baseline	Follow-up	Baseline	Follow-up	
Attitude showing involvement and concern	7.6 (1.5)	7.8 (1.4)	7.7 (1.3)	7.9 (1.0)	0.762
Empathic attitude in communication	7.6 (1.4)	7.9 (1.4)	7.7 (1.6)	7.9 (1.5)	0.840
Formal, instrumental attitude in communication	6.6 (2.0)	6.5 (1.4)	7.1 (1.9)	6.7 (1.9)	0.933
Social influence of the opinion of colleagues on communication	5.3 (2.1)	5.5 (2.0)	5.1 (2.2)	4.8 (1.7)	0.337
Social influence of the opinion of supervisors on communication	4.1 (2.1)	4.4 (1.9)	4.2 (2.4)	3.9 (1.9)	0.379
Social influence of the opinion of claimants on communication	6.8 (1.6)	6.7 (1.9)	6.4 (2.0)	6.3 (2.3)	0.856
Self-efficacy about being able to handle formal aspects (content aspects)	7.7 (1.2)	8.2 (0.9)	7.1 (1.5)	7.2 (0.8)	0.004*
Self-efficacy about being able to handle relationship aspects and contact	7.8 (0.9)	8.0 (0.9)	7.2 (1.7)	7.2 (1.0)	0.044*
Self-efficacy about being able to relate to the claimant	5.2 (1.9)	6.1 (1.7)	5.5 (2.1)	4.9 (2.3)	0.004*
Intention to be empathic in the communication	6.8 (1.8)	7.0 (2.0)	6.7 (1.8)	6.3 (2.0)	0.292
Intention to be formal in the communication	5.9 (2.1)	5.8 (1.8)	6.3 (1.6)	5.6 (1.8)	0.578
Intention to pay special attention to communication during the interview	6.5 (2.2)	7.0 (2.0)	6.8 (2.0)	5.7 (2.0)	0.016*
Barriers caused by limiting conditions (e.g. no interview room)	4.3 (2.9)	5.1 (2.9)	4.8 (2.6)	4.9 (2.3)	0.224
Barriers caused by the claimant	4.9 (2.2)	5.1 (1.6)	5.0 (2.3)	4.8 (2.1)	0.619
Barriers caused by the degree of security	5.9 (2.5)	6.1 (2.2)	6.1 (1.6)	5.7 (2.1)	0.405
Knowledge with regard to communication and conversation techniques	6.8 (1.3)	7.7 (0.8)	6.3 (1.6)	6.4 (1.2)	0.001*
Knowledge with regard to the process of communication (e.g. how to communicate with claimants)	6.2 (1.3)	7.5 (1.0)	5.3 (2.0)	6.0 (1.4)	0.001*
General knowledge about communication during assessment interviews	7.1 (1.5)	7.7 (1.0)	6.4 (1.6)	6.9 (0.8)	[b]
Skills with regard to communication and conversation techniques	6.8 (1.4)	7.4 (1.0)	5.9 (1.4)[a]	6.2 (1.0)	0.004*
Skills with regard to the process aspects of the communication	6.3 (1.2)	7.1 (1.1)	5.0 (1.7)[a]	6.1 (1.0)	0.098
General skills with regard to communication during assessment interviews	7.2 (1.4)	7.4 (1.1)	6.2 (1.3)[a]	6.6 (0.9)	[b]

[a] Statistically significant difference ($p<0.05$) at baseline between intervention and control group; [b] No p-value can be reported because of effect modification; * Significant differences between intervention and control group; p-values were corrected for confounding when necessary.

scores were for the items concerning the quality of the teachers (9.1; SD=0.9) and the teachers' expertise concerning the content (9.1; SD=0.9). The lowest mean score was for the item about achieving pre-set learning goals (8.4; SD=1.1). The standard deviations were generally small, ranging from 0.7 for overall appreciation, to 1.1 for achieving learning goals that were formulated before the training course.

Discussion

Main findings

The overall competence of physicians after the training course did not differ between the intervention group and the control group, although competence concerning the introduction phase of the assessment interview did differ significantly. We found that the physicians' overall knowledge about the communication was significantly higher in the intervention group, especially knowledge concerning the information-gathering phase of the interview. However, knowledge regarding the start and introduction of the interview also tended to be significantly higher. With regard to the secondary outcome measures the intervention group scored significantly higher than the control group, for 7 of the 21 self-reported determinants of communication behaviour, including self-efficacy, intentions, skills, and knowledge. The opinions of the participants about the training course (e.g. the course as a whole, its training methods, its contents, its teachers, the degree to which it taught them relevant skills) were very positive, and they were very satisfied with the course.

Interpretation of the findings

The lack of an overall difference in competence may have several causes: (1) the training course might not have been intensive or specific enough to improve competence, or (2) the outcome measure might not have been realistic and/or sensitive enough to establish differences in competence between the intervention group and the control group. With regard to the first potential cause, on the one hand we included generally effective training strategies in the training course [16] and used the Intervention Mapping protocol in the development phase to warrant practical relevance, feasibility, and relevance for the target population [10]. On the other hand, studies on the effectiveness of communication skills training for physicians in general, have reported mixed results, and in many cases improvements were found on some outcome measures but not on others (e.g. [2,25,26]). Moreover, most of the physicians had been performing disability assessments for many years, which made them a difficult target group in which to change communication behaviour in just two days.

With regard to communication in the concluding phase of the assessment interview, we found no improvements in either competence or knowledge. This is in contrast to the results of other studies, in which improvements were found in bringing

bad news [27,28] – which was the main ingredient of the training course in this phase. This may be because it is a difficult topic to study with a vignette. Another explanation is that it is one of the most difficult tasks of a physician [27,29,30], and therefore the skills should have been practiced more comprehensively, but due to time limitations this was not feasible in the present study.

On two thirds of the secondary outcome measures, i.e. the self-reported determinants of communication behaviour, we found no differences between the intervention group and the control group after the training course. This may be because our intervention did not explicitly address these determinants of behaviour. Again, other studies have also reported mixed results concerning attitudes [31-34]. The most pronounced effect we found was on self-efficacy: the intervention group scored better on all three aspects of self-efficacy than the control group. This is also in agreement with the results of several other studies [33,35,36].

The process evaluation did not give any indications for further improvement of the training course, because all the participants were very positive about the entire content. However, high satisfaction cannot be considered as the sole indicator of the success of the training course, because self-reported levels of communication skills are not necessarily correlated to objective measures [37].

Strengths and limitations

This study has several strengths and limitations. One great strength is its innovative nature – focussing on the universally important issue of physician-claimant communication in work disability assessment interviews. Another strength is the low drop-out rate and high compliance rate (all participants who attended were present all of the time on both days, and all of them actively participated), especially because physicians in general tend to be anxious with regard to role-play and personal feedback. Thirdly, we were able to perform a randomised trial with a control group, and therefore it is unlikely that the results are influenced by the coincidental differences between participants that we could not control for (for example differences in the importance that their supervisors attach to claimant-communication).

One of the problems we encountered in this study was that we had to develop a new instrument, because there was no suitable ready-to-use instrument to measure competence and knowledge that was tailored to assessment interviews. Although we pilot-tested the new instrument before using it in the RCT and the inter-rater agreement was found to be satisfactory, the instrument was not optimal, and the vignette was an artificial measure, which has disadvantages. It is most likely that the instrument used to measure competence gave an under-estimation of the effects of the course on communication skills, because it is intended to denominate and explicate partly implicit skills and therefore physicians are likely to forget some aspects which they would have applied in a real-life situation. The instrument used to measure knowledge probably over-estimated the level of knowledge, because by chance 50%

of the answers would already be correct, but the comparison between the intervention group and the control group this did not play a role. Future studies should further investigate this measurement instrument and other alternatives. A second limitation is that we were not able to investigate whether knowledge about communication and competence with regard to the introduction was sustained in the long term, and the training course did not include a follow-up session after the participants had time to apply what they had learned in daily practice. A third problem was the difficulty we had in preventing contamination between the groups and blinding the participants. The participants were asked not to talk to their colleagues about the training course or the measurements until the study was over. They were willing to comply with this, but some exchange of information with the control group cannot be excluded, and this may have decreased the contrast between the intervention group and the control group. Moreover, although the participants in the control group were not explicitly told that they were in the control group, they could have deduced this because they were asked to complete two questionnaires prior to being allowed to participate in the training course, while the other participants were only asked to complete one before the course (and one after the course). Although it is unlikely that this had any influence on the primary outcomes, it is possible that the responses with regard to the secondary outcomes, especially in the control group, were influenced.

Implications for research and practice

Future studies should try to validate and develop appropriate measurement instruments tailored to communication in the disability assessment context. Our present attempt may be a starting point for a future questionnaire, but efforts should be made to develop observation instruments as well, because sound and video-recordings probably provide a more accurate assessment of actual communication skills. In addition, more research is needed to investigate the strengths and weaknesses of the current version of the communication skills training, and to further develop the course. This could be done by consulting the participants and teachers about aspects that need to be improved, for example by including in-depth interviews or focus group interviews, since these could not be deduced from the results of the evaluation forms. Moreover, we recommend that the course should be offered again, but in an adapted version, which should be improved on the basis of our experiences, and if possible with each phase of the assessment interview addressed in a separate module to provide more time. The main reasons for this advice are, on the one hand, the positive opinions of the participants and their enthusiasm, and, on the other hand, the under-recognised importance of communication skills in their work and their relatively low scores for answers to the vignette questions. If other teachers are recruited, attention should be paid to ensure appropriate training of the teachers, because in the present study the teachers were very experienced and very familiar with the disability assessment context, which may have contributed to the success of the

training course. The training course should preferably be accompanied by a new evaluation study. In addition, more post-graduate training is recommended, as well as more intensive under-graduate training in the communication skills needed for disability assessments. In educational settings, more attention should be paid to professional communication in determining entitlement to work disability benefits.

Conclusions

The results of the present study demonstrate the potentials of a communication skills training course, developed from extensive research, to improve not only knowledge about communication during work disability assessment interviews, but also competence in the communication during the introduction of the interviews. According to the physicians who participated, attending the course improved their communication skills and self-efficacy in communication. These promising results with regard to the complex task of addressing the communication of physicians with work disability claimants, warrant further development of the training course.

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Chapter 10

General discussion and conclusions

The main focus of this thesis was the development and the evaluation of the communication skills training course 'Professional Claimant Communication' for social insurance physicians performing work disability assessments. In this final chapter, some of the issues that have been raised in the foregoing chapters will be linked to each other and some new subjects of discussion will be addressed. This chapter starts with an overview of the main findings of this thesis. Next, methodological considerations are addressed, and future research directions are dicussed. Also, the implications for social insurance physicians and the relevance for physicians in general is addressed. The chapter ends with the main conclusions for each of the objectives of this thesis.

Main findings

The first objective of this thesis was to explore the determinants of the communication behaviour of social insurance physicians during assessment interviews for disability benefits, as well as those of work disability claimants.

- A study of the literature **(chapter 2)** showed that the Theory of Planned Behaviour (TPB) was a good starting point for the conceptualisation of a behavioural model for the study, for both social insurance physicians and claimants.
- A questionnaire study among social insurance physicians gave empirical support for the conceptualisation of the physician's preparation of the interview **(chapter 3)**. The study showed that intentions of social insurance physicians, especially intentions to give information and to consider personal aspects, could be explained by a combination of determinants of behaviour. The main determinants of these intentions were attitudes, self-efficacy, and barriers with regard to the communication with claimants.
- A questionnaire study among disability claimants gave insight into the usefulness of the conceptualisation of the preparation of claimants **(chapter 4)**. It showed that three types of claimants could be distinguished: insecure support-seeking claimants, confident claimants, and socially isolated claimants. Especially the levels of self-efficacy, skills, social support, and intentions with regard to the communication seemed to distinguish these claimant types from each other.
- The same questionnaire study **(chapter 4)** showed that the three earlier mentioned types of claimants perceived the communication with the social insurance physician differently. Insecure support-seeking claimants were satisfied with the communication and confident claimants were highly satisfied, but socially isolated claimants were unsatisfied.
- A comparison of the expectations of claimants during their preparation before the assessment interview and their opinions afterward **(chapter 5)**, showed that claimants – despite somewhat negative expectations – were rather satisfied with the communication after the interview. In addition, we found that social insurance

physicians were fairly able to accurately assess the opinion of claimants about the communication. Nevertheless, they tended to overestimate the opinions of the claimants, who were less positive than the physicians thought.

- Focus group meetings with social insurance physicians **(chapter 6)** gave more insight into claimants' communication behaviour during the assessment interview as perceived by social insurance physicians. We found that during the assessment interview, the most important determinants of the communication behaviour of claimants, as perceived by social insurance physicians, were the degree of respect that claimants show in the physician-claimant relationship and claimants' dominance in the communication.

The second objective of this thesis was to develop a post-graduate communication skills training course for social insurance physicians and to evaluate this training course. For this, the findings of the first objective were used, as well as additional information.

- To get more insight into the best training strategy we performed a review of systematic reviews **(chapter 7)**, which showed that training courses for physicians should include active, practice-oriented strategies. Oral presentations about communication skills, modelling, and written information should only be used as supportive strategies.
- All findings were combined using the Intervention Mapping protocol as a guide **(chapter 8)**. This resulted in a communication skills training course, of which the feasibility and practical relevance seem promising.
- The evaluation of the training course for social insurance physicians **(chapter 9)** showed that it may improve some aspects of their communication with claimants, but not all. Competence with regard to the introductory phase of the interview, knowledge, self-efficacy, intentions, self-reported skills, and self-reported knowledge concerning communication in work disability assessments improved. The social insurance physicians who participated in the course were unanimously very positive about it.

Methodological and practical considerations

Several methodological and practical considerations were discussed in the foregoing chapters. Below, some additional considerations are addressed.

Considerations regarding the exploration of communication behaviour

Was the TPB the right starting point?

No theoretical model for understanding social insurance physician-claimant communication was available before, as far as we know. In chapter 2 we explained why a behavioural model, more specifically an adjusted version of the TPB, would be

appropriate and useful to apply to the communication between social insurance physicians and disability claimants. Also, the Social-Cognitive Theory turned out to provide a helpful behavioural theory-based method in the development of the intervention (chapter 8). An important consequence of choosing a behavioural model for these studies in an early stage of the project is that it forced to focus, which is helpful but may also result in overlooking concepts that are positioned outside of the model (e.g. habitual behaviour).

Although our findings presented in chapters 3-6 confirmed the usefulness of the model for exploring determinants of communication behaviour, our findings did indicate that the first model should be adjusted. Several alterations in the model are

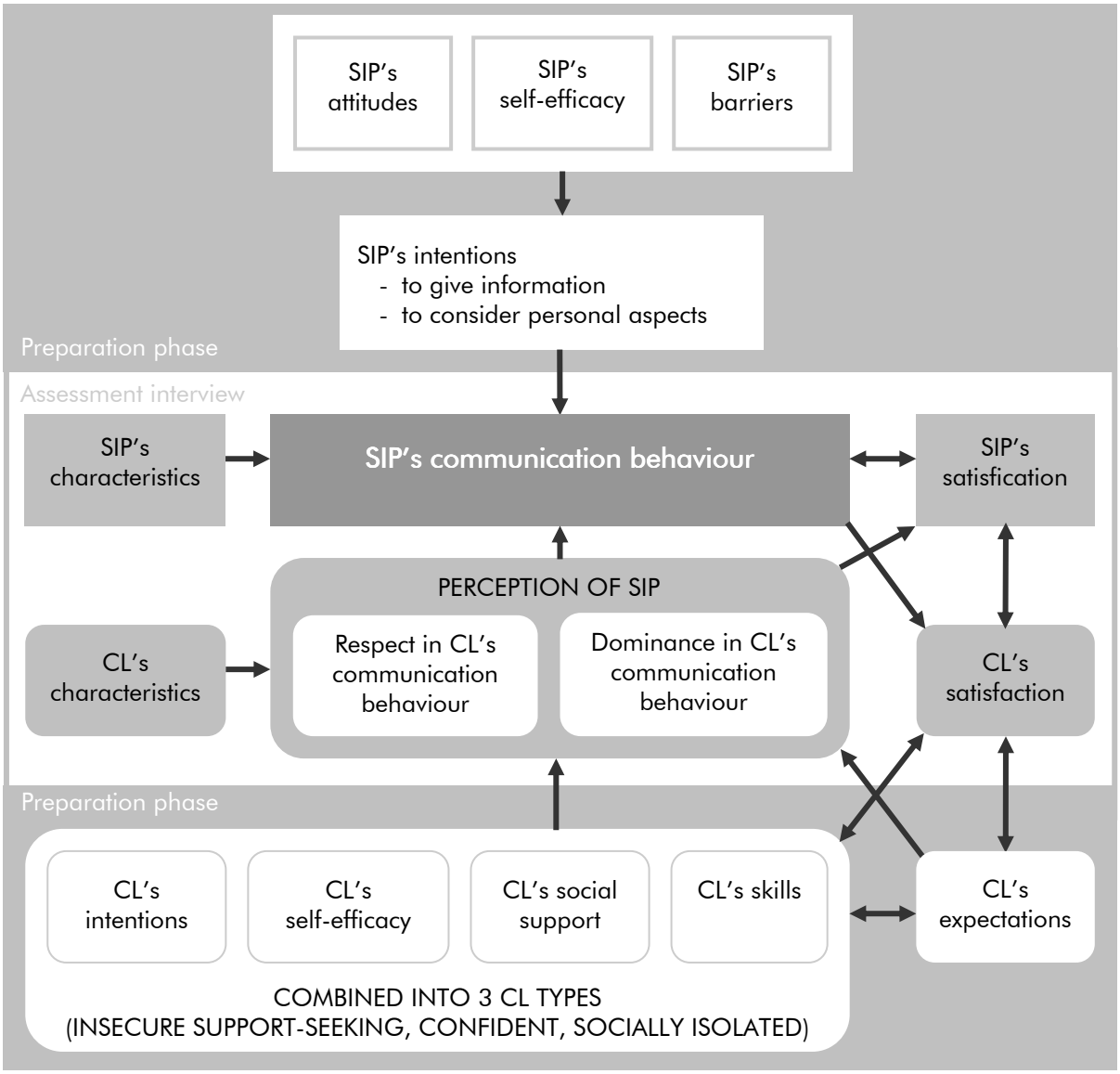

Figure 10.1: Adjusted model regarding the communication behaviour of social insurance physicians (SIP) with work disability claimants (CL) during assessment interviews (chapter 2 described the original model).

therefore proposed, leading to the adjusted model presented in Figure 10.1:

- In the adjusted model, the communication behaviour of the physician is the central point of attention. This model aims to describe mainly the determinants of the communication behaviour of social insurance physicians, not those of claimants.
- The communication behaviour of claimants as perceived by social insurance physicians (i.e. the degree of respect and dominance in claimants' communication behaviour) are conceptualised as determinants of communication behaviour of physicians. These were not included in the original model.
- The determinants of the communication behaviour of claimants (in the preparation phase) are not organised according to the TPB. The results of this thesis do not permit conclusions about the relationships between those determinants, other than that the combination of four of the determinants forms the three claimant types.
- Several determinants of the original model are not present in this model. For claimants, we found that attitudes were less important, while self-efficacy and social influence were more important than we originally thought. Also, skills seemed to be more important than barriers. For social insurance physicians, social influence was not as important as we originally thought and neither were skills. However, the other conceptualised determinants were found to be important.

Was it necessary to look at types of claimants and stereotypes?

One may argue that physicians do not use classifications of claimants (e.g. stereotypes or typologies) – as some of the physicians in the focus group study of chapter 6 stated – and that these classifications are not functional. There were three main reasons why this is unlikely, and why this was an important topic in this thesis. Firstly, studies outside of social insurance medicine have shown the opposite: physicians do use stereotypes and they need them in their work [1-4]. Secondly, because all claimants are different, physicians should be able to tune their behaviour to several kinds of claimant behaviour. Generalisations were found useful to order and condense these kinds of behaviour (chapter 6). Thirdly, we found that physicians were not aware of generalising and stereotyping during assessment interviews, while some claimants thought physicians do generalise at the expense of the assessment. More insight into this seemed desirable and was therefore a point of attention in the communication skills training course. For our study, focussing on classifications provided insight into how social insurance physicians view claimants' communication behaviour (and its determinants). Also, it resulted in making the socially isolated claimant the main role for the actor enacting the claimant in the role-play during the training course.

Did we include the right populations in our studies?

An important point of attention in studies such as the ones that we have performed, in which participants are volunteers, is selection bias in participants. The physicians and claimants in our questionnaire studies (chapters 3, 4 and 5) and the physicians in the

focus group study (chapter 6) were perhaps more motivated and more positive (e.g. concerning the importance of research) than the total population of social insurance physicians and claimants. However, on background characteristics, such as age and gender, the participants did not differ meaningfully from the total population from which they were sampled. Nevertheless, due to selection bias possibly some determinants of communication behaviour or potential objectives for the training course may have been missed.

With regard to claimants, another point of attention is that predominantly Dutch claimants, who were fluent speakers of the Dutch language and had a high ability to read it, participated in the questionnaire study. Their distance to the social insurance physician (e.g. in socio-economic status) could be considered small compared to many of the claimants who are assessed by a social insurance physician. This means that our findings can not be generalised to all claimants. Determinants of communication behaviour of non-Dutch speaking claimants with a low socio-economic status may be different and therefore the content of the training course may have been different if more of those claimants had participated in the studies. Probably, if we had been able to include more claimants with a low socio-economic status, the overall claimant satisfaction would have been less (especially because we found that the type of 'insecure' claimants was less satisfied).

Was satisfaction influenced by the conclusion of the interview?

It was impossible to incorporate the final outcome of the work disability assessment (i.e. the amount, if any, of the disability benefit) in the present study. However, it is probable that claimants' opinions about the communication are influenced by how closely the outcome corresponds with what the claimant wants. Because both correspondence and non-correspondence may have occurred in our studies, we would expect these situations to average out (at least partially) in the research results.

Considerations regarding the intervention

Do physicians need a communication skills training course?

The results regarding the first objective showed that claimants were rather satisfied with the communication in the assessment interview. However, this does not mean that a communication skills training course has nothing to offer to social insurance physicians. Firstly, satisfaction may still be improved, all the more because claimants may file complaints concerning the communication. Secondly, physicians might have 'blind spots' (e.g. they may not realise that they give claimants too little time to respond to questions, let certain types of claimants 'take over' the interview, or forget that the interview may be a stressful situation for claimants) that complicate their assessment interview or lengthen its duration. These blind spots may surface during a training course. Also, many physicians working at the Dutch Institute of Employee Benefit Schemes have been working as a social insurance physician for many years

and have not attended any specific communication skills training since they were appointed. It is likely that they have several fixed patterns outside of their awareness, which may influence the assessment. Thirdly, every physician has some part of his or her task that he or she finds hard, or some claimant behaviour that he or she finds difficult to respond to [5]. That may influence both the assessment interview and the job satisfaction of a physician. Fourthly, physicians who have just recently started to work as a social insurance physician may gain self-confidence and self-efficacy by attending a course of this type.

Was the two-day training course too limited as an intervention?

A comment of many participants in the communication skills training course was that they would have liked a continuation of the course or a follow-up day (booster session) a while after they had attended the course. They thought that it would be wise to practice what they had learned in real assessments and then get the opportunity to refresh what they had learned, ask questions about difficulties they had encountered, and share experiences with the other physicians in their group. To stimulate that the results of the course remain on the long term, such an additional course day may be of large value. Conversely, our review of literature (chapter 7) showed that a course should last at least one day to reach an effect, and the current course lasted two days.

A lot more topics would have been useful to address and for other topics more time could have been reserved. To realise this, one option would be to add another day to the training course, but we would not recommend this, because the participants were clearly full of information after two intensive training days in a row. Another option to increase the number of intervention days, is to expand the course to two blocks of two successive days with a week in between. However, this would decrease practical feasibility due to time restraints of social insurance physicians. We would therefore suggest to keep the training course a two-day course, and offer an additional follow-up training day after two or three months.

Should the control group have received an intervention as well?

Which topics should one address in a communication skills training that is not about communication? Because we could not think of any, we decided to make the control group a waiting-list group. Improvements in the intervention group may therefore not just be due to the content of the training course, but may also be partially due to attention of teachers and sharing time with colleagues with the same job and responsibilities. However, waiting-list control groups are often used in intervention studies [6-8]. Moreover, no changes in communication worth mentioning were expected without an intervention between the baseline and follow-up measurements, because the way social insurance physicians communicate can be considered a steady state (most of them have been working as social insurance physicians for many years already and few received any form of communication skills training in that working

period). If we had had a control condition with a communication-related intervention, we would probably have found smaller differences between the intervention group and control group. However, we expect that the overall results would not have been different if the control group had received an intervention that was not related to communication.

Should we have directed an additional intervention at claimants?

Communication is a two-directional process. Perhaps most improvements in the communication can be expected if both the social insurance physician and the claimant would be made more aware of the importance of the communication during the assessment interview, and would be given guidelines for an effective, satisfactory communication. However, within the assessment interview, the physician is the professional and therefore he or she is the person primarily responsible for adequate communication. Nonetheless, teaching claimants about the assessment interview, what to expect, and how to provide information might enhance communication. Within the current thesis, only an intervention directed at physicians could be developed and tested, but there is other relevant research that addressed disability claimants, for example by 'empowering' them before they attend the assessment interview [9,10].

Considerations with regard to the RCT

Was the study design appropriate for the evaluation?

When we initiated this study, the original plan for the RCT was to evaluate the training on three primary outcome measures: acceptance of the claimant of the conclusions of the assessment, the opinions about the communication of social insurance physicians and the claimants, and the agreement of these opinions about the communication. To this aim, we planned to perform an RCT with 200 social insurance physicians (100 in the intervention and 100 in the control group) and at least 3 claimants per physician. Such an evaluation of effectiveness in practice would have been preferred over the current evaluation, but was not possible due to practical and organisational reasons far beyond our control (e.g. developments within the Institute of Employee Benefit Schemes, willingness of physicians and claimants to participate). Consequently, no firm conclusions about the effect of the training course on communication in the daily work of the physicians and on the opinions of claimants about the communication can be drawn.

Because we did a first evaluation of a newly developed intervention, perhaps another evaluation design – such as qualitative study or a study with a before-after design focussing on whether the course seemed capable to change actual behaviour in a smaller group of physicians – would have been more appropriate. However, then it would not have been possible to get insight into the results of the training course as we developed it, making sure a possible effect was not due to other factors than the

training course. This is especially relevant, because we only had time for one evaluation study.

More follow-up measurements, after the physicians attended the training course, would have made it possible to study whether physicians retain their competence and knowledge on the long-term. Unfortunately, within the time we had available, this was not possible. Therefore, the current RCT should be considered a starting point in the evaluation of the training course 'Professional Claimant Communication'.

Did we choose the right outcome measures?

The primary outcome measures in the evaluation of the intervention (chapter 9) were competence and knowledge. To measure competence, we used a 'paper-and-pencil' test with a vignette. A real-life assessment (e.g. by performing structured observation or by consulting claimants) would probably have given a better approximation of actual communication skills in the assessment interview. However, due to practical, financial, and organisational issues beyond our control, this was not possible. Also, an evaluation of communication skills in an artificial environment, for example by instructing one or more actors for claimant roles and scoring the communication of the social insurance physician with standardised simulated claimants, was not possible. Therefore, we were forced to look into the options of a 'paper-and-pencil' method of evaluation, and within those restrictions, the current measures were the ones that most closely resembled reality. On the one hand, to measure competence this method may have given an underestimation of the effects of the course on communication skills, because it asks to denominate and explicate partly implicit skills. Therefore, physicians are likely to forget some aspects, which they would have shown in a real-life situation. On the other hand, it may have given an overestimation, because physicians may report saying or doing things in the communication, which they do not say or do in real practice.

To measure knowledge, multiple-choice questions were used. On the one hand, open-ended questions would have given a better representation of actual available knowledge. On the other hand, open-ended questions would have complicated valuing and comparing the responses of the participants. Probably, multiple-choice questions gave an overestimation of knowledge, because by chance already 50 percent of the answers would be correct. More answering options would have decreased the percentage correct by chance, but would also have made the questionnaire more lengthy. However, because we compared two groups (the intervention and control group) and there was no ceiling effect, these problems did not play any role in the results.

Were the measurement instruments valid and reliable?

An important problem for research in the field of insurance medicine is the lack of measurement instruments that are proven to be reliable and valid in the context of work disability assessment interviews. Within this thesis, we have pilot-tested all instruments in the target groups to assure content validity. Also, factor analyses were performed and only scales with an acceptable value of Cronbach's Alpha were used in further analyses, to assure reliability. Although this makes these newly developed instruments promising for future research, it gives only a first indication of their validity and reliability. Possibly, we would have been able to identify more determinants of communication behaviour with better instruments. Also, better instruments for evaluating the training course would have permitted more firm conclusions.

Were the results due to the intervention itself or due to the teachers?

The effects that we found (chapter 9) were due to the total content of the training course, including the way in which the topics were addressed, the composition of the groups, the setting, and the teachers. To compare this with the literature: some researchers in psychology believe that the gains of training and therapy are due to non-specific factors, such as paying attention to a topic, the setting, and characteristics of the teachers [11-13]. Our evaluation was not designed to answer the question of which parts of it led to which improvements. However, it is likely that, if we had recruited teachers with another background, or teachers who were less enthusiastic, the results of the evaluation would have been different. This is an important point of attention for future implementation of the training course.

Future research directions

This study is – as far as we know – the first scientific study that has looked closely at the communication during work disability assessments from different perspectives. Also, it is the first study that has used scientific data to develop an evidence-based communication skills training course for social insurance physicians, and has evaluated that course. Clearly, much more scientific research is needed. The following directions for future research can be deduced from this thesis:

- More studies are needed on physician-claimant communication in social insurance medicine and on similar interventions in this setting to strengthen our findings, or to falsify them. This includes studies that increase insight into determinants of communication behaviour as well as studies about interventions to improve communication behaviour.
- The (adjusted) conceptualised model for communication behaviour, based on the TPB, should be investigated and validated further. Especially the following should be addressed:

  - From our results, it may be concluded that self-efficacy is an important determinant of both the physician's and the claimant's communication behaviour. More studies should focus on this determinant.
  - More research into the connections between the determinants of claimants' communication behaviour is desirable.
  - Several important determinants are probably missing (e.g. habitual behaviour, automatisms), due to starting from the TPB-based model. Qualitative studies may give more insight into these presently unknown determinants.
- Further psychometric and clinimetric research on the measurement instruments used in this thesis and other instruments for social insurance medicine in comparable and other populations of physicians and claimants is highly necessary.
- The training course 'Professional Claimant Communication' should be optimised. Studies in which in-depth individual or group interviews with the participants are performed, or studies focussing on possibilities for improvement from a practical perspective may be useful for this. The current results indicate that the training approach used for the introduction phase of the assessment interview (the only phase for which competence became higher in the intervention group compared to the control group) is the most promising approach. This approach consisted of a short theoretical introduction, followed by individual role-play of all participants with video-recordings, a brainstorm about the necessary ingredients of the interview phase that is concerned, some more theoretical background, and looking at the recordings and discussing them with the whole group. It is important to study which parts of the intervention are the most useful, because physicians have limited time for training courses. The training course might also be further developed for other physicians.
- For future developments, also, barriers for participation in a communication skills training course should be studied. We found that the prospect of having to perform role-play in the training course was not very attractive for many physicians. However, once they were attending the training course, all physicians participated in the role-play and everyone was enthusiastic about it at the end. In the course, this barrier was addressed by reserving relatively much time for creating a safe environment. It is likely that more barriers exist, which may be overcome quite easily once they are known.
- A training course aimed specifically at claimants with a low socio-economic status, claimants who do not speak or understand Dutch, and claimants with a non-Dutch cultural background should be looked into in future research. These groups were underrepresented in the samples of this thesis.
- When the (adjusted) training course is implemented, it is recommended to accompany this by further development and evaluation studies to gain more insight into its active ingredients and effectiveness.

- If the intervention is proven to be effective, it would be interesting to study its cost-effectiveness. Several costs are involved for the Institute of Employee Benefit Schemes (e.g. time to attend for physicians, teachers, location), but there may also be benefits, for example resulting from less procedures for complaints and objections, faster assessments, and more work involvement of social insurance physicians.

Implications for social insurance physicians

The results of this thesis have several implications for social insurance physicians, their education, and work disability claimants.

Post-graduate education for social insurance physicians should include explicit attention to adequate communication in face-to-face contact with claimants. One important point of attention should be affective reactions in the communication (e.g. expressing empathy, showing understanding), because social insurance physicians tend to underestimate the importance of these affective reactions for claimants.

In pre- and post-graduate education for social insurance physicians, attention should be directed at the determinants that co-determine the communication behaviour, especially attitudes, self-efficacy, and barriers. Physicians should be made aware that these are important determinants of their communication behaviour. They should be encouraged to reflect on their own attitudes, self-efficacy, and barriers. In addition, physicians should be made aware of the determinants of claimants' communication behaviour, which may help physicians to recognise the needs of claimants in the communication and meet those needs. Especially, the self-efficacy of claimants who are rather unfamiliar with the physicians they will meet needs attention.

In the assessment interview, physicians should explicitly pay attention to claimants' potential insecurity regarding the communication, the expectations of claimants about the interview, and the social support the claimant has. Attention to potential insecurity may be an obvious thing to do if claimants seem insecure and submissive in their communication behaviour, but it is also important for claimants who show dominant communication behaviour. Physicians should be aware of the potential importance of other people in the direct surroundings of their patients, and this should be addressed in their education.

General education as well as communication skills training courses for social insurance physicians should include active, practice-oriented training strategies. In medical education role-play with feedback is already used a lot. The current results show that this is legitimate. Even though we found that initially social insurance physicians might be hesitant to participate in role-play, if a safe environment is created, then physicians will participate and open up to learning.

To make a communication skills training course for social insurance physicians successful, all stakeholders should be consulted during its development, planning and

implementation. We experienced that potential pitfalls of the course itself may be identified and solved in an early stage. Also, conditions for success are more likely to be created when the expertise of these stakeholders is used.

The training course 'Professional Claimant Communication' should be offered again in the future, paying attention to possible points of improvement. The course could be implemented within the Educational Department of the Institute of Employee Benefit Schemes, but possibly also within the Netherlands School of Public and Occupational Health. This thesis has resulted in an almost ready-to-use intervention addressing communication in the context of social insurance medicine, which may help to further promote and improve adequate communication behaviour. To let physicians and claimants benefit from these results, the course should be implemented in practice. By developing the course in collaboration with the Educational Department and using their infrastructure, the way is paved for a successful implementation.

Possibilities should be created for one follow-up training day for participants a couple of months after they have attended the training course. Possibly, this can be realised by connecting to the new development within the Institute of Employee Benefit Schemes to offer supervision to social insurance physicians [14]. Sustainable effects in everyday life practice are more likely to occur when the taught knowledge and skills are refreshed regularly [15].

Relevance for physicians in general

A lot of effort is put into continuous learning to maintain competence (and licenses) throughout the whole medical career. Our findings about determinants of communication behaviour and the developed communication skills training course may also be used in this respect.

The face-to-face communication between physicians and patients is an important topic, both from a practical and a research perspective. Both instrumental and affective reactions of physicians are important for patients. Physicians may tend to focus more on instrumental reactions than on affective reactions, because their emphasis is on getting and giving information about illness and health. Therefore, they may neglect to react towards patients in an affective way and may underestimate the importance that patients attach to affective reactions.

Insight into what (co-)determines communication behaviour of both physicians and patients may increase the insight into conditions for adequate physician-patient communication, and into possible opportunities to adjust this behaviour if necessary. We found that attitudes, self-efficacy, and barriers are important determinants of behaviour. Also, the degree of insecurity that patients experience about the communication, as well as their expectations about the communication may influence the communication, especially when the physician is not able to adequately pay attention to this. In addition, the social support that claimants have of important

persons in their lives during stressful moments (such as a consultation with a physician) is an important indicator of their instrumental and affective needs in the communication with physicians. Physicians may underrate this importance, and do not realise that being ill and feeling blue – or even depressed – may increase the need of social support in patients.

Communication skills are an important topic to address in post-graduate education for physicians. General communication and conversation techniques of physicians may need refreshment from time to time. Physicians will probably enjoy and appreciate such a course, if the right conditions are created (e.g. a safe learning environment). In addition, more specific communication skills – such as those necessary for introducing oneself and ones tasks adequately, and closing the consult while at the same time properly dealing with highly emotional issues – are important to pay attention to in communication skills training courses for physicians.

Conclusions

Conclusions on objective I

The first objective of this thesis was to explore the determinants of communication behaviour of social insurance physicians during assessment interviews for disability benefits, as well as those of work disability claimants. We conclude that:

- The TPB-based theoretical model can be functional in helping to understand the communication in the preparation phase before an actual assessment interview takes place.
- Intentions (to give information and to consider personal aspects), attitudes, self-efficacy, and barriers of social insurance physicians seem relevant determinants of their communication behaviour in assessment interviews.
- For claimants, their self-efficacy, skills, social support, and intentions with regard to the communication seem the most relevant determinants of their behaviour, and these can be combined into three 'stereotype' behavioural descriptions of claimants (i.e. insecure support-seeking, confident, socially isolated).
- Claimants themselves tend to have somewhat negative expectations about the assessment interview (in the preparation phase). Afterwards, however, they are generally satisfied with the communication during the actual interview. Physicians, on their turn, think that claimants are more satisfied than they actually are.
- In the actual assessment interview, the most important determinants of the communication behaviour of claimants, according to social insurance physicians, are the degree of respect that claimants show in the physician-claimant relationship and claimants' dominance in the communication.

Conclusions on objective II

The second objective of this thesis was to develop a post-graduate communication skills training course for social insurance physicians (from the results of the first objective and additional information) and to evaluate it. We conclude that:

- Training courses of this type should include predominantly active, practice-oriented training strategies, such as role-play and group discussion.
- Developing a communication skills training course by including the opinions and experiences of all relevant stakeholders, resulted in a course of which the feasibility and practical relevance are promising.
- Although this course needs some improvements and more research concerning the measurement instruments is needed, it was able to increase physicians' competence in introducing themselves and their tasks in the assessment interview, and to increase their knowledge about the communication.
- The social insurance physicians who participated in this training course were unanimously very positive about its contribution to communication in work disability assessment interviews.

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Summary

Communication between social insurance physicians and work disability claimants

General introduction

This thesis focuses on the communication between social insurance physicians and persons claiming for a work disability benefit during assessment interviews. Communication is defined as the verbal and nonverbal exchange and transmission of information during a face-to-face encounter. It is an important topic from the perspective of policy makers, work disability claimants, and social insurance physicians. The communication can influence, for example, the claimant's understanding, the exchanged information, satisfaction, and the conclusions about work capacity. Physicians with adequate communication skills are found to have less work stress and greater job satisfaction. Moreover, work disability assessment interviews require specific communication skills. These interviews differ from other physician-patient contact (for example in curative medicine) in that they are not aimed primarily at cure or care for patients, but at assessing work capacity and incapacity of persons claiming for a work disability benefit. The results of the assessment are of great importance to the claimant. Both the practical and the scientific relevance of social insurance physician-claimant communication, call for research and a specialised communication skills training course.

This thesis had two objectives: (I) to explore the determinants of behaviour of social insurance physicians and of claimants with regard to their communication during assessment interviews for disability benefits, and (II) to develop (from the results of the first objective and additional information) and evaluate a post-graduate communication skills training course for social insurance physicians. Chapter 1 provides a general introduction. In chapters 2-6 objective I is addressed and in chapters 7-9 objective II is addressed. Chapter 10 gives a critical discussion of the results of the other chapters and puts these into perspective. Also, implications for research and practice are discussed.

Theoretical framework

Chapter 2 presents the theoretical framework that was the starting point in the development of the studies described in chapters 3-5. There was no conceptualised theoretical framework that could be used to describe intentions with regard to communication behaviour, communication behaviour itself, and satisfaction with communication behaviour in a disability assessment context. Therefore, we developed this conceptualised framework, from an extensive study of the literature. The results showed that a combination of the Theory of Planned Behaviour (TPB) and the Attitude/Social influence/Self-efficacy model (ASE model) was a good starting point for the conceptualisation of a behavioural model for the study. The theoretically conceptualised model gave insight into the relationships between, on the one hand the most important determinants of communication behaviour that play a role in the

preparation for disability assessment interviews (e.g. attitudes, intentions, skills, and barriers), and on the other hand communication during the interview.

Determinants of physician behaviour

In chapter 3, the determinants of communication behaviour of social insurance physicians are addressed. These determinants are attitudes, social influence, self-efficacy, skills, barriers, and intentions concerning their communication with disability claimants in assessment interviews. The aim of chapter 3 was to understand these determinants by modelling them, starting from the theoretical framework of chapter 2. For this, cross-sectional questionnaire data were collected among 146 social insurance physicians.

The results showed a well-fitting model, in which attitudes had a significant and substantial direct effect on two intentions. Self-efficacy had a significant, but smaller direct effect on one intention. These intentions of social insurance physicians were intentions to give information and intentions to consider personal aspects. Accordingly, the study gave empirical support for the conceptualisation of the preparation phase of the physician half of the model.

Typology of claimants

In the study described in chapter 4, we firstly aimed to determine which types of disability claimants could be distinguished, based on the determinants of their communication behaviour. Secondly, we investigated their opinions about communication, with the aim to determine if the types of claimants differed in their perception of communication behaviour and their satisfaction with the communication with social insurance physicians. Questionnaire data were collected from 56 disability claimants for 13 behavioural determinants before their assessment interview, and for 12 behavioural and satisfaction variables afterwards.

The results showed that three types of claimants could be distinguished: insecure support-seeking claimants, confident claimants, and socially isolated claimants. Especially the levels of self-efficacy, skills, social support, and intentions with regard to the communication seemed to distinguish these claimant types from each other. Additionally, we found that the three types of claimants perceived the communication with the social insurance physician differently. Overall, claimants were positive about the communication with the physician: insecure support-seeking claimants were satisfied and confident claimants were highly satisfied, but socially isolated claimants were unsatisfied. In training, therefore, special attention should be given to communication with socially isolated claimants.

Expectations and opinions

Chapter 5 brings together the perspectives of social insurance physicians and claimants. The study described in this chapter aimed to gain insight into the differences between expectations of claimants of the communication before an assessment interview and their opinions after that interview. Furthermore, it aimed to gain insight into the differences between these opinions of claimants and the opinion of the claimant as perceived by the interviewing social insurance physician. Questionnaires were completed by 53 claimants before and after the interview and 28 social insurance physicians after the interview.

The results showed differences between expectations and opinions of claimants on three out of the four included communication aspects (Listening, Correctness, and Clarity; no difference was found for Empathy). For claimants with a low level of education differences were found on all four aspects (including Empathy). The opinions of claimants differed from those according to the insurance physicians on two out of six communication aspects (Correctness and Diligence). A comparison of the expectations of claimants in their preparation before the assessment interview and their opinions afterwards, showed that claimants – despite somewhat negative expectations – were reasonably satisfied about the communication after the interview. In addition, we found that social insurance physicians were fairly able to accurately assess the opinion of claimants about the communication. Nevertheless, physicians tended to overestimate the opinions of the claimants, who were less positive than the physicians thought.

Stereotyping

Chapter 6 is based on the supposition that social insurance physicians are probably influenced by stereotypes of claimants – for example because they have limited time available and they have to make complicated decisions – but little is known about this. The aim of this study was to investigate: (1) the content of stereotypes used to classify claimants with regard to the way in which they communicate during assessment interviews; (2) the origins of such stereotypes; (3) the advantages and disadvantages of stereotyping in assessment interviews; and (4) how social insurance physicians minimise the undesirable influences of negative stereotyping. Data were collected during three focus group meetings with 22 social insurance physicians in total.

The results showed that in the assessment interview, the most important determinants of the communication behaviour of claimants as perceived by social insurance physicians were the degree of respect that claimants show in the physician-claimant relationship and their dominance in the communication. Furthermore, most of the social insurance physicians reported that they classify claimants in general groups, and use these classifications to adapt their own communication behaviour.

The social insurance physicians revealed that their stereotypes originate from information in the claimants' files and first impressions. The main advantages of stereotyping were that this provides a framework for the assessment interview, it can save time, and it is interesting to check whether the stereotype is correct. Disadvantages of stereotyping were that the stereotypes often prove incorrect, they do not give the complete picture, and the claimant's behaviour changes constantly. Social insurance physicians have various ways of minimising undesirable influences of stereotypes.

Training strategies

Chapter 7 presents the results of a systematic review of the literature concerning strategies for teaching qualified physicians communication skills. The aim of this review was to identify effective training strategies. PubMED, PsycINFO, CINAHL, and COCHRANE were searched for systematic reviews. Two authors independently selected relevant reviews and assessed their methodological quality using AMSTAR. Summary tables were constructed to be able to draw conclusions about the effectiveness of communication skills training strategies for physicians.

Twelve systematic reviews about communication skills training programmes for physicians were identified. Some focused on specific training strategies, whereas others emphasised a more general approach with mixed strategies. Training programmes were effective if they lasted for at least one day, were learner-centred, and focused on practising skills. The best training strategies within the programmes included role-play, feedback, and small group discussions. Training courses for physicians should therefore include mainly active, practice-oriented strategies. Oral presentations on communication skills, modelling, and written information should only be used as supportive strategies. In addition, it was recommended that to be able to compare the effectiveness of training programmes more easily in the future, general agreement on outcome measures has to be established.

Development of the training course

In chapter 8 the results of chapters 3-7 are combined and integrated. Although physicians who perform work disability assessments attend some communication-related training courses during their professional education, no specialised and evidence-based post-graduate communication skills training course is available for them. The aim of the study presented in this chapter was to systematically develop such a training course, and to design an evaluation of that training course. A physician-tailored course was developed, according to the six steps of the Intervention Mapping protocol. The data collected for the previous chapters were used.

Determinants and performance objectives were formulated. Various experts, social insurance physicians, researchers, and policy-makers, were consulted.

The result was a two-day post-graduate communication skills training course, aimed at improving adequate communication during work disability assessment interviews. There was a special focus on active teaching strategies, such as practising the skills in role-play. An adoption and implementation plan was formulated, in which the infrastructure of the educational department of the institute that employs the physicians was utilised. Improvement in the skills and knowledge of the social insurance physicians participating in the training course was decided to be evaluated in a randomised controlled trial (RCT). The feasibility and practical relevance of the communication skills training course that was developed seemed promising.

Evaluation of the training course

Chapter 9 describes the results of the evaluation in an RCT of the training course, of which the development was described in chapter 8. The main aim of this study was to assess whether the training course would increase competence and knowledge with regard to communication. A two-armed randomised controlled trial was performed, with a waiting-list control group. At baseline and follow-up, 42 social insurance physicians completed questionnaires (n=21 in the training group and n=21 in the control group). The primary outcome measures were competence and knowledge about the communication during assessment interviews with disability claimants. The secondary outcome measures were 21 self-reported determinants of communication behaviour. For a process evaluation, we studied the opinions of the 21 physicians in the training group about the course.

There was no significant difference in overall competence after the training course between the intervention group and the control group. Only for one of the three phases of the interview, the introduction phase, a significant difference was found, favouring the intervention group. Knowledge about the communication was significantly higher in the intervention group compared to the control group, especially concerning the information gathering phase of the interview. For the secondary outcomes, the intervention group scored significantly better on 7 of the 21 self-reported psychosocial determinants of communication behaviour, including self-efficacy, intentions, skills and knowledge. Also, the participants were unanimously very satisfied with the training course (the mean scores ranged between 8.4 and 9.1 on a ten-point scale). This calls for an optimisation and successive implementation of the training course.

General discussion and conclusions

In chapter 10 an overview of the main findings is presented, the results of all chapters are critically discussed and put into perspective, followed by implications for practice and directions for further research.

The results of this thesis have several implications for practice. Implications for social insurance physicians and education in social insurance medicine are:

- communication should be a point of attention in post-graduate training, as well as physicians' attitudes, self-efficacy, and barriers with regard to the communication;
- physicians should pay attention to feelings of insecurity, expectations, and the level of social support of claimants;
- the developed training should continue with new groups of participants, paying attention to possible improvements;
- possibilities for follow-up training days for participants, some time after they have completed the course, should be created.

Much more scientific research is needed on this topic and therefore some directions for future studies were given. For example, studies concerning valid and reliable measurement instruments applicable in research in social insurance medicine are needed, as well as studies concerning barriers for participation in communication skills training courses.

This thesis has several conclusions with regard to the communication during disability assessment interviews. Firstly, the TPB-based theoretical model is functional in helping to understand communication in social insurance medicine. Secondly, the main determinants of the communication behaviour of social insurance physicians are intentions to give information and to consider personal aspects, attitudes, self-efficacy, and barriers. The main self-reported determinants of the communication behaviour of claimants are self-efficacy, skills, social support, and intentions. According to social insurance physicians, the main determinants of the communication behaviour of claimants in the assessment interview are the degree of respect that claimants show in the physician-claimant relationship and their dominance in the communication. Thirdly, training courses concerning communication skills should include predominantly practice-oriented training strategies. Fourthly, when developing a training course, it is important to take the opinions and experiences of relevant stakeholders into account. Fifthly, the training course 'Professional Claimant Communication' increased physicians' competence in introducing themselves and their tasks in the assessment interview, and their knowledge about the communication. Also, social insurance physicians were unanimously very satisfied with the training course.

Samenvatting

De communicatie tussen verzekeringsartsen van UWV en cliënten die een arbeidsongeschiktheids-uitkering hebben aangevraagd

Inleiding

Als werknemers door ziekte twee jaar niet hebben kunnen werken of maar gedeeltelijk hebben kunnen werken, kunnen zij een arbeidsongeschiktheidsuitkering aanvragen bij UWV. Mede op basis van de informatie op een aanvraagformulier beoordeelt UWV of de werknemer een uitkering krijgt en welke. Een aanvullend onderdeel van deze beoordeling is een gesprek tussen een arts van UWV (de verzekeringsarts) en de werknemer (verder aangeduid als 'cliënt'). In dat gesprek worden lichamelijke en psychische klachten besproken, evenals wat de cliënt daarmee wel en niet kan, en hoeveel hinder de klachten geven. Het voeren van dit gesprek is één van de kerntaken van de verzekeringsarts. Dit proefschrift gaat over de communicatie tussen de verzekeringsarts en de cliënt tijdens dit beoordelingsgesprek. Onder communicatie verstaan wij verbale (mondelinge) en non-verbale (bijvoorbeeld via lichaamstaal en intonatie) uitwisseling van informatie tussen beide personen tijdens het beoordelingsgesprek.

De communicatie tijdens beoordelingsgesprekken is belangrijk vanuit het gezichtspunt van cliënten, verzekeringsartsen en beleidsmakers. De communicatie kan bijvoorbeeld invloed hebben op het begrip van de cliënt, de duidelijkheid bij de overdracht van informatie, tevredenheid over het gesprek en de conclusies over de werkmogelijkheden. Communicatie is ook belangrijk, omdat is gebleken dat artsen met adequate communicatievaardigheden minder werkstress ervaren en tevredener zijn over hun werk.

Het voeren van beoordelingsgesprekken vraagt specifieke communicatie-vaardigheden van verzekeringsartsen. Deze gesprekken verschillen van andere arts-patiëntcontacten (bijvoorbeeld bij een huisartsbezoek). Een belangrijk verschil is dat de aandacht niet uitgaat naar genezing of zorg voor patiënten, maar naar de werkcapaciteiten en theoretische werkmogelijkheden van cliënten die een arbeidsongeschiktheidsuitkering hebben aangevraagd. De cliënt heeft groot belang bij het resultaat van de beoordeling. Omdat de communicatie tussen verzekeringsartsen en cliënten zowel praktisch als wetenschappelijk gezien een relevant onderwerp is, is het belangrijk er wetenschappelijk onderzoek naar te doen.

Dit proefschrift had twee doelen. Het eerste doel was het in beeld brengen wat de gedragsdeterminanten zijn van het communicatiegedrag van verzekeringsartsen en cliënten. Gedragsdeterminanten zijn factoren die bijdragen aan het tot stand komen van gedrag, in dit geval communicatiegedrag. Het tweede doel was het ontwikkelen (op basis van zowel de resultaten van het eerste doel als aanvullende informatie) en evalueren van een nascholingscursus voor verzekeringsartsen gericht op de communicatie tijdens beoordelingsgesprekken.

Hoofdstuk 1 van dit proefschrift bevat de algemene introductie op dit onderwerp. In hoofdstuk 2 tot en met 6 wordt het eerste doel behandeld en in hoofdstuk 7 tot en met 9 het tweede doel. In hoofdstuk 10, tenslotte, worden de

bevindingen met elkaar in verband gebracht en kritisch besproken. Daarbij worden aanbevelingen gedaan voor wetenschappelijk onderzoek en voor de praktijk.

Theoretisch raamwerk

In hoofdstuk 2 beschrijven we de uitwerking van het theoretisch raamwerk dat het startpunt was voor de studies die zijn beschreven in hoofdstuk 3 tot en met 5. Een dergelijk uitgewerkt raamwerk was vooraf niet beschikbaar, maar was wel nodig om de communicatie in de context van verzekeringsgeneeskundige beoordelingen te kunnen beschrijven en begrijpen. Het raamwerk is uitgewerkt door uitgebreid naar de wetenschappelijke literatuur te kijken.

Het bleek dat een combinatie van twee gedragsmodellen (Theorie van Gepland Gedrag en het Attitude/Sociale invloed/Eigen-effectiviteitsmodel, beter bekend als het ASE-model) een goed startpunt waren voor een theoretisch raamwerk voor dit proefschrift. Het uitgewerkte raamwerk gaf inzicht in de relaties tussen enerzijds de belangrijkste determinanten van communicatiegedrag die een rol spelen in de voorbereiding op beoordelingsgesprekken en anderzijds de communicatie zelf tijdens het gesprek. Die determinanten zijn bijvoorbeeld attitudes (houdingen, denkwijzen), intenties (bedoelingen), communicatievaardigheden en belemmeringen in de communicatie.

Determinanten van gedrag van verzekeringsartsen

In hoofdstuk 3 staan determinanten van communicatiegedrag van verzekeringsartsen centraal. Deze determinanten waren attitudes, intenties, vaardigheden, belemmeringen, sociale invloed (invloed van de mening van andere mensen, zoals collega's) en eigen-effectiviteit (zelfverzekerdheid) wat betreft hun communicatie met cliënten tijdens beoordelingsgesprekken. Het doel van de studie was deze determinanten te begrijpen door te testen of hun relaties zo lopen als het theoretisch raamwerk van hoofdstuk 2 veronderstelt. Hiervoor hebben 146 verzekeringsartsen een vragenlijst ingevuld.

Het bleek dat een model dat lijkt op het theoretisch raamwerk, goed klopte met de antwoorden die de verzekeringsartsen gaven op de vragenlijsten. Volgens dit model zijn attitudes en eigen-effectiviteit van invloed op intenties. Het ging daarbij om intenties om informatie te geven aan cliënten en intenties om persoonlijke aspecten in het verhaal van cliënten mee te nemen in het beoordelingsgesprek. Door deze bevindingen is er wetenschappelijk bewijs voor een deel van het theoretisch raamwerk gevonden, namelijk ten aanzien van dat deel dat betrekking heeft op de achterliggende factoren of voorbereiding op de communicatie van de verzekeringsarts tijdens het beoordelingsgesprek.

Typologie van cliënten

De studie die in hoofdstuk 4 staat beschreven, had als eerste doel te bepalen welke typen cliënten er te onderscheiden zijn, gebaseerd op de determinanten van hun communicatiegedrag. Het tweede doel was de meningen van deze cliënten over de communicatie te onderzoeken, zodat we konden bepalen of de typen cliënten verschillend dachten over de communicatie met de verzekeringsarts tijdens het beoordelingsgesprek. Om dit te kunnen bekijken, hebben 56 cliënten een uitgebreide vragenlijst ingevuld voordat zij naar hun beoordelingsgesprek gingen en erna vulden zij een tweede vragenlijst in.

Er bleken drie typen cliënten onderscheiden te kunnen worden. Deze hebben we de onzekere steunzoekende cliënten, de zelfverzekerde cliënten, en de sociaal geïsoleerde cliënten genoemd. De typen leken vooral van elkaar te verschillen in de mate van eigen-effectiviteit, vaardigheden, sociale steun en intenties wat betreft de communicatie. We zagen dat de drie typen cliënten de communicatie met de verzekeringsarts verschillend hadden ervaren. Over het geheel genomen waren zij positief over de communicatie: onzekere steunzoekende cliënten waren tevreden en zelfverzekerde cliënten waren zeer tevreden, maar sociaal geïsoleerde cliënten waren ontevreden. Daarom vinden we dat er in een communicatietraining speciale aandacht zou moeten zijn voor de communicatie met het type sociaal geïsoleerde cliënt.

Verwachtingen en meningen

In hoofdstuk 5 komen de visies van verzekeringsartsen en van cliënten samen. In dit hoofdstuk was het doel inzicht te krijgen in de verschillen tussen verwachtingen en meningen van cliënten. Het ging om de verwachtingen die de cliënten hadden over de communicatie voordat zij naar het beoordelingsgesprek gingen, en de meningen die zij hierover na afloop van dat gesprek hadden. Een tweede doel was inzicht te hebben in de verschillen tussen deze meningen van cliënten en de door verzekeringsartsen ingeschatte mening van die cliënten. Voor dit onderzoek vulden 53 cliënten en 28 verzekeringsartsen vragenlijsten in.

Het bleek dat verwachtingen en meningen van cliënten verschilden op drie van de vier meegenomen aspecten van de communicatie. Dit waren Luisteren, Correctheid en Helderheid. Er was geen verschil ten aanzien van Empathie. Bij cliënten met een lage opleiding bleken verwachtingen en meningen op alle vier aspecten te verschillen. Verschillen in de meningen van cliënten en de meningen die verzekeringsartsen dachten dat cliënten hadden, waren er op twee van de zes onderzochte aspecten van de communicatie. Dit waren Correctheid en Zorgvuldigheid. Ook kwamen we er achter dat cliënten enigszins negatieve verwachtingen over het beoordelingsgesprek hadden, maar na afloop ervan meestal behoorlijk tevreden waren over de communicatie. Verzekeringsartsen bleken redelijk in staat te zijn om de mening van

cliënten over de communicatie in te schatten, maar desondanks was hun indruk van die meningen over het algemeen (nog) positiever dan de daadwerkelijke mening van cliënten.

Stereotyperen

Hoofdstuk 6 is gebaseerd op de veronderstelling dat verzekeringsartsen waarschijnlijk beïnvloed worden doordat zij stereotypen (een stereotype is een indruk van een persoon op basis van bepaalde kenmerken van grote groepen mensen die op die persoon lijken) van cliënten hebben. Dit mede omdat de tijd die verzekeringsartsen voor een beoordeling hebben beperkt is en ze ingewikkelde beslissingen moeten nemen. Er is echter weinig bekend over stereotypen in beoordelingsgesprekken. Daarom had deze studie vier doelen. Ten eerste wilden we zicht krijgen op de inhoud van de stereotypen waarmee verzekeringsartsen naar de communicatie van cliënten kijken. Ten tweede wilden we weten waar die stereotypen uit voort komen. Ten derde wilden we de voordelen en nadelen van het gebruik van stereotypen in beoordelingsgesprekken in beeld brengen. Ten vierde wilden we weten hoe verzekeringsartsen ongewenste invloeden van stereotypen van cliënten zo klein mogelijk maken. Om hier antwoorden op te vinden, hielden we drie groepsinterviews bij Onderlinge Toetsingsgroepen. In totaal deden hier 22 verzekeringsartsen aan mee.

Het bleek dat er twee belangrijke determinanten zijn op basis waarvan verzekeringsartsen naar het communicatiegedrag van cliënten kijken: de mate van respect van cliënten in de onderlinge relatie en de mate van dominantie van cliënten in de communicatie tijdens het beoordelingsgesprek. Verzekeringsartsen vertelden dat zij algemene indrukken van cliënten gebruiken om hun communicatiegedrag aan de cliënt aan te kunnen passen. Ook legden zij uit dat stereotypen voortkomen uit informatie in het cliëntdossier en eerste indrukken in het contact. Verzekeringsartsen vonden dat stereotypen zowel voordelen als nadelen hebben. Voordelen zijn onder andere dat ze een kader bieden voor het beoordelingsgesprek en dat het interessant is om te kijken of het stereotype klopt met de werkelijkheid. Als nadelen werden bijvoorbeeld genoemd dat stereotypen regelmatig niet blijken te kloppen en dat ze niet het complete beeld geven. Verzekeringsartsen hebben uiteenlopende manieren om ongewenste invloeden van stereotypen te verkleinen.

Trainingsmethoden

Hoofdstuk 7 beschrijft de resultaten van een overzicht van wetenschappelijk literatuur (een 'systematische review') over trainingsmethoden om de communicatie van afgestudeerde artsen te verbeteren. Het doel van deze review was om de meest effectieve methoden te vinden. Vier literatuurdatabases werden doorzocht naar systematische reviews over dit onderwerp. Twee onderzoekers bekeken onafhankelijk

van elkaar de gevonden reviews, zij beoordeelden de kwaliteit ervan, en er werden samenvattende tabellen gemaakt om conclusies te kunnen trekken.

We vonden 12 systematische reviews over communicatietraining voor artsen. Een aantal hiervan richtte zich op specifieke trainingsmethoden, terwijl andere naar een algemenere aanpak met gemengde methoden hadden gekeken. Het bleek dat trainingen werken als ze minimaal één hele dag duren en er veel geoefend wordt. De beste methoden waren rollenspelen, feedback op de rollenspelen, en discussie in kleine groepen. Mondelinge presentaties over communicatie, voordoen en uitgeschreven informatie zouden alleen gebruikt moeten worden als aanvullende methoden. Ook kwam naar voren dat er overeenstemming nodig is in de wetenschappelijke literatuur over met welke instrumenten effecten gemeten moeten worden, zodat publicaties over de effecten van communicatietrainingen in de toekomst beter vergelijkbaar zijn.

Ontwikkeling van de training

In hoofdstuk 8 worden de resultaten van de hoofdstukken 3 tot en met 7 gecombineerd en geïntegreerd. Hoewel verzekeringsartsen die beoordelingsgesprekken doen soms trainingen of nascholingscursussen volgen die aan de communicatie gerelateerd zijn, bestaat er geen gespecialiseerde en op wetenschappelijk onderzoek gebaseerde communicatietraining voor deze groep. Het doel van deze studie was daarom om op systematische wijze een dergelijke training te ontwikkelen en de evaluatie ervan te ontwerpen. Er werd een op de verzekeringsarts toegesneden communicatietraining ontwikkeld met behulp van 'Intervention Mapping', een zesstappenplan voor de ontwikkeling van interventies. De gegevens die verzameld waren voor de vorige hoofdstukken zijn gebruikt. Hieruit zijn de aangrijpingspunten en doelen voor de training geformuleerd. We vroegen daarbij advies aan experts op uiteenlopende terreinen, verzekeringsartsen, onderzoekers en beleidsmakers.

Het resultaat was een tweedaagse nascholingstraining voor verzekeringsartsen, gericht op het verbeteren van de professionele communicatie tijdens beoordelingsgesprekken. In die training lag de nadruk op actieve leermethoden, zoals het oefenen van communicatievaardigheden in rollenspelen. Er is een plan gemaakt voor de toepassing en invoering van de training, waarbij gebruik werd gemaakt van de infrastructuur van de afdeling Opleidingen van UWV. Ook werd besloten dat de training geëvalueerd zou worden in een gerandomiseerde studie met controlegroep ('randomised controlled trial', RCT). Daarbij wordt gekeken naar verbeteringen in de vaardigheden en de kennis van de verzekeringsartsen die aan de training deelnemen. Al met al leken de haalbaarheid en praktische relevantie van de ontwikkelde communicatietraining veelbelovend te zijn.

Evaluatie van de training

Hoofdstuk 9 beschrijft de resultaten van de evaluatie van de training uit hoofdstuk 8. De belangrijkste doelen van deze evaluatie waren te bepalen of de training de vaardigheden (competentie) en kennis met betrekking tot de communicatie tijdens beoordelingsgesprekken zou vergroten, en of de training de determinanten van het communicatiegedrag van verzekeringsartsen verandert. De evaluatie vond plaats via een RCT, waarin de getrainde groep werd vergeleken met een wachtlijstgroep (de controlegroep). Via loting werden 42 verzekeringsartsen verdeeld over die twee groepen. De 21 verzekeringsartsen die de training kregen, vulden bij aanvang en na afloop ervan een vragenlijst in om de competentie, kennis en gedragsdeterminanten te kunnen bepalen. De 21 verzekeringsartsen die geen training kregen, vulden dezelfde vragenlijsten in met twee weken ertussen. Ook gaven de verzekeringsartsen uit de getrainde groep hun mening over de training via een evaluatieformulier.

Er waren geen beduidende verschillen in de competentie als geheel tussen de getrainde groep en de groep die nog geen training had gekregen. Alleen wat betreft één van de drie fasen van het beoordelingsgesprek, namelijk de beginfase van het voorstellen en uitleggen van het gesprek, deed de getrainde groep het beter dan de niet-getrainde groep. De kennis over de communicatie was beduidend hoger in de getrainde groep in vergelijking met de niet-getrainde groep, vooral wat betreft de fase van informatieverzameling (de kern van het beoordelingsgesprek). Op 7 van de 21 gedragsdeterminanten deed de getrainde groep het beter. Deze determinanten waren onder andere eigen-effectiviteit en intenties. Ook bleek dat alle verzekeringsartsen zeer tevreden waren over de training. De gemiddelde rapportcijfers die zij gaven lagen tussen de 8,4 en 9,1. Vanwege deze bevindingen is het belangrijk dat de training wordt geoptimaliseerd en in de praktijk beschikbaar komt.

Discussie en conclusies

In hoofdstuk 10 wordt een overzicht gegeven van de belangrijkste bevindingen. Vervolgens worden de resultaten van alle hoofdstukken kritisch besproken en in perspectief geplaatst, waarna we de implicaties van de onderzoeksuitkomsten voor de praktijk van de verzekeringsgeneeskunde en de geneeskunde in het algemeen bespreken. Ook geven we aanbevelingen voor toekomstig onderzoek.

De resultaten van dit proefschrift hebben verschillende implicaties voor de praktijk waarin verzekeringsartsen werken en voor onderwijs aan verzekeringsartsen:

- de communicatie en door verzekeringsartsen ervaren attitudes, eigen-effectiviteit en barrières ten aanzien van de communicatie, zouden aandachtspunten moeten zijn in nascholingscursussen;
- verzekeringsartsen moeten aandacht hebben voor onzekerheid, verwachtingen en de mate van sociale steun van hun cliënten;

- de ontwikkelde communicatietraining kan aangeboden blijven worden, waarbij wel aandacht dient te zijn voor mogelijke verbeteringpunten;
- er zouden mogelijkheden moeten komen om een vervolgbijeenkomst bij te wonen voor verzekeringsartsen, enige tijd nadat zij de communicatietraining hebben gevolgd.

Dit proefschrift leidt tot verschillende conclusies over de communicatie tijdens beoordelingsgesprekken. Ten eerste is het op de Theorie van Gepland Gedrag gebaseerde theoretische model functioneel in het gaan begrijpen van communicatie in de verzekeringsgeneeskunde. Ten tweede zijn de belangrijkste determinanten van het communicatiegedrag van verzekeringsartsen: intenties om informatie te geven en aandacht te geven aan persoonlijke aspecten, attitudes, eigen-effectiviteit en barrières. De belangrijkste zelfgerapporteerde determinanten van het communicatiegedrag van cliënten zijn eigen-effectiviteit, vaardigheden, sociale steun en intenties. Volgens verzekeringsartsen zijn de belangrijkste determinanten van het communicatiegedrag van cliënten tijdens het beoordelingsgesprek de mate van respect die cliënten laten zien in de arts-cliëntrelatie en hun dominantie in de communicatie. Ten vierde, zouden trainingen van communicatievaardigheden een hoofdzakelijk oefengerichte aanpak moeten hebben. Ten vijfde, is het bij het ontwikkelen van een training of cursus belangrijk om de meningen en ervaringen van relevante belanghebbenden in ogenschouw te nemen. Ten zesde leidde de training 'Professionele Cliëntcommunicatie' tot een grotere competentie van verzekeringsartsen in het introduceren van zichzelf en hun taken in het beoordelingsgesprek, evenals meer kennis over de communicatie. Alle verzekeringsartsen waren erg tevreden over de training.

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TNO

The communication during work disability assessments is important from the perspective of policy makers, work disability claimants, and social insurance physicians. Both from a practical and a scientific point of view, more insight into this communication is needed. This thesis contributes to this, by addressing the determinants of behaviour of both social insurance physicians and work disability claimants with regard to their communication during assessment interviews for disability benefits, as well as the development and evaluation of a post-graduate communication skills training course for social insurance physicians. The results of the studies that are described, indicate that it is worth while – from a scientific point of view and according to physicians for whom disability assessment interviews are daily routine – to pay attention to communication with disability claimants and determinants of communication behaviour in physician education.

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