Clinical Communication and Mental Health in General Practice
A study of general practitioners’ learning needs, communication skills training, and the Expanded Four Habits Model

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Preface

In 2004 a quality improvement intervention for general practitioners in the Norwegian municipality of Bærum was conducted. One of those hired for this project was a psychologist Trond A. Mjaaland who during his work developed an idea to test the effect of this intervention in a larger scale study. This study was conducted as a part of a PhD project on developing and implementing a novel communication skills training program for general practitioners. The so-called GRIP approach placed emphasis on coping and patients’ strengths and resources.

During the design of the GRIP approach a new project idea emerged: a communication skills training program for general practitioners (GPs) more specifically aimed at improving their handling of mental health issues in general practice consultations. The project received funding from the Norwegian Extra Foundation for Health and Rehabilitation. The first candidate who was appointed had to leave the job after a short time. The project was then given full funding for a new PhD student, and I applied and was later granted the position.

I have always been interested in how we become who we are and the experiences that significantly influence us during life. These interests led me to a master’s degree in psychology. When entering the Department of Behavioural Sciences as a part-time job in addition to my studies, my first task was to copy and digitize an enormous amount of videotaped consultations. I immediately became interested in the doctor-patient relationship, and the behaviour and communication used in consultations. I questioned how one’s experiences in the consultation influence us? When coding the Four Habits in a later project, I found that the physicians’ behaviour actually did affect patients’ feelings, behaviours and outcomes. I was intrigued. Of course, when I later had the opportunity to apply for a PhD project further investigating these issues, I did.
Summary

Patients presenting mental health problems are very common in general practice and most of these patients are treated by the general practitioner (GP). However, studies show that the way in which GPs handle patients with mental health problems can be improved. There are at least two important challenges with current mental health interventions in general practice. First, most therapy-based approaches require extensive training of the GP, and second, most interventions target one specific disorder. However, research from psychotherapy and the communication skills training tradition show that there are certain teachable elements that might be effective when dealing with various mental health problems. A generic mental health-related communication skills model could, therefore, provide a fruitful alternative for the GPs.

This thesis describes a research project that developed, implemented and evaluated such a mental health-related communication skills training program for GPs.

In the work of designing this program we chose to emphasise relevant findings from the communication skills literature and research on mental health interventions. We also identified the usefulness of relating the content to GPs’ own perceptions regarding communicating and treatment of patients with mental health problems. We, therefore, first designed a questionnaire to measure the GPs’ self-perceived learning needs and self-efficacy. Results showed moderate learning needs and high self-efficacy. Highest learning needs were reported for specific skills, while general skills were rated lower. Moreover, many GPs reported an interest to attend a communication and mental health related training program.

The second part of this project was to design the content of the mental health communication skills training, and to test it in a pilot study. The training content consisted of a set of six evidence-based skills specifically suitable for mental health consultations taught within a skills-based approach. The main outcome was behaviour change among GPs from before to after the training measured by counting their skills-related utterances. The results showed a considerable increase in skills-related utterances from before to after training, GPs significantly increased their use of four out of six skills.

After an evaluation of the pilot study, a need for a larger and more general model in which to present the six skills emerged. On that ground the Expanded Four Habits Model was created, which is the third and final part of the thesis. The proposed model combines the general features of the original Four Habits Model with the six specific skills from the pilot study. A specific emphasis on exploration and elaboration within the three mental health domains, emotional, cognitive and behavioural/coping is presented. As the original Four
Habits model, the expanded model represents both a model of the consultation and a scheme for communication skills training. We suggest that the model will prove particularly useful in consultations with patients experiencing relatively minor mental health problems, with or without accompanying physical complaints.
List of papers

Paper 1
Communication and mental health in general practice: Physicians' self-perceived learning needs and self-efficacy.
Stensrud TL, Mjaaland TA and Finset A.
Mental Health in Family Medicine. 9:3; 2012: 201-209.

Paper 2
Improving communication in general practice when mental health issues appear: Piloting a set of six evidence-based skills.
Stensrud TL, Gulbrandsen P, Mjaaland TA, Skretting S and Finset A.
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Paper 3
The Expanded Four Habits Model for Mental Health Consultations in General Practice
Stensrud TL, Gulbrandsen P and Finset A.
Submitted
1 Introduction and background

The physician calls in the next patient who has booked an appointment for a severe long-lasting headache. The physician greets her and starts the consultation. The patient seems more distressed than the physician sees as normal for this complaint. After exploring and elaborating on different aspects of her medical and psychosocial position a complex picture of work-home stress and a fear of a brain tumour emerge.

- So, how was the physician able to acquire this important information, and now what should the physician do?

Many patients visit their physician with problems or symptoms that are not purely somatic. For example, as presented in the patient case above, the woman is afraid of something being seriously wrong, but initially only presents her headache to the physician. Deciding what the best clinical practice is for such patients may be challenging for many physicians.

Pain or other somatic manifestations co-occurring with psychological or psychosocial circumstances are quite common in general practice [1]. So are other problems that might be categorised as mental health-related, such as stress, relationships problems, or symptoms of distress, depression or anxiety [2]. Therefore, general practitioners (GPs) need appropriate clinical and communicative skills to handle such patients. It is especially important since we do know that physicians with inefficient communication skills are more prone to malpractice suits, low patient satisfaction and less adherence to treatment [3-5], while efficient communication is associated with various positive treatment and health outcomes, such as symptom resolution [6].

There are some indications that physicians need to improve their communicative abilities, including mental health-related skills. For instance, both patient reports and studies on inadequate treatment and underdiagnoses show potential for improvement [7]. In addition, physicians themselves also report learning needs [8]. Fortunately, physicians’ communication behaviours can be improved through communication skills training. However, there are few studies on communication skills training that emphasise mental health problems [9].

In this thesis I describe a project aimed at designing an intervention to improve GPs’ mental health-related communication skills. To present our approach in this project the history of physician-patient communication and communication skills training prior to this project is important and will, therefore, be covered first. Then a review of mental health problems,
treatment approaches and improvement potentials reported within general practice in the same timeframe are provided as a framework for the design of a new intervention.

1.1 Communicating with patients

The term communication means “to share” and has many definitions, most of which include the exchange of information by a message sent from someone and received by someone else. In addition, there are several important elements of the communication process, well illustrated in the model by Schramm (Figure 1) [10]. The sender or encoder transmits a message to the receiver, which he or she has to interpret and respond to by transmitting a message back. In this thesis the setting is the physician-patient encounter. Therefore, both the physician and the patient are receivers and senders simultaneously, partners in the dynamic process of the dialogue.

Of special importance in this thesis is how the physician encodes and sends a message to the patient, as well as how he or she responds to messages sent from the patient. In other words, the physician’s communicative abilities are in focus. The focus is on the verbal transmission of and responses to messages.

Figure 1. Schramm’s communication model

In research on physician-patient communication, the term “communication skill” is often used to describe the physician’s communication behaviours. Defining the term “communication skill” is however not easy, and most studies do not define it at all [11]. A definition that seems to describe the term widely enough to include the several ways it is used follows: “the numerous acts the health workers express in caring for their patients” [12]. In my opinion, however, this definition is too broad and seems to include more than
communication behaviour, such as helping behaviour directed towards others than the patient. In this thesis we chose to narrow the scope of communication and communication skills down to the physicians’ verbal expressions towards the patient in a consultation. In the context of Schramm’s model, a communication skill may be defined as a certain design of messages from a sender intending to produce a certain outcome. A skill may be a certain way to ask a question or to explore a certain domain in the patient’s life. Although the focus is on verbal skills, literature on other types of communication (such as nonverbal behaviour) will be referred to, to some extent.

1.1.1 Models for communicating with patients
A communication model for medical consultations (often referred to as a consultation model) is a framework for the consultation process, describing a set of communication skills aimed at specific goals. A model is often restricted by boundaries, such as for whom it is intended, when, etc. In a model the different parts may have separate goals or objectives, in addition to one or several main outcome goals. Hantho and Malterud describe a communication model as follows [13]: “a theoretical framework which can be applied to describe and analyse the dialogue between patient and doctor. A communication model is a tool by which to identify and evaluate significant factors that might shape the course and outcome of the consultation in relation to certain specified goals.”

1.1.1.1 Patient-centred models
Schramm’s consultation model gives a symmetrical picture of communication; both parties are senders and receivers at the same time [10]. Applied to the doctor-patient relationship, such a model puts more emphasis on the patient and the relationship than a traditional, paternalistic view of the doctor-patient relationship. The concept of patient-centredness in medical communication may be traced back to the years after World War II, when there was a parallel development within several of the human sciences as well as in the society at large focusing on the individual and on individual human rights to a greater extent than had been done previously. In medicine these new developments may be seen as a reaction to the narrowly defined medical model. The medical model (also called biomedical) is considered the benchmark of the consultation process. It was originally not a model for communication with patients, but represents a view of sickness and disease based on natural science, inspired by the progress of biomedicine in the early decades of the twentieth century. To my
knowledge the medical model as such is seldom presented as an ideal for communication, but rather either taken for granted as a scientific approach to medicine or referred to by critics [14]. However, a strict medical model provides several implications as to how the consultation is conducted, especially the physicians’ communication. The medical model represents a purely organic approach to handling patients, and it is based on a belief that disease and symptoms are biological and can be treated by physical means [14]. The disease, providing a diagnosis and treatment are in focus, while the patient with his or her experiences, beliefs, feelings, etc. is not.

Reactions against the medical model came, more or less explicitly, from a number of different sources. For example, within nursing science Peplau presented her theory on interpersonal relations. In the theory, which has contributed to a more humane treatment of patients, emphasis is placed on establishing a relationship with one’s patients [15]. The essence of her work is on how communication behaviour can be used to create a “shared experience” between the nurse and the patient, and thereby improve both parties.

At the same time psychologist Carl Rogers developed the person-centred approach also known as client-centred therapy, which has had major implications within psychotherapy and other sciences [16]. His emphasis was on how each individual’s potential could be fulfilled by utilisation of his or her resources, and how this could be addressed in the consultation. Within medicine, Michael Balint further developed this commenced surge of humanism. He was a psychoanalyst with interest in the doctor-patient relationship within general practice, and initiated group therapy (later called Balint groups) for GPs in order to better understand the physician-patient relationship, psychological distress and stress related problems after the war [17]. The term “patient-centred” was introduced by Balint and colleagues as an alternative to the medical or more doctor-centred models of the 1950s, and in 1969 Balint defined patient-centred medicine as “understanding each patient as a unique human being” [18].

In 1977 Engel presented the biopsychosocial model [14], which emphasises that there are several aspects of illness and disease. According to Engel, a major limitation of the medical model is that it does not include the patient and his or her attributes [19]. Of special importance in the biopsychosocial model are social and psychological aspects. The model implies that in treatment of all types of illnesses the physician is required to address biological, psychological and social influences. This is seen as important, because the three domains interact, and provide both the physician and the patient with necessary information.
about the problem. In other words, the biopsychosocial approach concerns the patient as well as the illness.

These developments in medicine occurred in parallel with developments in philosophy and social sciences characterised by reactions against applying a natural science approach to the understanding of human relationships. The patient should not be seen as an object of the doctor, but as a fellow subject, whose behaviour should be understood, and not reduced to the carrier of a disease, which should be explained [20]. In a medical consultation, both the doctor and the patient are both sender and receiver of information, as in Schramm’s model of communication [10].

In 1986 a group of GPs and researchers from London, Ontario, Canada, presented an approach on how to improve the physician-patient relationship, which was called the patient-centred clinical method [21]. This method was designed especially for general practice, and exploration of both the disease and the illness perception were two of the main features of the method.

Parallel to and following these developments viewing the physician-patient relationship and the communication between them as important elements in the clinical encounter, a large research field emerged in clinical communication [22, 23]. Observational studies and implementation studies have since been conducted, both on physicians’ and patients’ communication, as well as communication in other or more specialized disciplines, such as nursing, oncology, paediatrics, and pharmaceutics [24-27].

The reason why clinical communication is an expanding area of interest within medicine is that the way the physician communicates has been found to be very important. For example, several studies find associations between physicians’ communication and patient outcomes [6]. Communication behaviour has been found to be associated with patients’ symptoms resolution, mental health, pain control, functional and physiologic status [28]. Research has also found that specific communicative behaviours are more important than others. For instance, when physicians encourage questions and shared decision-making, the patient’s anxiety has been found to be reduced [29, 30].

Some agreement has been reached about what constitutes “good” or “efficient” communication, both when it comes to the consultation as a process, i.e. in consultation models, and for the specific communicative parts, i.e. communication behaviour or skills.

Several patient-centred models or frameworks for the consultation have been presented, e.g. the Calgary-Cambridge Approach [31], Patient Centred Interview [32], and the
Four Habits Model [33]. Certain key elements are repeated in the description of patient-centredness and patient-centred models, yet a definition is usually not provided. We repeatedly find exploration of the physician-patient relationship, focus on the illness experience, emphasis on patients’ concerns, attempts by the physician to understand the patient’s world, and the creation of common ground and mutual agreement as elements that are accentuated [34]. As Enid Balint, Michael Balint’s wife, simply described it, it is looking for an “overall diagnosis” for the whole person [18].

Most research supports the patient-centred models, finding improved patient satisfaction, compliance and outcomes as well as fewer malpractice complaints [34, 35]. In a review by Stewart and colleagues, it was determined that increased efficiency of care resulted in fewer tests and referrals among patient-centred consultations [30]. Others found that a more patient-centred style of consulting in general practice will lead to the patient offering more cues, and increasing the GP’s identification of mental health problems [36, 37]. Patients themselves also report that they want patient-centred care [38], but this applies primarily to certain patient types [39].

However, in a Cochrane review Lewin and colleagues found that patient-centred interventions had mixed results [40]. Limited evidence was found for improved health outcomes, and only about half of the studies found improved patient satisfaction. Despite these various findings, most training programs teach patient-centred models [41]. This may be due in part to the fact that patient-centredness is seen as a polite and humane way to meet with other people. Bensing has actually called patient-centredness an ideology [42], and it is considered as a central part of high quality health care [43].

In the project presented in this thesis, which addresses mental health problems in general practice, we consider that patient-centredness is especially important because of the nature of mental health problems and the way they are handled with therapeutic interventions.

1.1.1.2 The Four Habits Model
The Four Habits Model is a well-established framework for a more effective general practice consultation. The model is derived from both empirical and theoretical work within the patient-centred tradition, the field of interviewing as well as the personal experience of the authors [33]. The Four Habits Model is patient-centred in that the patient is the centrepiece, and what he or she brings to the consultation of emotions, problems, concerns, etc. are most important.
The four habits of the model include: invest in the beginning, elicit the patient's perspective, demonstrate empathy, and invest in the end. In addition, a related set of skills is presented for each habit. The habits are seen as related to each other, and failure to conduct one of the first habits will influence the execution of the subsequent habits [33]. This means that the sequence of the habits is of importance. All skills have been found to be related to outcomes previously, which is an advantage of the model.

The model also describes several goals: to establish rapport and trust rapidly, facilitate the effective exchange of information, demonstrate caring and concern, and increase the likelihood of adherence and positive health outcomes, while the overarching aim is “to get the most out of the clinical encounter” [33].

The Four Habits Model has been extensively used in the United States and has been found to improve patient satisfaction scores in yearly cohorts from 1998 to 2003 [44]. It has also been found to improve hospital physicians’ communication behaviour and long-term self-efficacy [45, 46]. One study from the States also found improved communication between pharmacists and patients after being trained in the model [24].

In the work presented in this thesis the main aim was to design and test a mental health-related communication skills training program for GPs. As my main supervisor has trained physicians in the Four Habits Model, and I have previously worked on coding a large hospital’s material assessing the effects of a Four Habits training intervention, we obviously had the Four Habits Model in the back of our minds when this project was initiated. We find the Four Habits Model well suited as a framework for communication interventions because of its simple structure and focus on skills, in addition to its patient-centred context. However, the Four Habits Model is a consultation model for general consultations, and is, therefore, not intended for use in consultations with certain specific topics, such as in consultations regarding mental health problems.

### 1.1.2 Communication in the general practice consultation

In this thesis, the topic of study is clinical communication within the framework of the general practice consultation.

Let me first present some facts that, in my opinion, provide insight into the importance of communication in general practice. A physician conducts between 100,000 and 200,000 clinical interviews during his or her career, which entails a huge amount of consultations [26]. In Norway and several other countries everyone has one assigned GP (fixed patient lists), and
as the average list length in Norway is 1,173 patients, the GP deals with many individuals [47]. In countries without assigned physicians, the GPs probably treat even more people.

As the pre-determined length for an ordinary consultation in Norway is 15 to 20 minutes, a GP might conduct up to 25 consultations during a full day’s work. In these consultations, patients present various symptoms and problems to the GP. Some of the most common problems presented are musculoskeletal, respiratory, cardiac and psychological problems [48]. This huge variety in problems and symptoms among patients in general practice as well as the amount of consultations in itself, implies great demands on GP’s clinical and communicative skills.

Additionally, general practice consultations are characterised by certain other elements in which communication is especially important. First, the patient and GP are familiar with one another, or have the opportunity to become so. This continuity of care has implications for the communication in the consultation, e.g. making it more targeted to the current problem, with less time used on routine questions, etc. Yet, sometimes familiarity poses a challenge regarding roles. It might, for instance, be difficult for the patient to reveal marriage difficulties with his or her long-term family physician. To create an environment that takes advantage of the physician-patient relationship might be challenging. Second, since general practice consultations are limited in time, the GP must learn how to effectively conduct all parts of the consultation in just a few minutes. This also requires a great deal of communicative abilities. Third, it is the GP’s task to write sick leaves and prescriptions. Turning down such requests from the patient is a challenge that requires good interpersonal skills. Fourth, and the most important for this thesis, is that many patients in general practice present with symptoms, complaints or distress that is not related to a somatic disease or condition [1]. In such instances the communicative abilities of the GP becomes especially important in order to reassure, explain and help the patient. In summary, communication in general practice is especially challenging because the doctor-patient relationship is so complex and because of the large variability of the tasks that the GP has to perform.

1.2 Communication skills training

Despite the fact that physicians’ and especially GPs’ communication skills are so important, studies find that their communication is not always sufficient. A number of studies indicate a significant potential for improvement of physicians’ communication skills [49, 50]. However, how do they learn to communicate better?
The field of communication skills training has grown rapidly over the last thirty years [23]. Prior to that time, most research on communication skills were observational studies. More recently, communication skills training has become a well-known concept, and training interventions for physicians to learn communication skills are increasingly prevalent. Both in medical schools and continuing medical education for practising physicians, communication skills training is offered more and more often. One reason for the increasing popularity of communication skills training is that it has been repeatedly found successful [28, 29, 51]. Both medical students and physicians of different specialties have been found able to improve their communication behaviours after training [45, 52, 53]. Communication skills training has also been found to improve patients’ satisfaction and different health outcomes. In the previously mentioned review by Stewart, improved communication after training was found to influence patient outcomes in 16 of 21 studies [6]. A subsequent section will take a closer look at potential outcomes.

It seems clear that physicians can improve their communicative abilities, so today’s challenge has, therefore, been claimed to be the design of effective communication interventions that can be implemented in routine practice [28]. One of the first phases of designing a communication skills intervention is to assess whether there is a need for one.

### 1.2.1 Assessing physicians’ communication learning needs

There are several reasons why it is important to assess learning needs before designing and implementing an intervention. The assessment of learners’ need has repeatedly been claimed to be important for both the learner, e.g. through motivation, as well as for curriculum and intervention design [54, 55]. Moreover, training based on needs assessment results has been found more likely to produce change in physicians’ behaviour and patient outcome than training without a basis in the assessment of learner needs [54, 56].

#### 1.2.1.1 Objective versus subjective learning needs

The assessment of learning needs among physicians can be conducted in several ways, measuring quite different things. For example, evaluation of quality can provide information about the potential for improvement, which again can indicate a need for learning. I call this type an “objective learning need”, since it is not a measure of experienced need by the individuals it concerns, but an outside evaluation. Another type of objective learning need regarding communication skills can be revealed by observations of outside experts. This
method is often used in communication research [57]. Another well-used method indicating learning needs among physicians is patient reports, especially those that measure satisfaction levels. However, patient satisfaction scores often demonstrate ceiling effects, where all patients are very satisfied, and this method of evaluation might, therefore, not be optimal [58].

There are also subjective assessments of needs, such as surveys about self-perceptions. This has the disadvantage of often being inaccurate when compared with observed measures of competence [59]. However, one advantage of this approach is that it provides information about what the physicians themselves want to learn, which again might indicate motivation and interest.

1.2.1.2 Assessing self-perceived learning needs

Self-perceived learning needs can be measured in several different ways. One way is to simply ask about the GP’s motivation to take part in a course or training program. The level of motivation to take part in a training program indicates interest, and it might also be considered to indicate a perceived learning need. Being interested or motivated is an important part of learning, and can increase one’s learning level [60]. However, it is important to differentiate between motivation that is intrinsic, such as interest, and extrinsic motivation. Extrinsic motivation could be, for example, to collect educational points, and it is not as good a predictor of learning as intrinsic motivation [60].

A second approach is to map the self-assessed need for increased competence in a specific area or regarding specific skills. This can be assessed, for example, by questionnaires or reflection tasks [61]. An advantage with questionnaire assessment is that the researcher is free to ask about learning needs within a specific area or topic. A disadvantage is that other learning needs will most likely remain undetected. Reflection tasks, in which the physician freely reflects about his or her needs, will often provide a wider spectrum of current learning needs, but might not reveal those needs of special interest to the researcher or teacher.

A third, more indirect indicator of a self-perceived need is level of self-efficacy, defined as one’s belief of one’s ability to successfully perform a specific task [62]. Low self-efficacy might indicate a perceived learning need. However, confidence in one’s own abilities is linked to motivation and improved performance [63]. Therefore, physicians with high self-efficacy could be motivated to improve anyway. In addition, it has been found that physicians avoid further education in topics they have little knowledge about [64]. Therefore, if the perceived learning need is too high and the confidence is low, the physician might actually
abstain from participation in education, probably because of uncertainty and low self-confidence. One might then assume that training does not always attract those who need it the most, and level of self-efficacy might not predict who will attend and who experiences the highest learning needs.

It is important to notice that both physicians and medical students have been found not to adequately assess their own skills [65]. Information about discrepancies between observed needs and self-perceived needs should be addressed in an intervention, especially when the content of the intervention does not match the participants’ wishes. Otherwise learning and involvement might deteriorate.

1.2.2 Content of a communication skills training program

Studies find that certain communication skills are of special importance, but there is little research about which skills work for whom, what and when. Veldhuijzen found, for example, in a study of GPs’ communication skills training programs that there was a lack of guidelines for the communication [66]. Anderson and Sharpe also claim that few studies provide thorough descriptions of the interventions or of the theoretical background of the intervention content [67]. However, there is somewhat of a consensus about what skills are important, which should influence decisions about the content of training. The term “best clinical practice” is often used regarding the communication behaviour we perceive as “good” or “efficient” [28, 29, 68]. The following section will take a closer look at the communication skills that have been deemed important.

One example is provided from the Accreditation Council for Graduate Medical Education in the United States. They recommend that physicians become competent in five key communication skills: (1) listening effectively; (2) eliciting information using effective questioning skills; (3) providing information using effective explanatory skills; (4) counseling and educating patients; and (5) making informed decisions based on patient information and preferences [69]. Maguire presented what he calls key communication skills, which include: eliciting patient’s problems and concerns, giving information, discussing treatment options and being supportive [50]. Furthermore, Beck found in a review on communication in primary care that several communication behaviours were important for outcomes, such as empathy, patient-centred behaviour with open questions, patient-guided consultation, courtesy, explanations and information giving, positive reinforcement and empowerment, small talk, psychosocial and mental health-related talk, openness to share medical data with
the patient, discussion of treatment effects, listening behaviour and summarisation [70]. Others again highlight communication that includes a psychosocial approach in questioning and responses, patient activation/shared decision making, obtaining mutual agreement, establishing rapport, facilitation and exploration of the patient perspective [29, 71].

Although different wording is used for these communication skills, it is apparent that they are quite similar; some skills are recommended to improve the process and some skills to improve the relationship between the physician and the patient.

To the contrary, it has been recommended that the use of some presented skills be avoided in the consultation. These include offering advice and reassurance before the main problems have been identified, explaining away distress as normal, attending to physical aspects only, switching the topic, and jollying patients along [50].

1.2.3 Teaching strategies in communication skills training

When implementing a communication skills training program, there are several important considerations other than the content.

First and foremost is the selection of the overall teaching approach. There are several, quite different approaches for teaching communication skills. These include experiential learning or teaching of skills to primarily change behaviour and focusing on reflection tasks or personal development in a more psychodynamic approach to primarily change attitudes and knowledge. The best strategy has been the topic of debate [72]. Currently, acquisition of skills is the most common approach in communication training [22]. In such a skills-based approach, each skill is taught separately with training and feedback in between. This has been found to improve the chance of effective training [50, 56], and it is in line with behaviouristic thinking, where the practice of skills is thought to increase learning and retention [22]. Accordingly, Aspegren concluded in an often cited review from 1999 that learning by doing is a better strategy than learning by instruction [51]. There are, however, some approaches where personal awareness is more emphasised [22]. Maguire and colleagues have, for example, presented a training model that incorporates both skills and self-awareness elements, with particular focus on self-efficacy.

The choice of approach has some implications for the strategies used in training as well. In our work we used a skills-based approach, and the practice of skills was, therefore, one important element to consider. Role play is a common strategy that provides an opportunity to practice and rehearse skills [73], and it is often regarded as one of the most
efficient teaching strategies. Feedback as a part of the role-play has also been emphasised. Feedback should be provided immediately after the role-play, and the physicians should be given an opportunity to try again and improve afterwards [22].

Modelling, which is learning through observation of more skilled performers, is another strategy commonly used in communication skills training. It has been argued that observing role play is not as effective as playing oneself, but modelling has been found effective in communication skills training and is, according to social learning theory, essential in acquiring new behaviours [74].

The strategy of using participants’ own previous experiences during communication skills training has also been accentuated [22]. Finding new ways to solve challenges from real practice might enhance the relevance of training for the participants and thereby increase the effect.

Another important element of training is whether or not it is learner-centred. A learner-centred technique involves focusing on how and what the student learns and actively involving the students. Learner-centred teaching has been found superior to a teacher-centred approach, which is a more passive transmission of knowledge from teacher to learner [53]. Role-play and feedback are examples of learner-centred teaching techniques.

The most current communication skills interventions include several of the previously mentioned elements [75-77]. However, the number of elements used might also influence the effect of training [28]. Rao and colleagues found a relationship between intervention intensity in terms of several training characteristics and physician outcomes [28]. Moreover, according to Maguire and Pitcheathly communication skills training should include these three main elements: cognitive input such as lectures and handouts, modelling and practice of skills [50].

Other issues that should be considered in the implementation of a communication skills training program are more practical ones, such as place of training, recruitment approach and length. Research has especially emphasised the importance of the length of training. For example, four and one-half hours was found to be too short to make a difference in Levinson and Roter’s study, while twenty hours made a difference in the same study [53]. One-day training courses have also been claimed to be too short in a review by Aspegren [51].

### 1.2.4 Outcomes of communication skills training

Improved physician communication has repeatedly been found to be associated with different positive outcomes, such as physician outcomes, patient outcomes and societal outcomes.
When evaluating outcomes of a communication skills training, there are several possible approaches. Aspegren presented in a paper from 1999 ten different evaluation methods, ranging from course evaluation to health outcomes [51]. The most commonly used evaluations are examination, behaviour change and patient evaluation either by patient report or patient outcome. Gask and Morris claimed that three key questions are essential to ask in the evaluation of an intervention. The first and second questions relate to whether or not the intervention has changed the clinicians’ behaviour, and subsequently whether clinical, social or economic outcomes have changed. The third question relates to changed morale or confidence of the GP [78].

Patient outcomes are of special interest in intervention research. Ideally an intervention directed at GPs also improves patient outcomes, but that depends on the behaviour change of the physician. For interventions targeting behaviour change among the physicians, self-reports and different kinds of observation evaluations are most common [79]. Self-reporting has the advantage of being easy to administer, but is often not a reliable measure of change in behaviour. Systematic observation of behaviour, on the other hand, can provide more accurate results. When observing physicians’ behaviour, one can use real patients or simulated patients. Using real patients requires more administration, and one often finds high variability in the data because patients and their problems differ. On the other hand, simulated patients are not real patients, which might influence the physicians’ behaviour and thereby bias the results [79]. However, one advantage of using simulated patients is that they can present a homogenous patient group, and the researcher keeps high control over the variables [73].

Video or audiotapes of consultations are commonly used when using real or simulated patients in evaluation of an intervention [80]. The researcher can also observe in real practice, but this method might be regarded as unpractical and potentially influencing the behaviour of both the physician and the patient too much. A common challenge is to recruit physicians and patients to trials investigating patient outcomes [81]. It has been found easier to evaluate outcomes on the physician level. However as mentioned, one cannot infer causality in that patient outcomes are a result of physicians’ behaviour change if that has not been measured.

In evaluation of a communication skills intervention, analysis of the communication behaviours between the physician and patient is common. Several coding schemes have been created for that purpose [80]. RIAS and VR-Codes are only two examples of such analysis systems [82, 83]. A disadvantage of using established coding systems when measuring
outcomes of an intervention is that they seldom measure directly the behaviour one aimed to change with the intervention [84]. One alternative is to design systems for communication analysis.

In studies measuring outcomes of communication skills training, some results are of special interest to us. Aspegren and Lønberg-Madsen performed a study in 2005 in which communication skills were learned spontaneously and which did not [85]. They found that physicians did not ask about or explore the patients’ emotions; neither were they competent in creating rapport with the patient or exploring the patient’s perspective. Studies have also found that physicians can learn to become more patient-centred [86].

Regarding patient outcomes, Zolnierek and DiMatteo found in a meta-study that physician communication was significantly positively correlated with patients’ adherence to treatment [5]. They also found that communication skills training of physicians significantly increased patient adherence. One study found a decrease in patient anxiety and depression [87]. In a review of randomized controlled trials on patient-physician communication, positive outcomes were found in several patient outcomes such as symptom resolution, function, pain, and emotional symptoms [6]. Still, changes in physicians’ behaviour are more commonly reported than improved patient outcomes after an intervention [77].

There are also interesting potential societal outcomes from communication skills training. The physicians might be less exhausted, more satisfied and more efficient, which would spare the society in several ways, through decreased sick leave, fewer mistakes and more efficient practice [49]. In addition, several studies have found that improved communication can decrease the number of law suits [88]. Levinson and colleagues found that primary care physicians with malpractice claims had a different communication style than those without claims [89], and most law suits in health care are actually regarding communication problems. Studies also find lower health related costs and fewer emergency visits as a result of improved communication [72].

The relationship between communication and health outcomes has not yet been fully understood. Street and colleagues have proposed seven pathways for this association: accessing needed care, increasing patient knowledge and shared understanding, enhancing therapeutic alliances (among clinicians, patient, and family), enhancing emotional self-management, activating social support and advocacy resources, increasing the quality of medical decisions (e.g., informed, clinically sound, concordant with patient values, and mutually endorsed), and enabling patient agency (self-efficacy and empowerment) [90]. There
are, however, few studies on these relationships, and why communication improves different outcomes is still an area of interest.

To conclude, there has been an increase in attention and research on physician-patient communication over the last decades. The general practice consultation has especially been regarded as an area where communication is very important, yet not optimal currently. Several communication models have been presented, and patient-centred models are now the recommended approach for the consultation process. Still, the physicians’ communication might evolve in a more task-oriented direction and not a more patient-centred one [39]. There are also other indications that physicians’ communication can be improved. Both patients and physicians themselves report learning needs. Communication skills training has been found to be efficient in a number of studies, depending among other things on what teaching strategies are used, the content of training, what outcomes are measured and the evaluation process. Important physician, patient and societal outcomes are possible to achieve. Still, we know little about communication with patients experiencing mental health problems or the potential of mental health-related communication skills training.

1.3 Patients with mental health problems in general practice

First, what are mental health problems? This question is difficult to answer, because all of us experience difficult feelings and thoughts from time to time even though these are not indicative of psychiatric disorders and they do not require specific treatment. One can still refer to these problems as mental health problems if they affect you, your surroundings or the way you live your life at that moment. In this thesis we have chosen the term “mental health problems” for a large spectrum of such difficulties one can experience. These problems can vary from worries, personal or social problems, to symptoms of psychiatric illness like depression or anxiety, or there may be bodily symptoms without any clear biological cause. There are also often important psychological aspects with somatic complaints or symptoms [91]. Mental health problems are often considered to be a three-faceted concept of feelings, thoughts and behaviour that are closely intertwined. Moreover, mental health problems can be a normal reaction to a difficult situation or an abnormal reaction to a normal experience. This means that patients with mental health problems are all types of people, but at the time of the consultation, they are affected by an issue that can be potentially important to discuss with a clinician.
Using such a broad definition of the term mental health could be problematic for several reasons. First, one might say that everything is a mental health problem according to this definition. I agree to a certain extent, but in this thesis a wide definition is required, because a central argument is that there is a need for a mental health intervention in general practice that is more generic than previous interventions have been. The reasoning behind this claim is that one cannot know the depth of an issue or a potential problem before digging deeper into it, and a generic intervention can be conducted in this phase of exploration and initial intervention. Second, concerns might be raised that severe psychiatric disorders are put in the same category as minor psychosocial issues. I do, however, not see this as a problem. All kinds of problems presented in general practice must be handled in one way or the other. Even if it is referring to secondary health care, the GP needs to communicate with that patient; the same goes for handling a conflict at work or marital problems. Providing the GP with a communicative tool to improve all such consultations should ease their everyday life and not be a problem because of various categories and diagnoses.

How many people experience mental health problems? Mental health problems are very common. About one-third of us experience mental health problems during one year’s time, and many will turn to our GP for help [92]. Patients presenting mental health problems actually constitute about one-third of all patients in general practice [2], although this figure varies significantly among studies depending on the definition of mental health problems. The most common mental health problems that are diagnosable in general practice are depression, anxiety, stress disorders, substance use disorders, panic disorders and somatization disorders [2, 92, 93]. In addition, marital or work conflicts are common in general practice. Moreover, a common challenge for the GP is patients presenting with bodily symptoms that have no somatic explanation [94].

With such a large number of patients with various mental health problems, improving the quality of treatment would have large implications, not only for the individual, but also for the society in terms of, e.g. decreased sick leave.

1.3.1 Mental health interventions in general practice
GPs handle most patients with mental health problems. Actually, in several countries they are increasingly required to do so, and most patients with mental health problems are not referred to specialist treatment [8, 95, 96]. In Norway only about one out of ten are referred, which means that GPs have the responsibility for treating the majority of mental health problems.
Mild disorders are most commonly treated in general practice, while more severe disorders, such as psychosis are often treated in secondary health care facilities [92]. In general practice mental health problems can be treated by prescribing medications, using different therapies/therapeutic approaches or a combination of these.

Interventions within general practice aiming to improve these patients’ outcomes are essential. Balint presented one of the first efforts to improve GPs’ handling of mental health problems. It began in the 1940s, because there was a lack of psychiatric care for military personnel, and GPs were increasingly required to treat these patients. Later, several types of interventions were introduced. However, these were most often conducted by psychiatrists and not by the GPs themselves [56]. It is only more recently that the GPs themselves are increasingly requested to deal with mental health problems.

There are several challenges regarding mental health treatment in general practice. One major issue is low detection-rates [7, 97, 98], since detection is a prerequisite for treatment. Another challenge is that many GPs have limited training and education in dealing with mental health problems [79]. Many GPs have been taught some cognitive therapy techniques, but are not considered to be skilled in using therapy or in other approaches for different types of problems [1]. Moreover, studies find that medication errors are common, that GPs often ignore cues about psychosocial problems, that patients themselves report unsatisfactory treatment, and that counselling can be improved [99]. Studies also find that mental health problems are often insufficiently diagnosed and treated [100-102]. According to a Norwegian report, few patients with mental health problems experience that their problems are adequately addressed by their GP [103].

Whether or not the GPs themselves want to treat mental health problems also differs, but many do report an interest. In a survey on attitudes toward mental health care, most GPs reported experiencing that management of mental health problems was a part of their job, and that they found satisfaction in providing mental health treatment [8]. In addition to the potential moderate level of skills, there might be some other practical barriers in having GPs treat mental health problems. One such barrier is time, as treatment of mental health problems often requires more time than GPs normally have in an ordinary consultation [53]. However, one should seek to get a clearer picture of why GPs treat or do not treat mental health problems in their practice. Such information would be important in designing training programs, and could have implications for potential system changes.
Despite these challenges there are several mental health interventions for general practice. Many therapies normally used in psychotherapy have been tried in general practice to improve GPs handling of mental health problems. In addition, several therapeutic approaches have been designed and tested especially for the general practice setting [100].

Cognitive-behavioural therapy interventions (CBT) are by far the most common intervention type in general practice. CBT deals with patients’ unhelpful thoughts and behaviours [104]. People often develop thinking errors such as selective abstraction and over-generalisation. In CBT patients are challenged on the accuracy of such thoughts, and learn how to develop skills for modifying unhelpful and incorrect beliefs and modify behaviour accordingly. One assumption is that once thoughts have been challenged feelings are easier to change. CBT was originally designed for treating patients with depression, but approaches for other types of problems have been designed more recently. A meta-analysis found satisfactory effect sizes [105]. CBT has also been found feasible for general practice, but it requires extensive training of the GP. Blashki and colleagues claim, however, that strategies from CBT might be well suited for general practice [106].

Problem-solving treatment (PST) is also used often in general practice. PST is a psychological intervention that intends to make the patient acknowledge the association between symptoms and life problems, with the orientation that problems are challenges that can be solved [107]. The idea is that by correcting the problem using specific problem-solving skills, the symptoms will be reduced. A meta-analysis on the efficacy of problem-solving therapy in reducing mental and physical health problems showed that PST was significantly more effective than treatment as usual, but not more effective than bona fide treatment [107].

Interpersonal psychotherapy (IPT) is another approach that has been tried in general practice [108]. IPT was designed for mood disorders and is based on the common factors of psychotherapy (described below). Two main assumptions are that depression is a medical illness that can be treated, and that mood and life situations are related. Depression is thought to often follow difficult life situations, especially those related to interpersonal relationships. IPT has never been intended to be a treatment for all disorders, but there are versions for other disorders than depression. Neither is it designed for GPs. In a review of the effect of interpersonal psychotherapy on major depression, the effect was not significantly better than treatment as usual [109].

Reattribution therapy is a type of intervention focusing on how physical symptoms are ascribed. The model was originally designed for patients with unexplained symptoms. It has
been widely used in consultations as well as by GPs. Studies have determined positive results, such as better information retention and treatment adherence [110]. However, there are also some inconclusive results. Some find that reattribution is no more effective than regular treatment [111]. There are also several other approaches for mental health treatment in general practice.

Many of these interventions and other mental health interventions were originally designed to target only one specific disorder. Several versions for different types of problems have eventually been designed, yet these are often quite different despite certain common features, and, therefore, require much training. Neither these nor other therapy interventions we have considered target mental health problems in general. There are so many specific disease-related approaches that a review on interventions to improve diagnostics and treatment of mental disorders in general practice concluded that an association between efficacy and any specific variables could not be established due to too much heterogeneity in the studies [100]. This finding has been replicated more recently by Huibers who also points out a lack of clear evidence on the effectiveness of mental health treatment in general practice [111].

While mental health interventions are often specific, current communication interventions are generic, teaching general communication models and basic skills. To my knowledge, there are few interventions that combine these two features in a mental health intervention for general practice, i.e. a communication-based intervention that is specifically designed for mental health problems, but not for only one specific diagnosis. Roter and colleagues have presented one generic mental health intervention. In a randomized controlled trial from 1995 they compared two different mental health-related communication skills training programs [112]. One program taught GPs emotion-handling skills, while the other taught problem-defining skills. Both types of communication skills programs were found to significantly improve patients’ mental health after eight hours of training of the GPs. Wissow and colleagues have designed and conducted a mental health-related communication skills training program in paediatric consultations [25]. They found that the parents’ mental health improved after training of the physicians. Another example is from Italy, where a group training program for GPs was found effective in using GPs’ problem-based communication skills [113].

In my opinion, one limitation with current mental health interventions is the scope of treatment focus. In CBT for depression for example, cognitions are targeted in order to
change behaviour, while in reattrition therapy for medically unexplained symptoms, the focus is mainly on changing one’s cognitions. However, mental health is regarded as a three-dimensional concept including emotions, cognitions and behaviour, especially in psychology and psychiatry [114]. Still few, if any, interventions explicitly target all three dimensions of mental health, and psychotherapeutic interventions are seldom customized to the different parts of a medical consultation. Moreover, there are several steps that must be taken before one can apply a therapy-based intervention in general practice, such as exploration of the patient’s views to detect a problem and plan the treatment. Skills that are necessary for the GP to conduct these parts should, therefore, be acquired and applied first. There is still a need for more knowledge about whether generic mental health interventions can be efficient, especially in interventions that target all three mental health dimensions.

1.3.2 GPs’ self-perceived learning needs regarding mental health treatment

As previously indicated, there is still a perceived need for improvement of GPs’ handling of mental health problems. However, is this need experienced by the GPs themselves?

Studies conducted in Australia and Great Britain have found that many GPs indicated the need to learn better management strategies for patients with mental health problems [8, 115]. We also find that learning needs regarding specific mental health-related skills are reported more often than general skills [8, 116]. In a study of 200 primary health care workers, Ford and colleagues found the opposite to be true; they determined that the highest learning needs were related to basic skills for handling patients with mental health problems [115]. The participants also reported experiencing a need for training in depression treatment and increased collaborative care. In a study among 100 Norwegian GPs, 95% of them reported that the mental health services in general practice could be improved. Two out of three GPs reported a need for increased knowledge and competence regarding mental health problems [116].

In a study by Girgis and colleagues three specialty medical groups reported training needs and lack of competence in interactional skills [117]. Training directors in general practice have also been found to desire more training in psychiatric disorders, especially in interviewing and therapeutic skills and diagnostic interviewing [118, 119].

GPs reported their highest learning needs regarding severe disorders and somatization disorders, counselling skills and stress management [120]. There are, however, few studies on the GPs’ self-perceived learning needs regarding mental health-related communication skills,
and as far as we know, no studies on the GPs’ self-efficacy regarding mental health treatment and mental health-related communication. As indicated previously, such information is important in the design of a communication skills training program, and should, therefore, be further assessed.

1.4 The need for a new approach to improve mental health-related consultations in general practice

During the last ten years a number of initiatives have been taken to improve the quality of mental health services in Norwegian general practices. Communication skills training courses have been included in the training for specialists in general practice, but the content is not specifically related to mental health problems.

Improving the quality of mental health treatment in general practice is very important, especially considering the number of patients it concerns. Several types of interventions exist, but results of effectiveness are unclear, which might be explained by the variation in focus [100]. Therefore, there appears to be a need for improving the mental health consultation in general practice, a need that is also experienced by the GPs themselves. Exactly what such training should include is more unclear, but an emphasis on communication skills might be fruitful. However, the only review we found on both communication and mental health claimed that this type of research is still in its infancy [9].

In our work on designing and implementing a mental health-related communication skills training program, we did gradually experience a need for a complete consultation model especially designed for consultations with potential mental health problems. By evaluating the communication skills literature and the literature on current approaches for mental health treatment in general practice, a novel structure for the framework of such an approach occurred to us. It is our opinion that a need exists for a generic, communication based, patient-centred approach with a focus on all three domains of mental health, emotions, cognitions and behaviour/coping respectively. We suggest that these three specific mental health-related domains are equally important in a mental health intervention.

Our minds and bodies interact continuously, when, for example, thoughts of cake makes us hungry, smiling makes us happier and fear of cancer makes us visit the physician. How we think, feel and act are closely related and mutually affected. Our mental health can, therefore, be viewed as influenced by and influencing these three aspects: how we feel - our emotions, the way we think - our cognitions and the way we act - our coping behaviours. The
understanding that both emotions, cognitions and coping behaviour are all important for treatment in the mental health field has long traditions within psychology and psychiatry sciences. For instance, the impact and meaning of emotions are emphasised in several therapeutic approaches, such as in emotion focused therapy [121]. In psychotherapy emotions are extensively studied and evaluated. In research on pain the association with emotions have received much attention [122], and in neurobiological studies the processing of emotions has been accentuated as fundamental [123]. Furthermore, the traditions emphasising cognitions are especially psycho educative and therapeutic approaches such as CBT and reattribution, while behaviour and in this case coping is primarily in focus of the positive psychology tradition [124].

Evidence from related research and research on physician-patient communication support our suggestion for a novel model that emphasises all three domains of mental health. First, psychotherapy research finds that there are some common elements in all therapies that are effective on patient outcomes [125]. These are called common and client factors. The common factors theory proposes that different theoretical and evidence-based approaches to psychotherapy and counselling have common components and those components account for outcome more than components that are unique to each approach. This is in opposition to the traditional medical model, which proposes that the efficacy of psychotherapy is caused by specific, critical ingredients in the treatment for specific problems [126]. Relationship factors such as empathy, trust and understanding, are claimed to be the most important common factors in therapy. In addition to common factors, client factors, such as the patient’s supportive environment, personal strengths and motivation, have been found to be among the most important factors for therapy outcome [127]. Interventions based on these factors should, therefore, have a higher chance of being effective.

**Focus on emotions.** From communication skills research we find considerable support for each of the three mental health domains. Attending to the patient’s emotions in a consultation means to both elicit and be aware of expressions of emotions, both the positive ones and especially the negative emotions such as concern or distress. Handling emotions also includes responding to them, preferably by being empathic. The latter, however, is much more commonly emphasised than the exploration of emotions.

If the physician is sensitive to cues about worries or emotions, the consultation will earlier become more targeted on what really matters [128]. Eliciting cues has been found to increase GPs’ identification of patients’ mental health problems [129]. The more distressed a
patient is, the more cues he or she gives during a consultation compared to giving explicit concerns [130].

Being empathic has been found to be associated with several positive outcomes. Even 40 seconds of empathy have been found to reduce anxiety among cancer patients [87]. Verheul and colleagues found that warm, empathic communication combined with positive expectations led to a significant decrease in patients’ state of anxiety [131]. Others also find improved mental health outcomes, such as less anxiety and depression, with more empathic physicians [132, 133].

According to Bohart and colleagues, there are several ways empathy can influence mental health: by making the patient feel understood, respected and acknowledged, which might increase satisfaction and compliance [134]. Physician empathy might also make the patient feel safe in the situation, which makes it easier to express problems and concerns. Patients’ responses and feelings should be acknowledged because that might create a less threatening environment.

In line with this, Zachariae reported that higher scores of physician attention and empathy were associated with greater patient satisfaction, increased self-efficacy and reduced emotional distress following the consultation [4]. Some studies on the importance of empathy also found improved satisfaction and trust [135, 136]. Moreover, how physicians respond to emotional cues might actually affect the patients’ recall of information given in the consultation. If the nurse responds with shifting focus, patients are found to recall less information [137]. Patients also report higher satisfaction with empathic nurses [138]. However, it should be noted that these studies were conducted with cancer patients.

Randomized controlled trials to enhance well being in patients with mental disorders show improvements in happiness and character strength, increased treatment adherence and reduced relapse and recurrence rates [139]. Seligman in his studies determined how increased physician engagement could improve mental health [140]. Contrary to what many believe, empathy has been found possible to learn. Stepien and Baernstein, for instance, found a long-lasting increase in empathy after communication skills training [141].

Negative or difficult emotions are often one of the main parts of a mental health problem, and an emotional focus is, therefore, important in a treatment approach. Given this background, we find that in mental health interventions, both exploration of the patients’ feelings and appropriate responses should be emphasised. Emotions are emphasised in several interventions or models, yet primacy of emotions is more seldom suggested despite its
potential importance. In a paper viewing the consultation as a value chain, Finset and Mjaaland proposed a model of how the clinician patient interaction in medical interviews may influence patients’ emotional regulation [142]. They suggested that emotions should be addressed before the clinician promotes a positive reappraisal of the patient’s concerns. According to their model, shortcutting any parts of the process may reduce the effect. The importance of eliciting and responding to emotions early in the consultation has also been emphasised in literature on psychotherapy [143] and medical interviews [144]. It is also regarded as especially important in some types of consultations, such as those where pain is an issue [122]. Just talking about emotions can be therapeutic for some patients [145].

Focus on cognitions. The second mental health domain that, in our opinion, should be emphasised in mental health interventions is cognitions. Problematic or unhelpful cognitions are common with mental health problems. For instance negative and catastrophising thoughts are common with depression [146]. Several interventions target the difficulty of inhibiting cognitions. The most well known are cognitive therapy and cognitive behavioural therapy.

The importance of exploring the patients’ cognitions, especially eliciting the patients’ perspective of cause-effect relations has been accentuated [147]. Most patients actually diagnose themselves before the consultation [148]. It is important that the physician elicits this view to be able to correct misunderstandings and unnecessary concerns. Uncertain illness perception, being insecure about what is wrong, predicts patient dissatisfaction [149].

Patients experiencing several physical symptoms are often in need of an explanation relating physical symptoms to psychological factors. For other patients it is useful to explain the cause-effect relationship by using the metaphor of a vicious circle. Individuals often develop vicious circles of negative and unhelpful behaviour and thoughts that are reinforced through a feedback loop [150]. It is important to explain the patient’s problem in a way that is acceptable and understandable to the patient, as vicious circle cognitions could inhibit improvement. Responding to patient attribution has been associated with better information retention and treatment adherence in studies [151]. Therefore, it is important to elicit the patients’ thoughts, attributions and perspectives, and to reply, clarify, and provide explanations regarding these cognitions.

Focus on behaviour and coping. The third element of mental health is behaviour. Several interventions target unhelpful behaviour, while fewer have in the past explicitly targeted positive or helpful behaviour. How we positively deal with difficult situations, thoughts or emotions can be called coping behaviour or strategies. It is this kind of behaviour
that is of main interest in this thesis. One of my presumptions is that to improve coping behavior, a certain level of empowerment and self-efficacy is necessary. In addition, utilisation of one’s own resources and strengths is a prerequisite. Accordingly, Tallman and Bohart claim that it is mainly the patient’s strengths and ability to self-heal that makes therapy efficient [152]. Moreover, Cloninger (2006) states that one of the major challenges with psychiatry is that it focuses on sickness and misery too much [153]. According to Langeland, there is a need for more knowledge about salutogenese, coping and life-quality among health personnel dealing with people with mental health problems [154]. In previous work conducted by our research group we found that physicians seldom focus on coping and personal strengths in consultations, and that communication skills training enhanced such behaviour [155, 156]. Focusing on utilizing the patient’s strengths and resources has become more popular lately, but it is not a new approach.

In this setting resources and strengths might be personal, such as self-esteem or goal-directedness, likes and interests, relationships and activities, or it can be environmental, such as support of friends, family, etc. We refer to personal assets as strengths, while positive environmental factors are commonly called resources. Self-efficacy and empowerment are in this case seen as the link among strengths, resources and coping. Low self-efficacy has been found related to anxiety and negative emotions, while those with high self-efficacy more often experience calmness and higher motivation [157]. They are also less prone to stress [158]. Self-efficacy can predict therapeutic change, and has been incorporated into several models of behaviour. According to Finfgeld, therapeutic communication skills, such as listening, understanding, empathy, and respectful information giving are necessary to build a relation with the patient where improved coping is possible [159].

As we can see, focusing on patients’ behaviour in mental health consultations is important, especially focusing on how coping can be improved through empowering the patient to utilize his or hers strengths and resources.

Despite the dense research showing how each of these three mental health domains is important to address in consultations, few approaches do so explicitly. Neither are arguments based on common or client factors often provided. However, Cape and colleagues’ work is one of the exceptions, which presents one of the few approaches we know about [160]. In their model three core components similar to the common factors for mental health treatment potentially useful in general practice are suggested: 1) establishing a positive therapeutic relationship; 2) developing a shared understanding of the problem; and 3) promoting change
in behaviour, thoughts or emotions. Their reasoning is that since these factors are common in several psychotherapies, they will also be important when handling mental health problems in general practice. However, their approach is untested, as far as we know.

There are also some approaches focusing on client factors. For instance, Hantho and Malterud emphasise patients’ potentials and resources, instead of risk factors [13]. In their opinion the physician should promote the patients’ abilities to restore the balance between stresses and resources. Another example is the approach suggested by Mjaaland and colleagues mentioned above. In their approach, known as the GRIP approach, emphasis is on positive resources of the patients and coping behaviours. These two approaches are, however, not designed specifically for dealing with mental health problems [156].

In our view, teaching the GP how to emphasise all three mental health components through his or her communication behaviour and providing a certain sequence in which to conduct the separate elements, could be a fruitful approach to improve treatment of various mental health problems in general practices. Moreover, an emphasis on the exploration of the patient’s experiences and views is seldom provided in current interventions. Neither do they suggest an explicit focus on providing immediate responses to the answers of such explorations, despite that such responses can have a therapeutic effect. More knowledge about the importance of exploration and immediate responses is, therefore, needed.

1.5 Concluding remarks
Physician-patient communication is important, and can influence several types of outcomes. Of special importance is the communication in general practice and with patients experiencing mental health problems. However, there is potential for improvement of GPs’ mental health-related skills, both reported by patients and the GPs themselves.

There are several general consultation models and several interventions for specific mental health disorders. Yet, to our knowledge, there are no communication-based generic mental health interventions for various types of mental health problems. Such an approach could provide the GP with a tool in everyday practice, and potentially improve treatment of these patients, and at the same time, be teachable to the GPs.

Cape and colleagues have suggested one generic approach for mental health treatment in general practice, but it does not entail patients presenting somatic symptoms with a psychological cause [160]. Neither do they use a general framework for the consultation process nor are they explicit about the sequence of the elements, which could make the
content easier to learn and implement for GPs. The approach is not presented as a model and does not describe what the physician should do.

We, therefore, suggest to design a novel and generic patient-centred approach for mental health consultations in general practice based on psychotherapy and communication skills research about common factors and the three mental health domains respectively, which also address the physicians’ self-perceived learning needs. Such an intervention should be teachable according to previous communication skills training research, and also possible for the GPs to conduct in all mental health-related consultations. However, one can imagine that some types of consultations are more suitable than others to apply to such an intervention, e.g. in consultations were the patient is not consciously experiencing a mental health problem, or a patient presents a bodily complaint without a clear somatic explanation. A skills-based approach for teaching physicians communication skills has been found superior to other teaching approaches and would ideally affect patient outcomes, but increasing the GPs’ skills is a natural first aim. Improving the potential of the mental health-related consultation could then be presented as an overall aim.

The work presented in this thesis represents the process of designing this suggested intervention. The first part is a needs survey among GPs assessing their self-perceptions on this topic. The second part entails the design and pilot testing of a communication-based mental health training program for GPs. In the third part we present an adjusted and improved model for the mental health consultation in general practice, which presents a framework for the complete consultation process.
2 Aims of study and research objectives

Main aim:

To create, implement and test an evidence-based mental health communication skills training program for general practitioners.

Research objectives:

a. To measure GPs’ self-perceived learning needs and self-efficacy regarding communication with and treatment of mental health patients (Paper 1)

b. To design a mental health communication skills training program based on an empirical study of needs and an evaluation of the literature (Paper 2)

c. To investigate if a novel mental health communication skills training program can be successful in changing GPs’ behaviour and self-perceptions (Paper 2)

(The last objective derived following our experiences with the intervention study.)

d. To propose a new version of the communication skills training model with a more elaborated theoretical foundation and consultation framework (Paper 3)
3 Presentation of materials and methods

3.1 Project description and timeline

This PhD project has three main parts using different designs. In Part I we conducted a questionnaire study, which will be referred to as Study 1. In Part II a pilot study on a novel communication skills training program for GPs was conducted. The pilot study will be called Study 2. In the aftermath of Study 2 we perceived that teaching GPs an expanded and more complete consultation model, especially suited for mental health consultations, would be useful. In Part III of the project we, therefore, made further developments of the content of the communication skills training program, and designed a consultation model named The Expanded Four Habits Model, which is presented in Paper 3. The timeline of the whole PhD project is presented in Figure 1.

Figure 1. Project timeline
3.2 Study 1

3.2.1 Design and aim

Original design and aim: The original design was a questionnaire study sent by mail to all GPs in Akershus County (n = 451). The aim was to identify GPs’ self-perceived learning needs regarding communication and mental health. Because of a low response rate of only 17% (n = 76) on the questionnaire study, we decided to change the study. Data from the 76 GPs in this sub-study were never published. A brief description of relevant findings is presented in the results section of this thesis.

Revised design and aim: This study was a questionnaire study containing one questionnaire given to GPs on a specialist course in general practice. The aim was still to identify GPs’ self-perceived learning needs regarding communication and mental health.

3.2.2 Sample and recruitment

All 273 physicians attending mandatory courses for accreditation as a specialist in general practice in Norway were invited to answer the questionnaire. 81% (n=220) of the GPs volunteered to participate. Information about responders is presented in Table 1. No information about non-participating GPs is available.

Table 1. Characteristics of the sample

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>92</td>
<td>41.8</td>
<td>1125.5</td>
<td>371.3</td>
</tr>
<tr>
<td>Female</td>
<td>123</td>
<td>55.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>List length (patients)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td>35.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Previously attended</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relevant courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>81</td>
<td>36.8</td>
<td>5.0</td>
<td>4.5</td>
</tr>
<tr>
<td>No</td>
<td>135</td>
<td>61.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years since graduation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.3 Creation, content and outcome measures

The questionnaire was designed by the authors for the purpose of developing a communication skills training programme for GPs partly based on the results. GPs, psychiatrists and psychologists with expertise in clinical communication were consulted during questionnaire construction. We conducted a pilot using a convenience sample of eight physicians to test the questionnaire design, and made changes according to their comments.
The questionnaire covered demographic information (included in Table 1 above), prevalence of patients with mental health problems seen in the GPs’ practice and referring practice. The respondents were asked to indicate how frequently they met with patients with the different mental health difficulties during one week. The list of mental health problems contained nine categories (anxiety/phobias, depression, pain disorders, other complex or psychosomatic disorders, psychosis or other severe psychiatric disorders, grief/loss or relational conflicts, addiction, trauma/abuse and personality problems). The nine mental health problems are mental diseases presented in a common categorisation.

Respondents were also asked to indicate how often they referred patients in each category to specialist care or others (on a scale from one to five) as well as why. Eight different answer categories were provided: severity of disease, time, lack of interest, lack of competence, treatment tried without effect, better treatment elsewhere, patient’s own wish, patient’s relatives’ wish.

Self-perceived needs and motivation for further training and competence development were then assessed in five ways:

1. Self-efficacy regarding treatment of the nine different mental health patient categories was measured on a scale from 1 to 10, where 1 was “not at all” and 10 was “very much”.

2. Perceived learning needs regarding the same nine categories of mental health problems were assessed on a scale from 1 to 5 ranging from “to a small degree” (1) to “to a large degree” (5) regarding how much they would like to improve their treatment.

3. Perceived need to improve different communication skills was measured by rating each of 20 items on a five-point scale ranging from “to a small degree” (1) to “to a large degree” (5). A similar list has been used by our research group in a study of long-term effects of communication skills training for cancer doctors [161], and in a study of self-reported communication skills of medical students [162].

4. Self-efficacy regarding six communication skills on a 12-item scale, where two items cover each skill, was measured on a scale from 1 to 10.

5. Motivation to take part in a communication skills training course was measured by answering the categories Yes or No.
3.2.4 Data collection
The questionnaire was handed out during mandatory courses for accreditation as a specialist in general practice in Norway. The accreditation course is five days long, given by a local chapter of the Norwegian Medical Association and focuses on different basic topics in general practice, including communication skills (one full day). The course is given twice each year. Data collection was conducted in three consecutive courses in 2011 (spring and autumn) and 2012 (spring). The questionnaire was administered and information about our research was provided during one of the breaks.

3.2.5 Data analyses and statistics
Independent samples t-tests were applied in calculation of group differences. Paired t-tests were used to test significance of differences between single item scores. Acceptable level of statistical significance was set to $P < 0.05$. Because of missing data, degrees of freedom (df) varied from test to test. Descriptive statistics were applied to describe findings. A split half reliability test measuring the correlation between two randomly chosen halves of the communication skills learning need items was conducted. SPSS 20.0 was applied in the analyses.

3.2.6 Additional analyses
Independent sample t-tests were used to compare the sample of the original study with the sample in the described study (called Sample 1 and Sample 2, respectively).

3.2.7 Ethical considerations and informed consent
We applied to the Norwegian Regional Committee for Medical and Health Research Ethics for approval of the study; however, their response was that the study did not need approval, because it was an anonymous questionnaire study with no patients involved.

Regarding consent, information about the study was provided during a break. No written consents were collected, but the return of a completed questionnaire was regarded as consent.
3.3 Study 2

3.3.1 Design and aims

Original design and aim: Originally we designed a follow up study with data from patients of GPs who had participated in a communication skills training course as the dependent variable of intervention outcome. As Figure 1 shows, we conducted a communication skills training course in 2010 with 14 participants. All participating GPs were given thorough information about the study and recruitment of patients (including consent forms, information sheets, inclusion and exclusion criteria). Each GP agreed to recruit ten patients, who would be invited to respond to questionnaires before and after their GP had participated in the course. The plan was to conduct a six-month follow up with assessments before training, after, and after six months. The aim was to measure patients’ mental health by several questionnaires. However, adherence to this procedure was low. Few doctors recruited patients, and of the questionnaires that were handed out, only a few were returned. On the second day of the course the GPs described their difficulties with recruitment and expressed an unwillingness to hand out the questionnaires to patients. We, therefore, decided to change outcome measures and procedures when conducting the second course. Measurement of physicians’ communication behaviour was not part of the original design.

Revised design and aim: This study was a test-retest study without a control group, measuring GPs’ communication behaviour before and after attending a communication skills training program. GPs’ self-perceived learning needs and self-efficacy were measured before and after participation in the training program with a questionnaire. The training program was mainly the same as in the original design, only with new evaluation procedures.

The aims of the study were: First, to assess GPs’ use of the six skills that were taught in the communication skills training program, before and after completing training; and second, to examine the GPs’ perceived learning-needs and self-efficacy before training, and the extent to which these had changed after training.

3.3.2 Sample and recruitment

The communication skills training program was approved by the Norwegian Medical Association as part of accreditation as specialist in general practice. Therefore, it was announced on their course pages on the web. In addition, GPs in Oslo and Akershus were e-mailed an invitation.
The courses were planned with a capacity of up to twenty physicians in each, but fewer signed up. Thirteen GPs attended the first training program, while eight GPs participated in the second (N=21). No data on demographics are available except gender. In the first course ten participants were male and three were female. In the second course five participants were male and three were female.

3.3.3 Creation and content of the communication skills training program

The communication skills training program was developed by three of the authors of the paper (Paper 2), which presents the study (TLS, TAM, and AF). As outlined in the introduction, it is based on several traditions. Schramm’s communication model and the patient-centred tradition both view the patient as an important subject in the physician-patient dialogue. This is further accentuated in research on common and client factors in psychotherapy, which we have also used as a foundation of the content of the communication skills training program. In addition to communication skills training research, we provide further empirical support of the association between specific communicative behaviours and various outcomes.

The main content is a set of six skills. Three of the skills are explorative: #1 Be sensitive to and explore patients’ hints, concerns and emotions, #3 Explore the patient’s perspective and understanding and #5 Assess the patient’s resources and strengths. The other three are therapeutic skills elaborating on patients’ responses to the explorations: #2 Be explicitly empathic to emotional content, #4 Provide insight into possible cause-effect relations of the problem, and #6 Promote empowerment by focusing on resources, strengths and coping strategies. All six skills have potential treatment objectives. Communicative strategies and examples of utterances are presented in Table 2 in addition to shortened labels for each skill #1-6.
Table 2. The six skills with short labels, potential evidence-based objectives, communicative strategies to obtain these and examples of utterances.

<table>
<thead>
<tr>
<th>Short labels (Skill)</th>
<th>Potential objectives with selected relevant references</th>
<th>Communicative strategies and examples of exactly what to say</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explore emotions (Be sensitive to and explore patient’s hints, concerns and emotions)</td>
<td>Increase satisfaction [4]^3, Elicit more and correct information [163]^3, Uncover hidden concerns [163]^3, Create alliance [164]^3</td>
<td>Repeat utterances to make patient elaborate “You say it’s been difficult lately…?” Ask about hints to emotions “Can you tell me more about that?” Use open questions Listen Facilitate “Mhm” or just being silent for a while.</td>
</tr>
<tr>
<td>3. Explore patient’s perspective (Explore the patient’s perspective and understanding)</td>
<td>Elicit explanatory models [147]^4, Elicit hidden perceptions [147]^4, Elicit expectations [147, 166]^4, Be able to agree on a helpful treatment plan [167]^4, Assist in making a diagnosis [147]^3</td>
<td>Ask for attributions and beliefs “Have you any thoughts on what the reason could be?” Elicit causal explanations “What do you think might be the cause of your problem?”</td>
</tr>
<tr>
<td>4. Provide insight (Provide insight into possible cause-effect relations of the problem)</td>
<td>Provide reassurance [166]^4, Reduce worries about seriousness [166]^4, Get insight about possible vicious circles [150]^4, Provide accurate and acceptable explanatory model [150]^4, Create mutual understanding [13]^4</td>
<td>Convey the vicious circle model “It seems that your pain, fatigue and worries are making up a vicious circle.” Describe mechanisms of how mind-body interact “When you ruminate and have trouble sleeping, that could influence your headache too.”</td>
</tr>
<tr>
<td>5. Explore resources (Assess the patient’s resources and strengths)</td>
<td>Increase awareness of coping behavior [168]^4, Overcome barriers [168]^4, Get information of strengths and resources [168]^4, Focus on health, not disease [168]^4, Learn about patient’s coping strategies [156]^3</td>
<td>Be attentive throughout the consultation on positive personal and social assets “Tell me more about days when you feel better.” Ask about previous coping strategies and behavior. “You must be quite resilient to be able to deal with this for so long?” Make patient aware of the use of resources and strengths “How were you able to solve that problem?”</td>
</tr>
<tr>
<td>6. Promote coping (Promote empowerment by focusing on resources, strengths and coping strategies)</td>
<td>Improved outcomes [169]^4, Increase patient activation and empowerment [170]^4, Find own solutions [171]^4</td>
<td>Promote use of strengths and resources in current problem “If this makes you feel better, would it be possible to do it more often?” Generalize from previous successful coping behaviour “Maybe it is possible to use that strategy (from Skill 5) in this situation as well.” Increase type of behaviour that is good for the patient “You have come quite far by handling it this way, haven’t you?”</td>
</tr>
</tbody>
</table>

Superscript 1 = Theoretical models, research ideas or suggested approaches, 2 = Meta study or review, 3 = Research/original article, 4 = Book
3.3.4 Outcome and evaluation measures

1. Behaviour change: Behaviour change was measured through counting the number of skills-related utterances performed by each GP on the video recorded consultations before and after training.

2. Self-perceived learning needs: GPs’ self-perceived need to improve different communication skills was measured by rating each of 21 items on a five-point scale ranging from “to a small degree” (1) to “to a large degree” (5) (α = .94). The list is the same as the one used in Study 1, with one additional item: “Promote understanding of potential cause-effects relations”.

3. Self-efficacy: GPs’ self-efficacy regarding the six communication skills was measured on a 12-item scale, where two items covered each skill (α = .94). The self-efficacy scale we used was from 1-10 according to Bandura’s guide for constructing self-efficacy scales [172].

4. Participant satisfaction: An evaluation questionnaire designed by Diakonhjemmet Hospital, that was a part of the general quality assurance of their program was filled out by the GPs after training. The items asked about the GPs’ opinions on the content, usefulness, teaching strategies, procedures, such as meals, time and place of training, etc. and overall satisfaction. At the end of the course we also had an informal open discussion with the participants to get feedback. The first author took notes, but the discussion was not organised in any way. Results are not included in the thesis, since the evaluation was conducted by the administrative manager from Diakonhjemmet Hospital.

5. Personal evaluation. We who conducted the training had evaluation meetings discussing our own perceptions of implementation and content. No results are provided. After analyzing the video-recorded consultations we also did an evaluation regarding the GPs’ communication behaviours not related to the six skills. Our observations are shortly described in Section 4.4. additional data and results section.

3.3.5 Procedures for conduction and data collection

The training was held at Diakonhjemmet Hospital in Oslo, and was a collaboration among the Hospital, the Norwegian Labour and Welfare Service (NAV) and the University of Oslo. The University of Oslo was responsible both for content and teaching.
Training was delivered on four afternoons and was 20 hours total. Each day started at 4 p.m. with a warm meal, and ended at 9 p.m.

On the first day of the course, before training started, all participants completed two questionnaires and conducted a consultation with a simulated patient, which was video recorded. The participants were told to act as if they were in a normal setting but without performing physical examinations. The simulated patients were seven professional actors, carefully trained in two specific patient cases. The cases were designed to exemplify common patients with mental health problems in general practice. One patient presented with abdominal pain and other somatic complaints which turned out to be symptoms of social anxiety. The other patient presented with a bad headache and fear of having a brain tumor, which appeared in a context of work-home stress. Participants on the first course got the pain/anxiety case before and the headache case after training, while participants in the second course got the headache case first and the pain/anxiety case second. We varied the case sequence to avoid results indicating behavioural changes caused by possible differences in the two case histories.

To give all participants equal opportunity to perform, we trained the actors to give specific verbal hints in each consultation. One such hint was a vague expression of fearing a serious disease. In addition, all actors/patients requested approval for sick leave from the GP.

After the first video recording, training started with a presentation of content and teaching strategies. Each skill was explained in short lectures, which gave an evidence base of how and why each was effective, as well as examples of exactly what to say (Table 2).

The group of participants was then divided into smaller groups of four to six participants, each led by a physician or a psychologist. Role-plays were conducted in the small groups, and the participants discussed relevant experiences and challenges from their practice. Patient cases were prepared in advance and GPs’ own difficult patient cases were role played. All participants were given the opportunity to adjust their behaviour after feedback and discussion in the group. “Time-outs” were actively used to emphasise when convenient use of the six skills took place or when they could have been used.

On the last day of training, all GPs were again asked to conduct a consultation with a simulated patient. All these were videotaped. To minimize the influence on actors’ behaviour, we did not inform them about the content of the training module except that it was about communication. All participants filled out the two questionnaires again at the end of the last day. All questionnaires were handed out and collected by a co-worker/scientist (a co-worker
and me) who were not teachers of the course. As mentioned, a short evaluation questionnaire
designed by Diakonhjemmet Hospital was handed out at the end of the course as well.

3.3.6 Data analyses and statistics

Coding of communication behaviour: We designed an assessment tool to fit the intervention
objectives, as the lack of alignment between assessment type and outcome goals is quite
common in such research [84]. A categorisation system called the “Six Skills Assessment
Scale” (6-SAS) for coding physician communication behaviour was, therefore, constructed
for the purpose of this study. A presumption was that categorisation and counting of
utterances allowed us to quantify communication behaviour. An utterance was defined as one
statement made by the GP that was explicitly related to the six skills (e.g. exploration of one
specific emotion, Skill #1 Explore emotions) or implicitly (e.g., asking about exceptions, Skill
#5 Explore resources). Only one utterance related to each skill could be coded within one
turn. Each relevant utterance was coded as 1, and mean scores within each skill and in total
were calculated.

Two of the authors (TLS, AF) coded three videotapes together. A manual was created
for specification of the criteria of utterances when disagreements occurred. Disagreements
were found to be related to which skill an utterance belonged, and not whether there was an
utterance to be coded. Disagreement was most often related to Skill #1 Explore emotions and
#3 Explore the patient’s perspective. Thus exploration of emotion and cognition can
sometimes be difficult to distinguish from each other.

After this session the two coders analyzed six videotapes to calculate reliability. The
percentage of agreement was calculated by dividing the number of shared coded utterances by
the total number of coded utterances. After coding three videotapes the percentage agreement
was 61%. To reach a higher agreement we discussed all codes again and then coded three new
videotapes reaching an agreement of 68%. When this level was reached, the first author (TLS)
coded the remaining videotapes. Coders were blinded to whether the tapes were made before
or after the training.

There were twenty videotapes made before the training and twenty after, but in the
paired samples t-tests the n=19. There were, however, 21 GPs participating in the training
program and the study. One participant was not present on day one and is, therefore, only
included on the tapes after training. Another participant did not get filmed on the last day of
training because of equipment problems. This participant is, therefore, only included on the tapes before training. In paired samples t-tests both these GPs were automatically excluded.

Statistics: Data were screened for outliers (defined as >3 standard deviations (SDs) of the mean) and none were found; therefore, parametric tests were used. Paired student’s t-tests were used to assess behavioural changes from before to after training, and to test for changes in self-perceived learning needs and self-efficacy. Both total scores, as well as scores on each item were compared in the analyses. Significance was set at P < 0.05. Effect sizes for each skill as well as the total score were calculated using standard mean differences. We aggregated the scores to control for the effect of variations in consultation length, by dividing the number of coded utterances by the duration in minutes, which gave us the number of coded utterances per minute. To test whether the two patient cases were equal in terms of the number of skills uttered by the GPs in each of the two groups both before and after completing the training program, we used independent samples t-tests. The software used was IMB SPSS Statistics for Windows, Version 20.0.

3.3.7 Ethical considerations and informed consent
The study was approved by the Norwegian Regional Committee for Medical and Health Research Ethics.

On the first day of the training program, all participants were informed about the nature of the study. Participation in the study was voluntary and did not affect participation in the program. All participants volunteered to be part of the study, and gave written consent to use their videotapes and questionnaire answers in this study. All data derived from the videotapes and questionnaires were anonymised and stored safely.

3.4 Paper 3
3.4.1 Designing the Expanded Four Habits Model
As described above, this part of the project was not originally planned as a part of this doctoral project, and the idea to design the Expanded Four Habits Model originated in the aftermath of Study 2. The model is an attempt to combine the six skills that are presented in Study 2 with the Four Habits Model to create a complete framework for mental health consultations in general practice. More information about why the expanded model was designed is presented in Section 4.4.
4 Summary of papers and main results

4.1 Paper 1

Background: General practitioners (GPs) often see patients presenting with mental health problems, but their training regarding mental health treatment varies. GPs' communication skills are of particular importance in these consultations, and communication skills training of GPs has been found to improve patients' mental health. To tailor a communication skills training by basing it on GPs' learning needs and self-efficacy, thereby maximising learning, we conducted a questionnaire study.

Objective: To measure GPs' self-perceived needs regarding communication with and treatment of mental health patients.

Methods: GPs in training for specialist in general practice were given a questionnaire on communication and mental health treatment. The questionnaire measured prevalence, referring practices, self-efficacy and self-perceived learning need regarding mental health treatment and communication skills, as well as interest in attending training.

Results: A majority of GPs in our sample were interested in training on communication skills and mental health treatment. However, they reported moderate learning needs and high confidence on the different measures. GPs reported highest learning needs regarding specific communication skills and treatment of the most common mental health problems. At the same time, they reported highest self-efficacy in treating the same disorders. They also reported high confidence in communication skills.

Conclusion: Despite being confident, GPs in this sample recognize the need for specific skills in consultations with patients with mental health problems, but may underestimate the importance of general communication skills. These results are informative when designing training for GPs in communication and mental health.
4.2 Paper 2

Objective: To test a communication skills training program teaching general practitioners (GPs) a set of six evidence-based mental health-related skills.

Research methodology: A training program was developed and tested in a pilot test-retest study with 21 GPs. Consultations were videotaped and actors were used as patients. A coding scheme was created to assess the effect of training on GP behaviour. Relevant utterances were categorised as examples of each of the six specified skills. The GPs’ self-perceived learning needs and self-efficacy were measured with questionnaires.

Results: The mean number of GP utterances related to the six skills increased from 13.3 (SD 6.2) utterances prior to 23.6 (SD 7.2) utterances after training, an increase of 77.4% (P<0.001). Effect sizes varied from 0.23 to 1.37. Skills exploring emotions, cognitions and resources, and the skills promoting coping increased significantly. Self-perceived learning needs and self-efficacy did not change significantly.

Conclusions: The results from this pilot test are encouraging. GPs enhanced their use on four out of six mental health-related communication skills significantly, and the effects were medium to large.

Practice implications: This training approach appears to be an efficacious approach to mental health-related communication skills training in general practice.
4.3 Paper 3

Objective. The study aims to develop a teachable model of clinical communication in mental health consultations in general practice.

The Expanded Four Habits Model. Research findings and literature supporting the concepts of Six Skills and the Four Habits Model and other relevant literature were reviewed, aiming to integrate the two approaches into a comprehensive model for mental health consultations in general practice. The proposed Expanded Four Habits Model includes an expansion of Habits 2 and 3 from the original model with six specific communication skills within three key domains of mental health; emotional, cognitive and coping/behavioral. There is one explorative and one elaborative skill in each domain. As the original Four Habits model, the expanded model represents both a model of the consultation and a scheme for communication skills training.

Conclusion. The Expanded Four Habits Model is a simple and teachable scheme to help the general practitioner to structure consultations with patients with mental or psychosocial problems. We suggest that the model will prove particularly useful in consultations with patients experiencing relatively minor mental health problems, with or without accompanying physical complaints.

Practice implications. The model should be tested out as a communication skills training program based on training principles developed in the Four Habits training courses, with modifications due to the suggested expansion of Habits 2 and 3.
4.4 Additional data and results

Study 1
As mentioned previously, in Study 1 we originally invited all GPs from one Norwegian County to respond to a questionnaire. The response rate was only 17%, and the data were, therefore, not published (Sample 1). To assess whether respondents in Sample 1 were significantly different from respondents in Sample 2 on self-efficacy and learning needs we performed independent samples t-tests.

Respondents in Sample 1 were significantly older and more experienced than respondents in Sample 2. There were no significant differences between the two samples in the other measures (Table 3).

Table 3. Sample 1 compared to Sample 2 regarding age, experience, self-perceived self-efficacy and learning needs.

<table>
<thead>
<tr>
<th></th>
<th>Sample 1 (n=76) Mean (SD)</th>
<th>Sample 2 (n=220) Mean (SD)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>47.27(10.03)</td>
<td>35.23 (5.89)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Experience in years</td>
<td>17.45(10.70)</td>
<td>4.96 (4.51)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Self-efficacy on mental health problems</td>
<td>5.53(1.45)</td>
<td>5.48 (1.23)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Learning needs regarding mental health problems</td>
<td>3.57(0.90)</td>
<td>3.70 (0.71)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Learning needs regarding communication skills</td>
<td>2.65(0.79)</td>
<td>2.57 (0.52)</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Study 2
We did not make any systematic qualitative analyses of the complete communication-related material provided in the consultations, as only skills-related utterances were categorised and counted. However, while coding utterances related to the six skills, we made some observations regarding the GPs’ communication, which subsequently influenced us. Our evaluation of the GPs’ communication behaviour in the beginning and the end of the consultations was that they varied to a great extent, and that communication skills suggested by patient-centred models, such as the Four Habits Model, were infrequently used. For
example, several of the physicians did not introduce themselves. The GPs neither planned the visit together with the patient nor initially elicited the patient’s concerns. Consequently, the beginning of the consultation seldom entailed relationship-building communication. When ending the consultation, summarization and shared decision-making about treatment were infrequent. Most physicians did however plan the next visit.
5 Discussion

5.1 Discussion of material and methods

This section will discuss each study separately. Paper 3 will not be discussed in this section, as an evaluation of the method of designing a model appeared more appropriate in the discussion section together with other important aspects to address regarding the model and the paper.

5.1.1 Study 1

5.1.1.1 Design

Study 1 was designed as a survey for GPs attending mandatory general practitioner training courses. A questionnaire study has several advantages: it is easily conducted and demands little intervention. Participants may respond when it suits them. Furthermore, respondents can be anonymous, which increases the probability of honest answers. A disadvantage of using a questionnaire study to measure learning-needs is that self-assessment have been found not to be correlated with objective assessment of skills [59].

In this study we were interested in information about the GPs’ own opinions, and we, therefore, decided that for our purpose this design was the best in order to provide the information we were seeking. An alternative design could have included individual or focus group interviews of the physicians, similarly to the study that Mykletun and colleagues conducted among one hundred Norwegian GPs [116]. However, we wanted to control the content by asking for certain skills, and a questionnaire was, therefore, more useful for us in this setting.

5.1.1.2 Sample recruitment and representativity

The recruitment of participants in Study 1 was easily conducted during a break while the GPs were attending a course preparing for specialization in general practice. However, we did learn from the first round of questionnaires (see Figure 1) that the rate of attrition for questionnaires is high. Other studies also report low response rates among physicians [173]. Two hundred and twenty (80%) of the participants returned the questionnaire in this study, a response rate we considered acceptable. Mean response rates have actually often been found to be much lower, about 50-60 percent, and that is among published studies [174]. One would expect unpublished studies to have lower response rates. This discrepancy might be explained by our handing out and collecting the questionnaires on site instead of mailing them.
We consider the sample in Study 1 to be quite representative for physicians preparing for specialisation in general practice. This can be explained by two factors: first because of the high response rate, and second because the course was mandatory. Since the course was required, the attendees were not necessarily the most interested physicians. In addition, when comparing Sample 2 with the GPs in the original sample (Sample1) we did not find any significant differences regarding self-perceived learning needs or self-efficacy. These results indicate that generalisation of GPs in general is possible, but should be further assessed.

Additionally, there might have been a selection bias, causing some GPs to answer the questionnaire, e.g. those more interested or more conscientious. The high response rate indicated that this was not a significant problem, but one might think that GPs totally uninterested in this topic abstained from responding. We do not know whether selection bias has influenced our results.

5.1.1.3 Procedure for data collection
The questionnaires were handed out during a break and physicians returned after completion. This procedure worked well. However, the GPs answered the questionnaire in an educational setting, which may have influenced their answers regarding motivation for a communication skills training course, especially since the course program included lectures about communication. It is also possible that the answers were influenced by ‘social desirability’, meaning that the GPs answered what they thought we wanted to hear. However again, the comparison of Sample 2 with Sample 1 indicated that neither the educational setting nor social desirability significantly influenced the results.

5.1.1.4 Creation, content and outcome measures of the questionnaire
The main limitation regarding the methodological approach in Study 1 is that the questionnaire was designed for the purpose of this study, and has not been validated. However, the list of communication skills have been used previously, first in a Nordic Cancer Union Study [161] and later in a study of medical students, under the name of OSICS [162]. The psychometric properties were discussed in the latter paper, but validity has not previously been tested. The questionnaire was pilot tested in a convenience sample, but using a previously validated questionnaire might have been better.

The other parts of the questionnaire were included to get the information we wanted and needed for further design of the communication skills training program. For example, the nine mental health categories were chosen mostly because of their commonness. They do,
however, refer to specific psychiatric diagnoses, and other mental health problems accounted for in our definition of the term have, therefore, not been included in the results of frequency. If we had chosen other mental health categories or other reasons for referral, we would, of course, have gotten different results than we did. That is a limitation with surveys with closed-ended questions. Furthermore, the same limitation applies for the items on self-efficacy and learning needs. One might assume that when provided with a list of twenty communication skills, basic skills are rated lower on learning need than more specialized skills, simply because of their being seemingly less complex. If we had separated the skills into two different lists, one general and one specialized, we might have gotten different results.

We chose the content detailing the information in which we were interested; however, open-ended questions and inclusion of other topics or skills could have produced other results. In a questionnaire where all topics are related, answers given on one item could influence the responses on the next ones. How the topics and items are listed could also influence GPs’ responses, but we do not know how this could have influenced our results.

**Validity** is the extent to which the instrument measures what it is intended to measure. The measure of validity is dependent on the measure being reliable. Our high Cronbach’s alphas are reassuring, but they do not necessarily imply validity. There are several types of validity. In this study we perceived the face validity of the questionnaire to be high, because we explicitly asked for most of the skills that were measured. The self-efficacy items might be an exception, since they measure an underlying psychological construct.

Furthermore, neither content validity (whether all important aspects of the construct are covered) nor predictive validity (whether scores on the questionnaire successfully predict a specific criterion) was examined. There are obviously more aspects of communication and treatment of mental health issues than those we measured, yet we included all items of interest to us regarding these topics.

We did follow Banduras’ guide for self-efficacy scales using a scale from one to ten [172], to increase potential concurrent validity (whether results of a new questionnaire are consistent with results of established measure), even though, to our knowledge, there are no other scales measuring self-efficacy on communication and mental health problems.

It was not possible to explain the huge variation in the prevalence of mental health patients among the GPs in this study. The cause of this variation might, for example, be personality factors in the physician or the patient, variation in detection rates, or structural
factors like availability of secondary health care, but it might also be a result of the questionnaire’s design.

**Reliability** refers to the consistency and replicability of a measurement. It is a psychometric property describing to what extent the measure provides accurate and stable data, i.e. the same answer in several tests. In this setting internal consistency is important, which is to what extent the items measure the same underlying construct, described by the correlation of certain items in the questionnaire. The internal consistency was measured with Cronbach’s alpha, and coefficients above 0.70 were considered to be satisfactory. On our items of learning needs and self-efficacy the Cronbach’s alphas were 0.89 and 0.86 respectively for mental health, and for communication skills 0.90 and 0.92, respectively. These results indicate that the items in each scale measure approximately the same phenomenon. A split half test of the 20 communication skills items showed a correlation of 0.62, which indicates that there are some variation in the items, for example as we have seen between general and specific skills.

We chose to use a 12-item scale to measure the GPs’ self-efficacy regarding the six communication skills. Two similar items were constructed for each skill. We do not know whether we would have gotten different results by using direct wording of the skills. The reason we chose to split the skills into two items was to enhance the accuracy of the scale, as precision often is increased by using several items measuring the same underlying topic.

One should also get the same responses if testing at different times, if nothing else has changed in the interim. Such test-retest reliability was not measured in this study.

### 5.1.1.5 Data analyses and statistics

Data was found to be normally distributed, which is common for questionnaire results. Therefore, independent samples t-tests were applied in calculations of group differences, and paired t-tests were used to test significance of differences between single item scores. Independent samples t-tests are used to compare groups of participants that are not related in any way (a between subjects design). Paired samples t-tests, on the other hand, are used to compare groups that are related, e.g. when participants in the first group are the same as participants in the second group (a repeated measures design) [175].

The acceptable level of statistical significance was set to $P < 0.05$. The $P$ value represents the strength of the evidence in support of the null hypothesis, which in this case
means the chance that there are no significant differences among the scores tested. Lower p-values indicate a greater chance of the null hypothesis being untrue.

We also used descriptive statistics to present the findings in this study, because comparing scores on all items would have resulted in too many tests, and results would have become more vulnerable to errors. Applying multiple tests especially increases the chance of getting significant results where no differences among the scores exist in reality (Type 1 error). We chose to compare only selected items, especially those items with the highest and lowest scores. Descriptive statistics with ascending presentation are provided for the other scores. Whether or not these items are significantly different from each other has not been tested. Therefore, when interpreting the results, we chose to use wording such as “higher than” and “lower than”.

One alternative could have been to compare all items and correct for multiple testing by using Bonferoni corrections. However, Bonferoni tests have been criticised for being too strict, and for providing too many Type 2 errors (claiming that there are no differences, when there really are), therefore we chose not to.

5.1.1.6 Ethical considerations and informed consent

We consider that there are no specific ethical problems with using an anonymous questionnaire. One consideration though, is that GPs might have felt inclined to participate as the study was introduced by one of the teachers of the course. However, the volunteerism was emphasised.

5.1.2 Study 2

5.1.2.1 Design

The design was a test-retest intervention study without a control group. This design gave us the opportunity to compare the GPs’ behaviour before and after training, but as we did not have a randomized controlled design, we cannot claim that changes were a result of training, which of course is problematic. To measure the effect of an intervention the optimal study design is a randomized controlled trial (RCT). Conducting a RCT does, however, require many voluntary participants, and would be difficult to achieve in a general practice setting. GPs are often reluctant to participate in such studies, explained by factors such as time pressure [176]. When planning further similar studies, a RCT design should be pursued
anyway. However, there is no reason to assume that the GPs in the present study would have
cpyanged their behaviour to such an extent randomly.

In addition, participants answered questionnaires about their self-perceptions. This
approach has the same limitations as described above for Study 1.

5.1.2.2 Sample recruitment and representativity

We experienced problems with recruitment of GPs to the training course, even though we
collaborated with the Norwegian Medical Association and participation gave CME-points.
Recruitment might have been improved by visiting general practice clinics to present the
training program and the study before registration started. However, recruitment of GPs has
been found difficult in previous studies as well [177]. We believe that mental health-related
training is of great importance for all GPs, and, therefore, should be mandatory. However, one
should assess what makes GPs participate and not, in order to change some aspects of training
before further conduction. Such factors might, for example, be place, timing, or training
content.

There were more men than women participating in the courses. Whether the male GPs
experienced higher learning needs or were more interested in this topic would be interesting
to examine closer. If more women had attended the training program, it is a possibility that we
would have gotten greater effects of training, because women have been found to learn
communication skills easier than men [85].

In retrospect, I think we should have asked for more information about the physicians,
such as age, patient list length, etc., because more information about attending GPs would be
interesting and potentially provide insight about GPs improvements after training. Sparse data
on demographics of study samples are unfortunately common [67].

Regarding representativity of the participating GPs, we must assume that participating
GPs were especially interested and probably more skilled in the current topic than the average
GP. Unfortunately, this is often the case regarding voluntary continuing education. Most
people tend to be interested in topics in which they are most skilled and vice versa.
Consequently, we cannot generalize to all GPs. In addition, the sample was small, which
further limits the conclusions that can be drawn from the results.
5.1.2.3 Procedure for data collection

All data was gathered during the training program. The videotaped consultations were performed on site. We applied real doctors’ offices for the consultations, but without examination benches. Since the video recordings were taken outside of the GPs’ usual office, with a simulated patient and without the possibility for a somatic screening, the consultations might have become less real for the physicians. It is possible that the situation became artificial to such a degree that the physicians’ behaviour was affected. Training of physicians has previously been suggested to be best when conducted within the GPs’ normal work environment [75]. However, that was not feasible in this situation. The GPs did, however, report experiencing the consultations as natural and real afterwards. When coding the videotapes, we did not consider the consultations as artificial in any way.

Another element that could have influenced the results were potential differences between the two patient cases. We tried to design two equally complex cases with similar components, but if these had turned out to be completely different from each other regarding the amount of coded utterances, interpretation of results would have been more difficult. However, independent t-tests showed that there were no differences in mean scores between the two groups who had different cases before training or after the training was completed.

The questionnaires were handed out in a break during the training program, and as they contained only a few pages, the activity did not require much time. We perceived this as straightforward and unproblematic. In our opinion this was the best approach for measuring the GPs’ self-perceptions before and after training. However, there is a chance that GPs tried to remember their scores from the first questionnaire on the second. This might have influenced their responses, and it is a possibility it made them less “honest”. However, if we had chosen to measure self-perceptions through interviews, there is reason to believe that honest answers would be even more difficult to obtain because of social desirability.

Recommended teaching strategies for communication skills training have been outlined in the introduction. Our experiences with these strategies were very good. However, one must assume that using different teaching methods would have provided us with different results. Using Balint groups could have been one alternative, which is frequently used in medical education. In Balint groups several physicians discuss their own experiences with consultations, which for some reason concern them afterwards. It is a reflection-based approach [178]. However, as our focus was primarily on teaching GPs specific skills, it was,
in our opinion, more appropriate to use a skills-based approach. This approach has, as
mentioned previously, been evaluated as effective [51].

5.1.2.4 Creation and content of communication skills training
In the communication skills training program a set of six specific evidence-based
communication skills was designed with influences from psychotherapy research and
communication skills training, and with emphasis on the acquisition of skills (previously
described). However, one could argue that focusing on other skills would have been better or
more efficient, especially since some skills are easier to learn than others [85]. Because we
first conducted the training course in which data on patient outcomes was not collected after
all, we used this as a pilot for the content and procedures of the training program. As
mentioned, the procedures regarding evaluation had to be changed, but content and other
procedures were evaluated as adequate.

Our emphasis on exploration first and response second in the three mental health
domains is novel, and we do not know for sure whether it is an appropriate approach for the
intended use. In our opinion, we have provided sufficient theoretical justification for this
choice, but further studies on the importance of explorations should be conducted. The same
discussion applies to the sequence of the skills, which we emphasise, but this should be
examined more closely.

One could also argue that we should have paid more attention to the results from
Study 1 on the design of the communication skills training program. However, we chose to
emphasise some elements the GPs themselves wanted, and in addition, we knew from the
literature that some elements had not previously been satisfactorily executed by GPs.

Nonverbal behaviour was not included in the training program, but is a very important
factor in the physician-patient relationship and has been found to be related to patient
outcomes [179]. In this training program we focused on the six skills, but it is possible that
nonverbal behaviour should have been introduced, as it is an important element of
communication.

5.1.2.5 Outcome and evaluation measures
Behaviour change was measured by a coding scheme 6-SAS, which was created for this pilot
study and should be validated before further use. The reason we chose to design the 6-SAS
was to be able to measure exactly those skills that were taught in training. According to
Cegala, there is often a mismatch between training content and measurement content [84].
Another advantage of not using more comprehensive coding system such as RIAS or conversational analysis, is the time usage [82]. However, we do not know if a validated coding system would have provided different results.

A limitation of the coding system is that it relies on counting utterances, while an evaluation of how well the skill was implemented was not conducted. If we, for instance, had asked “How well did the physician use Skill 1 (and 2 through 6) on a scale from one to five,” we would have probably gotten different results. This is related to another issue, i.e., by counting instead of evaluating one assumes that a higher number of utterances is better. Actually, we do not think that is correct; still we did not define an optimal level or number of skills. There is probably a specific number of utterances that are most advantageous, possibly varying according to each skill and among patients. This should be considered in later studies.

Regarding inter-rater reliability, we calculated a percentage agreement based on skills-related utterances only. If we had coded all utterances that we agreed were not related to the skills, the percentage agreement would have been much higher. Disagreements were most often related to exploration of emotions versus cognition. A typical example is when the GP asks the patient, “What are your thoughts about that?” The word “thoughts” implies cognition, but the way the question is asked might sometimes point back to some description or hint of an emotion. In such cases we coded based on the patient utterance to which the question was related.

Observer bias is a possibility since we coded the utterances ourselves. One strategy to prevent us from biasing the results, i.e., wanting an effect of training, was that we were partly blinded to whether the tapes were taken before or after training. The reason I write “partly” is because if we as coders thought back and tried to remember what GP attended which course, we could potentially have identified the pre- and post-recordings. How such a bias might have influenced our results is unclear.

Another factor that might have influenced our results is the use of simulated patients. The fact that the GPs knew these patients were not real, and that the situation was not either, could have influenced their behaviour [79]. Whether or not it would have made the GPs more or less capable of using the skills is difficult to assume. One might think that this posed situation and the camera on the side made the GPs more self-aware, and, therefore, they could not present their best. This is a well-known social psychological phenomenon called social facilitation; in the presence of others one will present better than usual on tasks that are not too difficult [180]. Therefore, we cannot know if and how this evaluation method has
influenced our results. Using consultations from real practice could have provided a more natural behaviour among the GPs. Nevertheless, it has previously been found that physicians cannot identify simulated patients nor distinguish them from real patients, and that GPs do not treat simulated patients differently [40]. Moreover, the participating GPs told us they forgot that the patients were actors and that the video camera was running while conducting the consultation.

Change in self-perceived learning needs and self-efficacy were measured with the same questionnaire items as in Study 1. The methodological issues concerning the questionnaire have been discussed above. We would also expect that GPs who answered the questionnaire unconsciously want to justify their participation in the training course. Whether that would make their self-perceptions more or less positive are unclear. In addition, there might be an increased social desirability effect biasing the results, because the GPs attending the courses answered the questionnaire on site and delivered the questionnaires back to me or my colleague.

5.1.2.6 Data analyses and statistics

The questionnaires used in the training course were the same as in Study 1, only with selected parts: learning needs and self-efficacy. However, one main difference was that we tested the same individuals before and after the training program, which implied the use of paired samples t-tests on the data. In this setting the data was collected within a test-retest design. Data from the analysis of the video-tapes was also gathered before and after training.

Paired students’ t-tests were used to assess behavioural changes from before to after training and to test for changes in self-perceived learning needs and self-efficacy. We chose to compare item by item in addition to main scores. These results must be considered with caution as multiple tests like these tend to create a false positive result, as mentioned above.

On the data from the videotapes we chose to measure the effect size, because it is a simple way of quantifying the difference between two groups, for instance before and after an intervention. The effect size tells us how big the difference is, and in this case, how well the intervention functioned with reservations that change is caused by the training. We chose to use standard mean differences to calculate effect sizes, a method that tells us how many standard deviations (SDs) the average individual in the intervention group is higher than the average individual in the comparison group [175]. An advantage of using effect size measures compared to significance tests is that significance tests rely heavily on sample size and even
very small differences often become significant in large studies. To the contrary, measuring effect size provides information about the meaning of the difference in practice. According to Cohen, a rule of thumb for interpreting effect sizes is that 0.20 is a “small” effect size, 0.50 is a “medium” effect size and 0.80 is a “large” effect size [181).

To control for the effect of variations in consultation length we aggregated the scores by dividing the number of coded utterances by the duration in minutes. This gave us the number of coded utterances per minute. We were unsure of which method to use when controlling for consultation length, and whether it gave us any important information at all. If the higher number of coded utterances was explained by longer consultations, would that have shown that the GPs had not changed? How much weight should be placed on the consultation length is an important discussion question, in my opinion. I think that since the number of skills-related utterances increased, it is not that important whether or not the consultations became longer. Talking about more aspects of the patients’ views could, of course, increase consultation length, as outlined in the introduction.

In the analyses we chose not to test for variations between the genders, because of the low number of women compared to men, and the low sample size. However, women have previously been found to learn communication skills more easily than men [85]. This should be taken into account if a larger study is conducted.

### 5.1.2.7 Ethical considerations and informed consent

The participants did not know about the study when they signed up for participation in the training course. The possibility to participate in the study was presented to the GPs as an alternative on the first day of training. There is a chance that we got such high participation rate (100%), because it was difficult to decline participation in front of us and each other. No elements would, however, have differed for participants versus non-participants. Post training, no participants withdrew from the study, which might indicate that they did not have any problems with the study and how it was conducted.

### 5.2 Discussion of results

This general discussion aims to interpret and discuss the findings in this project, with particular emphasis on elements that I find important for the design and implementation of mental health-related communication skills training in general practice. What has been important in this process of creating a good intervention?
5.2.1 Learning-needs among GPs

The first aim of this thesis was to measure GPs’ self-perceived learning needs and self-efficacy regarding communication with and treatment of mental health patients. We measured these aspects with a questionnaire. According to the results, GPs’ self-perceived learning needs and self-efficacy regarding mental health treatment and communication seem ambiguous regarding whether or not training should be initiated. The GPs reported a high interest in attending training, yet they experience moderate levels of learning-needs and quite high self-efficacy scores. These results indicate a certain inconsistency in GPs’ perceptions.

So how do we interpret these findings and apply them when designing an intervention? I believe that we must focus on certain elements.

First, since self-efficacy regarding mental health and communication most likely has not been measured among GPs previously, I find it difficult to make any inferences based on our results. GPs’ seem quite confident, most confident in emotion-related communication and least confident in coping-related communication. We first get a fuller picture when we examine the GPs’ learning needs. GPs reported the highest learning needs regarding specific communication skills and treatment of the most common mental health problems. These problems are less frequently referred to secondary health care services. Therefore, it seems as though GPs acknowledge the importance of these common problems. GPs' high confidence in treating the same disorders indicated to us that self-efficacy is not a measure suitable to assess needs alone, because one often wants to learn more about those issues that are of interest or importance [63].

Second, the fact that GPs are most interested in learning specific skills and not general skills is important and interesting, especially since we do know that GPs perform less than adequate on many general skills. As the ideal of patient-centredness has spread across courses and into the medical school curriculum, several of the general skills should be well-known to the physicians. This might explain why they do not perceive learning needs regarding general skills. Yet, as mentioned previously, physicians do seem to become more task-oriented and not more patient-centred in their communication [39]. We suggest that the discrepancy between objective needs, such as reported in previous observational studies, and subjectively experienced needs should be addressed in training. This is especially important if basic skills are included in the program. For example, empathy was the skill in which GPs reported the lowest need for improving in Study 1, even though studies have found that many patients prefer an empathic GP [182]. The GPs also reported the highest confidence in assessing and
responding to emotions, which indicates that they do not perceive a need to enhance their empathic behaviour. Observational studies, however, find that patients could benefit from increased physician empathy [4, 183, 184]. In my opinion, basic communication skills should, therefore, be incorporated in communication skills training.

In addition, specialized skills should be included in communication skills training regarding mental health. Based on the results in Study 1, coping and utilisation of patient’s resources should be emphasised in a mental health training program. Focus on making the patient healthier and empowered have become more common in recent years and have also been found relevant in general practice [169, 185-188]. GPs in previous studies have also reported an interest in learning specific skills [8, 161]. In communication interventions one should, therefore, try to include both specific skills and to specify general skills. Specifying the general skills and illustrating how important these skills are in handling mental health problems are of great importance, since the GPs do not perceive a need to learn such skills. Documentation of how general skills, such as empathy, influence mental health is essential, especially in providing insight and heightening motivation among the GPs.

However, it is a possibility that our results indicate that GPs consider general communication skills as less relevant in mental health-related consultations. It is also a possibility that communication behaviour is not at all considered a part of mental health treatment among GPs. Whether or not this is the case should be assessed and potentially addressed in training.

Third, one of the most important implications of the questionnaire study is that the GPs' self-perceived learning needs do not correspond closely with previous observational research, which implies a challenge in designing interventions that appear as interesting for participants as useful in real practice and for patients. This might be of special importance since physicians' motivation for attending training programs seems higher than their actual participation rate. In relation to Schramm’s model, it seems that how the physician encodes the message is differently perceived by the physician and the patient [10]. Such discrepancies could potentially inhibit the communication as a process and the possible outcomes of the consultation.

In the current part of the discussion, I have interpreted our results in light of GPs in general; however, to be able to generalize one should not use a sample of GPs under specialisation in further assessments of learning needs and self-efficacy.
5.2.2 Mental health-related communication skills training for GPs

In Study 2 we designed and implemented a mental health-related communication skills training program for GPs. The design of such a mental health-related training program fulfills Research Objectives b and c.

Regarding the content of the intervention, we agreed upon a set of six specific evidence-based communication skills. We chose the term “evidence-based” as each of these skills is supported by considerable research evidence (outlined in the introduction and in Table 2). According to The Cochrane Collaboration, evidence-based medicine is when one uses current best evidence, with “up-to-date information from relevant, valid research about effects of different forms of healthcare” [189]. In addition, evidence-based medicine includes clinical expertise and patient values, meaning that the clinician uses his or her expertise to tailor the treatment to the patient, and that the patient’s needs also are taken into account. Tailoring the treatment and considering the patients’ needs might also be considered as two features of the patient-centred model. We could, therefore, have chosen to describe the skills as patient-centred based or biopsychosocially related [190].

There is scarce research on how improved GP communication can influence patients’ mental health, at least research using the term communication explicitly. We have found that teaching GPs a set of six evidence-based skills inspired by common and client factors and patient-centred communication might be a fruitful alternative.

In relation to Research Objective c in the thesis we found that GPs increased the number of skill-related utterances on four of the six skills. It is interesting that three of the skills in which the GPs increased most were the exploration-based skills (#1 explore emotions, #3 explore the patient’s perspective, and #5 explore resources). At least three explanations can be provided for this finding. To our knowledge few interventions emphasise exploration of different domains of the patients’ experiences. Furthermore, we have not found any interventions that emphasise exploration with a therapeutic intention, and most medical curricula emphasise information giving. The novelty of this focus might, therefore, have improved the GPs’ learning. Another explanation is that these skills are more interesting for the GPs, and they, therefore, learn them more quickly. From previous research we know that perceiving the content as interesting and relevant can increase learning [191]. The third explanation is that the exploration based skills are simply easier to learn. It is possible that asking questions and exploring is easier than providing explanations and responses, yet we cannot find any literature supporting this. To the contrary, literature from general practice
shows that physicians tend to provide information and use “biomedical talk” to a great extent during the consultation, which does not indicate that they find exploration-based skills familiar or easy to conduct [192].

I find it particularly interesting to discuss the importance of Skill 1, explore emotions, on which GPs doubled their number of utterances. Even though the importance of this skill has been described, we do not know whether patients always want the GP to explore emotions. It might be that patients explicitly avoid descriptions of their emotions, because they do not want to talk about them. However, studies find that patients want to be helped with their mental health problems, and that they do not want referrals to secondary health care [193]. That GPs increased their utterances considerably on this skills might have important clinical implications, especially because revelation of emotions can be therapeutic in and of itself [145]. Moreover, this skill has been found to influence the physician-patient relationship and patient satisfaction [4, 164], and is in our opinion the very start of the consultation which influences the rest of the visit and its outcomes.

Paper 1 reported that coping was one of the main interests of GPs in further medical education, and we found that the training program actually increased the GPs’ performance on the two coping-related skills. One natural question is whether an increased focus on resources and coping will increase patients’ coping as well. This should be assessed in further studies. It seems as though the focus on coping and resources is perceived as novel or difficult for the GPs, as these skills were not well integrated in GPs’ communication behaviour before training. This impression is strengthened when reviewing mental health interventions conducted in general practice, which generally lack emphasis on patients’ resources and strengths, whilst behaviour change is more commonly described. Patients’ coping is neither accentuated in the original Four Habits Model [33].

In my opinion, the main finding of Study 2 was that the GPs can indeed learn a set of six mental health-related skills. Effect sizes were medium to large, which is quite high for such intervention studies [181]. However, to understand the clinical significance of these results it is important to take a look at the GPs’ scores before training. Since these where very low for several of the skills, I think that an increase of the size that we found is considerable. Actually, many GPs did not use these skills at all in their communication before training. Increasing their number of utterances, therefore, means that new elements have been included in the consultation. I, therefore, interpret these findings as having potential clinical significance, yet the exact practical significance is difficult to infer. In other
psychotherapeutic interventions lower effect sizes are often considered as having significant relevance for patient outcomes [194]. However, that depends on the outcome to be measured. In this study we got an increase of skills related utterances of 77.4%, which in our view is substantial.

Whether the GPs actually changed their skills or just adjusted their behaviour in the intervention is an important question. We complied with current recommendations regarding teaching strategies in order to enhance the chance of effect of the intervention. However, in order to assess actual effects as well as their potential clinical significance, we need follow-up studies of the GPs in their actual practice. This is related to my next concern. In our analysis of the data from the coding scheme, one important presumption was made, i.e., that categorisation and counting of utterances allowed us to quantify communication behaviour. This assumption is problematic since utterance of a specific sentence does not necessarily imply that behaviour change has happened. The GPs could just be repeating what they were taught. Some previous studies indicate that physicians do not always use the behaviour they were taught during training in real practice [79, 195]. Yet, this way of presenting observational data is a well-used strategy in communication studies.

Furthermore, we found a large variance in the number of skills used. We did not explore the reasons for this discrepancy, and an optimal level our number of skills was not defined. It is a clear limitation of this study that we do not know anything about how much use of a specific skill is most efficient. We did not find any other studies providing a level for the ideal usage of the training content either.

When coding the videotapes we did not emphasise at what point in the consultation each skill was used. Timing of skills has been claimed to be of importance previously [84] and is one of the main emphases in Paper 3. It would be interesting to assess how timing and sequence of skills influence outcomes in further studies.

Despite significant increase in skills-related utterances, neither self-perceived learning needs nor self-efficacy changed significantly. As discussed in the paper there are several possible interpretations of this finding. One additional important question to ask is the value of using learning needs and self-efficacy as outcome measures. Both increases and decreases in self-perception outcomes seem reasonable depending on the explanation provided and the before training scores. For example, increased perceived learning need could imply enhanced insight into one’s own skills, while decreased perceived learning needs could imply that learning of new behaviours has happened. However, both explanations provide reasonable
arguments for effective training, although the results are completely opposite. This is obviously a disadvantage with interpreting self-perceptions as outcomes. However, most studies interpret decreased learning needs and enhanced self-efficacy as results indicating effect of training. Several previous communication intervention studies find such changes in self-perceptions [27, 46]. Our results might, therefore, indicate a changed view of one’s own abilities. Interestingly, in a recent study student reported lower self-efficacy than observers rated their abilities [196].

As previously mentioned, the GPs’ responses might have been biased if the GPs wanted to justify their participation in the training course. We do not know whether such a justification would have made them more or less confident or experience more or less learning needs. However, one guess would be that enhanced self-efficacy and decreased learning needs after training would justify their participation more than vise versa. This could, therefore, not explain our results.

There are several characteristics within general practice, which makes it a reasonable place to conduct mental health treatment, such as an already established relationship between the GP and the patient. Fritzsche did a study on patients’ perceptions of mental health care, and found that patients desire and are willing to get mental health treatment by their GP [197]. However, there are also some barriers to treating mental health problems in general practice. One of the most commonly presented barriers is time constraints [198]. In the current study we found a 26% increase in consultation length. This is a considerable increase in time, but at the same time, I am unsure whether or not this finding really is problematic as the consultation length increased from 15 minutes and 23 seconds to 19 minutes and 11 seconds. The prolonged length is still within the time “limit” of the current 20 minutes for most consultations in general practice, at least in Norway. Furthermore, by using the set of six skills many consultations would probably turn from handling somatic problems to mental health-related problems. Mental health-related consultations have repeatedly been found to take more time [199]. According to Robinson and Roter, one should expect an increase in consultation length of about 5 to 10% when mental health problems appear [200]. Still, a study of GPs’ workload, did not find any increase in GPs’ working hours related to their taking an interest in patients’ mental health problems [201]. We cannot know whether it was the shift in content (from somatic to mental health-related) of the consultations or the increased use of skills that made the consultations longer in our study. To what extent the GPs recognized the underlying mental health problems was not assessed, but would have provided
interesting data regarding this issue. Some studies find a higher quality of longer consultations and that a few extra minutes might provide important information [128, 199]. In addition, “good” communication has been found to decrease utilisation of health care services over time [71]. So maybe those three to four extra minutes we found in this study will spare the GP several consultations and minutes in the future.

An unintended, but not particularly surprising potential positive outcome of the intervention could be increased detection rates. I think that especially Skills #1 explore emotions and #3 explore patient’s perspective will increase the chance of identifying mental health problems. Behaviour resembling Skill #1 has also previously been found associated with increased detection rates [201]. Non-recognition is 20-85% according to Schulberg, and increases in detection are, therefore, both important and welcome [202]. As detection is both a prerequisite and a possible outcome of initiating the intervention, it should be further examined.

The choice of teaching strategies might have affected our results, and we do not know which GPs benefitted from what strategies. Ideally, teaching should be adapted according to such information. Whether the length of the training was adequate can also be questioned. Lewinson and Roter found in their study comparing two different communication skills interventions that the longest program had an effect whilst the shortest did not. The physicians who had attended the longest program asked more open-ended questions, elicited the patient’s perspective more frequently and gave more information [53].

Age, experience and other factors such as personality characteristics of the GP might influence his or her learning potential, but it might also influence the patients’ behaviour in the consultation and the communication between the physician and the patient [85, 203]. How teaching strategies differently fit different people is also an interesting topic, but this has not been introduced in this thesis.

Potential health outcomes should be measured in further studies. However, in the pursuit of making interventions that influence the patients, one should remember that improved communication could be viewed as important in and of itself, as “good” communication is a humane and respectful way of being with other people, regardless of other objectives. This is also an important aspect of being patient-centred.
5.2.3 The Expanded Four Habits Model

To propose a novel model for mental health-related communication skills training after conducting the pilot study (Study 2) was not included in the initial project plan. As described previously, the idea originated later in the project, and a related research objective (d) was then articulated.

The proposed model “the Expanded Four Habits Model” combines the general features of the Four Habits Model with the skills piloted in Study 2 (“Six Skills”) in order to present both a model for the consultation and a training model for GPs. We have chosen to especially emphasise three features in the design of the model: 1) it expands a general patient-centred communication skills model, 2) it is skills-based, and 3) it presents six evidence-based mental health-related communication skills with a background from psychotherapy research and communication skills training research. While the two latter items originated earlier in the design of the communication skills training program in Study 2, the first emphasis on using a patient-centered general consultation model as framework, originated as described after evaluation of the video recorded consultations. Although we did not specifically assess these parts of the consultation, it became evident to us that there were large variations in how the GPs conducted the beginning and the end of the consultations, and that skills from the Four Habits Model or other suggested patient-centred approaches were infrequently performed.

The expanded model is distinct from most other interventions in that it is a generic model for all types of mental health-related consultations. It emphasises three mental health domains, with a primacy of emotions, and coping as the most important element of the behavioural domain. Furthermore, it provides a specific sequence in which to perform the skills with initial exploration followed by elaboration in each domain.

In our view, these features provide the theoretical and practical arguments in support of the model. In other words, we have designed a novel approach for mental health consultations in general practice with several emphases regarding communication and communication behaviour that is seldom provided in similar approaches.

The framework of the model is the patient-centred Four Habits Model [33]. One of the authors of the Four Habits Model has together with colleagues earlier this year published a paper on the scientific features of the biopsychosocial model [190]. The authors describe that the Four Habits Model, the biopsychosocial model, and the Patient Centred Interviewing Model are quite similar, only with different degrees of specification. They suggest using the Four Habits Model and the Patient Centred Interviewing Model to make the biopsychosocial
model scientific. Although this suggestion is provided for general consultations, it is proposed as a centrepiece of more complex treatment as well, in which specific skills can be added. This resembles our thinking in the Expanded Four Habits Model, since we used it as a centrepiece for the general model and added specific skills for the mental health consultation. It is possible that we could have made an extended version of one of the other models instead, without there being much of a difference. Whether or not we would get completely different results by using another framework than the Four Habits Model is an important question.

The Expanded Four Habits Model further emphasises specific skills training. Although the six skills may be known to many physicians, a systematic application of them in treating patients with mental health problems is rare, and requires special conceptualisation and training. I think most GPs are familiar with the six skills; still they do not use them satisfactorily in our view, and the focus on exploration and elaboration is, to our knowledge, novel. An example is provided by Lazare and colleagues, who described three functions of communication: creating a good interpersonal relationship, the exchange of information, and making decisions about treatment [204, 205]. Neither exploration nor the importance of immediate responses are described. We suggest that exploration followed by response within each domain is important, particularly to make the patient feel acknowledged. In Lazare and colleagues’ description of the three functions a parallel sequence was suggested, specifically explained by improved exchange of information [204, 205]. We argue that the sequence is important for other reasons as well. For instance, a patient who has not been met on his or her concerns might not accept alternative explanatory models or be reassured by the GP. Yet, one study found that emotional issues are the topic least often discussed in consultations [206].

The third main feature of the model is the influence from psychotherapeutic research. One natural question to ask is why not apply ordinary CBT or any other psychotherapeutic intervention instead. In our opinion, the most important arguments are that the expanded model is generic for mental health problems and with exploration and elaboration within all three mental health domains. It is only through attending all three mental health domains within the consultation that one can get a full picture of the patient, his or her concerns, thoughts, behaviours, etc., elements that are of crucial importance in identifying the next steps in treatment. CBT could then be an effective alternative when the mental health issue has been detected and “categorised”. It is important to note that the Expanded Four Habits Model is not presented as a “quick fix” of mental health problems, but as a tool for GPs to apply in
consultations with patients with mental health problems. When necessary, a natural next step would be to apply evidence-based short-term therapies such as PST or CBT.

Some might recognize our thinking from the literature on “therapeutic relationships”. In this literature certain elements of the physician-patient relationship have been acknowledged as potentially influencing patient outcomes. Interviewing techniques reminiscent of communication skills are suggested to create a therapeutic relationship [207, 208]. Similarly, we think that elements of the consultation could influence the patient’s health but our emphasis is on explicit communication behaviour of the physician in the context of a consultation model, which does not resemble the therapeutic relationship thinking. The emphasis on exploration and elaboration, in which the GP’s communication is closely related to and dependent upon the patient’s responses, is, however, in accordance with the dualistic approach for interaction described in Schramm’s model [10].

After we started our work on the Expanded Four Habits Model, Brown and Wissow [209] also proposed a new model for communication and mental health treatment. They suggested a model that targets the whole primary care team, and not the physicians specifically and is, therefore, not a consultation model per se. I am unsure how this model would work in a Norwegian general practice setting, where the patients only relate to the GP.

In the model of Brown and Wissow three levels of intervention are described: 1) cross cutting skills to build therapeutic alliance, 2) broad-based, brief interventions for major clusters of mental health symptoms, and 3) evidence-based intervention for diagnosis specific disorders. Similarly to our model, an emphasis on common factors is provided, reasoned by the argument that it is easier to implement than to learn one protocol for each disorder [209].

Brown and Wissow’s model is also suggested to be a first step in treatment, and that more specialized treatment approaches might be necessary later. Both basic communication skills as well as more specialized mental health-related skills are emphasised, but specific descriptions of the skills or the exact behaviour that is required are not. Assessment of the patient’s willingness for treatment and possible barriers are two elements included in Brown and Wissow’s model that are not explicitly described in the Expanded Four Habits Model [209]. Instead of focusing on barriers, we have chosen to focus on the potential strengths and resources within the patient and his or her environment that could be utilized in treatment and thereby potentially improve coping. Whether an explicit focus on dealing with resistance should have been included is a question that is up for discussion.
In the framework provided by Brown and Wissow, no specific sequence is described. The sequence of their model might, however, come naturally because there are several providers engaging in the model. I, for instance, assume that the patients see the receptionist prior to the physician. We do, however, believe that important elements of the consultation should be conducted by the GP, in contrast to Brown and Wissow who include the whole staff. Skills 1 and 2 in the Expanded Four Habits Model, which are the most important regarding the physician-patient relationship, should, in our opinion, not be conducted by anyone else.

In the expanded model, empowering the patient to improve his or her coping is suggested as the last step of the six skills. There are also several other interventions that emphasise coping, yet this focus is not that common in general practice [155]. One potential criticism of the coping domain of the Expanded Four Habits Model is the focus on patients’ potentials. As Salmon and Hall describe, using words like “coping” and “fighting disease” might actually make the patient disempowered, because the patient is given responsibility for his or her problems and treatment, while the physician is freed from responsibility [210]. We, therefore, find it important to note that it is necessary to obtain a balance between empowering the patient to cope better with his or her situation, while the physician, at the same time, takes joint responsibility. This is also important because a potential downside of the therapeutic intent is that the patient becomes too close to the physician, and this can lead to dependence instead of empowerment [207].

One potential limitation of the content of the expanded model is the definition of mental health-related skills. Each of the six skills in the Expanded Four Habits Model is considered particularly important in a mental health consultation, and are, therefore, called mental health-related skills, but they are certainly also useful in other consultations. In this approach the emphasis is on the combination of the six skills within three domains, presented in its certain sequence within the Four Habits Model, which makes the expanded model advantageous for mental health consultations in our view.

Another potential limitation of the model and its emphasis on a certain sequence of performance is that during training and implementation of the model the need for adjustments may occur. The relevance of each skill may differ among patients and from session to session. Many patients will probably require repeated consultations, and although the skills are supposed to be performed in sequence, it could sometimes be useful to go back and forth
among the skills. This potential gap between training content and real life content should be discussed in training.

In light of Hantho and Malterud’s definition of a communication model [13], in our view, the Expanded Four Habits Model fulfills the requirements to be called a communication model. It presents a theoretical framework for the physician-patient communication, which entails important features and outcome goals for the consultation.

6 Conclusions and implications

One of the main aims of patient-centred communication and the Four Habits Model specifically is to improve the consultation. In our view, the mental health consultation might be improved by increasing the level of Six Skills related utterances, especially when conducted within a patient-centred approach, such as the Four Habits Model. Whether that actually does improve the consultation and what the most favourable level of skills related-utterances are, are two important topics for further research. In this project we have started on the “long road” of making a good intervention. Using Thomas and Rothmans’ phases for intervention research as a framework for understanding this “road” is useful [211]. They present six phases in the design and development of an intervention: problem analysis and project planning, information gathering and synthesis, design of intervention, early development and pilot testing, evaluation and advanced development, and dissemination. In the current project a project description and plan was developed before funding was provided (Phase 1 problem analysis and project planning), but when I started working on this project, we began with reviewing the literature on communication skills training and mental health interventions in general practice, which entailed Phase 2 - information gathering and synthesis. Then we conducted the questionnaire study (Study 1), which provided us with important knowledge for the content of our intervention, and became, therefore, an important part of Phase 2. We utilized this information in combination with features from psychotherapeutic research, communication skills training research and research on teaching strategies to design the communication skills training program in Study 2, Phase 3 (design of intervention) according to Thomas and Rothman [211]. The design was tested in a pilot study and was then further developed according to experiences and results, Phases 4 and 5 (early development and pilot testing and evaluation and advanced development). We could now begin to plan the dissemination phase, in which the Expanded Four Habits Model would be tested, Phase 6 according to Thomas and Rothman [211].
In the dissemination of the Expanded Four Habits Model we consider that there are some advantages and some disadvantages with the model. An advantage of the expanded model is the didactic emphasis on six skills in three domains, which will serve as a structuring principle of the training program and make the content easier to learn and remember, and thereby potentially more effective. We chose the most well-known teaching strategies in the communication skills training field. Our experiences were good, and, in our opinion, these do not need to change in further development. However, the recruitment of physicians to participate in communication skills training might be a challenge, and we have in this project not found the optimal way of solving this problem.

The content of the Six Skills seems useful, yet until the expanded model is tested, we will not know if we can teach GPs all six skills or just some of them. The skills we thought would be adapted by the GPs, such as empathic behaviour, did not change significantly from before to after training.

The evaluation method worked well, but since we do not know the validity of the results, other methods should be added in further research. One important issue is long term outcomes. It should be tested whether physicians change their behaviour in the long run. In addition, we suggest measuring patient outcomes.

To conclude in this project of designing and implementing mental health-related communication skills training for GPs, I present the most important take-home messages:

1. GPs under specialisation were most interested in enhancing their competencies regarding coping and other specialized skills, and least interested in improving their empathic behavior and other general skills.

2. Almost all GPs under specialisation were interested in training, but subsequently when conducting the training course few signed up. Recruitment strategies should therefore be changed.

3. The set of six skills can be learned, and four out of six skills increased significantly.

4. The coding scheme 6-SAS had acceptable IRR, but should be further tested in larger samples.

5. Patient outcomes can be difficult to measure, but are important.

6. Long-term behaviour change among the GPs should be examined.

7. The Expanded Four Habits Model combines a generic consultation model with a set of evidence-based mental health-related skills.
8. The Expanded Four Habits Model should be operationalised in terms of a communication skills training program.

Last word:
Let’s turn back to the case at the beginning of the introduction. After exploring and elaborating on different aspects of the patient’s medical and psychosocial position, a complex picture of work-home stress and a fear of a brain tumour emerged. I asked the questions: How did the physician achieve a rapport with the patient with such a quality to get this information, and now what should the physician do?

The answers should, in our view, be found in the presented work. First, the physician communicated with the patient in a way that provided information that might otherwise have remained hidden. Exploration and elaboration of different domains of the patient’s emotions and cognitions might have provided this important information. Second, the physician should continue with the coping domain of the Expanded Four Habits Model to further elaborate and utilize the patient’s resources and strengths to improve his or her coping potentials.
Reference list

47. Helsedirektoratet.no.
[236x42]81


Appendix

Spørreskjema om behandling av og kommunikasjon med pasienter med psykiske vansker

<table>
<thead>
<tr>
<th>Pasienthyppighet og henvisningspraksis</th>
<th>Hvor ofte henviser du pasienter med slike vansker til specialisthelsetjenesten eller andre?</th>
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Dør du ovenfor har krysset av for at du henviser til specialisthelsetjenesten/andre, hva er lansker til at du ikke velger å handle pasienter med slike plager selv? (Flera kryss annulering)

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### Behandling

Hvor sterk er du på en skala fra 1 til 10 at du selv på en veldig skala mår å hindre vanskelige konsultasjoner med pasienter med følgende vanskelige lideler?

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I hvor stor grad kunne du tenkt deg å styrke din egen kompetanse for behandling av og kommunikasjon med pasienter med følgende vanskelige lidelser?

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Behov for kompetanseheving

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<th>Litt behov</th>
<th>Noe behov</th>
<th>Ganske stort behov</th>
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<td>Håndtere annen hos pasienten</td>
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<td>Oppfatabe/førstå hint om bekymringer</td>
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<td>Være sensitiv for føleber</td>
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<td>Gi årlige råder</td>
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</tbody>
</table>
Kommunikasjonsferdigheter

På en skala fra 0 til 10 der 0 er "ikke i det hele tatt" og 10 er "i svært stor grad", hvor trygg føler du deg på at du på en vellykket måte kan utføre de følgende kommunikasjonsferdighetene?

- Kartlegge passientens oppfatning av årsaker til problemet
- Ta initiativ til å snakke om bekymringer eller følelser
- Søvere empatiske når passienten deler tanker, følelser eller bekymringer
- Bli enig med passienten om noen strategier for han/henne til å fremme sin mentale helse

- Vise interesse for passientens mening om hans/hennes problem
- Forklare på en tydelig måte hva hans/hennes problem er skyldes
- Kartlegge passientens ressurser/sterke sider
- Vise passienten at du bryr deg om han/henne

- Øke passientens bevissthet rundt hans/hennes styrker og ressurser
- Snakke med passienten om hvordan han/hun kan mestre sine problemmer
- Oppdage og spørre nærmere om hvert passienten kommer med
- Styrke passientens forståelse av årsaksåttenheten

Om deg

Kjonn:  □ Mann  □ Kvinne

Alder:  

Antall år etter ferdigturnørsjenten:  

Jobber du fulltid som fastlege?  □ Ja  □ Nei

Hvis ikke, hvor stor prosent er fastlegestillingen din?  □ %

Hvor mange pasienter har du på din liste?  

Har du tidligere tatt kurs innenfor kommunikasjon og/eller psykiske lidelser?  □ Ja  □ Nei

Kunne du kanskje tenkt deg å delta på et slikt kurs?  □ Ja  □ Nei

Takl for din deltagelse!

Ikke skriv her  4 / 4  1199543990
### Errata list

<table>
<thead>
<tr>
<th>Where in document</th>
<th>Description of change</th>
<th>Changed from</th>
<th>Changed to</th>
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<tbody>
<tr>
<td>Page 17, line 7</td>
<td>Deleted word</td>
<td>One reason for the increasing popularity of communication skills training is that it has been repeatedly found successful in.</td>
<td>One reason for the increasing popularity of communication skills training is that it has been repeatedly found successful.</td>
</tr>
<tr>
<td>Page 19, line 3</td>
<td>Missing word inserted</td>
<td>One might then assume that training does not always attract those who need it the most, and level self-efficacy might not predict who will attend and who experiences the highest learning needs.</td>
<td>One might then assume that training does not always attract those who need it the most, and level <strong>OF</strong> self-efficacy might not predict who will attend and who experiences the highest learning needs.</td>
</tr>
<tr>
<td>Page 37, line 16</td>
<td>Changed word</td>
<td>(The last <strong>aim</strong> derived following our experiences with the intervention study.)</td>
<td>(The last <strong>OBJECTIVE</strong> derived following our experiences with the intervention study.)</td>
</tr>
<tr>
<td>Page 39, Table 1</td>
<td>Percentage gender changed</td>
<td>Male from 42.8 % Female from 57.2 %</td>
<td>to 41.8 % to 55.9 %</td>
</tr>
<tr>
<td>Page 40, line 30</td>
<td>Changed word</td>
<td>Motivation to take part in a communication skills training course was measured by answering the categories Yes and No.</td>
<td>Motivation to take part in a communication skills training course was measured by answering the categories Yes <strong>OR</strong> No.</td>
</tr>
</tbody>
</table>